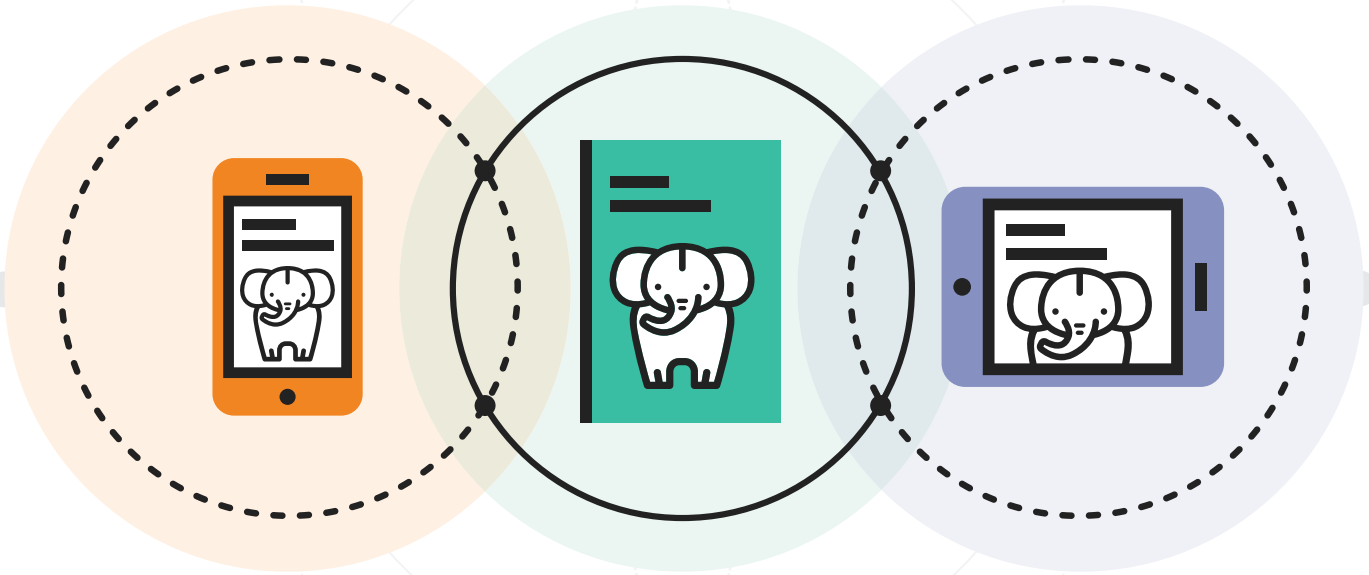
THE IMPACT OF OPEN LICENSING ON THE EARLY READER ECOSYSTEM



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The Impact of Open Licensing on the Early Reader Ecosystem can be found at:
http://www.nba.co.za/impact-open-licensing-early-reader-ecosystem

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Table of contents

List of tables iii
List of figures iii
Authors iv
Neil Butcher iv
Sarah Hoosen iv
Lisbeth Levey iv
Derek Moore v
Acknowledgements vi
Acronyms vii
Glossary of key terms x
The impact of open licensing on the early reader ecosystem 1
Introduction 1
The early reader ecosystem 4
Value chains and supply chains 4
Shifting to the concept of a value network: an emerging new model 7
What is 'digital disruption'? 10
Openness and open licensing 14
Emerging innovations that can transform the early literacy reader ecosystem 17
Transforming content creation models 17
Other open licensing content creation models 19
Grappling with the challenges of open licensing 20
Storybook management and storage 22
Printing and distribution 23
What are the implications for the supply and use of early literacy reading materials in low-income countries? 29
Conclusion 34
References 35
Appendix A: List of interviewees 52
Book production organizations 52
International NGOs and other literacy organizations 52
Libraries 52
Literacy and/or publishing experts 52
Publishers 53
Organizations/initiatives that publish openly licensed books 53
Appendix B: Key components of early literacy 54
What is early literacy? 54

The significance of reading....56
The challenge of illiteracy....56
Fostering literacy....57
The significance of access to written text....58
Appendix C: Unpacking the components of the early literacy reader value network....60
Appendix D: Structural challenges to early literacy....66
Introduction....66
Poverty and literacy....66
ICT and the digital divide....67
Language....68
Weak education systems....70
Reading culture....71
Availability of libraries....72
Appendix E: Demand and supply of early reading material....73
Appendix F: Changes in the publishing industry....79
Introduction....79
Going digital....79
Reassessing business models....83
Reconfiguration of main actors....84
Marketing and the growth of social media....88
Print on demand....89
Data analytics....90
Appendix G: Examples of early literacy distribution initiatives....91
Book donation programmes....91
ebook distribution....93
Libraries: the view from Sub-Saharan Africa....95
International non-governmental organizations....102
National NGOs providing literacy support....105
Commercial publishers....110
Online free, hard copy for a fee....117
The role of donors in open licensing....121
Exploring open-access business models....122

List of tables

Table 1 Donation programme impacts 6
Table 2 Ten hyper-disruptive business models 11
Table 3 Creative Commons licences 15
Table 4 Stages of reading development 55
Table 5 Unpacking the early literacy value network 60
Table 6 Digital drivers 80
Table 7 Illustrative unit economics 82
Table 8 Number of public libraries in seven African countries 96
Table 9 FAVL collection development 98

List of figures

Figure 1 A generic publishing business model 5
Figure 2 An early literacy reader ecosystem 9
Figure 3 Finding Meshack Asare online 27
Figure 4 Daily unit sales of ebook bestsellers (195,000 books 58% of Amazon ebook sales) 87
Figure 5 “New Year and Children” in Somali and in Amhara 107

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Despite our efforts to ensure complete accuracy, we are certain that the reader will find errors, hopefully small ones, for which the authors accept responsibility. Please email Neil Butcher at neilshel@nba.co.za if you find any. We would also very much welcome questions and comments.

Acronyms

ABC	African Books Collective (http://www.africanbookscollective.com/)
ALA	American Library Association (http://www.ala.org)
ANA	Annual National Assessment
API	Application Programming Interface
APNET	African Publishers Network
ASb	African Story Book (http://www.africanstorybook.org/)
BAI	Book Aid International (http://bookaid.org)
BPN	Bellagio Publishing Network (http://www.bellagiopublishingnetwork.com/index.htm)
CBP	Children's Book Project for Tanzania (http://www.cbp.or.tz)
CBT	Children's Book Trust (http://www.childrensbooktrust.com/)
CC	Creative Commons (https://creativecommons.org)
CE	CODE Ethiopia (http://www.code-ethiopia.org)
CHET	Centre for Higher Education Transformation of South Africa (http://chet.org.za/)
CODE	Canadian Organization for Development through Education (http://www.codecan.org)
CODESRIA	Council for the Development for Social Science Research in Africa (http://www.codesria.org/)
D2C	Direct to Consumer
DBE	Department of Basic Education
DTP	Desktop Publishing
ECD	Early Childhood Development
EIFL	Electronic Information for Libraries (http://www.eifl.net)
ERSC	Early Reader Supply Chain
FAVL	Friends of African Village Libraries (http://www.favl.org/index.html)
FAWE	Forum for African Women Educationalists (http://www.fawe.org/index.php)
FBA	Fulfilment by Amazon

HSRC	Human Sciences Research Council (http://www.hsrc.ac.za/en)
IABSS	Intra-Africa Books Support Scheme
IBB	International Book Bank (http://www.internationalbookbank.org)
ICT	Information and Communication Technology
IDPF	International Digital Publishing Forum (http://idpf.org)
IDRC	International Development Research Centre of Canada (http://www.idrc.ca/EN/Pages/default.aspx)
IFLA	International Federation of Library Associations (http://www.ifla.org)
InfoDev	Information for Development (http://infodev.org)
INGO	International Non-Governmental Organization
IP	Intellectual Property
IRS	Internal Revenue Service (https://www.irs.gov)
LCD	Liquid Crystal Display
MILL	Molteno Institute for Language and Literacy (www.molteno.co.za)
MOU	Memorandum of Understanding
NABOTU	National Book Trust of Uganda (http://nabotu.or.ug)
NAP	National Academies Press of the United States (http://www.nap.edu/)
NSDL	National Science Digital Laboratory (https://nsdl.oercommons.org/)
OA	Open Access
OCLF	Osu Children's Library Fund (http://www.osuchildrenslibraryfund.ca)
OCW	OpenCourseWare
ODL	Open and Distance Learning
OER	Open Educational Resources
OLCC	Online Computer Library Centre
OLPC	One Laptop Per Child (http://one.laptop.org)
OPAC	Online Public Access Catalogue
OSS	Open Source Software
PALM	Publishing and Alternative Licensing Models for Africa
PDF	Portable Document Format
POD	Print on Demand

PODS	Print on Demand Supplier
POP	Point of Purchase
PRAESA	Project for the Study of Alternative Education in South Africa (http://www.praesa.org.za/)
RC RICED	Rural Community Recreation Information Communication Education Development
RFID	Radio Frequency Identification
RFP	Request for Proposals
Saide	South African Institute for Distance Education (www.saide.org.za/)
SHRP	School Health Reading Programme
SIDA	Swedish International Development Cooperation Agency (http://www.sida.se/English/)
SNNPR	Southern Nations Nationalities and People's Regions
SRM	Supplementary Reading Material
UgCLA	Uganda Community Library Association (https://www.facebook.com/Uganda-Community-Libraries-Association-157679827673780/)
UNICEF	United Nations International Children's Emergency Fund (http://www.unicef.org/)
URRO	Uganda Reproduction Rights Organization (http://www.ifrro.org/members/uganda-reproduction-rights-organisation)
USAID	United States Agency for International Development (https://www.usaid.gov/)
ZAPH	Zambian Educational Publishing House (https://www.facebook.com/Zambiaeducationalpublishinghouse/)
ZIBF	Zimbabwe International Book Fair (http://www.zibfa.org.zw/)

Glossary of key terms

Below is a list of definitions for terms used in this report that might not be widely understood by readers unfamiliar with words common to the digital, e-learning, and/or early literacy world.

Creative Commons	Creative Commons is a non-profit organization 'that enables the sharing and use of creativity and knowledge through free legal tools'.[1] To do this, Creative Commons has developed a series of licences that work alongside copyright to make it possible for authors to modify standard copyright terms and provide open access privileges to users. Each Creative Commons licence provides a different degree of freedom to users, but all require full attribution. Creative Commons licences are the ones typically used for Open Access, Open Educational Resources, and other forms of openly licensed materials.
Curation	The term curation was used in the past primarily by museum professionals. Today, curation has taken on a broader definition in digital e-learning to include the selection, collection, maintenance, preservation, and archiving of digital resources.[2]
Decodable	In reading instruction, the term decodable refers to words containing only the phonetic code the child or student has already learned. To determine if text is decodable you need to evaluate the phonetic structure of the vocabulary and compare it to the code knowledge the child has already acquired. We often think of decodable text as phonetically simple words and text. Although decodable text is simple in the beginning when the child has limited knowledge of the phonemic code, decodable text expands as the child learns more of the phonemic code.[3]
Digital Rights Management	Digital Rights Management (DRM) is a technical approach to copyright protection for digital media to prevent its unauthorized redistribution and restrict the ways in which consumers can copy content that they have purchased.
Home Language	The literature indicates a number of different terms used to describe marginalized or minority languages such as first language, mother tongue, home language, heritage language and native language, with each having different definitions. There are some contentions around using the various terms – for example, while 'mother tongue' is commonly used, it is argued that is difficult to determine which language used by multilinguals is actually the person's mother tongue, and a mother tongue can change during a person's lifetime. In some countries, native language refers to the language of one's ethnic group and not necessarily the language the child speaks at home. Similarly, first language may not be appropriate as it only

[1] Creative Commons. About Creative Commons. Retrieved 4 March 2016 from http://creativecommons.org/about
[2] Curation. (2016, January 11). In *Wikipedia, The Free Encyclopedia*. Retrieved 4 March 2016, from https://en.wikipedia.org/w/index.php?title=Curation&oldid=699297836
[3] Gagen, M.R. (2007). Decodable Text Explained. Retrieved from http://www.righttrackreading.com/decodabletext.html

	relates to origin, but a multilinguals' chronological first language may not be their dominant language.
Local language	Whilst an official language is a language that is given a special legal status in a particular country or jurisdiction and is generally used within government; there may be many other languages used by a people or country. We refer to these as local languages. This includes indigenous languages (language that is native to a region and spoken by indigenous people).
Open Access	Open Access (OA) refers to research articles that are online and freely available for users to read, download, copy, distribute, print, search, or link to full text.[4]
Open Educational Resources	Open Educational Resources (OER) allow materials to be used, adapted, and distributed for teaching and learning without requesting permission. Although OER are mainly sharable online, they can be made available offline via a school intranet, on CD-ROM, DVD, or a memory stick; and in print.
Open Licensing	Openly licensed works are free to be shared and built upon without requesting permission from the author or publisher.[5]
Print on Demand	Print on demand (POD) is a printing technology and business process in which copies of a book (or other document) are printed in response to an order, printing the exact amount ordered, usually in small quantities.
Remix	To create a new version of something, such as a recording or educational resource, by recombining and re-editing the elements of the existing resource/s and often adding material. Within the context of OER production, developers can, for example, take a recorded lecture and combine them with slides or multimedia from a second lecture in order to create a totally new resource.
Torrent	"A torrent is a file sent via the BitTorrent protocol. It can be just about any type of file, such as a movie, song, game, or application. During the transmission, the file is incomplete and therefore is referred to as a torrent. Torrent downloads that have been paused or stopped cannot be opened as regular files, since they do not contain all the necessary data. However, they can often be resumed using a BitTorrent client, as long as the file is available from another server. Torrents are different from regular downloads in that they are usually downloaded from more than one server at a time. The BitTorrent protocol uses multiple computers to transfer a single file, thereby reducing the bandwidth required by each server. When a torrent download is started, the BitTorrent system locates multiple computers with the file and downloads different parts of the file from each computer. Likewise, when sending a torrent, the server

[4] Open access. (2016, February 16). In *Wikipedia, The Free Encyclopedia*. Retrieved 4 March 2016, from https://en.wikipedia.org/w/index.php?title=Open_access&oldid=705203639

[5] Open Definition. (no date). *Guide to Open Licensing*. Retrieved 4 March 2016 from http://opendefinition.org/guide/

	may send the file to multiple computers before it reaches the recipient. The result is lower average bandwidth usage, which speeds up file transfers".[6]
Value Network	A value network is a network of relationships, which creates both tangible and intangible value through a complicated dynamic exchange between individuals, groups, and organizations.[7]

[6] Christensson, P. (2007, October 3). Torrent Definition. Retrieved 6 July 2016 from http://techterms.com
[7] Value Unchained. (no date). Forum for the future. https://www.forumforthefuture.org/sites/default/files/Value%2C%20Unchained%20-%20A%20short%20summary%20of%20value%20networks.pdf

The impact of open licensing on the early reader ecosystem

Introduction

Sustainable acquisition of literacy in the early years of learning is an essential building block for all subsequent education and development of children. Effective development of literacy requires at least three key inputs:

- Structured decodable texts and levelled readers that 'provide a continuum of reading levels for the primary grades';[8]
- A wide array of supplementary reading materials (SRMs) that enable children to practise their reading skills and develop a love of reading;
- Teachers trained in appropriate literacy development methods who are able to work with young children as they develop their literacy skills and who know the language/s spoken in the school where they teach.

It has been widely documented that children acquire literacy most effectively in their mother tongue.[9] This introduces a significant barrier for those who live in low-income countries and speak local languages for which there is not a viable publishing industry. Traditional publishing models are very often unable to meet the reading needs of children in low income-countries, and those children are consequently unable to access relevant decodable texts, levelled readers, and SRMs. There are two related reasons for this. First, as there is no sustainable market for such materials, early readers in local languages are few and far between, especially in low-income countries and for languages that have a relatively limited footprint. Second, even where content has been created, the supply chains that are needed to print and distribute educational materials and thereby ensure that learners have access to early readers are typically under-funded, generally inefficient, and often susceptible to corruption.[10] In addition, these supply chains are often inequitable (operating on a 'first come first served' basis), are based on unreliable school statistics, have storage and stock control systems that

[8] Davidson, M. (2013). Books that Children Can Read: Decodable Books and Book Leveling. Washington DC. USAID. p. 1.

[9] See for example: Eisenchlas, S.A., Schalley, A.C., and Guillemin, D. (2013). The Importance of Literacy in the Home Language: The View From Australia. *SAGE Open* October-December 2013: 1–14. Retrieved from http://sgo.sagepub.com/content/spsgo/3/4/2158244013507270.full.pdf
Benson, C. (2004). The importance of mother tongue-based schooling for educational quality. Paper commissioned for the EFA Global Monitoring Report 2005, The Quality Imperative. Retrieved from http://unesdoc.unesco.org/images/0014/001466/146632e.pdf
Colorado, C. (no date). Why Reading to Your Kids in Your Home Language Will Help Them Become Better Readers. Retrieved from http://www.ldonline.org/article/21012/
Kioko, A. (2015). Why schools should teach young learners in home language. Retrieved from https://www.britishcouncil.org/voices-magazine/why-schools-should-teach-young-learners-home-language
Ball, J. (2014). Children Learn Better in Their Mother Tongue. Retrieved 30 March 2016 from http://www.globalpartnership.org/blog/children-learn-better-their-mother-tongue

[10] Bribery and other forms of corruption can also involve international publishers. There have been two recent scandals involving World Bank financed textbook contracts - one was a contract to Macmillan and the other to Oxford University Books, both for East Africa. See Bgoya, W. (2014). Fifty Years of Independence: Reflections on the Role of Publishing and Progressive African Intellectuals. *Africa Spectrum, 49*(3), 116. Retrieved from http://mercury.ethz.ch/serviceengine/Files/ISN/186297/ichaptersection_singledocument/309dcad3-803d-4ed6-bd97-aaac98787e42/en/784-814-1-PB.pdf .

are substandard, depend on poor transportation facilities, and are negatively affected by delayed payments from governments.[11]

An additional issue relates to ensuring that policy statements match practice, which is not the case in many countries worldwide. In 2016, Unesco's International Mother Language Day was marked by the publication of a policy paper on the importance of teaching literacy in mother tongue, appropriately titled *If You Don't Understand, How Can You Learn?*.[12] Unesco began producing these reports in 1953, with the publication of *Use of Vernacular Languages in Education*.[13] The fact that these reports appear with regularity suggests that policy and good intentions are not translating into sufficient follow-through at the local level. Many countries have policies mandating instruction in mother tongue in the early primary school grades, but, even where they exist, these policies have often not been implemented. Kenya provides an example of this form of disjuncture between policy and practice and the resulting difficulties that arise for children in rural areas:

> *A teacher in Kenya can be posted in a school in any part of the country irrespective of mother tongue. In addition, the language policy in the country is that in primary schools, the language of instruction in lower classes (grades 1-3) is mother tongue and English in grades 4-8. However, for schools in urban centres, the language of instruction in lower classes is Kiswahili. This means that a teacher in a school where he cannot speak the local language (pupils' mother tongue) cannot teach the lower classes. This on a whole has a negative impact on the teaching/learning process because many pupils, especially in rural schools, also have poor mastery of the English language. Reading in mother tongue and then in English is thus a big challenge.*[14]
>
> *In Egerton I am afraid we do not focus on mother tongue at all. I also think there is no teacher education institution that does that in Kenya. This is because none of the local languages is taught in our institutions except Kiswahili.*[15]

Appropriate teacher training in early reading instruction is also essential because, even if sufficient books are made available and mother-tongue instruction were not a problem, many children will still leave school without sufficient reading and writing skills unless there is a corps of teachers who can teach literacy. Sadly, however, as a 2011 report to the William and Flora Hewlett Foundation on teacher preparation and continuing professional development in Africa illustrated, 'more effort was spent [on early reading and mathematics] in teaching the content knowledge of trainee teachers than in addressing issues about how primary pupils might be helped to gain it'.[16] Lack of capacity amongst early literacy teachers is a significant challenge.

The problems affecting early literacy have been well documented (see Appendix D). They have also recently formed the focus of a Study that was commissioned by a consortium of funders – including USAID, UKAID, the Norwegian Ministry of Foreign Affairs, UNICEF, Save the Children, and the Global Partnership for Education – in 2015 to assess the feasibility of establishing a Global Book Fund to tackle challenges in the supply of textbooks and learning materials to enable young children to develop basic literacy skills. However, research in this field has tended to focus on traditional publishing value and

[11] Read, T. (2015). Where Have All the Textbooks Gone? Toward Sustainable Provision of Teaching and Learning Materials in Sub-Saharan Africa. Directions in Development. Washington, DC.
[12] UNESCO (2016). If you don't understand, how can you learn? Global Education Monitoring Report, Policy Paper 24. Retrieved from http://unesdoc.unesco.org/images/0024/002437/243713E.pdf
[13] UNESCO (1953) Use of Vernacular Languages in Education (Rep.). Retrieved from http://unesdoc.unesco.org/images/0000/000028/002897EB.pdf
[14] Professor Fred Keraro, Department of Curriculum, Instruction & Educational Management, Egerton University Kenya, personal communication to Lisbeth Levey, 9 April 2016
[15] Professor Fred Keraro, Department of Curriculum, Instruction & Educational Management, Egerton University Kenya, personal communication to Lisbeth Levey, 23 April 2016
[16] Akyeampong, K., Pryor, J., Westbrook, J., & Lussier, K. (2011, July). Teacher Preparation and Continuing Professional Development in Africa (page 3). Retrieved from https://www.sussex.ac.uk/webteam/gateway/file.php?name=tpa-project-synthesis-executive-summary-july2011.pdf&site=320

supply chains, without taking much account of new possibilities that might be ushered in as a consequence of the digitization of content and how the use of open licences might create new approaches and solutions to these seemingly intractable problems. Digitization is having widespread effects on the publishing industry as a whole. While publishers are trying to managing this shift in different ways, they are no longer in control of the routes between author and reader. Internet companies have created new ways to produce, distribute, and consume content. Digitization is thus transforming the business models of the publishing industry very significantly.

With this in mind, the William and Flora Hewlett Foundation awarded a small grant to Neil Butcher & Associates to conduct a research study to consider a range of innovative solutions that might help to tackle these problems. That research, which is documented in this report, has focused its attention on development of value networks based on open licensing and the extent to which these might meet the demands for materials in this critical educational sector. The primary research question posed was:

> *To what extent can open licensing contribute to the construction of alternative business models in early literacy that can sustainably solve the structural challenges that are preventing young children in many countries from gaining access to the learning materials they need to become literate?*

To explore the various dimensions of this research, a three-pronged research methodology was adopted:

1) Completion of a wide-ranging literature review aimed at gleaning relevant insights and lessons learned from various contexts and sectors. This research extended substantively beyond early literacy, exploring publishing more generally, as well as lessons learned from other educational sectors, other development fields such as health and the retail sector.
2) Conducting a series of face-to-face and telephonic interviews with experts in these fields (29 in total). A full list of interviewees is contained in Appendix A.
3) Participation in the meetings and activities of the Global Book Fund during the research period, which has included making an initial presentation of research findings to that forum.

The report comprises a relatively brief main section, which seeks to present a coherent argument in favour of harnessing the potential of open licensing and digitization of content creation and distribution value networks to contribute to solving the problems of supply of early readers in local languages[17] to learners, with a particular emphasis on low-income countries, particularly those in Sub-Saharan Africa. Where appropriate, evidence and links to emerging practices are woven into the main report, which is then supplemented by a series of appendices, which seek to capture in detail the findings of our research processes.

[17] A number of terms have been used to describe marginalized or minority languages, such as first language, mother tongue, home language, indigenous language, heritage language, and native language (see Glossary for details). These terms have all been contested – for example it is difficult to determine which language used by multilinguals is actually the person's mother tongue, and first language may be a multilinguals' chronological first language but may not be their dominant language. While acknowledging that terms are contested, we have generally used the term 'local language' to describe minority languages spoken by indigenous people in a region, with the assumption that the local language is usually the language a child knows best and is most competent in before entering formal education.

The early reader ecosystem

Value chains and supply chains

Traditionally, publishing processes have been thought of in terms of a value chain and/or a supply chain. The concept of a chain that links the writer and reader or creator and user is a widely accepted and powerful metaphor in publishing.[18] Van der Weel suggests that the reason why this metaphor resonates is that it gives the appearance that there are links that overlay each other, while it describes a natural sequence of actions.

The value chain concept was popularized by Porter in a book entitled 'Competitive Advantage'. Value is defined as the amount a customer is willing to pay for what a firm provides. Within the traditional model of book production, publishers have performed a sequence of essential functions including: [19]

- Developmental editing;
- Copyediting;
- Book design and composition;
- Management of printing and distribution;
- International rights licensing;
- Providing advances against royalties;
- Marketing.

The sequence of these functions is known as the value chain. Value was generated from this interdependent sequence of essential functions, along with the value inherent in the content of the book. Effective value chains generated profits, and, within the value chain, publishers were in a position to select, invest, and add value.

The supply chain is a business philosophy that emerged in the 1980s. It took advantage of Information and Communication Technology (ICT) infrastructure to manage the total flow of goods from suppliers to the user. Apart from the added-value services that publishers offered authors, they were also in the print and distribution business. Distribution is managed by the supply chain and typically involves:[20]

- Printing;
- Warehousing books;
- Packing and dispatch of books;
- Customer Services;
- Order processing;
- Invoicing (for print book and ebook resellers);
- Credit control.

In many cases, publishers' traditional supply chains have recently become strained due to a failure to invest in logistics and to understanding consumer behaviour at the same time historically as Internet-based platforms such as Amazon and Apple were investing significantly in their value networks.[21]

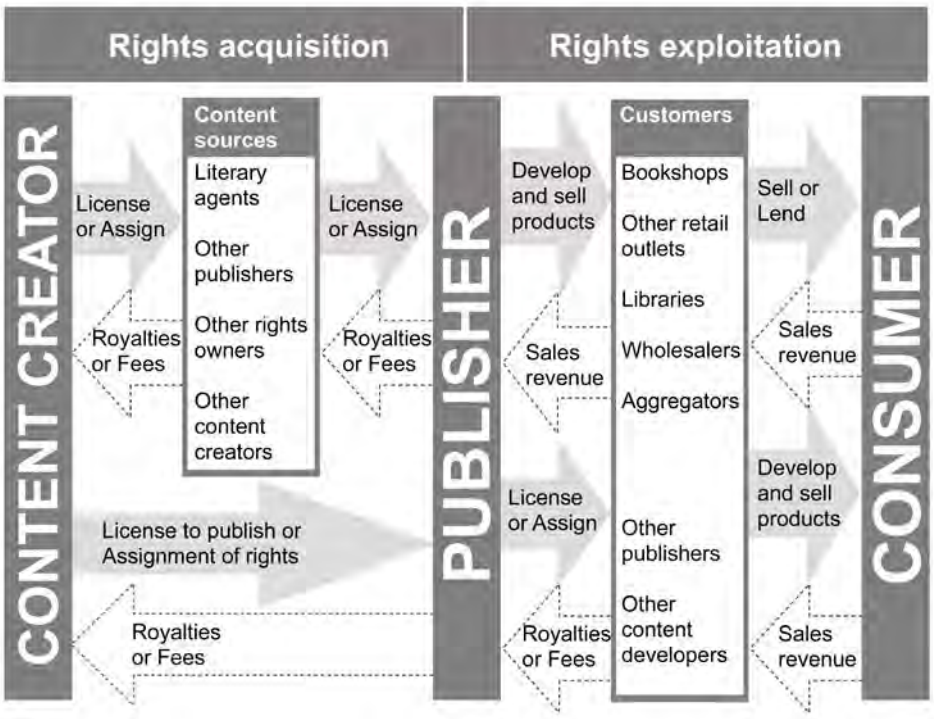
In summary, then, the difference between a value chain and a supply chain is that a supply chain represents the process of all parties involved in fulfilling a customer request, while a value chain is a

[18] Van der Weel, A. (n.d,) From value chain to value network [v. 1.1] Retrieved from http://www.let.leidenuniv.nl/wgbw/research/Weel_Articles/ValueChainToValueNetwork.pdf
[19] Clarke, M. (2010) Trade Publishing and Ebooks: W(h)ither the Supply Chain? Retrieved from http://scholarlykitchen.sspnet.org/2010/05/27/trade-publishing-and-ebooks-whither-the-supply-chain/
[20] Sheila (2014) The Book Industry Supply Chain: a legacy business? Retrieved from http://www.otpi.co.uk/2014/03/02/the-book-industry-supply-chain-a-legacy-business/
[21] Sheila (2014) The Book Industry Supply Chain: a legacy business? Retrieved from http://www.otpi.co.uk/2014/03/02/the-book-industry-supply-chain-a-legacy-business/

set of interrelated activities a company uses to create a competitive advantage. In publishing, the value chain determined which book would be produced and the supply chain offered a means to sell the book and thus generate revenues.

In these models, each step in the chain tends to follow logically and causally from one to the next in a linear flow. The emphasis of the publishing business model has been very strongly on 'the acquisition of content rights and the exploitation of those rights, delivering value for content creators, publishers, customers and consumers'[22] This traditional publishing business model has been captured diagrammatically as follows:

Figure 1 A generic publishing business model[23]



However, globally, this traditional publishing business model has come under growing pressure as a consequence of technological development and the digitization of content. The report from which the diagram above is taken documents a series of innovations that are being implemented by traditional publishers in response to these pressures, which are as strongly felt in education as in any other publishing sector.

The supply of early literacy materials in low-income countries, however, particularly in sub-Saharan Africa, has been largely in the hands of donors and the international NGOs that implement donor programming. Some efforts, such as those employed by Save the Children, Room to Read, Biblionef, and CODE, are innovative, and use local talent to create books relevant to local conditions in languages that children understand. Other programmes are less discriminating. Donated books programmes have not always been demand-driven and often provide books from the global North. Such programmes have been criticized for jeopardizing the development of local book publishing and for the fact that many donated books are unsuitable, because they are outdated or irrelevant to local

[22] Faherty, A. (2013). Curioser and Curioser: Novelty Centred Business Models and Value Creation in Established Publishing Firms. Illinois. Common Ground Publishing. p. 43.
[23] Faherty, A. (2013). Curioser and Curioser: Novelty Centred Business Models and Value Creation in Established Publishing Firms. Illinois. Common Ground Publishing. p. 44

needs.[24] It has been more complicated and expensive to develop local publishing and print/distribution competencies and capacity than to collect books published in the North for the developing world. But the former is more valuable and arguably more sustainable over the long run. Local publishers already have a pool of talented authors and illustrators who can be tapped to add to the number of available books – if we can develop models to meet publishing costs.

Supplies of donated books can suppress demand for locally published resources because many governments rely on these donation programmes to fill book shelves and cupboards in schools and libraries. They also shift responsibility from the ministries that should support book purchases, but do not, to the donation programmes. In 2012, Book Aid International visited Kenya, Malawi, Tanzania, Uganda, and Zambia for an in-depth evaluation of the impact of its program. Librarians and users told the BAI group:

> *Most libraries we visited – whether school, university, community or public – relied heavily on books from Book Aid International. Some libraries reported that we had provided up to 80% of the books in their collections. This dependence on donated books derives from the fact that most of our partners have very small or non-existent book procurement budgets: once staff and running costs have been accounted for, there is little or no money left for buying books.*[25]

In a 2004 report for Unesco and CODE, Mauro Rossi assessed the impact of donation programmes on all components of the book chain. He assessed the impact on the reader, on creative activity, on publishing, and on distribution. Rossi also subdivided the different kinds of donation programmes by type of project, example, and characteristics. His conclusions were that North-South programmes might be relevant to the reader, but South-South, National, and Mixed (South-South and National) strengthened capacity far better:

Table 1 Donation programme impacts[26]

Type of project	Example	Characteristics
North-south	Donation of North American books to libraries in Malawi	• Rapid collection • Relatively easy transport, but no participation of book professional from the country or region concerned • Books not always well adapted to readership in terms of content, language and format
South-south	Donation of books bought in Kenya and given to libraries in Malawi	• Reduced quantity and variety • Laborious transport • Books adapted to the context, improvement of the industry and regional exchanges
National donation	Donation of books bought in Kenya and given to poor libraries in Kenya	• Reduced quantity and variety • Books well adapted to the context • Improvement of the national industry

[24] Jacobs, G. (1998). Review of Greaney, V. (Ed.). (1996). Promoting reading in developing countries: Views on making reading materials accessible to increase literacy levels. Newark, DE: International Reading Association. Retrieved from http://extensivereading.net/docs/greaney.html

[25] Book Aid International. (n.d.). Talking to users: A review of our work in five countries. Retrieved 4 May 2016, from http://webcache.googleusercontent.com/search?q=cache:7pnppMXpipQJ:www.bookaid.org/wp-content/uploads/2013/08/Talking-to-users-a-review-of-our-work-in-five-countries.pdf

[26] Rosi, M. (2005). *Book Donations for Development* (Rep. No. Unesco Document Number: CLT/ACE/CEC-05/1). Retrieved from http://unesdoc.unesco.org/images/0013/001394/139429e.pdf, page 16

Type of project	Example	Characteristics
Mixed south-south and national	Donation of books brought in Kenya and Tanzania to libraries in Kenya	• Complex logistical coordination • Books adapted to the context • Improvement of the national and regional exchanges
Mixed north-south and south-south	Donation of North American and Kenyan books to libraries in Malawi	• Rapid collection • Great variety • Complex logistical coordination • Participation of book professionals from the region concerned • Books sufficiently adapted to the context

In the field of early literacy, therefore, the simple reality in low-income countries is that early literacy has never constituted a particularly profitable source of income for publishers. For example, Midako Publishing, a publisher of children's books in Addis Ababa, prices books at $1.36. Other publishers interviewed for this report have set their prices not much higher. The publishers' goal is to maximize circulation, bearing in mind local income levels, rather than make a significant profit. Compare that to the 2016 Newberry Award winner, *The Last Stop on Market Street*, which costs $10.54 on Amazon.[27] Traditional market mechanisms such as those presented in Figure One above simply do not exist in these contexts, especially not where the focus has been on attempting to produce books in local languages – and the more marginalized the language, the less realistic this is. The publishing of children's story books in local languages in most developing countries has tended to be a labour of love and commitment rather than a major business opportunity. [28]

Shifting to the concept of a value network: an emerging new model

Digital technology has brought to an end to the neatness of the chain metaphor in publishing, and digitization has introduced a wave of changes that is reshaping publishing in unpredictable ways[29]. Chain thinking comes from an industrial age production line model that has been superseded by the new enterprise model of the value network or value web.[30] Today, an author can take direct responsibility for many of these essential functions that were once the preserve of a publisher, and value is no longer something that is created incrementally and chronologically by publishers throughout the parts of the value chain until the book reaches the reader.[31] Tan and Martin argue that chains are an inappropriate metaphor to explain the complexities of value creation in the knowledge based economy[32]. Production processes within publishing companies are already non-serial, replete with loops, iterations, and embellishments of varying kinds. Publishers now manage a production web, not a production line[33]. Digital platforms and devices have also disrupted publisher supply chains. It is no longer essential to go through the publisher, for example, in order to warehouse and distribute

[27] Last Stop on Market Street. Retrieved from http://www.amazon.com/Last-Stop-Market-Street-Matt/dp/0399257748
[28] More information on publisher costs will be found in the section on Costing an open-access business model below.
[29] Purcell, E. (2011) No New Normal – The Value Web. https://eoinpurcellsblog.com/2011/05/24/no-new-normal-the-value-web/
[30] Allee, V. (2010) Reconfiguring the Value Network. http://www.sveiby.com/articles/Allee-ValueNets.htm
[31] Valtech. (2015). Is Your Value Chain In Danger of Becoming Part of an Alternative Value Network? Retrieved from https://www.valtech.com/blog/who-will-create-a-value-network-out-of-your-value-chain/
[32] Tian, X., & Martin, B. (2012). Books, bytes and business: The promise of digital publishing. Ashgate Publishing, Ltd.
[33] Anderson, K. (2011) The Value Web - The Value Chain Isn't Breaking, It's Interweaving. Retrieved from https://scholarlykitchen.sspnet.org/2011/06/01/the-value-web-the-value-chain-isnt-breaking-its-interweaving/

books. In the United States, there are now several sites that offer tips to budding authors on how to write and publish their children's book.[34]

Within this changing context, Firth and Page identify five elements within the Value Network:[35]

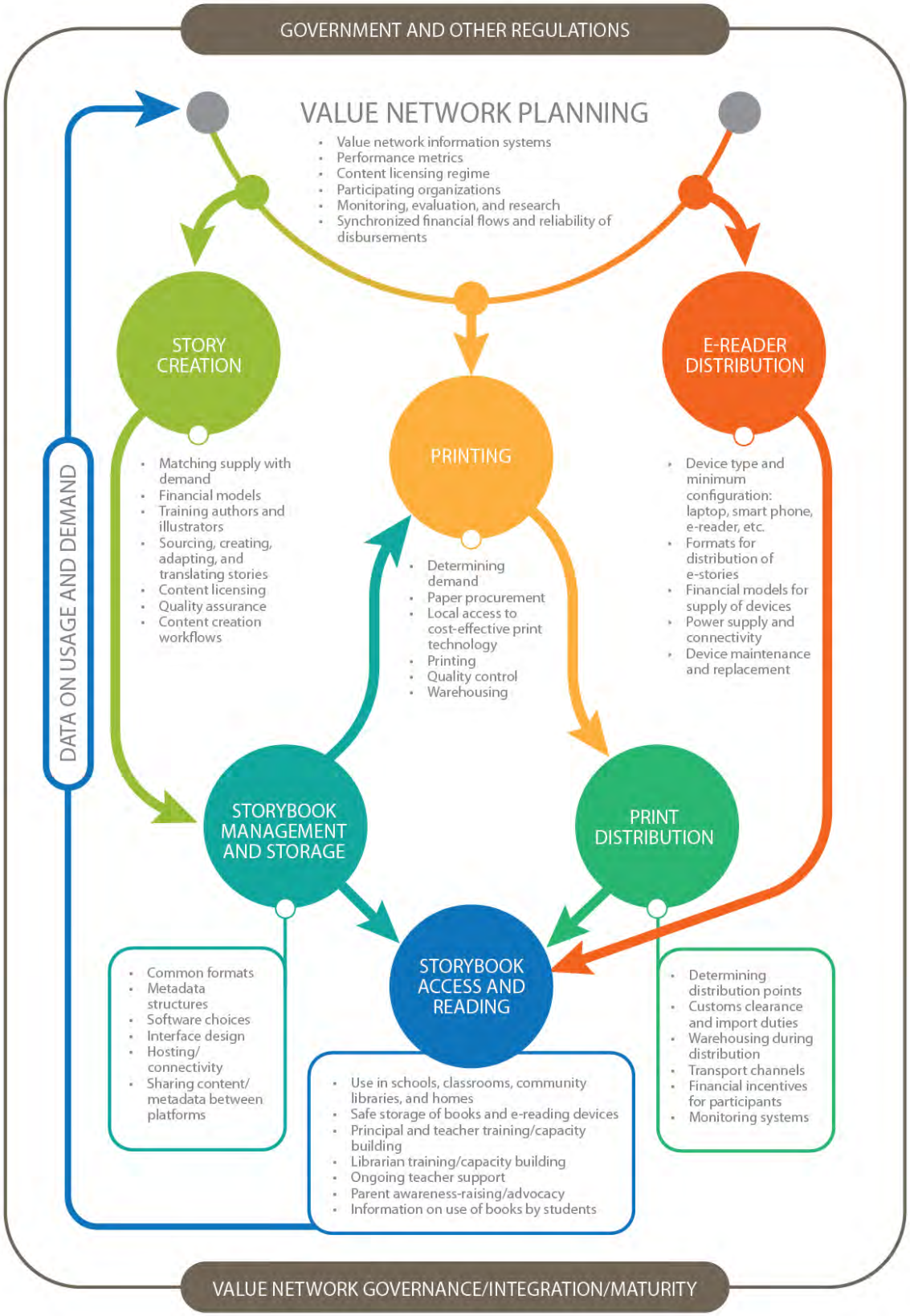
- Content rights;
- Online services;
- Enabling technology/services;
- Connectivity; and
- User interface (devices and applications).

With the Internet, value can be created in networks where individuals, customers, partners, competitors, and suppliers collaborate in value-creation processes. In early literacy in low-income countries, this concept of a publishing value network can be constructed diagrammatically as follows:

[34] For two examples, see Quick and Dirty Tips.com. Common Mistakes to Avoid When Writing a Children's Book. Retrieved from http://www.quickanddirtytips.com/education/writing/common-mistakes-to-avoid-when-writing-a-childrens-book and Friedman, J. (2015, March 12). How to Self-Publish Children's Books Successfully: Notes from the Trenches | Jane Friedman. Retrieved from https://janefriedman.com/self-publish-childrens/

[35] ATKearney. Internet Value Chain Economics. Retrieved from https://www.atkearney.com/paper/-/asset_publisher/dVxv4Hz2h8bS/content/internet-value-chain-economics/10192#sthash.iWkJm25H.dpuf

Figure 2 An early literacy reader ecosystem



Although this diagram includes many components one would find in traditional publishing value and supply chains, it illustrates how the process is no longer a linear chain or end-to-end process. Rather,

we see an *ecosystem* comprising a more complicated value network, in which the different network components can be planned and executed independently of one another. This 'disaggregation' of traditional chains is facilitated both by digital disruption and open licensing. Of course, within each of these components, there are several issues that require careful planning, so the ecosystem as a whole is much more convoluted than the above diagram suggests. Appendix C provides a detailed overview of each of the components of this ecosystem, as well as the key questions that require consideration in planning. Ecosystems are dynamic and made up of the complex interplay between the system and its environment, together with emergent properties created by such an intricate interplay. The concept of an early literacy reader ecosystem reinforces either the richness or the poverty of reading systems in place and the potential (or lack of it) for adaptation and self-organization. The term 'early literacy reader ecosystem' thus highlights the complex, nonlinear interactions that affect, sustain, or frustrate the reading opportunities of children in low-income countries.

Many new practices are emerging globally, both in early literacy and in other sectors, that provide compelling anecdotal evidence of how a different way of conceptualizing value chains as value networks can create new opportunities for a wider range of players and potential new financial efficiencies. Before exploring these innovations in more detail, though, it is worth exploring first what is meant by digital disruption and open licensing.

What is 'digital disruption'?

In general terms, digital disruption refers to 'the change that occurs when new digital technologies and business models affect the value proposition of existing goods and services'.[36] Continuous evolution of technology is changing the ways in which people do business, the dynamics of the workplace, and what we perceive as possible. For example, technology fosters sustained collaboration among work teams without a requirement to meet in person, enhances productivity by reducing data processing time, and improves the ease with which large volumes of data can be manipulated by and transferred between various units within an organization. Forbes magazine highlights five ways in which digital disruption impacts on customers: pace of innovation, with technology disruptions occurring at faster intervals; increased competition; personalized interaction (with data analytics enabling marketers to send customer communications that are more relevant and personalized); increased speed of interaction; and integration to create cohesion across all marketing channels and platforms.[37]

The rapid increase in use of mobile devices for personal use and work has increased the potential for digital disruption across numerous industries, including film, journalism, and music. For example, part of the challenge for media, music, and television is that they are vulnerable to disaggregation. Their products are made up of songs, articles, and shows that have traditionally been consumed in individual units. The Internet made it possible for consumers to ignore unwanted material, which resulted in overall value decreasing. Easy access to favourite songs opened those up to impulse purchases, but also made buying the whole album unnecessary. There is also the threat of piracy, with torrent software and websites[38] having helped to convince many people that they should not have to

[36] TechTarget. (no date). Digital Disruption, Retrieved from http://searchcio.techtarget.com/definition/digital-disruption
[37] Arthur, L. (2013). Five Ways Digital Disruption Will Impact The Customer Experience. Retrieved from http://www.forbes.com/sites/lisaarthur/2013/03/19/five-ways-digital-disruption-will-impact-the-customer-experience/#7248f23527af
[38] A torrent file is a small computer file that contains metadata about files and folders to be distributed, and usually also a list of the network locations of trackers (computers that help participants in the system find each other and form efficient distribution groups). A torrent file does not contain the content to be distributed; it only contains information about those files Downloading with a torrent is advantageous particularly when downloading files, which are momentarily very popular and which lots of people are downloading, as the more people download the file, the higher the speed for everyone.

pay for digital goods. There is even a torrent equivalent for scholarly journal articles. A graduate student from Kazakhstan has created a website called Sci-Hub,[39] a searchable online database of nearly 50 million stolen scholarly journal articles that are normally hidden behind a publisher's paywall. Publishers, such as Elsevier call her a pirate; scholars who cannot afford to pay for articles call her Robin Hood.[40]

Furthermore, sites like Netflix have bundled films into affordable smorgasbords, undermining the perceived value of each individual title, while Pandora and Spotify have recently done the same for music.[41] Television is also facing issues of piracy and new competition from streaming partners such as Amazon Plus and Netflix, both of which charge for content but without commercials. In addition, Amazon and Netflix are now producing their own original content.[42] Hulu Plus provides another example of digital disruption. Viewers are spared commercials for the price of a monthly subscription. Some of the major television broadcasters participate in Hulu. Advertisers are trying to develop alternative methods of delivering their message, which may mean further changes in how content is accessed by consumers and monetized by advertisers. In the news field, there are 24-hour rolling news channels and a plethora of bloggers providing huge volumes of content. Though quality and objectivity are not controlled, blogs are growing in popularity, and they offer the potential of receiving payment for posts that have many viewers/readers. Technology also allows easy posting of a few characters to a high-quality video, so everybody can be both reporter and publisher.[43] In addition, traditional newspapers like the *New York Times*, allow print subscribers to access the newspaper and opening paragraphs online free of charge. Readers are allowed a certain number of free downloads each month; subscribers have access to everything. As it aggressively moves into digital, the paper is now reporting better than expected profit.[44]

Marsden (2015) outlines ten hyper-disruptive business models, presented in the table below:

Table 2 Ten hyper-disruptive business models[45]

Model	Description	Examples
The subscription model	Disrupts through 'lock-in' by taking a product or service that is traditionally purchased on an ad hoc basis, and locking-in repeat custom by charging a subscription fee for continued access to the product/service.	Netflix, Dollar Shave Club, Apple Music
The freemium model	Disrupts through digital sampling, where users pay for a basic service or product with their data or 'eyeballs', rather than money, and then charging to upgrade to the full offer. Works where marginal cost for extra units and	Spotify, LinkedIn, Dropbox

[39] Sci-Hub. Retrieved from https://sci-hub.io

[40] Rosenwald, M. S. (2016, March 30). This student put 50 million stolen research articles online. And they're free. Retrieved from https://www.washingtonpost.com/local/this-student-put-50-million-stolen-research-articles-online-and-theyre-free/2016/03/30/7714ffb4-eaf7-11e5-b0fd-073d5930a7b7_story.html

[41] Hughes, E. (2013). The Publishing Industry is Thriving. Books Don't Want to Be Free How publishing escaped the cruel fate of other culture industries. The New Republic. Retrieved from http://www.newrepublic.com/article/115010/publishing-industry-thriving

[42] Greenfield, J. (2013). How the People Saved Book Publishing. Forbes. Retrieved from http://www.forbes.com/sites/jeremygreenfield/2013/02/11/how-the-people-saved-book-publishing

[43] Smithers Pira. (2011). New Devices and Means of Consuming Content are Changing the Face of the Publishing Industry. Retrieved from http://www.smitherspira.com/news/2011/may/the-changing-face-of-the-publishing-industry

[44] Nair, A. S. (2016, February 04). New York Times reports better-than-expected profit and revenue. Retrieved 5 April 2016, from http://www.reuters.com/article/us-new-york-times-results-idUSKCN0VD1U4

[45] Taken verbatim from Marsden, P. (2015). The 10 Business Models of Digital Disruption (and how to respond to them). Retrieved 4 April 2016 from http://digitalintelligencetoday.com/the-10-business-models-of-digital-disruption-and-how-to-respond-to-them/

Model	Description	Examples
	distribution are lower than advertising revenue or the sale of personal data.	
The free model	Disrupts with an 'if-you're-not-paying-for-the-product-you-are-the-product' model that involves selling personal data or 'advertising eyeballs' harvested by offering consumers a 'free' product or service that captures their data/attention.	Google, Facebook
The marketplace model	Disrupts with the provision of a digital marketplace that brings together buyers and sellers directly, in return for a transaction or placement fee or commission.	eBay, iTunes, App Store, Uber, AirBnB
The access-over-ownership model	Disrupts by providing temporary access to goods and services traditionally only available through purchase. Includes 'Sharing Economy' disruptors, which takes a commission from people monetizing their assets (home, car, capital) by lending them to 'borrowers'.	Zipcar, Peerbuy, AirBnB
The hypermarket model	Disrupts by 'brand bombing' using sheer market power and scale to crush competition, often by selling below cost price.	Amazon, Apple
The experience model	Disrupts by providing a superior experience, for which people are prepared to pay.	Tesla, Apple
The pyramid model	Disrupts by recruiting an army of resellers and affiliates who are often paid on a commission-only model.	Amazon, Microsoft, Dropbox
The on-demand model	Disrupts by monetizing time and selling instant-access at a premium. Includes taking a commission from people with money but no time who pay for goods and services delivered or fulfilled by people with time but no money.	Uber, Operator, Taskrabbit
The ecosystem model	Disrupts by selling an interlocking and interdependent suite of products and services that increase in value as more are purchased. Creates consumer dependency.	Apple, Google

For book publishing, Cuddy (2015) argues that this process of disruption has not yet begun in earnest. With the exception of Amazon and ebooks more generally, digital disruption has been slow to reach the publishing industry.[46] T.D. Wilson of the Swedish School of Library and Information Science, University of Borås reviewed the impact of ebooks over a ten-year period, primarily in Sweden but also in the United States and elsewhere in Europe. He concluded that, to date, the ebook market has been primarily driven by sales in the United States.[47] While ebooks initially created a disruption and many publishers adopted key elements of ebooks, there has not been much bold innovation; digital content is still largely seen as an add-on to print. Cuddy (2005) thus argues that we are yet to see a 're-imagination' caused by digital disruption.[48] Clearly these future 'disruptions' will have implications for how businesses move forward, and, given the rapidity of digital disruptions elsewhere, it is difficult to be confident about how the future will look (although we can be fairly sure that publishers and societies will continue to experience significant change). What is clear is that businesses and

[46] Cuddy, G. (2015). Publishing's Digital Disruption Hasn't Even Started. Retrieved from http://www.digitalbookworld.com/2015/publishings-digital-disruption-hasnt-even-started/
[47] Wilson, T. D. (2014). The e-book phenomenon: A disruptive technology. *Information Research*. 19(2). Retrieved from http://www.informationr.net/ir/19-2/paper612.html#.VwNv5McRrok
[48] Cuddy, G. (2015). Publishing's Digital Disruption Hasn't Even Started. Retrieved from http://www.digitalbookworld.com/2015/publishings-digital-disruption-hasnt-even-started/

organizations will need to leverage digital disruptions to enhance customer experience and drive business value.

The effect of digital disruption needs to be unpacked for different contexts and economic sectors. In particular, questions need to be asked about the effects of this disruption on a fragile publishing industry, such as that found, where it even exists, in low-income countries. The emerging networked information environment can bring about deep changes in technologies, economic organization, and social practices. Yochai Benkler, author of the Wealth of Networks,[49] argues that a fourth transactional framework has emerged as a result of a networked information economy. This particular framework is not market focused and decentralized. Social sharing and exchange is now possible because ordinary people have the means of production and participation in their hands. In this new model of production, people work cooperatively to create, translate, and distribute content to readers without relying on market pricing or managerial hierarchies to coordinate their common enterprise. However, before assuming that all will benefit from this new modality of organizing information (what Benkler calls commons-based peer production), it is important to consider what the prime focus of this initiative will be. Will the prime focus be to create value for global shareholders, a network of small for profit enterprises, the local community, or the transnational commons? These questions are especially important in early literacy, because the key local players in developing literacy materials already have very fragile business models and further disruptions can just as easily destroy their livelihoods as it can create new opportunities.

Bauwens and Kostakis, authors of Network Society and Future Scenarios for a Collaborative Economy,[50] also acknowledge that that peer production can disrupt industries. But, if peer production is located within a single proprietary hierarchy, then it is likely that those who initiate the disruption will be privileged, and, while they may create value for the participants in the peer-to-peer (P2P) system, their overall intention is to extract value. Bauwens and Kostakis call this 'netarchical capitalism'. Facebook, YouTube, Google, and Apple are cited as examples of this type of production. When a distributed community is behind P2P production, and the platforms and infrastructures are designed to allow autonomy and participation, but profit is still the guiding motive within a more inclusionary and distributed environment, a more distributed form of capitalism emerges (such as in the examples of Kickstarter or blockchains). Kickstarter is a fund-and-release system intended to help creative people, such as artists, musicians, and filmmakers bring their projects to life.[51] Funds are gathered via an online threshold pledge system. An amount of money is set as the goal (threshold) to reach for a specified purpose and interested individuals are invited to commit to the goal, but the money at first either remains with the pledgers or is held in escrow. Once the threshold is reached, the pledges are called in and a contract is formed so that the collective good is supplied.[52] A blockchain is essentially a ledger or record that is shared via a P2P network. The blockchain can only be updated by consensus of a majority of the participants in the system. Once entered, information can never be erased so it is designed for recording transactions.[53] The most widely known application of a blockchain is the public ledger of transactions for crypto currencies, such as bitcoin.[54]

[49] Benkler, Y. (2006). The wealth of networks: How social production transforms markets and freedom. Yale University Press.
[50] Kostakis, V., & Bauwens, M. (2014). Network society and future scenarios for a collaborative economy. Palgrave Macmillan.
[51] Kickstarter. (2016). Our mission is to help bring creative projects to life. Retrieved from https://www.kickstarter.com/about
[52] Threshold pledge system (2016) Retrieved from https://en.wikipedia.org/wiki/Threshold_pledge_system
[53] Gault, M. (2015) Forget Bitcoin - What Is the Blockchain and Why Should You Care? Retrieved from http://recode.net/2015/07/05/forget-bitcoin-what-is-the-blockchain-and-why-should-you-care/
[54] Blockchain. (2016). http://p2pfoundation.net/Blockchain

Openness and open licensing[55]

A common theme in much recent innovation in education globally has been that of greater openness. 'Open(ness)' has become the watermark for a fast growing number of learning materials and associated platforms and practices emanating from various institutions and individuals. The notion of open learning, once defined largely by the reduction or waiving of admission requirements for students to enter programmes of study, has exploded into a rainbow of 'open' concepts, all of which challenge traditional ideas of the campus experience as central to learning, ownership, restricted access, academic privilege, and educational hierarchy.[56] Two important notions, egalitarianism and sharing, are at the core of the concept of 'open'. Egalitarianism implies an equal right to participate (access, use, and collaboration). Sharing is rooted in the idea of widening access where it has previously been restricted. Enhanced access is often motivated by a desire to share, whether through a wish to contribute to the common good or to participate in a coordinated or collaborative activity.[57]

Formal education systems have embraced openness for many decades, notably through the creation of open universities and open schools.[58] More recently, various developments in open education, such as Open and Distance Learning (ODL), Open Access (OA), Open Data, Open Educational Resources (OER), and OpenCourseWare (OCW), have each made a valuable contribution to creating a new culture of openness. Technological developments and digital disruption have helped the concept of 'open' in education to emerge in its current forms.[59] For instance, 'open content' is an attempt to carry over the logic of 'open source' software to the world of cultural and scientific artefacts like music, literature, and images.[60] Johnson et al (2013) report that open education advocates are working towards a common understanding of 'open' as free, able to be copied, remixable (that is, able to be adapted and combined with other content to create new content), and without any barriers to access or interaction.[61]

Licensing is central to the issue of openness. Legal frameworks (such as Creative Commons[62]) help to govern how open a resource really is. They provide legal mechanisms to ensure that authors of materials can receive acknowledgement for their work while allowing it to be shared. They can also restrict commercial activity and prevent people from adapting a resource if they so wish.

There have been attempts to define openness in particular domains. For example, in the area of open content, a widely used description of openness is the '4Rs' by Wiley (2009):

1) Reuse – the right to reuse the content in its unaltered / verbatim form;
2) Revise – the right to adapt, adjust, modify, or alter the content itself;
3) Remix – the right to combine the original or revised content with other content to create something new; and
4) Redistribute – the right to make and share copies of the original content, your revisions, or your remixes with others.

[55] This section is adapted from Butcher, N., and Hoosen, S. (2014). A Guide to Quality in Post Traditional Online Higher Education. Academic Partnerships: Dallas.
[56] Conrad, D. (2013). Assessment challenges in open learning: Way-finding, fork in the road, or end of the line? *Open Praxis*, vol. 5 issue 1, January–March 2013, pp. 41–47. International Council for Open and Distance Education.
[57] Open ICT for Development. What is Openness? Retrieved from http://openict4d.wikidot.com/open-ness-to-open-ict4d
[58] Lane, A. (2009). The Impact of Openness on Bridging Educational Digital Divides. *International Review of Research in Open and Distance Learning.* Volume 10, Number 5.
[59] Peter, S and Deimann, M. (2013). On the role of openness in education: A historical reconstruction. *Open Praxis*, vol. 5 issue 1, January–March 2013, pp. 7–14
[60] Wiley, D. (2009). Defining 'Open'. Retrieved from http://opencontent.org/blog/archives/1123
[61] Johnson, L., Adams Becker, S., Cummins, M., Estrada, V., Freeman, A., and Ludgate, H. (2013). NMC Horizon Report: 2013 Higher Education Edition. Austin, Texas: The New Media Consortium
[62] Creative Commons. Retrieved from www.creativecommons.org

To the degree that a licence provides users with no-cost (free) permission to exercise these rights with regard to content, that content is open. Thus, whether these rights are granted unconditionally or permitted only if the user meets certain conditions (for example, requiring attribution, necessitating distribution of derivatives under a specified licence, or prohibiting commercial redistribution), it is still appropriate to call this content open. The fewer restrictions a licence places on a user's ability to exercise 4R rights in the content, the more open the content is.[63] But it is important to remember, however, that no matter how open the licence, credit to the original author and work is always required. Table 3 below provides an overview of the different types of Creative Commons licences and how their permissions work.

Table 3 Creative Commons licences[64]

Licence Name	Acronym	Icon	Description
Attribution	BY		This licence lets others distribute, remix, tweak and build upon your work, even commercially, as long as they credit you for the original creation. This is the most accommodating of licences offered, in terms of what others can do with your works licensed under Attribution.
Attribution Share Alike	BY-SA		This licence lets others remix, tweak and build upon your work even for commercial reasons, as long as they credit you and license their new creations under the identical terms. This licence is often compared to open source software licences. All new works based on yours will carry the same licence, so any derivatives will also allow commercial use.
Attribution No Derivative	BY-ND		This licence allows for redistribution, commercial and non-commercial, with credit to the author. The work may **not** be altered, transformed or built on.
Attribution Non-commercial	BY-NC		This licence lets others remix, tweak and build upon your work non-commercially, and although their new works must also acknowledge you and be non-commercial, they don't have to license their derivative works on the same terms.
Attribution Non-commercial Share Alike	BY-NC-SA		This licence lets others remix, tweak and build upon your work non-commercially, as long as they credit you and license their new creations under the identical terms. Others can download and redistribute your work just like the BY-NC-ND licence, but they can also translate, make remixes and produce new stories based on your work. All new work based on yours will carry the same licence, so any derivatives will also be non-commercial in nature.

[63] Wiley, D. (2009). Defining 'Open'. Retrieved from http://opencontent.org/blog/archives/1123

[64] Adapted from Creative Commons. About the Licenses. Retrieved from https://creativecommons.org/licenses/ Licensed under a Creative Commons Attribution 4.0 International license.

Licence Name	Acronym	Icon	Description
Attribution Non-commercial No Derivatives	BY-NC-ND		This licence is the most restrictive of the six main CC licences, allowing redistribution only. This licence is often called the 'free advertising' licence because it allows others to download your works and share them with others as long as they mention you and link back to you, but they cannot change them in any way or use them commercially.

Open Educational Resources (OER) apply open source principles to the release of educational content.[65] The term refers to any educational resources (including curriculum maps, course materials, textbooks, streaming videos, multimedia applications, podcasts, or any other materials designed for use in teaching and learning) that are openly available for use by educators and students, without the need to pay royalties or licence fees.[66] OER can exist as smaller, stand-alone resources (reusable learning objects) that can be mixed and combined to form larger pieces of content or as larger course modules and full courses. OER can also include simulations, virtual laboratories, collections, journals, and tools. These materials are considered open if they are released under an open licence such as a Creative Commons licence.

The 2012 Paris Declaration on Open Educational Resources adopted the definition of OER as:

> *Teaching, learning and research materials in any medium, digital or otherwise, that reside in the public domain or have been released under an open license that permits no-cost access, use, adaptation and redistribution by others with no or limited restrictions.*[67]

The fundamental principle underlying OER is the freedom to share knowledge, which should be legally, socially, and technologically open.[68] This ensures greater access for more people than a similar commercial product that is not free. It also increases flexibility of use, which in turn creates opportunity for greater access.[69]

OER create multiple opportunities to innovate in teaching and learning. For example, sharing of resources opens access to intellectual capital, which can dramatically improve the affordability of education. It can also enable better personalization of instruction,[70] by focusing less on the content (which is freely available) and more on the facilitation of learning interactions.

[65] Weller, M. (published online 2014). The Digital Scholar: How Technology Is Transforming Scholarly Practice. Bloomsbury Academic. Retrieved from http://www.bloomsburyacademic.com/view/DigitalScholar_9781849666275/chapter-ba-9781849666275-chapter-009.xml

[66] Butcher, N. (2011). A Basic Guide to Open Educational Resources (OER), the Commonwealth of Learning.

[67] UNESCO (2012). 2012 Paris Open Declaration. World Open Educational Resources (OER) Congress, UNESCO, Paris, June 20-22, 2012. Retrieved from http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/Events/Paris%20OER%20Declaration_01.pdf

[68] Torres, N.PM. (2013). Embracing openness: The challenges of OER in Latin American education. Open Praxis, vol. 5 issue 1, January–March 2013, pp.81-89

[69] Smith, M.S. (2013). Ruminations on Research on Open Educational Resources. Carnegie Foundation for the Advancement of Teaching

[70] Wiley, D., and Green, C. (2012). Why Openness in Education? In Oblinger, D. *Game Changers: Education and Information Technologies.* Educause

Emerging innovations that can transform the early literacy reader ecosystem

Digital disruption and open licensing are important because they have stimulated a range of innovations that can transform the operations of the early literacy reader ecosystem presented in Figure 2. Most important, though, is the key point that digital disruption in publishing value and supply chains enables a disaggregation of those supply chains, so that each aspect of the early literacy reader ecosystem can function independently of the others, introducing opportunities for working differently and more efficiently. Within this emerging new framework, various emerging innovations are explored below.

Transforming content creation models

The disruptive potential of open licensing was well understood by Pratham Books in India when it took a decision to begin sharing its stories under a Creative Commons Attribution licence. The Pratham Books business model is based on an important insight that affects early literacy in all developing country contexts, namely that there has never really been a sustainable business model for content creation other than investment by governments and donor agencies. In a traditional publishing business model, however, where rights acquisition is important, the challenge has been that payment for content creation has typically been bundled into the cost of printing and distributing readers, which has significantly increased individual unit costs. Pratham Books, however, by treating these as separate processes that are funded independently of one another has relied exclusively on philanthropy to cover the costs of story creation, rather than loading this cost into the printing and distribution of its books. The result is that it is able to sell its printed book titles at approximately 50% of the cost of commercial publishers.[71]

As importantly, though, when Pratham Books began a process of releasing its titles under an open licence, it quickly discovered that openly licensed books tended to outsell those that were still subject to an All-Rights Reserved licence, by a factor two to one. As a small organization with a big mission to see 'a book in every child's hand', it recognized the need to create alternate and scalable channels of reaching books to the vast population of children in India.

> *From our early experiments with openly licensing our content, we knew that it led to the creation of many more derivative versions either in new languages or in new forms and thereby travelled further to reach more children, that Pratham Books' would not be able to reach.*[72]

This was the basis of building a new way forward with Storyweaver, through which it distributes its resources online.

> *We wanted to provide open access to a library of digitized stories, both text and illustrations, where readers and content creators could participate in a collaborative, creative and mutually beneficial process of transforming and creating engaging, openly accessible material for children. Our twin goals were - to provide more multilingual content and more access.*[73]

This digitization of content has also enabled more cost-effective creation of new content. As of December, 2015, the Storyweaver platform was storing 1,100 stories, of which 200 were unique and the remainder derivatives (translations or adaptations) of the original stories. These derivatives are produced very cost-effectively using digital tools to facilitate rapid translation and adaptation.[74]

[71] Suzanne Singh and Purvi Shah, personal communication to Neil Butcher, 7 December 2015
[72] Suzanne Singh and Purvi Shah, personal communication to Neil Butcher, 6 June 2016
[73] Suzanne Singh and Purvi Shah, personal communication to Neil Butcher, 6 June 2016
[74] Suzanne Singh and Purvi Shah, personal communication to Neil Butcher, 7 December 2015

The Storyweaver platform provides facilities to Read, Create, and Translate stories, using a modular API-base technology platform that facilitates simple addition of new features. It is also possible to download high-resolution, printable versions of stories via the site. It also contains an image bank of all of the images used in its openly licensed books. All of its fonts are Unicode fonts, and thus searchable. Storyweaver also includes a transliteration tool for 11 Indian languages.[75]

In a parallel experience, the African Storybook Initiative (ASb), which is being implemented by the South African Institute for Distance Education (Saide), has focused heavily on creation of an online platform that provides access to completed stories, while providing tools for creation and translation/ adaptation of existing stories. All of the stories available on this platform are licensed under a Creative Commons Attribution licence. As with Storyweaver, this means that the ASb platform has been able to proliferate new content without having to produce new stories. In March, 2016, it had 615 unique stories and 2,039 translated/adapted stories, representing 73 languages, of which 68 are indigenous African languages. Not coincidentally, these include some stories sourced from the Storyweaver platform, further demonstrating the power of open licensing.

Importantly, ASb has been experimenting with a number of different ways of using its online content creation and translation/adaptation tools to draw new players into the content creation space, focusing on content creators from African countries. It has a number of partners and pilot sites in Kenya, South Africa, Lesotho, Ethiopia, and Uganda, where educators have been able to create and/or translate/adapt stories online. For example, on invitation from the Kibaali Forest Schools Programme in Western Uganda, ASb ran a story development and translation workshop early in 2015. Flowing from that process were 25 stories in Rutooro (a major language in Uganda).[76] ASb has also worked with Uganda's community libraries in creating content. Appendix G describes additional and innovative ways that ASb has been harnessing online content.

Likewise, ASb has been exploring the potential of harnessing teacher education students to contribute to content creation. For example, story development and translation workshops were held with teacher education students at the University of Pretoria, and the education campus of the University of Mpumalanga, Kenyatta University, University of Cape Town, and Kabwangasi Primary Teachers' College in East Uganda. The first two workshop processes yielded 100 Afrikaans translations, 30 isiNdebele translations, and 26 siSwati translations. The work with Kenyatta University continues to be productive. The first two workshops with students at Kenyatta University produced eight new stories and translations of six stories into four languages, all of which were uploaded onto the website. This approach achieves a dual goal of inducting teacher trainees into use of the website, while increasing the numbers of translations and languages at no extra cost. As a result of the ASb experience, additional African universities are interested in exploring the possibility of using students to translate stories.

Pratham Books has made the Storyweaver platform accessible on desktops, laptops, tablets and mobile phones; allowing users to read, download and print all the stories. They also embedded some tools for content creation to enable people to repurpose the content into more languages and versions. ASb has recently invested heavily in adapting its online platform to make it more web responsive and therefore more easily accessible via mobile devices. The intention in this instance is to enable seamless access both to stories and to the story creation/translation/adaptation tools on computers and mobile devices, thereby expanding access to their openly licensed content. Importantly, readers are readily available both as digital e-readers and for download as printable content (including high resolution versions of PDF files that enable professional printing). This allows open access to their readers in multiple formats, with minimal additional expense.

[75] Suzanne Singh and Purvi Shah, personal communication to Neil Butcher, 7 December 2015
[76] Tessa Welch, personal communication to Lisbeth Levey, 16 March 2016

Book Dash is an example of an initiative using an innovative content creation model. It is focused on creating high-quality, low-cost African children's books that anyone can freely translate and distribute. In this model, an organization usually commissions a book-creation workshop, and a team of volunteer creative professionals is invited to generate storybooks in twelve hours. The books are licensed to allow anyone to freely translate and distribute (under a Creative Commons Attribution licence). The BookDash website has already shared 45 unique children's books produced this way, which can be downloaded as a low-resolution PDF, source and print-ready files, or as an e-reader and mobile-optimized HTML. This model is being harnessed by ASb as part of its wider content creation strategy.[77]

Another content creation model adopted is competitions, which was adopted by the Children's Book Trust (CBT) in India. In this model, books are sourced from the public via competitions run every few years to acquire picture manuscripts or short stories. Prizes are awarded to selected manuscripts, which then become the property of the trust (copyright for the material then vests with the trust). CBT has an in-house team of editors and artists and its own printing press. The press was established to print CBT books as a cost-cutting measure to ensure that books are priced low to ensure affordability. Typically, a 16-page book with colourful pictures costs 25 rupees (US$0.37), and a 100-150-page book costs 110 rupees (US$ 1.64). CBT's policy is not to extract maximum funds from the first print run or to make money from the books printed. The trust recoups the cost of the books over several years. CBT owns a building and earns revenue and pays salaries from funds gathered by renting out several floors in the building where its offices and press is located. The press also provides services for external clients at a fee. No external funds are sourced.[78]

Other open licensing content creation models

On a small scale, there are several organizations exploring releasing their storybooks under a Creative Commons licence. One example of this is the US-based Brothers Whim, which is releasing stories under a CC BY SA licence (meaning all the books and artworks are freely accessible on the internet to download, share, copy, and remix/alter). Its books are produced in English, but, as they have a CC licence, others have produced translations in Arabic, Spanish, Dutch, Braille, and Swedish. Brothers Whim makes its books freely available for download in multiple formats, including ePub, PDF, Mobi, Kindle, and Video (mp4), and some books are available on YouTube. Artwork albums are also available for free download. The books are also available in hardcover at a cost of $8 per book, with costs reduced to $4 if buyers purchase books in bulk (this excludes shipping). Printing is in a bulk production run, offset, with a hard cover for better quantity at lower cost.[79] Similarly, Crimper Books[80] offers Creative Commons-licensed children's fiction, and allows users to download books for free and to share them with others. The books are available free to download in various ebook formats as well as to buy in paperback and kindle formats.

In another example in Alberta, Canada, Little Cree Books focuses on designing supplementary reading material (in the Plains Cree dialect) for children who do not speak Cree as a first language The founder of Little Cree Books discovered that, while there were basic information books in Cree (for example, materials with one word such as 'bear' and 'owl') and books written at the higher level in syllabics, there were few levelled materials at scaffolded or progressive levels. Additionally, while there was a curriculum to teach the language in the province, there were no resources to match it. Initially funded as a small project, the initiative now continues on a volunteer basis, with the goal of promoting the

[77] Arthur Attwell, personal communication to Neil Butcher and Derek Moore, 12 February 2016
[78] Navin Menon, personal communication to Sarah Hoosen, 20 January 2016
[79] Spencer Hanson, personal communication to Sarah Hoosen, 9 and 10 February 2016.
[80] Crimper Books. Retrieved from http://crimperbooks.co.uk/

language. The books are available to download from the Little Cree Books website, carrying a CC BY-NC-SA licence.[81]

The issue of open access is usually highlighted in relation to academic publications, and in this field there have been a number of changes occurring, as open access plays an important role in moulding strategies for commercial publishers. For example, Nature Publishing Group[82]) allows subscribers to share an article in a format that allows it to be read online, but not to be printed or downloaded. This is an attempt to let scientists freely read and share articles while preserving the publisher's primary source of income, which is the subscription fees libraries and individuals pay to gain access to articles.[83]

In scholarly publishing in South Africa, the Human Science Research Council (HSRC) Press, the external publishing arm of the HSRC (the largest dedicated research institute in the social sciences and humanities on the African continent), pioneered an Open Access model which allows users free downloads of many of its books (one free download per book per person). They offer scholarly books in the social sciences and humanities (as opposed to trade, educational textbook, reference, general books). Open access has enabled them to become the leading scholarly book publisher in Africa though citation and to become well known globally as a publisher of African-lead research. They offer books in print, open access, and as ebooks available from online bookstores like Amazon and Barnes & Noble. This model is believed to be important for knowledge building. Not all books are available under an open licence - and the intellectual property rights are determined on a book-by-book basis and are covered in the contract with authors.

A similar model is adopted by various other scholarly publishers including the US National Academy of Sciences' National Academies Press (NAP),[84] the Council for the Development for Social Science Research in Africa (CODESRIA), and the Centre for Higher Education Transformation (CHET) [85] in South Africa all of which provide online copies for free and charge a fee for hard copies.[86] The CHET example is particularly interesting because, unlike the other scholarly publishers listed here, CHET is an open access publisher and uses a Creative Commons Attribution-ShareAlike 4.0 International Licence (see Appendix G for more details).

Finally, there are lessons to be learned from the experience of open access in the research sector. Much of the donor community now requires that the research it funds be made publicly accessible within twelve months of journal publication. Moreover, these same funders will support publishing costs incurred by their grantees in fulfilment of this requirement. This is discussed in more detail in Appendix G.

Grappling with the challenges of open licensing

The kinds of opportunities outlined above are not uniformly positive, especially for those organizations whose business models predate digital disruption and open licensing. For example, the Molteno Institute for Language and Literacy (MILL), which is a longstanding literacy NGO based in South Africa, has been grappling with the challenge of open licensing in a context in which it has

[81] Caylie Gnyra, personal communication to Sarah Hoosen, 18 January 2016
[82] Nature Publishing Group. Retrieved from http://www.nature.com/
[83] Research Information. (2015). 2015 will be a year of change in professional publishing, says Simba report. Retrieved from http://www.researchinformation.info/news/news_story.php?news_id=1841
[84] A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas. (n.d.). Retrieved from http://www.nap.edu/catalog/13165/a-framework-for-k-12-science-education-practices-crosscutting-concepts
[85] CHET Books. Retrieved from http://chet.org.za/publications
[86] CODESRIA. CODESRIA Publications in full text. Retrieved from http://www.codesria.org/spip.php?rubrique65

historically relied on a more traditional publishing business model. Seeing the potential opportunities of open licensing, as illustrated from the examples above, the Department of Basic Education in South Africa, together with one of MILL's primary funders, the Zenex Foundation, has recently made access to materials under an open licence a requirement for ongoing partnership. The Molteno board of directors reflected very sharply on this and independent of the funder, and saw merit in the model.

MILL recognizes that these developments represent both a risk and an opportunity. They are a challenge because the Institute's business model has historically relied strongly on it behaving – in many ways – like an educational publisher and relying on protecting its Intellectual Property (IP) to generate revenue to sustain itself. It is now clear that the above trends threaten to undermine Molteno's sustainability, with the accompanying risk that access to its IP will be lost to South African and African schools, teachers, and students. However, the digitization of information and ease of sharing also provides Molteno an unprecedented opportunity to scale up the impact of its methodologies by sharing them ubiquitously with education systems in South Africa and beyond.

As a result, MILL is currently in the process of developing a new business model, which is based on sharing all of its educational resources and content freely under a suitable Creative Commons licence, to enable others to copy and share these resources without paying licensing fees. This is involving the following steps:

- Further development of Molteno's educational resources to ensure that it is able to present a comprehensive suite of literacy materials under open licences for use by governments and schools. Like Pratham Books, Molteno recognizes that investment in this development is only possible with funds either from government or from donor agencies.
- Packaging and release – via the Molteno portal – of all of the Institute's educational resources under Creative Commons licences, combined with an integrated payment gateway and printing/distribution capability that allows cheap purchase of high quality printed versions of these materials online, either individually or in bulk purchases.
- Review and streamlining of Molteno's core services to ensure that they are both contextually relevant and up-to-date and provide clear, sustainable business opportunities for the organization. The focus in this regard is particularly on its teacher training services, as well as developing a dedicated research and evaluation service focused on literacy, which aims to provide services in completing feasibility studies, policy research reports, academic papers, evaluations of Molteno and other literacy interventions, and other related research activities.
- Design and implementation of change management strategy to support Molteno in making a successful transition to its new business model.

However, this transition is a work in progress, and has already forced the organization to undergo many painful changes. The organization hopes that these changes will usher in a period of new opportunities for the organization or extend the period of sluggish growth which would result in further pains as it tries to attract funds for its newly found business model of content development. As an NGO, Molteno is well respected for the quality of its materials and its teacher training methodology, so losing access to its resources and expertise would be a loss to the early literacy sector as a whole (the type of loss that has sadly been all too common historically in this sector when organizations have had to shut their doors due to a lack of financing). Therefore, as this example illustrates, when pressure is applied by governments and donor agencies on organizations to harness innovations, this needs to be accompanied by clear strategies to facilitate transitions to new business models. Fortunately, in this case, the Zenex Foundation is currently providing such support to MILL, but this is unusual, especially in cases where government and donor initiatives are focused exclusively on short term delivery targets and not on supporting the growth and development of sustainable ecosystems.

Storybook management and storage

The examples of Storyweaver and ASb above illustrate an important shift in what becomes possible when content is digitized and shared under an open licence, namely the ease and flexibility of sharing that content online. In addition to enabling free and open access to both printable and e-reader versions of their stories, these platforms have gone one step further and made available, as separate files, all of the images from their stories so that these too can be used as resources in new content. As development of these images has typically been funded through a financed project (in this case, using donor/philanthropic sources of income), their cost has already been covered and so making them available for re-use by others makes sense from a financial perspective. Of course, there is still a long-term problem of ensuring that these sharing platforms themselves are sustainable, so it is important for the funders of the early literacy reader ecosystem to ensure that funding streams cover these costs, and for initiatives such as these to build platform development, hosting, maintenance, and management activities into their business models (without underestimating the real, long-term costs of these activities).

Another interesting aspect of this online sharing of stories has been the sharing and translation/adaptation of stories between Storyweaver and ASb. As was noted earlier, this process took place 'manually', with content of stories being shared through the interaction and actions of people within both projects. However, given that the underlying content (text and images) of the stories is all digitized, there is no reason why such sharing might not be automated in future, with common data protocols and data-sharing standards enabling users of these platforms to 'see' the underlying content of stories across a network of online platforms. This would become a tremendously powerful and cost-effective way of platforms such as Storyweaver and ASb being able to increase the number of stories available in different languages through adaptation and translation, a process which the statistics of both websites already shows works very successfully. More importantly, it would build redundancy into the platforms, as content-sharing between these platforms would help to ensure that – even in the event that one of the initiatives comes to an end due to lack of funding – its content and stories could remain accessible through the other platforms in the resource-sharing network. This is preferable to the idea of building a single global repository of stories (which has been mooted by some funders), as the latter concept diverts funds away from initiatives whose core business is content creation and distribution, while creating yet another new initiative that demands precious funds for sustainability.

In another context, an initiative called panOpen was founded in April, 2013. The company describes itself as a learning platform founded exclusively on OER,[87] and describes itself as 'a new breed of courseware, one that preserves the low cost and flexibility of open content while embracing learning technologies that support faculty and student success'.[88] At first glance, panOpen seems like another OER repository with peer reviewed and rated content and a library of subject categories consisting of courses, textbooks, video, tests software, and syllabus. However, the combination of platform and open content allows panOpen to offer each institutional user a range of value add services that include the options to[89]

- Curate their own library of OER titles;

[87] Kelly, R. (2016) New OER-Based Learning Platform Provides Alternative to Traditional Textbooks. Retrieved from https://campustechnology.com/articles/2016/01/26/new-oer-based-learning-platform-provides-alternative-to-traditional-textbooks.aspx

[88] Kelly, R. (2016) New OER-Based Learning Platform Provides Alternative to Traditional Textbooks. Retrieved from https://campustechnology.com/articles/2016/01/26/new-oer-based-learning-platform-provides-alternative-to-traditional-textbooks.aspx

[89] TMCCLibGuides. (n.d) Open Educational Resources: An Opportunity to Enhance Student Success: OER Resources. Retrieved from http://libguides.tmcc.edu/c.php?g=438080&p=2985233

- Customize (revise, reuse, remix redistribute) content for their particular curriculum and learning objectives; and
- Reward stakeholders with a revenue sharing arrangement.

The technologies included within the platform are designed to support advanced customization and include remixing tools, student analytics, note-taking tools, and real-time chat.

What makes panOpen different from most other OER initiatives is that it not only collects and shares OER content, but is attempting to make OER more sustainable by marrying distributed content development with a system of distributed financial incentives.[90] The combination of customizable content, free tools and services, and revenue sharing makes it possible for both academics and students to benefit. Academics are incentivized to provide resources and students pay $25 for access to high quality content and technologically-rich open source courseware and tools instead of spending large amounts of money on textbooks.

While the financial compensation system has raised concerns in the open community, the incentives are, according to founder Brian Jacobs, a means to incentivize and align a platform for openness that can empower faculty members and institutions in unprecedented ways. He believes that, 'when this all comes together then courseware will escape commodification and become a creative and low-cost force in education'.[91] Local content creation organizations in early literacy might ostensibly partner with platforms like Storyweaver and ASb based on similar business models.

More generally, in the OER field, there are numerous examples of content sharing. For example, Curriki provides a community for teaching and learning, allowing users to explore, create, and share K-12 content. Users can find and curate resources, filter resources by standards, easily identify resources approved by other teachers, filter searches to match user specifications, search for resources by standards, upload and share resources, and rate or review resources.[92] In another example, CK-12 provides access to multi-modal content and a personalized learning system for their direct use or for use by the student's teacher. All of its content is OER, and it focuses on continuous content enhancement through user-generated content, as well as partner tools and content.[93] OER Commons allows users to search across over 50,000 vetted and fully-indexed OER, allowing for a high level of resource relevancy and discovery. It has also forged alliances between trusted content providers and creative users and re-users of OER.[94] The US National Science Digital Laboratory (NSDL) is another instance of resources that permit content creation, adaptation, and sharing. The NSDL website provides high-quality online educational resources for teaching and learning, with current emphasis on the sciences, technology, engineering, and mathematics from pre-school through university levels. Although not all of the resources are OERs, many are. It is also possible to suggest educational materials to add to the site.[95]

Printing and distribution

Notwithstanding the increased flexibility that online platforms and open licensing provide in terms of story creation and easy access to digitized versions of those stories, the reality for the vast majority of

[90] Jacobs, B. (2014) OER Beyond Voluntarism. Retrieved from https://www.insidehighered.com/views/2014/08/28/open-educational-resources-movement-needs-move-beyond-voluntarism-essay
[91] Jacobs, B. (2014) OER Beyond Voluntarism. Retrieved from https://www.insidehighered.com/views/2014/08/28/open-educational-resources-movement-needs-move-beyond-voluntarism-essay
[92] Curriki. Retrieved from http://www.curriki.org/
[93] CK12. (2010) CK12 Vision Document. Retrieved from http://www.ck12.org/about/wp-content/uploads/2012/10/ck12-vision-document.pdf
[94] OER Commons. Retrieved from https://www.oercommons.org/about
[95] National Science Digital Library. Retrieved from https://nsdl.oercommons.org/

young children in low-income countries is that, to the extent that stories are available at all, they are likely to be accessible only when they are distributed in a print format. Despite the often-repeated statements of the democratizing potential of digitized content, the simple reality is that hardware and connectivity costs, weak Internet penetration, and the challenges of technical maintenance and upgrades in low-income countries mean that this potential remains largely unrealized. Consequently, efforts to integrate digital devices into schooling systems in low-income countries have typically ended up as expensive, unsustainable failures. Thus, printing and distribution of early literacy readers remains an essential component of providing access to those readers for young children.

When it comes to printing and distribution in early literacy, the considerations revert to those of a more traditional supply chain, though disaggregation of the traditional publishing supply chain enables independent analysis of this side of the problem. As the example of Pratham Books has demonstrated, this can introduce new efficiencies into the printing component of the early literacy reader ecosystem, significantly reducing the cost of printed stories. In addition, though, it also allows comparisons with other sectors in order to learn lessons about printing and distribution.

For example, as part of the feasibility study commissioned by USAID to explore the establishment of a Global Book Fund, the research process has explored parallels with the health sector, particularly in the area of supply chains for medical products such as vaccines. If one has to explore supply chains in their entirety, such comparisons would have limited value, as the process of researching and creating vaccines is so fundamentally different from content creation for early literacy. However, if one focuses more specifically on distribution only, then there are many lessons that can be learned from vaccination programmes, as it matters significantly less whether the basic units being distributed and tracked are vaccines or books. Creative solutions to solving problems of inefficiencies, corruption, and tracking delivery in supply chains can therefore more easily be transferred from one sector to another as digital disruption increasingly allows independent consideration of each component of the early literacy reader ecosystem.

In addition, though, there are several innovations flowing from digital disruption that are worth exploring further. Although some do not have immediately obvious applications in early literacy in low-income countries, they may provide some options that help to solve the overall problem in ways that build local capacity to sustain printing and distribution businesses once donor funded projects end.

Print on demand

Print on demand (POD) is a book distribution system or process made possible by digital printing. It prints individual copies or a small number of books in response to orders, printing the exact number required. When using a POD system, two files are accessed electronically (either from a website or a database), one digital file for the book interior and one digital file for the cover. The titles are submitted as electronic files or as hard copy, examined for technical errors and a proof copy of the book is created for review. Once signed off, the book is listed in the database ready for distribution to a range of channels.[96] Titles in the system entered into catalogues are available to wholesalers, retailers and booksellers. The company providing the POD service usually handles all aspects of order management including receipt of payment, printing, and delivery. It then pays the author for the books that have been purchased each month.[97]

Advantages of POD are that it brings the book closer to the reader, eliminates the need to keep books in an inventory, allows books without substantial sales to stay in print, vastly reduces the investment

[96] Friedlander, J. (2009). How Print-on-Demand Book Distribution Works. Retrieved from http://www.thebookdesigner.com/2009/12/how-print-on-demand-works/

[97] See for example Lightningsource. Your Compass. Retrieved from https://www.lightningsource.com/

needed to maintain a large backlist, and eliminates the waste and expense of pulping thousands of unsold books. Disadvantages are that digitally printed books cost more per unit than books printed offset, digital printing is not efficient for books that will sell in volume, and digital printing's quality and flexibility of formats is not as good as offset printing.[98]

An interesting POD model is Meganews in Sweden. Meganews magazines are experimenting with POD kiosks at airports, train stations, and shopping malls, printing out magazines based on customer's choice from approximately 200 titles. Its model appears to be partly motivated by sustainable environmental factors, as it notes that its offering 'means 60 per cent less emissions of greenhouse gases than traditionally sold magazine'.[99] The machine (occupying less than 4 square meters) is connected to the internet and can download upon request the latest PDF files from any partner publisher's server. It allows customers to choose the publication they want to buy via a touchscreen, pay with a credit card, and get a copy, printed immediately, in two minutes.[100]

With the miniaturization of printing devices, retailers are also able to make use of decentralized POD. One example is the Espresso Book Machine, which can be installed in shops and prints whole books in minutes. The South African start-up Paperight connected copy shops with a database of ebooks, so that customers could print out ebooks at their local store.[101]

The Uganda Digital Bookmobile, which was carried out in 2003 with $150,000 in funding to Anywhere Books in the United States[102] from the World Bank's InfoDev project, is an earlier example of POD. The project's main goal was to use mobile POD technology to distribute books at all reading levels to rural populations. An Internet Bookmobile was based at the Public Library in Caezaria and travelled to rural villages to print requested books for children and adults (these books were already in the public domain). In addition, a POD station was based at the Caezaria Complex Public Library and a scanning station deployed at the National Library in Kampala. The latter equipment enabled Ugandan materials to be digitized and printed on demand by the bookmobile. One important expected outcome of the project was to be a plan for nationwide book mobile replication,[103] but this did not materialize. Costs for maintaining the project were to be the responsibility of the severely underfunded National Library. In an email, Charles Batambuze, the project manager for the Mobile Digital Bookmobile explained the project in more detail:

> *It was a very exciting project that used internet to download books from the Internet archive web site with thousands of public domain books; print them off huge LaserJet printers, bind and cut to shape, using paper cutters. All this equipment (was) aboard a van. Electricity was provided by on-board chargeable batteries. It used the internet and POD to deliver storybooks to almost 20,000 rural school children and their teachers. The downside to the project was that books were printed in black and white and the laserjets were an expensive way to produce books. Otherwise the project in its lifetime delivered a large quantity of books to learners. They would choose which books they wanted to read and these would be printed, bound and cut.*[104]

[98] Friedlander, J. (2009). How Print-on-Demand Book Distribution Works. Retrieved from http://www.thebookdesigner.com/2009/12/how-print-on-demand-works/
[99] MegaNews magazines. Retrieved from http://www.meganews.com/
[100] Zareva, T. (n.d.). This Innovative Solution Takes Printed Media into the Future. Retrieved from http://bigthink.com/design-for-good/this-innovative-solution-wants-to-take-printed-media-into-the-future
[101] Klein, N. A. (2013). New business models in book publishing: An analysis of start-ups and their strategies. Master Thesis - Masters of Business Administration (MBA). Retrieved from https://www.academia.edu/6306101/New_business_models_in_book_publishing_An_analysis_of_start-ups_and_their_strategies
[102] Anywhere Books was an offshoot of the Internet Archive. Although the Archive is still in existence, Anywhere Books is not.
[103] InfoDev. (2003). InfoDev Annual Report (Rep.). Retrieved 4 May 2016, from InfoDev website: http://www.infodev.org/infodev-files/resource/InfodevDocuments_480.pdf, page 23
[104] Charles Batambuze, personal communication to Lisbeth Levey, 3 May 2016

While POD printing is possible for children's books, there are limitations. In an email, Justin Cox, CEO of the African Books Collective explained:

> *If we get a children's book in a square shape: 216 x 216 we can make it available POD... Lightning Source can do bespoke printing and have plans to expand their trim size offerings but for now we are limited to the square shape, which means we cannot do much with children's books POD.*[105]

In an earlier email, Cox explained in more detail why POD presents major challenges for children's book publishers:

> *Colour printing POD has come a long way since we started using POD almost 15 years ago, but trim sizes have not. Even the big Ingram-owned machines cannot produce landscape size books. The closest children's book size POD is a square shape. So the vast majority of children's books we have we need to stock, which is why they go out of print…The costs of colour POD books are very much higher than short-run or offset printing, the expected market price for these books is low making POD production uneconomic even if a square shape can be used. This is largely why even outside Africa the sizes needed for picture books have not been developed for POD; there is no demand as the costs do not work.*[106]

This issue of POD not being suitable for young children's books in terms of quality and cost was also echoed by other interviewees:

> *Early learning (involves) big illustrated, graded readers, and shared readers…POD is not great for big book stuff. But it's okay for graded readers.*[107]

> *For a four colour children's book of 12 page, they say the unit costs are more than $3 or $4. How much are you going to sell it for? So you see, the quality is not even there. It is better to print with a printer – and print 1,000 and get unit costs really down.*[108]

Developments in digital inkjet printing

The industry standard for printing has traditionally been offset printing. However, this printing process has longer workflow times and is less cost effective. Increasingly, commercial inkjet printers are becoming faster, more reliable and producing better print quality, high-speed inkjet printers now capable of printing text at up to 4,000 words per minute, and speeds for images and graphics are not far behind. Advances in digital print technology also allows for more intricate designs, varying surface finishes and more realistic depth for three dimensional graphic designs.[109]

Hybrid printing

Hybrid printing is the combination of one print job using two different printing technologies, and thus publishers have the option of combining traditional print options with new ones. Hybrid printing allows digital printing and offset printing[110] to be integrated due to computer-to-print-plate automation. This process allows the user to send image files to electronic plates that are able to recognize them. This allows for more complex print projects with different colours and finishes.[111]

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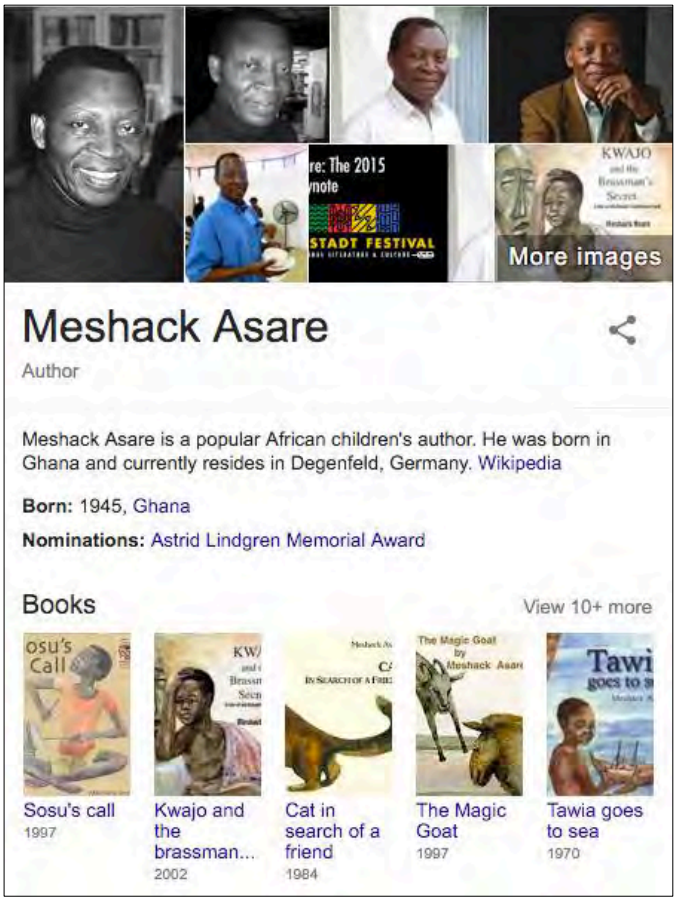
[105] Justin Cox, personal communication to Lisbeth Levey, 15 May 2016.
[106] Justin Cox, personal communication to Lisbeth Levey, 15 December 2015
[107] Garry Rosenberg, personal communication to Sarah Hoosen, 24 February 2016
[108] Sulaiman Adebowale, personal communication to Sarah Hoosen, 2 February 2016.
[109] B2Cprint. Latest Advancements in Print Industry – What's New. Retrieved from http://www.b2cprint.com/latest-advancements-in-print-industry-whats-new/
[110] Offset printing is when an inked image is transferred from a plate to a rubber blanket and then onto paper. When combined with a large roll (web) of paper, web offset printing offers the option of a large print run at a reasonable unit price.
[111] B2Cprint. Latest Advancements in Print Industry – What's New. Retrieved from http://www.b2cprint.com/latest-advancements-in-print-industry-whats-new/

The benefit of hybrid printing is that printers have the option of which technology to use depending upon the number of copies, the deadline, quality level, and other customer requirements. In general, offset printing is preferred for better colour accuracy, quality typography and allows for greater choices when it comes to print materials or special effects. For a high volume print job the unit costs of offset printing are drastically reduced, because, once the set-up is complete, printing extra units are relatively cheap to print.[112] On the other hand, digital print runs enable shorter print runs, does not cost as much to set up as traditional printing and is quick. However, larger print runs are expensive when printed digitally.[113]

Direct-to-consumer distribution

Figure 3 Finding Meshack Asare online



Publishers and authors are exploring direct-to-consumer (D2C) programmes. This method usually involves a website that helps readers to discover an author's titles. The web, in combination with social media enables authors to market their titles on an 'easy to find' site. Once found, authors and publishers can sell books directly to consumers through an 'easy to buy' personal sales page. Authors and publishers can use plug-ins and add-ons that manage promotions, shopping cart functionality, checkout, and payment processing.[114] By selling directly to consumers, royalties are increased as a large portion of the distribution chain is cut out. All of the publishers interviewed for this paper have websites to market their titles. Web searches on an author's name can have the same results in both publicizing books and making it easy to buy them. Figure three is an example of a Google Search for the Ghanaian author and illustrator, Meshack Asare.[115] Importantly, this model requires effort in building a community around authors, a brand or genre, and consumers.[116] It would also require donors funding local content creators to invest in setting up systems that can contribute to their longer-term sustainability, rather than simply seeking to extract completed content from them at the lowest price.

[112] Cass, J. (2012) Digital vs Traditional Offset Printing: Pros & Cons. Retrieved from http://justcreative.com/2012/05/01/digital-vs-traditional-offset-printing/
[113] DiditDM.(2015).Pros and cons of digital printing. Retrieved from http://dm.didit.com/blog/pros-and-cons-of-digital-printing/
[114] Izenwasser, M. (2015) Three Direct-to-Consumer Steps Every Publisher Can Take. Retrieved from http://www.digitalbookworld.com/2015/three-direct-to-consumer-steps-every-publisher-can-take/
[115] Meshack Asare. (n.d.). Retrieved April 23 2016, from https://www.google.co.il/search?q=meshek asare (Google even corrects for typos. The search was actually for Meshek Asare.)
[116] Wikert, J. (2015). Direct-to-Consumer (D2C) Starts with Building Community, Not Owning the Sale. Retrieved from http://www.bookbusinessmag.com/post/direct-consumer-d2c-starts-building-community-owning-sale/

Fulfilment centres

Another significant development in books distribution is the growth of fulfilment centres. Essentially, a fulfilment centre is a location where incoming orders for books are received (from affiliated stores or locations), processed, and filled. These centres can work independently of specific companies where orders are outsourced for the purpose of responding to customer orders.[117] Typically, a fulfilment centre stores the inventory, accepts order, bills and collects from the end buyer, packs and ships the books; and processes returns. Some fulfilment centres also help publishers with web design, setup of e-commerce sites or shopping carts, website management, ebook solutions, sales report generation, royalty reports, sales commissions, sales campaign tracking, outbound sales calls, inventory management (including POD), and assembly of Point-of-Purchase (POP) displays.[118] Fulfilment centres offer opportunities to use data to leverage the supply chain. Data can be used to optimize service properties, such as delivery time, resource utilization and geographical coverage.[119] At least in principle, fulfilment centres servicing multiple printing and distribution requirements across different economic sectors might provide a way to begin to develop more sustainable distribution capacity in low-income countries, which could in turn reduce the costs of book distribution for early literacy. However, this would depend on funders being willing to invest in developing this local capacity rather than simply focusing narrowly on procuring once-off distribution services from existing distribution agencies (most of which are likely to be international companies in low-income countries).

Automatic replenishment

Automatic replenishment is an inventory management model in which small numbers of books are stored in a warehouse, reprints are triggered automatically when stock runs low, and the publisher only pays for the printing of each copy when it ships out of the warehouse.[120] OR Books uses an Automatic Replenishment Programmes (ARP) to print books and fulfil orders. The publisher defines minimum stock levels and an automated reprint level for each title. Reprints are triggered automatically when the reprint level is reached. The printed works are then delivered to fulfilment or other distribution centres. [121]

Leeper comments that, while 'ARP unit costs viewed in isolation are higher than if the books were printed in long offset runs, they are lower when the cost of unsold conventionally printed books is factored in'.[122] Another important part of the success of this model is the elimination of the cost of printing books that never sell.

Optimizing distribution

Publishers and fulfilment centres have been experimenting with a range of technologies to optimize service properties, such as delivery time, resource utilization, and geographical coverage. Amazon, for example, uses big data to monitor, track and secure 1.5 billion items in its inventory that are located around 250 fulfilment centres around the world. Their fulfilment centres are not only intended for

[117] BusinessDirectory.com. Fulfilment centre. Retrieved from http://www.businessdictionary.com/definition/fulfillment-center.html
[118] Shay, K. (2011). In the Publishing Industry…The Difference Between Wholesalers, Distributors and Fulfilment Services. Retrieved from http://www.ware-pak.com/blog/fulfillment/distribution-options-for-publishers/
[119] Mikavicaa, B., Kostić-ljubisavljevića, A., & Radonjić, V. (2015). Big data: challenges and opportunities in logistics systems. Retrieved from http://logic.sf.bg.ac.rs/wp-content/uploads/Papers/LOGIC2015/ID-31.pdf
[120] Leeper, D. (2014) Direct-to-Consumer Sales as a Core Book Publishing Business Model. Retrieved from http://www.bookmobile.com/publisher-case-studies/direct-consumer-core-book-publishing-business-model/
[121] CPI. Auto Stock Replenishment. Retrieved from http://www.cpi-print.co.uk/services/auto-stock-replenishment/
[122] Leeper, D. (2014) Direct-to-Consumer Sales as a Core Book Publishing Business Model. Retrieved from http://www.bookmobile.com/publisher-case-studies/direct-consumer-core-book-publishing-business-model/

Amazon products, but through a programme called Fulfilment by Amazon (FBA), which allows other sellers to list their items on its website and allows them to outsource shipping.[123]

Another innovation used in book distribution is Radio-frequency identification (RFID), a broad term for technologies that use radio waves to automatically identify people or objects.[124] This technology offers the opportunity to track products by 'tagging' them with a small electronic device that contains information. This information identifies the product and enables the movement of the tagged item to be tracked through the supply chain, from the printer to the book buyer.[125] This system thus allows for real-time accurate tracking capabilities, allowing better visibility and control of inventory.

Expanded distribution

Expanded distribution is similar to the traditional model of book distribution, where a book is printed ahead of time (using offset printing) and stored at a warehouse. A benefit of this distribution method is that the distributor[126] can send copies of a book and its marketing materials to buyers, and this exposure increases chances of getting placed in bookstores. A distributor then fulfils orders using the printed inventory. This option is regarded as more viable for children's books due to speciality printing options. However, it does come with higher up-front costs, and books need to be printed in advance, as well as higher risks as if there may be leftover books if the printed book inventory does not sell.[127]

This section has provided just some examples of innovation occurring in print and distribution (see Appendix F for more details on changes occurring in the publishing industry). What is clear from these discussions is that printing and distribution is rapidly evolving as technologies become more sophisticated. These innovations, if combined with other innovations in content creation, storage and management, might provide at least some creative solutions to the multi-faceted challenges of early literacy reader delivery to young children in low-income countries.

What are the implications for the supply and use of early literacy reading materials in low-income countries?

The issues outlined above, as well as the more detailed information and case studies presented in the appendices to this report, have several implications for anyone planning early literacy investments and initiatives in low-income countries.

Nothing beats a book if you want to learn to read.

Without sufficient access to written text, both in the classroom and elsewhere, young children will not master sufficient reading skills and learn to enjoy reading. One successful way to improve the reading achievement of children in low-income countries is to increase their access to print. Data from the United States indicate that communities ranking high in achievement tests share some common

[123] Amazon Services. Fulfilment by Amazon. Retrieved from https://services.amazon.com/fulfillment-by-amazon/how-it-works.htm

[124] Shahid, S. (2005) Use of RFID Technology in Libraries: a New Approach to Circulation, Tracking, Inventorying, and Security of Library Materials. Retrieved from http://unllib.unl.edu/LPP/shahid.htm

[125] Dehainaut, D. (2007) RFID: The Future in Book Technology. Retrieved from http://www.thebindingedge.com/article.asp?ID=40#.VxOoHlR97IV

[126] A book distributor acts as a link between the publisher and retailer in cases where the publisher does not want to be involved in the direct selling process. Distributors typically sell books on consignment, and pay publishers a certain percentage of the list price (generally 40% off the list price) for each unit sold. The distributor acts as marketer, and is involved in warehousing, and shipping, selling books to libraries, wholesalers, and bookstores.

[127] Which Type of Book Distribution Is Right for Me? (n.d) Retrieved from https://www.millcitypress.net/author-learning-center/type-of-print-distribution

factors: an abundance of books in public libraries, easy access to books in the community at large, and a large number of textbooks per student. Furthermore, the only behaviour measure correlating significantly with reading scores is the number of books in the home. An analysis of a national data set of nearly 100,000 United States school children found that access to printed materials was a critical factor impacting on acquiring reading skills.[128] What does it take, though, to get books in the hands of children that need them most and how can this be augmented by digital disruption and open licensing? The remaining implications in this section lay out the major issues that can militate both for and against access to appropriate early literacy resources.

There are no traditional market mechanisms for sustainable investment on creation of content for local language early literacy materials in low-income countries.

Although this point may seem obvious, it is an important one as it indicates clearly that creation of this content depends exclusively on investments either by governments or donor agencies. This places an additional burden of responsibility on those government and donor agency planners, as it means that the projects that they plan need to consider both achieving specific project outcomes and simultaneously supporting sustainable creation of local capacity in the various related components of the early literacy materials value network. If the need to sustain this local capacity is not factored into project planning, it leads to massive long-term wastage as individual projects routinely create capacity that is then rapidly lost to the system after the project is completed. This was noted by at least three research participants, who highlighted the need to consider how to ensure long-term access and sustainability, beyond individual project objectives, for example:

> *The wastage, I believe, in terms of capacity is often due to the fact that so many bilateral and multilateral investments try to sidestep the business of publishing and fund the creation and distribution of a single print-run within the project or within the Ministry, with little thought to ongoing supply.*[129]

In addition, especially in a context in which digital disruption and open licensing have enabled a disaggregation of the traditional publishing value and supply chains, it suggests that project planners should include dedicated streams of funding to support local content creation, independently of the focus on printing and distribution of that content. This point leads to the second key implication.

Disaggregation of the traditional publishing supply and value chains enables the integration of new players into the content creation component of the early literacy materials value network.

Case studies showcased in this report have provided many examples of how digital disruption and open licensing enable the integration of new content creation players into the field of early literacy, whether it be geographically distributed team of expertise, harnessing education students, or creating special-purpose content creation events with expert volunteers. Importantly, the use of online content creation tools and workflows means that content creation teams (authors, illustrators, editors, and language experts) no longer need to be located in the same geographical space or to use the traditional linear workflows of the old publishing value chain. This powerful logic can be harnessed to establish content creation teams that are geographically dispersed, thus enabling content creators in low-income countries to be actively involved in development of early literacy materials even in cases where their teams lacks the full range of skills required to produce high quality reading materials.

If online workflow systems are carefully designed, the process of establishing dispersed content creation teams can be used cost effectively to provide ongoing professional development support to local publishing companies, NGOs, and other content creation organizations and individual experts to

[128] Scholastic. Access to Books. Retrieved 14 March 2016 from http://teacher.scholastic.com/products/face/pdf/research-compendium/access-to-books.pdf

[129] Scott Walter, personal communication to Lisbeth Levey, 18 May 2016.

build their capacity in developing early literacy materials, as well as augmenting their capacity where required with experts from other countries. Although some of this capacity development may initially require face-to-face interaction through story development workshops, capacity development support can also then be continuously provided through online collaboration and interaction. For this to work successfully, though, both governments and donor agencies will need to see development of local content creation capacity as a valuable outcome in its own right, rather than being fixated on short-term targets of numbers of readers created, translated, and/or adapted in specific languages.

Targeting local content creation capacity in early literacy should be seen as part of a broader base of building sustainable publishing capacity for local languages in all sectors.

Our review of local publishing capacity in the early literacy sector reveals clearly that working in this space is typically more a 'labour of love' rather than a viable economic activity. However, many of the organizations and experts trying to work in this space are important not only because of their local knowledge and expertise in early literacy, but also because they are critical components of a broader media creation and publishing industry that is typically struggling to survive in many low-income countries. And building literacy in local languages is important not only for educational purposes, but also because of its longer-term value in building a wider capacity that is critical to developing stronger cultural industries in countries where this industry has often been systematically undermined and undervalued for many years. Again, the examples of digital disruption and subsequent innovations in content creation and printing of materials illustrate that there are new, exciting ways in which this industry can be helped to develop that can simultaneously meet the goals of early literacy initiatives and contribute to growing local publishing capacity. If, however, large-scale literacy initiatives simply continue to invest in traditional publishing value and supply chains, the likelihood of building this capacity locally will be undermined, as these new ways of operating will typically be overlooked by such initiatives.

Digitization of content, combined with use of open licensing, enables rapid, cost effective creation of new content.

The examples of Storyweaver and ASb have illustrated how online content creation tools, when combined with openly licensed access to text and illustrations from existing stories, can be used to create 'new' stories (i.e. translated and adapted stories) very cost effectively, thereby allowing for a proliferation of content at a relatively low cost. Importantly, these examples are only scratching the surface of what might become possible if the underlying text and uncompressed illustrations from stories can be more seamlessly transferred between different content creation platforms without requiring manual processes of sharing, as this can unlock exponentially more access to high quality source materials that can be instantaneously shared globally.

At this early stage, the focus on content sharing online tends to be on completed resources (images, PDF files, and online versions of storybooks). While this, combined with access to online tools for story adaptation and translation, is useful, there is a next level of sharing that has potential to drive much greater global collaboration and more cost-effective creation of new resources for early literacy. This involves sharing the underlying assets needed to adapt stories and resources outside of the platforms themselves, making available the text and images (i.e. the assets) of the stories for automated importing into other people's platforms and content creation tools (as is currently possible with exporting and importing of courses between learning management systems that use common data standards and data-sharing protocols). Likewise, it will be useful to ensure that uncompressed versions of images and desktop publishing (DTP) files are accessible to enable others to edit these files rather than only being able to use them in their compressed form.

Thus, if the somewhat outdated, expensive idea of maintaining centrally curated content repositories can be replaced by networked platforms of content creation and sharing, this can help to shift

spending to local content development initiatives, thereby enhancing their sustainability and helping to further reduce their costs of content development. And, if networked platforms such as Storyweaver and ASb embrace open source software, open data standards, and open data sharing protocols, their investments can enable new content creation agencies to harness these platforms and tools, thereby joining a global network of early literacy materials development and sharing with very little cost.

Open licensing poses threats to nascent content creation organizations if it is not implemented responsibly.

As government funders and donor agencies come to appreciate the economic potential of open licensing, it is increasingly the case that they are all requiring that their investments in content creation be used to produce openly licensed content. While this does indeed enable various of the innovations described in this report, it also has potential to undermine fragile existing business models on which many local content creation agencies currently depend. Consequently, the requirement to release content under an open licence carries with it an accompanying responsibility to support local content creation agencies to develop sustainable new business models that can extend both beyond content creation and early literacy. It may also require long-term commitments to those agencies to support ongoing content creation in early literacy, given that there are often no sustainable sources of income beyond donor funding. Unless this is done, the requirement to share content under an open licence has serious potential to destroy this local content creation capacity, and may result in the channelling of donor funds into projects managed by large international companies whose business models do not depend exclusively on early literacy work in low-income countries for their survival. While this may be more efficient in the short term, its long term negative effects on sustainable solutions to the growth of publishing capacity in low-income countries will most likely be devastating.

Disaggregation of the early literacy materials value network enables investments in local printing and distribution capacity that does not only service literacy or education.

Reports on early literacy have often noted that the absence of up-to-date printing technologies in low-income countries drives up the cost of printing and distribution of early literacy materials in those countries. This problem is worsened when procurement of services relies on traditional publishing supply chains, because tenders can only be won by companies that have all of the skills and capacity required to manage that supply chain. However, in the same way that digital disruption enables the drawing in of new market players in content creation, so too will it enable the use of printing and distribution services from organizations that might service multiple economic sectors within a country. This would strengthen the argument for investing in the kinds of printing technologies that could enable cost-effective printing of early literacy materials, particularly if those initial orders were on a sufficient scale to raise the capital to make these equipment investments. And, where openly licensed materials break the monopoly on who can subsequently print the materials, this enables investment in local printing and distribution capacity that, with proper business planning support, can remain sustainable after projects by providing printing and/or distribution services for multiple government and business requirements. Again, though, harnessing this opportunity requires an approach to investment in literacy development that sees long-term sustainable capacity to sustain the early literacy materials value network as being just as important as once-off distributions of large numbers of materials to individual learners.

More flexible procurement mechanisms are needed to draw in local players without proliferating administrative bureaucracy, both for the funders and the funded.

Given all of the above, careful consideration should be given by government funders and donor agencies to how best to leverage the many opportunities created by digital disruption and open licensing in the design of literacy initiatives and subsequent procurement of services. Continued

investment in traditional publishing value and supply chains, especially for initiatives operating at a large scale, is likely to prejudice procurement processes in favour of large international companies and at the expense of growth and development of sustainable local capacity. In addition, design of initiatives that focus exclusively on short-term targets like numbers of storybooks distributed are unlikely to support the sustainable development of this local capacity, despite its obvious importance in creating compelling reading materials in local languages for young children. Likewise, procurement processes that necessitate end-to-end service delivery through a traditional publishing chain are likely to require procurement instruments whose administrative demands are out of reach for the vast majority of local players, thus skewing spending patterns in favour of international publishing companies and consulting firms whose business models are geared specifically towards servicing these types of procurement requests. This perpetuates a skewed pattern of investment that sees disproportionate amounts of development funding building delivery capacity in companies that are domiciled in the Western world at the expense of those local players whose existence is essential to long-term sustainability of literacy initiatives in low-income countries.

The examples of content creation and sharing facilitated by digital disruption and open licensing documented in this report demonstrate clearly, that relatively modest investments in those activities can generate significant results, while opening the space for separate printing and distribution expenditure that can specifically target sustainable creation of local printing capacity. To work successfully, though, those investments require procurement mechanisms that can enable smaller, local players to compete effectively. They also require project designs that see development of this local capacity to develop and share high quality materials as being equally important to producing new content. Finally, responsible donor spending, when requiring the use of open licensing, should be accompanied by processes intended to help those local players to think through how to harness open licensing within the framework of viable new business models in a context where those business models are not yet well understood or fully developed.

Collaboration amongst organizations working in the field of early literacy can promote efficiency and better quality.

Our research showed instances of organizations unnecessarily duplicating the efforts of others, while perhaps being unaware of each other's work. Likewise, there are parallel resources that could be brought to bear in enhancing the efficiency of initiatives in the field of early literacy. This is especially true of training materials. Collaboration amongst groups and documentation of appropriate resources available through the Internet might make it possible to enhance and expand efforts already underway. For example, various organizations have written training materials for authors, illustrators, and teachers, but they are only available to the groups with which they work. Other organizations are more open. ASb, for example, has prepared a *Guide for Making and Using Stories*, which is available online under a Creative Commons licence.[130] In addition, the Osu Children's Library Fund has a guide on establishing community libraries.[131] CODE Ethiopia has prepared its own training materials for librarians that include modules on general principles, library programs, reading promotion, and literacy/learning support.[132] There are certainly other useful materials. A simple Google search turned up several examples of guides that are freely available. Two include: *How to Create a Fantastic Picture*

[130] African Storybook. (n.d.). Retrieved April 17 2016, from http://www.africanstorybook.org/
Go to the ASb home page, click on help and notes. You will be referred to the Guide.
[131] Osu Children's Library Fund. (n.d.). How to Set Up Community Libraries for Children. Retrieved April 17 2016, from http://www.osuchildrenslibraryfund.ca/wp-content/uploads/2010/01/How-to-Set-Up1.pdf
(There is no licensing information, but a note at the end of the document tells readers to feel free to copy it.)
[132] CODE Ethiopia. It Takes a Village to Raise a Reader. Retrieved 14 May 2016, from https://codelibraries.wordpress.com/

Book[133] and *Writing Picture Books for Children*.[134] As a start, organizations producing resources closed to outside readers might be encouraged to make them freely available. It would also be helpful to have a place to mount information about available guides, including those identified through search engines and provide links to them.

Conclusion

This report has explored how digital disruption and open licensing are transforming the world of publishing, with examples of how these changes might be harnessed to find sustainable solutions to the seemingly intractable problem of supplying enough high quality early literacy storybooks to young children in low-income countries to enable them to acquire effective literacy skills. While none of these innovations, in their own right, provides a full solution to this challenge, it is clear that they do significantly increase the range of available options when seeking to develop sustainable new solutions. For example, African Storybook has expanded its network of translators by engaging with students. ASb also involves community libraries in story production. The Osu Children's Library Fund in Ghana co-publishes storybooks with Sub-Saharan Publishers, also located in Ghana. Can publishers play additional roles that transcend their traditional reliance on all rights protected? Could children be involved in writing and illustrating stories that they and others will read? Oxford Owl in the UK has a website to help get children started.[135] In Kenya, a teacher asked children in standard eight to write stories about animals as part of their Kiswahili lessons.[136] Could those stories or similar ones be translated and illustrated for younger children? As a final example, the IDRC research on alternative licensing methods for Africa could be adapted from a focus on scholarly publications into experiments with storybook publishers, for example.[137]

What does seem clear is that funding strategies, whether initiated by governments or donor agencies, that adopt a 'business-as-usual' model to early literacy storybook supply, investing solely in traditional publishing value and supply chains, will simply replicate the many well documented failures of the past. Likewise, initiatives that focus only on short-term targets like numbers of stories produced or numbers of books distributed will do nothing to solve the underlying challenges of long-term sustainability of the cultural industries in low-income countries on which sustainable literacy for all are inevitably dependent. Thus, although digital disruption and open licensing do not, by themselves, solve these supply problems, they offer exciting new opportunities that merit systematic testing and scaling in order to enable them to achieve their full potential.

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(This work was done under the auspices of Teacher Education in Sub-Saharan Africa [TESSA] by Jenestar Wanjiru Mugai, a teacher at the Kagoto Primary School, in Nakuru, Kenya, which has a total of 1,660 students with an average teacher/student ratio of 1:55. In 2009 TESSA received the Queen's Anniversary Prize. She was one of five outstanding African teachers selected to travel to the UK to participate in the ceremony and meet Queen Elizabeth.

[137] Osu Children's Library Fund is described in the section on libraries in Appendix G. An entry for Sub-Saharan Publishers will be found in Appendix G's section on commercial publishers. IDRC's research on Publishing and Alternative Licensing Models for Africa (PALM) will also be found in Appendix G in the section on Online free, hard copy for a fee.

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Appendix A: List of interviewees

Book production organizations

Organization	Name
Book Dash	Arthur Attwell

International NGOs and other literacy organizations

Organization	Name
CODE Ethiopia	Yalew Zeleke, Executive Director Alemu Abebe, Library Development and Management Officer Nema Behutiye, Publishing Unit Officer
CODE (formerly Canadian Organization for Development through Education)	Scott Walter, Executive Director
Children's Book Project for Tanzania	Pilli Dumea, Executive Secretary
PRAESA	Carole Bloch, Executive Director
Room to Read	Alisha Berger Neuhaus, Associate Literacy Director
Shine Literacy	Carrie Mashek, Operations Manager
SIL Senegal	Chris Darby, Literacy Specialist
Biblionef South Africa (email correspondence)	Jean Williams, Executive Director

Libraries

Organization	Name
Friends of African Village Libraries	Deborah Berger (email correspondence); Cornelius Gulere (email correspondence); Michael Kevane (email correspondence)
Lubuto Library Partners	Jane Kinney Meyers, President Elizabeth Giles, Training Librarian
Osu Children's Library Fund	Kathy Knowles, Director

Literacy and/or publishing experts

Name	Affiliation
Janet Condy	Senior Lecturer, Education and Social Science Faculty, Cape Peninsula University of Technology
Karima Grant	Imagination Afrika, Director and Founder
Eve Gray	University of Cape Town, Scholarly Communication in Africa Programme

Name	Affiliation
Fred Keraro	Professor of Science Education, Department of Curriculum, Instruction & Educational Management; Coordinator Instructional Materials Development Department & Teacher Education Department, College of Open & Distance Learning, Egerton University
Garry Rosenberg	Consultant
Lea Shaver	Associate Professor of Law and Dean's Fellow Indiana University Robert H. McKinney School of Law
Rosemarie Somaiah	Storyteller
Prashant Yadav	William Davidson Institute University of Michigan
Hans Zell	Consultant, African publishing

Publishers

Organization	Name
African Books Collective	Justin Cox, Chief Executive Officer Mary Jay, Founding Director
Amalion Publishing, Senegal	Sulaiman Adebowale, Founder and Director
Children's Book Trust, India	Navin Menon, Editor
Human Sciences Research Council Press, South Africa	Jeremy Wightman, Publishing Director
Midako Publishing, Ethiopia	Tsion Kiros
Mkuki na Nyota, Tanzania	Walter Bgoya, Director
National Book Trust of Uganda	Charles Batambuze
Sterling Publishing, India	Surinder Ghai, Managing Director
Sub-Saharan Publishers, Ghana	Akoss Ofori-Mensah

Organizations/initiatives that publish openly licensed books

Organization	Name
African Storybook Project	Tessa Welch, Project Leader Jenny Glennie, Director South African Institute for Distance Education
Little Cree Books	Caylie Gnyra, Founder and Manager
Brothers Whim (email correspondence)	Spencer Hanson, Founder and writer
Pratham Books	Suzanne Singh and Purvi Shah
Molteno Institute for Language and Literacy	Masennya Dikotla, CEO

Appendix B: Key components of early literacy

What is early literacy?

Literacy is commonly regarded as the ability to read and write. Traditionally, it means reading and writing at a level adequate for written communication and which enables a person to successfully function at certain levels of a society. The United Nations defines illiteracy as the inability to read and write a simple sentence in any language.[138] However, standards for what level constitutes 'literacy' vary across contexts – for example, in some contexts, literacy is a broader concept incorporating computer skills, basic numeracy, and visual literacy.[139],[140]

Traditional approaches to the study of literacy usually take as their starting point a child's entrance into the formal school environment. However, an emergent literacy approach conceptualizes the development of literacy as a continuum starting early in the life of a child, rather than as an all-or-none phenomenon that begins when children start school.[141] Emergent literacy refers to the skills, knowledge, and attitudes that are presumed to be developmental precursors to conventional forms of reading and writing. This approach does not delineate clearly between reading and pre-reading. Thus, early literacy is what children know about reading and writing before they can actually read and write. Research shows that children get prepared to read years before they start school.[142]

Literature indicates that early literacy development begins in the first three years of life and is closely linked to a child's earliest experiences with books and stories.[143] Early literacy behaviours would include book handling (turning pages, mouthing, or chewing books), looking and recognizing (paying attention to pictures, pointing, laughing), picture and story comprehension (imitating actions or talking about the story), and story reading (pretending to read or following the words with their fingers).[144] Thus, the focus is on developing children's verbal interactions with books and an understanding of print in books.[145] These interactions that young children have with literacy materials such as books, paper, and crayons (and with adults in their lives) are regarded as the building blocks for language, reading and writing development.[146]

[138] Sheppard Software. World Illiteracy. Retrieved from http://www.sheppardsoftware.com/worldgeographymainpage/worldstatistics8.htm
[139] Sheppard Software. World Illiteracy. Retrieved from http://www.sheppardsoftware.com/worldgeographymainpage/worldstatistics8.htm
[140] TakingITGlobal. Literacy. Retrieved from http://issues.tigweb.org/literacy
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[142] Fairfax County Virginia. What is Early Literacy. Retrieved from http://www.fairfaxcounty.gov/library/preschoolers/whatisearlylit.htm
[143] Zerotothree. Early Literacy. Retrieved from http://www.zerotothree.org/child-development/early-language-literacy/earlyliteracy2pagehandout.pdf
[144] Maine State Library. Early Childhood Literacy. Retrieved from http://www.maine.gov/msl/libs/pr/posters/lit/earlyLit-newsletter.pdf
[145] Zerotothree. Early Literacy. Retrieved from http://www.zerotothree.org/child-development/early-language-literacy/earlyliteracy2pagehandout.pdf
[146] Zerotothree. Early Literacy. Retrieved from http://www.zerotothree.org/child-development/early-language-literacy/earlyliteracy2pagehandout.pdf

There is much written about the skills that are necessary to focus on in early reading. For example, good reading instruction balances attention to the skills required for accurate and fluent word reading with opportunities to expand students' knowledge and language. In preschools years, the focus is on providing opportunities to learn emergent literacy skills. These include identifying letters, writing one's own name, recognizing frequently encountered words like 'stop', rhyming, and knowing what sounds the first letter of a word represents. Reading aloud to children is commonly used by teachers at this stage and provides an opportunity to point out words and letters in context.[147]

> *…it should be about meaning making… young children come to use written language as they find it powerful and personally useful – in contexts where others around them are interactive role models… Reading aloud also expands children's imaginations and exposes them to rich, complex forms of language which they could not read themselves but they can understand and which inspires and motivates them to want to learn to read for themselves – motivation is a huge factor in learning.*[148]

In addition, many libraries organize story hours for young children. The role of libraries is discussed in Appendix G.

It has been argued that children who develop these emergent literacy skills are likely to find learning to read easier. However, in primary grades (at least in the United States of America), it has been suggested that children have the opportunity to learn reading as a tool, but the content that would support their later use of that tool for purposes of comprehension and further learning may be neglected.[149]

The following table provides a useful outline for the stages for reading development:

Table 4 Stages of reading development[150]

Stage	Name	The Learner
Stage 0 **Birth to G1**	Emergent literacy	Gains control of oral languages; relies heavily on pictures in text; pretend reads; recognizes rhyme.
Stage 1 **Beginning G1**	decoding	Grows aware of sound/symbol relationships; focuses on printed symbols; attempts to break code of print; uses decoding to figure out words.
Stage 2 **End of G1 to end of G3**	Confirmation and fluency	Develops fluency in reading; recognizes patterns in words; checks for meaning and sense; knows a stock of sight words.
Stage 3 **G4-G8**	Learning the new (single viewpoint)	Uses reading as a tool for learning; applies reading strategies; expands reading vocabulary; comprehends from a singular point of view.
Stage 4 **HS and Early College**	Multiple viewpoints	Analyzes what is read: reacts critically to texts; deals with layers of facts and concepts; comprehends from a multiple points of view.

[147] Murnane, R., Sawhill, I., and Snow, C. (2012). Literacy Challenges for the Twenty-First Century: Introducing the Issue. The Future of Children, VOLUME 22 NUMBER 2 FALL 2012. Retrieved from http://futureofchildren.org/futureofchildren/publications/docs/22_02_FullJournal.pdf

[148] Carole Bloch, personal communication to Sarah Hoosen, 26 June 2016

[149] Murnane, R., Sawhill, I., and Snow, C. (2012). Literacy Challenges for the Twenty-First Century: Introducing the Issue. The Future of Children, VOLUME 22 NUMBER 2 FALL 2012. Retrieved from http://futureofchildren.org/futureofchildren/publications/docs/22_02_FullJournal.pdf

[150] Table taken verbatim from Roskos, K., Strickland, D., Haase, J., and Malik, S. (2009). First Principles for Early Grades Reading Programs in Developing Countries. USAID, The International Reading Association and the American Institutes. Retrieved from http://www.equip123.net/docs/e1-EarlyGradesToolkit.pdf

Stage	Name	The Learner
Stage 5 Late College and Graduate School	A worldview	Develops a well-rounded view of the world through reading.

While, technically, early literacy refers to skills developed in the early years of life, for the purposes of this report we refer to early literacy as early reading skills, specifically stage 1 and stage 2 (from the above table) – i.e. skills developed from the beginning of grade 1 to the end of grade 3.

The significance of reading

Reading is widely recognized as critical for the foundation of children's success. It is an essential life skill; it improves literacy, develops a positive attitude towards learning, and is crucial to the academic and social development of young people.[151] Research indicates that children who read early and well experience more print exposure and consequent growth in many different knowledge domains. Research also suggests that poor reading skills impede learning in other academic areas, which increasingly depends on reading across the school years.[152] Learning to read is recognized as a fundamental right of children, and thus to achieve and succeed in school and in the world, children need to know how to read and write. Reading is thus the foundation for education, which is vital to individual, economic, and social development.

The challenge of illiteracy

Despite recognition of the importance of reading, one in four young people in developing countries are unable to read a sentence. Research published by Unesco suggests that 175 million young people lack even basic literacy skills. Furthermore, an estimated 250 million children are not learning basic reading and mathematics skills, even though half of them have spent at least four years in school.[153] Additional Unesco statistics suggest that there are there are approximately 800 million illiterate people in the world and 250 million children of primary school age who lack basic reading and writing skills.[154]

Illiteracy is most prevalent in developing countries. While developing nations which adopted Communism and deployed teachers widely in the countryside (such as China, Cuba, and Vietnam), experienced some of the most dramatic growth of literacy approaching US and European rates,[155] South Asian, Arab, and Sub-Saharan African countries are regions with the highest illiteracy rates at about 40 to 50%. East Asia and Latin America have illiteracy rates in the 10 to 15% range while developed countries have illiteracy rates of a few percent.[156] Accordingly, governments, NGOs, and

[151] The Book Bus. About the Book Bus. Retrieved from http://www.thebookbus.org/about_the_book_bus.htm
[152] Lonigan, C.J., Burgess, S.R., and Anthony, J.L. (2000). Development of Emergent Literacy and Early Reading Skills in Preschool Children: Evidence From a Latent-Variable Longitudinal Study. *Developmental Psychology.* 2000, Vol. 36, No. 5, 596-613. Retrieved from http://www.researchgate.net/profile/Stephen_Burgess4/publication/12344851_Development_of_emergent_literacy_and_early_reading_skills_in_preschool_children_evidence_from_a_latent-variable_longitudinal_study/links/004635299682a7a6f3000000.pdf
[153] Provost, C. (2014). One in four young people in developing countries unable to read, says UN. Retrieved from http://www.theguardian.com/global-development/2014/jan/29/illiteracy-education-young-people-developing-countries
[154] WorldReader. What We Do. Retrieved 14 March 2016 from http://www.worldreader.org/what-we-do/
[155] Sheppard Software. World Illiteracy. Retrieved from http://www.sheppardsoftware.com/worldgeographymainpage/worldstatistics8.htm
[156] Sheppard Software. World Illiteracy. Retrieved from http://www.sheppardsoftware.com/worldgeographymainpage/worldstatistics8.htm

international organizations are increasing efforts to help all people become literate and able to function effectively in literate societies.

There have been several reasons attributed to illiteracy, for example: lack of access to education, large class sizes, poor quality hindering learning for those who do make it to school,[157] and a lack of resources which means there are few reading opportunities for many children in developing countries.[158] Thus, for many of the world's illiterate, illiteracy can be traced – at least in part – to an inability to access text.[159]

Fostering literacy

> *It all depends on your understanding of how young children learn and how they learn to read – my understanding …is that if we want children to learn to read, we have to motivate them and make reading meaningful in everyday life…It is the other way around with what happens in school (which is) teaching children how to read and then reading to learn. I think it's a false division.*[160]

Research suggests that various factors or principles foster the development and implementation of successful early grade reading programmes and initiatives. In summary, these are:

- Oral language is the foundation of learning to read and write – the early stages of reading depends on an oral language. Research on literacy development is increasingly clarifying the centrality of oral language to long-term literacy development, with longitudinal studies revealing continuity between language ability in the preschool years and later reading.[161] Thus, reading programmes designed to build early reading skills offer support for and connections to an oral vocabulary in a spoken language. Reading instruction should cultivate a concept of word in print that is the basis for learning how to transform written words into sounds (reading by sound) and/or how to retrieve the meaning and reference of printed words from a vocabulary (reading by sense). It is for this reason that learning to write is usually introduced at the same time as reading to aid in mapping spoken to written language.[162] It is also likely for this reason that many countries have policies which indicate that the formative school years (when children learn to read) should be taught in local languages which children are familiar speaking. When readers learn to read text written in a language they understand, they transfer an intuitive understanding of what reading is and how to read when reading in other languages.[163]
- Children have access to many and varied books (in genre and form). The more children read, the better readers they become.[164] Children thrive in learning to read when the environment contains abundant books and print material. They read more when they have access to engaging, age

[157] Provost, C. (2014). One in four young people in developing countries unable to read, says UN. Retrieved from http://www.theguardian.com/global-development/2014/jan/29/illiteracy-education-young-people-developing-countries
[158] The Book Bus. About the Book Bus. Retrieved from http://www.thebookbus.org/about_the_book_bus.htm
[159] West, M., and Chew, H.E. (2014). Reading in the mobile era: A study of mobile reading in developing countries. UNESCO. Retrieved from http://unesdoc.unesco.org/images/0022/002274/227436e.pdf
[160] Carole Bloch, personal communication to Sarah Hoosen, 19 February 2016
[161] Dickinson, D.K., and Griffith,J.A., Golinkoff, R.M., and Hirsh-Pasek, K. (2012). How Reading Books Fosters Language Development around the World. Child Development Research Volume 2012 (2012). Retrieved from http://www.hindawi.com/journals/cdr/2012/602807/
[162] Roskos, K., Strickland, D., Haase, J., and Malik, S. (2009). First Principles for Early Grades Reading Programs in Developing Countries. USAID, The International Reading Association and the American Institutes. Retrieved from http://www.equip123.net/docs/e1-EarlyGradesToolkit.pdf
[163] Commission on Reading of the National Council of Teachers of English. (2004). On Reading, Learning to Read, and Effective Reading Instruction: An Overview of What We Know and How We Know It. Retrieved from http://www.ncte.org/positions/statements/onreading
[164] Commission on Reading of the National Council of Teachers of English. (2004). On Reading, Learning to Read, and Effective Reading Instruction: An Overview of What We Know and How We Know It. Retrieved from http://www.ncte.org/positions/statements/onreading

appropriate books, magazines, newspapers, computers, and other reading materials. This requires a large supply of books organized both for instruction and for independent reading in a classroom library. For purposes of instruction, books must be of high quality at a range of reading levels for instruction. Ideally, there should be at least five to eight books per student that represent different genres, such as information books, traditional stories, and poetry. In addition to books, the learning environment should ideally be resourced with a large variety of high-quality reading materials in relevant languages. This includes charts, work displays, and texts created/authored by the learners and the teacher. The learning environment also reflects the psychological environment of the classroom that values all forms of reading and writing and supports risk-taking as the learners explore new literacy practices.[165]

- Reading programmes should be designed to support literacy goals and other learning outcomes in the curriculum.
- Teachers must be well prepared to teach reading. In addition to having the necessary skills to teach reading, particularly in conditions of large classrooms and limited resources, they should be well supported on an ongoing basis.[166]
- Teachers must be responsive to learners as they teach and as they plan to teach, and thus good assessment tools and strategies are essential in guiding reading instruction. Family involvement is an integral part of early grades reading, and thus initiatives need to foster home-to-school and school to-home literacy connections.[167] Consistent book reading has been found to have the power to create interactional contexts that nourish language development.[168]

The significance of access to written text

Children from impoverished households generally have access to fewer books and other reading materials than children from more financially stable households. Not only do poorer children have fewer books in their homes, but they also tend to live in communities with fewer books in the classroom, school, and public library, when one exists at all.[169] Initiatives from various different countries focusing on providing books to parents and young children, and equipping parents with effective strategies for using books consistently, have been found to be effective methods of fostering language acquisition and improving children's early reading success.[170]

Thus, a successful way to improve the reading achievement of low-income children is to increase their access to print. Data from the United States indicate that communities ranking high in achievement tests share some common factors: an abundance of books in public libraries, easy access to books in the community at large, and a large number of textbooks per student. Furthermore, the only behaviour measure correlating significantly with reading scores is the number of books in the home.

[165] Roskos, K., Strickland, D., Haase, J., and Malik, S. (2009). First Principles for Early Grades Reading Programs in Developing Countries. USAID, The International Reading Association and the American Institutes. Retrieved from http://www.equip123.net/docs/e1-EarlyGradesToolkit.pdf

[166] Roskos, K., Strickland, D., Haase, J., and Malik, S. (2009). First Principles for Early Grades Reading Programs in Developing Countries. USAID, The International Reading Association and the American Institutes. Retrieved from http://www.equip123.net/docs/e1-EarlyGradesToolkit.pdf

[167] Roskos, K., Strickland, D., Haase, J., and Malik, S. (2009). First Principles for Early Grades Reading Programs in Developing Countries. USAID, The International Reading Association and the American Institutes. Retrieved from http://www.equip123.net/docs/e1-EarlyGradesToolkit.pdf

[168] Dickinson, D.K., and Griffith,J.A., Golinkoff, R.M., and Hirsh-Pasek, K. (2012). How Reading Books Fosters Language Development around the World. Child Development Research Volume 2012 (2012). Retrievedfrom http://www.hindawi.com/journals/cdr/2012/602807/

[169] Scholastic. Access to Books. Retrieved 14 March 2016 from http://teacher.scholastic.com/products/face/pdf/research-compendium/access-to-books.pdf

[170] Dickinson, D.K., and Griffith,J.A., Golinkoff, R.M., and Hirsh-Pasek, K. (2012). How Reading Books Fosters Language Development around the World. Child Development Research Volume 2012 (2012). Retrieved from http://www.hindawi.com/journals/cdr/2012/602807/

An analysis of a national data set of nearly 100,000 United States school children found that access to printed materials was a critical factor impacting on acquiring reading skills.[171]

This research provides compelling evidence highlighting the significance of access to reading material in the early years of a child's life, providing an essential foundation for all subsequent education and a child's future development.

[171] Scholastic. Access to Books. Retrieved 14 March 2016 from http://teacher.scholastic.com/products/face/pdf/research-compendium/access-to-books.pdf

Appendix C: Unpacking the components of the early literacy reader value network

The table below delineates the essential components of a value network for early literacy reading materials.

Table 5 Unpacking the early literacy value network

Value network component	Key components/aspects	Key questions
1. Overarching issues	1.1. Government and other regulations 1.1.1. Formal curriculum requirements 1.1.2. Import duties on raw materials (paper, ink), books, printing technologies, e-readers 1.2. Value Network governance 1.2.1. Leadership 1.2.2. Transparency and facilitation of public scrutiny 1.3. The role of local players (publishers, NGOs, printers, distributors) 1.3.1. Harnessing local expertise in the entire value network, from commissioning authors to production and different mechanisms of distribution 1.4. Value network integration 1.5. Value network maturity	• Is there a deep and structured understanding of literacy value networks in government? • Are governments able to identify how the value of their investments in literacy value networks can be realized? • What incentives can be established to attract and retain value network leaders/managers? • Can literacy projects inform trade-related policies in areas like import duties? • Can literacy value network designs be successfully separated from the administrative structure of the education system to reduce the number of tiers in the supply chain and eliminate unnecessary bottlenecks? • Can a supply chain maturity model (e.g. Lockamy III and McCormack (2004a)) be used to benchmark current supply chain performance levels and identify areas for further improvement?
2. Value Network Planning	2.1. Value Network Information Systems 2.1.1. Performance metrics 2.1.2. Stories available in local languages 2.1.3. Locally available printing capacity *versus* offshore printing 2.1.4. Logistics Management Information Systems (including track-and-trace data) 2.2. Participating organizations 2.2.1. Identification of coordinating organization, across entire value network and for each step	• Is there an end-to-end process architecture in the value network? Is this needed? • What are the key performance metrics? How can they be used to improve value network performance? • Can a System Dynamics methodology help to develop understanding of how the structure of a value network enables or impedes the achievement of targets? • What key data analytics should be prioritized to improve value network efficiencies and facilitate analysis of the weakest points in the value network?

Value network component	Key components/aspects	Key questions
	2.2.2. Participants in each component of value network (organizational and individual) 2.2.3. Availability of skilled human resources 2.3. Monitoring, evaluation, and research 2.3.1. Formulating monitoring, evaluation, and research questions 2.3.2. Determining methodologies to answer these questions 2.3.3. Formative evaluations 2.3.4. Impact evaluations and longitudinal studies 2.3.5. Commissioned research on specialized topics 2.4. Synchronized financial flows and reliability of financial disbursements	• What are the most cost-effective strategies for capturing data across the value network to streamline information flow and inform future planning? • Given their expense, what are the most important issues to investigate in randomized or quasi-randomized impact evaluation studies? • Is it possible to create a model that determines accurately the maximum volumes that value networks can handle? • What are the advantages and disadvantages of local printing *versus* offshore printing? What are the cost implications?
3. Story creation	3.1. Macro planning 3.1.1. Matching supply with demand (of system, teachers, caregivers, and learners) 3.1.2. Identification of target languages per country 3.1.3. Assessing supply requirements in respect of decodable texts, levelled readers, and supplementary reading materials (SRMs) per language 3.2. Financial/business models for content creation 3.2.1. Market-driven models (e.g. royalties, content sales, licensing agreements) 3.2.2. Government and/or donor investments in story creation (including translation/ adaptation of existing stories) 3.3. Identification of suitable literacy fonts for different writing systems (taking into account requirement of digitized workflows for content creation/ translation, storage systems, printing, etc) 3.4. Sourcing existing stories	• What is the correct balance between following guidelines on good educational and publishing practices and focusing on writing engaging stories of interest to targeted readers and their caregivers? • Can pre-definition of key design standards (font types and sizes, words per page/line, fixed location of images on pages, and so on) reduce design costs? Are there any ways in which this pre-definition might affect the educational effectiveness of readers? • Can pre-definition of key design standards enable predictable investment in printing technologies to reduce financial impact of, for example, printing in colour, trimming, etc? • Who decides what content is appropriate and will be engaging for target audiences? • Should readers (covers and pages) be black-and-white or colour, taking into account improved accessibility and enhancing interest of young children vs increased cost of printing? NOTE: colour decisions should be taken during content creation step, not printing step, to avoid printing of colour stories in black-and-white.

Value network component	Key components/aspects	Key questions
	3.4.1. Evaluating relevance and appropriateness 3.4.2. Content digitization 3.4.3. Buying out copyright 3.5. Creating new storybooks 3.5.1. Identification of expertise in local languages for creation, translation, and editing 3.5.2. Specifications for page layout, font type and size, colours used for images and text, etc (taking into account dual requirements for print and e-reading) 3.5.3. Number of pages available, taking into account printing costs where applicable 3.5.4. Authoring content 3.5.5. Editing text 3.5.6. Graphic design and page layout 3.5.7. Illustrating text 3.5.8. Accessible design for learners with special educational needs 3.6. Translating and adapting (levelling) stories 3.6.1. Identification of expertise in local languages 3.6.2. Translation of text, taking into account cultural specificity as well as linguistic and orthographical accuracy [the need to get phonemes, syllables and structure of sentences right and to ensure the 'accuracy' of the message across different cultural contexts] 3.6.3. Adaptation of stories to suit different reader levels and contexts 3.6.4. Editing text 3.6.5. Modification/replacement of graphics 3.7. Content licensing (images and stories) 3.7.1. Open licences vs all-rights reserved copyright	• Should font colours be limited to black to facilitate printing of stories in multiple languages at reduced cost? • Can standardized layout formats simultaneously accommodate e-reading and print? • What evidence is there that image banks facilitate re-use of images in new stories (i.e. are images designed for particular stories too specific to that story and its characters to enable effective re-use in new stories)? • What role do illustrations play in piquing interest, enhancing the learning experience, and promoting better readers? • Are quality assurance criteria appropriate for the intended media (print or electronic)? • Which are the major publishers/suppliers of early literacy books? • What role(s) can publishers play? • What kind of incentives would publishers need? • Who is best placed and has the necessary competence to evaluate relevance and appropriateness of storybooks?

Value network component	Key components/aspects	Key questions
	3.8. Quality assurance 3.9. Online systems for management of content creation/adaptation/translation workflows	
4. Story management and storage	4.1. Common formats for storing storybooks and assets (e.g. uncompressed/compressed images, text files, original DTP files, PDF files, etc) 4.2. Metadata structures 4.3. Software choices (bespoke vs existing platforms, OSS vs proprietary software, etc) 4.4. Sharing content and meta-data between platforms 4.5. Web responsive designs and mobile access 4.6. Accessible design for users with special needs 4.7. Interface design 4.8. Search and query facilities 4.9. Hosting and connectivity options 4.10. Disaster recovery strategies 4.11. Security and privacy 4.12. Copyright choices 4.13. Tools for offline distribution of stories 4.14. Platform Use	• What compromises are necessary to enable common formats for stories that automatically enable both e-reading and printing (taking into account needs for web responsive designs and file formats that can be downloaded in low-bandwidth environments)? Are these educationally acceptable? • Who decides on common file formats and who populates them? • What are the different platforms and what are their advantages/disadvantages? • Can open meta-data and technical standards be agreed to facilitate sharing of stories and universal searches across platforms? • Are file types open and broadly supported across multiple platforms and devices? • Should Digital Rights Management (DRM) technologies be included in digital formats? • What offline options are available for transferring content to those who do not have internet, but have electronic readers?
5. Reader printing	5.1. Determining and predicting demand 5.1.1. Lengthening supply chains to create predictability and stimulate investment 5.1.2. Creating financial mechanisms that enhance predictability of financial flows 5.1.3. Deciding between push and pull systems to determine demand 5.2. Access to cost-effective printing technologies 5.2.1. Standard page formats and page numbers per reader to reduce costs of trimming 5.2.2. Durable/cost-effective binding solutions	• Can demand be predicted based on languages that children actually speak rather than just based on medium of instruction, especially where there is limited data? • Do file formats of stories generate additional costs of repro and setting? • Who is paying for print jobs, both in terms of production costs and printing costs? • What investments and/or strategies for stimulating local economies can support sustainable local procurement of printing technologies that enable the most cost-effective printing of stories? What partnerships are needed with other economic sectors to facilitate this investment? • What forms of competitive pressure will work best to reduce pricing without compromising quality?

Value network component	Key components/aspects	Key questions
	5.2.3. Modern presses that enable smaller print runs and greater flexibility 5.2.4. Range of printing options to accommodate different sizes of print run 5.3. Paper procurement (standard options for covers and inside pages) 5.3.1. Choice of paper for covers and inside pages 5.3.2. Customs clearance 5.3.3. Effect of import duties on raw materials vs printed materials 5.4. Printing 5.4.1. Procurement options (pages/covers vs complete books) 5.4.2. Location of printing 5.4.3. Number of pages per reader 5.4.4. Trimming 5.4.5. Capacity building of staff 5.5. Quality control, both before procurement and during printing 5.6. Warehousing of inventory before distribution	• If perfect binding with PUR significantly increases durability and lifespan of readers, can supply chain incentives ensure local availability of necessary technology and human capacity to support this type of binding? • Under what circumstances is advance bulk procurement of paper justified as a separate step in the procurement process? If so, who procures it and where will it be stored? • Can more efficient economies of scale be achieved by procuring bulk orders of page/cover printing, rather than procuring complete readers, given the long-term flexibility this can add in terms of matching supply to demand over time? • At what points do economies of scale stop providing additional cost benefits (taking into account location and types of printing)? • Are there simple mechanisms that can enable regular evaluation of relative prices for different print options in different countries?
6. Print distribution	6.1. Determining demand and identifying final distribution point (schools. district offices, libraries?) 6.2. International transport channels (ship, truck, train, air freight) 6.3. Customs clearance and import duties (for internationally printed materials) 6.4. Warehousing during distribution (focused on reducing number of locations of stock holding) 6.5. National/local transport channels (truck, train, air freight) 6.6. Financial incentives for participants (organizational and individual) in distribution supply chain 6.7. Capacity building of participants in distribution supply chain 6.8. Monitoring systems (including track-and-trace systems) 6.8.1. Identification of suitable, objective monitoring. Ensuring consistent	• What forms of competitive pressure will work best to improve performance without compromising quality or leading to wastage? • Who is paying for print distribution? Can distribution channels enable cost-effective procurement by libraries, schools, parents, etc or are bulk order by governments and donor agencies the only viable business model? • Can predictable replacement/resupply cycles be established for readers to increase predictability of demand for distribution of new readers? • Under what circumstances will use of private sector distribution chains be preferable to use of public sector distribution chains? • Can distribution supply chain design take into account the need to ensure equitable distribution into rural areas?

Value network component	Key components/aspects	Key questions
	movement through distribution chain 6.8.2. Minimizing delays 6.8.3. Avoiding loss/theft of items within supply chain 6.8.4. Verifying delivery to final point of distribution	
7. E-reader distribution	7.1. Determining demand 7.2. Formats for distribution of e-stories 7.3. Financial models for supply of devices 7.4. Customs clearance and import duties 7.5. Offline distribution of e-stories 7.6. Power supply for devices 7.7. Device connectivity 7.8. Device maintenance 7.9. Device replacement 7.10. Environmentally sustainable device disposal 7.11. Capacity building of participants in distribution supply chain 7.12. Capacity building of teachers to use e-reading devices 7.13. Monitoring systems (including track-and-trace systems) 7.13.1. Ensuring consistent movement through distribution chain 7.13.2. Eliminating delays 7.13.3. Avoiding loss/theft of items within supply chain 7.13.4. Verifying delivery to final point of distribution	• Are there sustainable models for distributing e-reading devices to students, taking into account issues of connectivity, device maintenance, and obsolescence? • Are there suitable facilities for storing, recharging, and updating devices? • How can we avoid platform lock-in and lack of interoperability? • To what extent do teachers see e-readers as catalysts for learning and collaborative reading, just as they do with print materials • What is the fit between how ICTs are used in for literacy teaching and the theoretical frame that informs teachers' educational approach? • Who, in a school or library, is responsible for the administration of devices?
8. Storybook access and reading	8.1. Safe storage of readers and e-reading devices 8.2. Principal and teacher training/capacity building 8.3. Librarian training/capacity building 8.4. Ongoing teacher support 8.5. Parent awareness-raising/advocacy 8.6. Information on use of readers by students	• Under what circumstances will access points other than schools (e.g. libraries, homes) be considered suitable? • How can personally owned mobile devices be used to offer an alternate e-reading experience (eg family literacy) outside school • To what extent can schools leverage their collective purchasing power and access particular ebooks

Appendix D: Structural challenges to early literacy

Introduction

Literacy has been related to many structural problems impacting societies. For example, evidence suggests that illiteracy correlates to higher unemployment, illiterate adults are more vulnerable to ill heath, exploitation, and human rights abuse. It has also been argued that illiteracy locks communities into vicious cycles of poverty that lay the conditions for violence and strife.[172] This appendix considers some structural challenges that impact on literacy.

Poverty and literacy

Researchers examining differences between the growth trajectories of children from different backgrounds have noted that environmental factors play a major role in determining the speed and success with which children learn to read. Some children, notably those from homes where parents are poor and have limited educations, face particular challenges in learning to read.[173]

In South Africa, the results of the 2011 Annual National Assessment (ANA) (which assesses literacy and numeracy) highlighted a close correlation between poor levels of achievement and low socio-economic status.[174] In the United States of America, the National Institute for Literacy estimates that 43% of adults with very low literacy skills live in poverty.[175] Research also shows that literacy (and numeracy) skills play an important part with regards to employability and wages, and indicate a marked disparity in levels of literacy and employment rates. For example, data from national longitudinal datasets show that men and women with the lowest levels of literacy are also the least likely to be employed. [176]

It has been argued that illiteracy reinforces poverty by precluding access to information. When people do not have the ability to read labels or technical manuals, they cannot develop the skills necessary to climb the socioeconomic ladder. A low literacy rate in a country can be a major impediment to economic progress, as the lack of a skilled work force prevents the development of a thriving economy.[177]

Poverty is also related to a host of other structural issues which impact on literacy. For example:

- Health problems – malnutrition causes blindness in up to a million children annually.
- Unfavourable home conditions – poverty often leaves homes without space and light for reading facilitating an environment where children spend their time working rather than reading.

[172] Bokova, I., and Bush, L. (2012). Literacy is key to unlocking the cycle of poverty. Retrieved from http://www.chron.com/opinion/outlook/article/Literacy-is-key-to-unlocking-the-cycle-of-poverty-3848564.php
[173] Dickinson, D.K., and Griffith, J.A., Golinkoff, R.M., and Hirsh-Pasek, K. (2012). How Reading Books Fosters Language Development around the World. Child Development Research Volume 2012 (2012). Retrieved from http://www.hindawi.com/journals/cdr/2012/602807/
[174] Strydom, A. (2011). Poverty damns SA 's children to ignorance. Mail and Guardian, 29 June 2011. Retrieved from http://mg.co.za/article/2011-06-29-poverty-damns-sas-children-to-ignorance
[175] Literacy and Poverty. Retrieved from http://floridaliteracy.org/refguide/poverty.pdf
[176] National Literacy Trust (2011). National Literacy Trust Review – Literacy: A route to addressing child poverty. Retrieved from http://www.literacytrust.org.uk/assets/0001/1032/Literacy__Child_Poverty_2011.pdf
[177] The Borgen Project. (2014). Five Countries with Increasing Youth Literacy Rates. Retrieved from http://borgenproject.org/five-countries-increasing-youth-literacy-rates/

- School deficiencies – teachers often lack training and suitable salaries.[178]

A ten-year investigation of two communities in Philadelphia, Pennsylvania between 1998 and 2009 by Neuman and Celano (2012) revealed that disparity between affluence and poverty has created a knowledge gap with serious implications for students' economic prosperity and social mobility. At the heart of this knowledge gap is the limited ability of students from poor communities to develop information capital. One of their key findings was that there were 'massive differences in children's access to print in the early years'. In a neighbourhood of poverty, they found a total of 358 reading resources available for a child population of approximately 7,000 children; whereas, in a neighbourhood of privilege, 16,453 reading resources for a child population of 1,200. Another finding was that in the privileged neighbourhood, for every hour in the library, 47 minutes of the time was spent by an adult reading to a child, or about 2,435 words read in that time. During the same period, they did not find a single adult reading to their child in the neighbourhood of poverty. They thus estimated that that children in the privileged neighbourhood heard nearly 14 times the number of words in print than those living in poverty.[179] Data from UNICEF (2012) also indicates that over 50 percent of wealthy families in developing countries have three or more books in their households for children under the age of five, but this figure reduces to five per cent for poor families.[180]

ICT and the digital divide

Information and Communication Technology (ICT) refers to technology that is used in the manipulation, storage, and conveyance of data through electronic means.[181] ICT is regarded as an engine for growth and tool for empowerment, with profound implications for education and socio-economic development.[182] ICT encompasses the digital technologies and infrastructure that have facilitated globalization processes. ICT, in the globalization context, is all about global knowledge, access, participation, and governance in the information age. Both the falling cost of computers and the explosive growth of the Internet as a communications and information resource have increased awareness of the potential for information technology to be a tool for disseminating information. [183]

One of the major challenges in improving literacy is considering how to provide reading material to people who do not have sufficient access. The Internet is playing a significant role in this regard. Digital networks, computer processors, and liquid crystal display (LCD) screens remove production constraints that have kept reading material prohibitively expensive for centuries. Increasingly, physical distribution channels are being streamlined by cables that can instantly carry electronic information to all parts of the world. Simultaneously, search tools are making repositories of online text easy to use and navigate. A robust internet connection today gives people access to more text

[178] Jacobs, G. (1998). Review of Greaney, V. (Ed.). (1996). Promoting reading in developing countries: Views on making reading materials accessible to increase literacy levels. Newark, DE: International Reading Association. Retrieved from http://extensivereading.net/docs/greaney.html

[179] Neuman, S.B., and Celano, D.C. (2012). Giving Our Children a Fighting Chance: Poverty, Literacy, and the Development of Information Capital. Available from http://www-personal.umich.edu/~sbneuman/pdf/givingourchildren.pdf

[180] West, M., and Chew, H.E. (2014). Reading in the mobile era: A study of mobile reading in developing countries. UNESCO. Retrieved from http://unesdoc.unesco.org/images/0022/002274/227436e.pdf

[181] OpenLearn. (no date). ICTs in everyday life. Retrieved from http://labspace.open.ac.uk/mod/resource/view.php?id=371982

[182] Butcher, N. (2010) ICT, Education, Development and the Knowledge Society, p.5. Retrieved from http://www.gesci.org/assets/files/ICT,%20Education,%20Development,%20and%20the%20Knowledge%20Society(1).pdf

[183] Alexandru, A., Ianculescu, M., Parvan, M., and Jitaru, E. (2007). ICT and Its Impact upon the Globalization and Accessibility of the Education in the Health Domain. 6th WSEAS International Conference on Education and Educational Technology, Italy, November 21-23, 2007. Retrieved from http://www.wseas.us/e-library/conferences/2007venice/papers/570-332.pdf

than in all of the physical libraries ever built.[184] Thus, one can argue that, in contexts where there is greater access to ICT, there is more access to digital reading material.

However, while this is transformational, there is still a 'digital divide': unequal access to physical ICT, such as computers, mobile phones, and internet access, as well as imbalances in the education and experience necessary to develop ICT skills. Data from 2013 suggests that only 40% of the world's population is online and in developing countries 16% fewer women than men use the internet.[185]

It has been argued that access to reading material can be addressed by the spread of inexpensive mobile technology. Basic mobile phones offer a new, affordable, and easy-to use portal to reading material. Mobile devices can help people find good books read and cultivate a love of reading along with the myriad advantages that portends – educationally, socially and economically. In recognition of this, there have been efforts to provide access to text via the Worldreader programme. Worldreader Mobile (WRM) is an application that allows people to access books and stories from a wide variety of mobile phones, including inexpensive feature phones. [186]

Interview participants noted that, while there is a place for digital books and mobile devices to access reading material, there is still a need for paper books and particularly in public schools, the demand is more for printed books.[187]

> *In the areas that I go to, people don't have internet access. In deeply rural areas, you are talking about paper books…. In South Africa, it is both important for children to turn pages, but also important to have Internet…I don't think paper will go out. Rural children won't have access to Internet.*[188]

> *Technology has its place. It is fantastic to sit in a clinic or bus stop and for mothers to allow children to see images or rhymes on screen (but this doesn't) take the place of exploring books.*[189]

Language

To ensure that children acquire strong foundation skills in literacy and numeracy, it has been widely acknowledged that schools need to teach the curriculum in a language children understand.[190] This acknowledgement is reflected in government policies of various countries (for example, South Africa, Uganda, Sri Lanka and Namibia) stipulating that children in early primary grades be taught in their mother tongue before transitioning to 'official' languages.

Despite these efforts, approximately 40% of the global population does not have access to education in a language they speak or understand. The challenges are most prevalent in regions where linguistic diversity is greatest (where multiple languages spoken as 'mother tongue' or 'home languages') such

[184] West, M., and Chew, H.E. (2014). Reading in the mobile era: A study of mobile reading in developing countries. UNESCO. Retrieved from http://unesdoc.unesco.org/images/0022/002274/227436e.pdf
[185] West, M., and Chew, H.E. (2014). Reading in the mobile era: A study of mobile reading in developing countries. UNESCO. Retrieved from http://unesdoc.unesco.org/images/0022/002274/227436e.pdf
[186] West, M., and Chew, H.E. (2014). Reading in the mobile era: A study of mobile reading in developing countries. UNESCO. Retrieved from http://unesdoc.unesco.org/images/0022/002274/227436e.pdf
[187] Garry Rosenberg, personal communication to Sarah Hoosen, 24 February 2016
[188] Janet Condy, personal communication to Sarah Hoosen, 28 January 2016
[189] Carole Bloch, personal communication to Sarah Hoosen, 19 February 2016
[190] UNESCO (2016). If you don't understand, how can you learn? Global Education Monitoring Report, Policy Paper 24. Retrieved from http://unesdoc.unesco.org/images/0024/002437/243713E.pdf

as in sub-Saharan Africa and Asia and the Pacific.[191],[192] For example, in many western African school systems, French continues to be the main language of instruction.[193] In Senegal, learners are not taught in mother tongue languages and so they are taught in French from when they enter school (although they have not spoken the language before).[194] In multi-ethnic societies, imposing a dominant language through a school system has frequently been a source of grievance linked to wider issues of social and cultural inequality.

Further, even in contexts where there is a policy to promote teaching in local languages, the practice varies within countries depending on the location of the schools. In some instances, schools in urban areas will teach mainly in English (or the dominant language) while those in rural areas mostly teach in mother tongue languages. For example, in South Africa, while it is government policy that the first three grades be taught in mother tongue languages, many schools in the major cities teach in English and one African language. This may be due to parents demanding that children be taught in English or if teachers are English speakers and prefer speaking English.[195] In contexts where there are multiple languages and the policy is to instruct in English and one other tongue, children may be taught in a local language, but it may not necessarily be their mother tongue. For example, in Singapore, children are taught in English, as well as in Chinese, Tamil, Malay and Mandarin (as determined by local authorities), but this may not be the mother tongue of learners.[196]

Many countries in sub-Saharan Africa that support bilingual education take the view that the first three years of school should be taught in mother tongue languages. Whilst recent evidence indicates that at least six years of mother tongue instruction – increasing to eight years in less well-resourced conditions – is needed to sustain improved learning in later grades,[197] this is unlikely to occur as, currently, even the period of teaching in mother tongue for three years does not occur in practice in many contexts. [198]

A major obstacle to efforts to promote literacy and reading is the virtual inexistence of appropriate reading materials, especially in local languages.[199] For example, in Senegal, there exists much written Wolof However, the amount of times children come into contact with *written* Wolof, particularly in the pre-reading phase, is where the enormous gap is. Making this problem more complex is the problem of how social media and technology are complicating how Wolof is written, whether it is written with English or French.

> *How often do children, particularly children from rural areas come into contact with written Wolof (or other local languages) as they form pre-reading skills? How often are emergent readers exposed to written Wolof in ways that support reading fluency.*[200]

[191] UNESCO (2016). If you don't understand, how can you learn? Global Education Monitoring Report, Policy Paper 24. Retrieved from http://unesdoc.unesco.org/images/0024/002437/243713E.pdf
[192] Roskos, K., Strickland, D., Haase, J., and Malik, S. (2009). First Principles for Early Grades Reading Programs in Developing Countries. USAID, The International Reading Association and the American Institutes.
[193] UNESCO (2016). If you don't understand, how can you learn? Global Education Monitoring Report, Policy Paper 24. Retrieved from http://unesdoc.unesco.org/images/0024/002437/243713E.pdf
[194] Karima Grant, personal communication to Sarah Hoosen, 8 February 2016
[195] Masennya Dikotla, personal communication to Sarah Hoosen, 18 January 2016
[196] Rosemarie Somaiah, personal communication to Sarah Hoosen, 1 December 2015
[197] UNESCO (2016). If you don't understand, how can you learn? Global Education Monitoring Report, Policy Paper 24. Retrieved from http://unesdoc.unesco.org/images/0024/002437/243713E.pdf
[198] Carole Bloch, personal communication to Sarah Hoosen, 19 February 2016
[199] Roskos, K., Strickland, D., Haase, J., and Malik, S. (2009). First Principles for Early Grades Reading Programs in Developing Countries. USAID, The International Reading Association and the American Institutes. Retrieved from http://www.equip123.net/docs/e1-EarlyGradesToolkit.pdf
[200] Karima Grant, personal communication to Sarah Hoosen, 8 February 2016

Little children get messages about value of languages- when you go to school and suddenly you have to (learn in) English and French and you don't get materials in your language.[201]

Weak education systems

It is difficult to generalize about reading instruction and reading practices in developed and developing countries, and there is much variation between countries in how they tackle early literacy.

Nevertheless, in developing countries, there is often a lack of physical resources for schools. In addition to a shortage of basic materials like pencils and paper, textbooks and reading materials are often in short supply and are of poor quality.[202] Additional evidence suggests that 50% of schools in Africa have few or no books at all.[203] In Africa, a majority of children have never owned a book of their own, and it is not uncommon for up to 20 learners to share a single textbook in school. A study of 16 sub-Saharan African countries by Ross (2010) found that most primary schools have few or no books, and in many countries these low levels are not improving. This impedes the development of reading skills and consequently affects learning in all other school subjects.[204]

Further, statistics note that an estimated 250 million children are not learning basic reading and mathematics skills, even though half of them have spent at least four years in school. This 'global learning crisis' costs developing countries billions of dollars a year in wasted education funding.[205]

While access to education is a challenge in many contexts, a compounding challenge is the poor quality of education which holds back learning even for those who make it to school. There are some common challenges that educators face when teaching reading in developing countries, which is essential to acknowledge in order for literacy efforts to be successful. This includes large class sizes (in excess of 50 learners per teacher), gender inequities in access to schooling and educational opportunities and expectations (in developing countries, illiteracy among females stands at 45% versus 25% for males, due in part to girls' lower school attendance), lack of consideration for learners with special physical and learning needs, and learners who are hungry or are in a state of physical threat (for example, in areas of conflict). [206]

Further, teachers, particularly in rural schools may have received limited preparation to teach. They may have limited knowledge and skills in the subject areas they teach, with limited opportunities for ongoing professional development.[207] A related challenge with regards to language, particulalrly in linguistically diverse settings, is recruitment of teachers. Language policies may be difficult to

[201] Carole Bloch, personal communication to Sarah Hoosen, 19 February 2016
[202] Roskos, K., Strickland, D., Haase, J., and Malik, S. (2009). First Principles for Early Grades Reading Programs in Developing Countries. USAID, The International Reading Association and the American Institutes. Retrieved from http://www.equip123.net/docs/e1-EarlyGradesToolkit.pdf
[203] Worldreader. What We Do. Retrieved 14 March 2016 from http://www.worldreader.org/what-we-do/
[204] West, M., and Chew, H.E. (2014). Reading in the mobile era: A study of mobile reading in developing countries. UNESCO. Retrieved from http://unesdoc.unesco.org/images/0022/002274/227436e.pdf
[205] Provost, C. (2014). One in four young people in developing countries unable to read, says UN. Retrieved from http://www.theguardian.com/global-development/2014/jan/29/illiteracy-education-young-people-developing-countries
[206] Roskos, K., Strickland, D., Haase, J., and Malik, S. (2009). First Principles for Early Grades Reading Programs in Developing Countries. USAID, The International Reading Association and the American Institutes. Retrieved from http://www.equip123.net/docs/e1-EarlyGradesToolkit.pdf
[207] Roskos, K., Strickland, D., Haase, J., and Malik, S. (2009). First Principles for Early Grades Reading Programs in Developing Countries. USAID, The International Reading Association and the American Institutes. Retrieved from http://www.equip123.net/docs/e1-EarlyGradesToolkit.pdf

implement, particularly when there is more than one language group in the same classroom and teachers are not proficient in one or several of the local languages.[208]

> *Often the teachers didn't know how to incorporate (books) into current (teaching). For the past few years – we have more of a push for lesson scheduling and planning. Teachers find it complex to integrate reading material into (a) lesson schedule… to integrate something external… is not that simple. Sometimes ECD (Early Childhood Development) teachers are not familiar with how to teach reading (so) teacher training or teacher recruitment are challenges…Often teachers when they teach grade 3 (for example), they have a background in teaching math and not reading. So there is often a mismatch in term of competency.*[209]

> *You have to train teachers (to work with the readers) and children in small groups. Teachers aren't trained for that.*[210]

The literature highlights the essential role of the teacher in facilitating reading development, including skill mastery to organize early grades reading instruction under the conditions of large class sizes and limited resources. Further, ongoing support of the teaching of reading is critical, and should not be delivered in training workshops alone, but rather actively supported through coaching in the implementation of reading programmes.[211]

Oliviera (1996) notes that, in many developing countries, textbook expenditure seldom amounts to more than 1% of the education budget, and textbooks are scarce. Several reasons are provided for the textbook shortage. First, as educational opportunity has expanded beyond economic elites, many more children are attending school, but the parents of these new students often lack the money to purchase textbooks. Second, while once the same textbook could be used for several generations, the rapid pace of curriculum change necessitates much more frequent textbook turnover. Third, the infrastructure for textbook production, which can take as long as 15 years to develop, has been stifled by economic woes and unfortunate policies. [212]

Reading culture

In some contexts, there may not be a culture of reading for pleasure. For example, it was pointed out by two interviewees that Senegal did not have a culture of reading, but rather there is more of an oral culture:

> *Senegal doesn't have a notable reading culture. We have several significant authors and it does produce newspapers. And then everybody has a mobile phone and many text one another. But though many read for broader information, in terms of reading for pleasure –that is not a value that is highly significant here. It is a very oral culture.*[213]

A related challenge specific to early literacy relates to teachers who do not read, which impacts on how teachers teach literacy (and facilitate a culture of reading):

> *One of the big problems with teachers is that they don't read. (They need to know) how to find books and how to use them to teach children…the issue is how we are teaching reading, are our*

[208] UNESCO (2016). If you don't understand, how can you learn? Global Education Monitoring Report, Policy Paper 24. Retrieved from http://unesdoc.unesco.org/images/0024/002437/243713E.pdf
[209] Garry Rosenberg, personal communication to Sarah Hoosen, 24 February 2016
[210] Karima Grant, personal communication to Sarah Hoosen, 8 February 2016
[211] Roskos, K., Strickland, D., Haase, J., and Malik, S. (2009). First Principles for Early Grades Reading Programs in Developing Countries. USAID, The International Reading Association and the American Institutes. Retrieved from http://www.equip123.net/docs/e1-EarlyGradesToolkit.pdf
[212] Jacobs, G. (1998). Review of Greaney, V. (Ed.). (1996). Promoting reading in developing countries: Views on making reading materials accessible to increase literacy levels. Newark, DE: International Reading Association. Retrieved from http://extensivereading.net/docs/greaney.html
[213] Chris Darby, personal communication to Sarah Hoosen, 19 February 2016

> *teachers reading – those will impact reading more than the availability of books… The big challenge with books is that teachers don't read themselves.*[214]

> *The challenge is to shift reading behaviours and reading cultural practices – we need to take a very holistic perspective…(It is) not just about supplying reading material.*[215]

The significance of role models who read was also highlighted:

> *…the cycle needs interactive role models who inspire – people with lots of books in homes have reading cultural practices as part of regular life – and a literature – early and ongoing is a sign of such cultural practices.* [216]

Availability of libraries

In addition to the lack of finance to purchase books, poor people are disadvantaged in other ways. According to Neuman (2007), school libraries in poor communities are often shuttered, whereas school libraries in middle-income neighbourhoods are generally thriving centres of reading, with one or more full-time librarians. Similarly, public libraries in low-income areas are open less regularly and for fewer hours than libraries in middle-income communities.[217]

In many parts of Africa, international organizations, such as Room to Read and CODE, have established and help maintain library programmes because national governments either cannot or will not do so. By the same token, international NGOs have largely been responsible for stocking library and other book shelves, with mixed results in terms of quality and relevance.

[214] Karima Grant, personal communication to Sarah Hoosen, 8 February 2016
[215] Carole Bloch, personal communication to Sarah Hoosen, 19 February 2016
[216] Carole Bloch, personal communication to Sarah Hoosen, 26 June 2016
[217] West, M., and Chew, H.E. (2014). Reading in the mobile era: A study of mobile reading in developing countries. UNESCO. Retrieved from http://unesdoc.unesco.org/images/0022/002274/227436e.pdf

Appendix E: Demand and supply of early reading material

The case of Apple's iPod illustrates a particular perspective on supply and demand. When first launched, many asked whether an iPod was necessary or wanted. It turned out that people quickly gravitated to iPods because it met two key needs (portable storage space for many songs and long battery life for a music player), thus revolutionizing the way we listened to music. But, in the case of literacy, demand has typically led to the innovations that produced reading resources - once humankind developed systems to represent syllables and then alphabets. It is for this reason that this appendix is titled 'Demand and Supply'.

> *The issue of book shortages is not new. From the earliest clay tablets and papyrus scrolls to modern on-demand digital printing presses, there has always been a dearth of physical text. Since the invention of written language, books have been the prized possessions of the rich and elite. Books convey learning and learning translates into power. Empires throughout time have gone to great lengths to create and collect books, but there are never enough; physical text is and remains a scarce commodity*[218]

Across the world, there appears to be a demand for early reading material. One can argue that the demand for reading material can be evidenced by the numerous donor organizations working in this field. Most organizations involved in reading and in supplying books highlight the need for early reading material. For example, Room to Read notes:

> *One of the greatest challenges to early adoption of the habit of reading in developing countries is a lack of high-quality, age-appropriate children's books in the local language. Often, the few books that are available are either second-hand books in foreign languages or low-quality, black and white books for more mature readers. Room to Read responded to this need by going into the publishing business.*[219]

The BigGive in the UK also highlights this demand:

> *In developing countries, most children don't have access to children's books in their local language. The few books available are second-hand books in foreign languages or low quality, black and white books – not the type of literature that will spark a child's imagination, curiosity, and desire to learn to read. In these struggling economies, often it is simply not profitable for publishers to print children's books because local families cannot afford to buy them. We are significantly increasing the quantity and diversity of children's books published in local languages by sourcing and publishing new children's literature. The books are created entirely within the countries in which we work, supporting the local publishing industry and creating jobs for local authors and illustrators. All books are printed within the respective countries, where we publish 5,000-10,000 copies per new title and distribute to schools, libraries and other NGOs.*[220]

Anecdotal information gathered during interviews conducted for this research report revealed that demand for children's books is high in both developing and developed countries. In the latter, it appears that it is more parents who are demanding good reading material, and in these markets the challenge is 'to get readers attention':

[218] West, M., and Chew, H.E. (2014). Reading in the mobile era: A study of mobile reading in developing countries. UNESCO. Retrieved from http://unesdoc.unesco.org/images/0022/002274/227436e.pdf

[219] Room to Read. A life-long love of reading starts with great childrens' books. Retrieved from http://www.roomtoread.org/locallanguagepublishing

[220] TheBigGive.org.uk. Children's Book Publishing in Developing Countries Retrieved from https://secure.thebiggive.org.uk/projects/view/8893/childrens-book-publishing-in-developing-countries

> *There are a lot of books out there, and it seems that people tend to stick with what they know…(Parents buy books) but they need it right under their nose at a good price to do so. Getting it under their nose is the hard part.*[221]

In multi-lingual countries such as Canada, the demand for reading material is in all languages:

> *Every language you can think of, even in English and French, people (are) looking for all kinds of language resources; (there is) interest in heritage languages, whether communities are indigenous or not, is important right now.*[222]

In developed countries, people tend to have access to large amounts of reading material via libraries, bookstores, and the internet. In developed societies, we often hear about people suffering 'information fatigue' from all the content available to read. However, a significant proportion of the world's population lack the ability to read, in part because they lack access to sufficient materials:

> *The situation of information fatigue in the developed world and book famine in the developing world approximates that of people in the developing world spending large sums of money on pills, programmes, and equipment to prevent the ill effects of consuming the large quantity of food available to them, while some in the developing world suffer and even die from lack of access to food.* [223]

Evidence suggests that people in poor communities, whether in developed or developing countries, generally do not have enough reading material, let alone materials that are current, level-appropriate, and relevant to readers' interests:

> *The expression 'too many books, too little time' signals, by global standards, a decidedly 'affluent' dilemma – the privilege of abundance. For millions of readers and would-be readers, the expression is more appropriate in reverse: 'too much time, too few books'.* [224]

There is also demand for early readers in developing countries that have experienced conflict which impacted on the schooling systems. As countries in these contexts rebuild their schooling systems, the demand for qualified educators, school infrastructure, and learning materials is evident. Anecdotal evidence from Vietnam suggests that the demand for children's books is increasing as evidenced by publishers releasing more books and increasing their revenue. Interest in reading is attributed to children becoming more interested in reading and the parents becoming more aware of their needs.[225] In Sierra Leone and in Liberia, children have had to deal with both post-conflict trauma and disruptions caused by the Ebola outbreaks. In Liberia, CODE and the We-Care Foundation have created Read Liberia[226] to publish children's books for youngsters sorely in need of them. This partnership is the only source of locally produced children's literature in the country. In Sierra Leone, CODE's affiliate, PEN Sierra Leone, is doing much the same thing.[227],[228]

It has also been pointed out that, while countries may be focussing on providing textbooks to meet curriculum needs, less focus is placed on supplementary reading material of picture books:

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[221] Spencer Hanson, personal communication to Sarah Hoosen, 9 and 10 February 2016

[222] Caylie Gnyra, personal communication to Sarah Hoosen, 18 January 2016

[223] Jacobs, G. (1998). Review of Greaney, V. (Ed.). (1996). Promoting reading in developing countries: Views on making reading materials accessible to increase literacy levels. Retrieved from http://extensivereading.net/docs/greaney.html

[224] West, M., and Chew, H.E. (2014). Reading in the mobile era: A study of mobile reading in developing countries. UNESCO. Retrieved from http://unesdoc.unesco.org/images/0022/002274/227436e.pdf

[225] Viet Nam News. (2005). Reading matters: demand for children's books on the rise. Retrieved March 14 2016 from http://vietnamnews.vn/social-issues/owners-of-the-future/145151/reading-matters-demand-for-childrens-books-on-the-rise.html

[226] Reading Liberia 2020. Retrieved from http://we-carefoundation.org/?page_id=46

[227] CODE in Sierra Leone. (2015). Retrieved from http://www.codecan.org/program/code-in-sierra-leone

[228] An undated catalogue of the children's books published by the two organizations will be found at Reading Liberia/Reading Sierra Leone Collection. Retrieved 9 April 2016, from http://www.codecan.org/sites/default/files/Reading Libera-Sierra Leone promotional piece_revised13_03_26.pdf

> *There are no readers (relevant reading material) in Sri Lanka. (There is) funding from Korea (dedicated to) building libraries and schools but they don't have books – I never saw any. They have textbooks but not readers. In Zambia, they don't have readers and then language is an issue.*[229]

Additionally, there is 'a paucity' of early reading material in African languages, and much of the reading material that does exist is at a level that is too high for early reading. This was a finding of a review of reading material in African languages in 11 African countries:

> *Titles are available for all age or grade levels of early primary, but there are very few titles for the early stages of reading development in comparison to more advanced levels. One third of supplementary titles (31%) featured more than 75 words per page, which is appropriate for readers who have already attained fluency.*[230]

This is important to developing reading competence:

> *In township schools there is usually only one series of 10-12 books. Children need to have a lot of practice in foundation phase to reading, and need to have more access to a lot of books at the same level.*[231]

Further evidence suggests that there is a demand for material in local languages:

> *In Senegal it (demand) is quite high… right now the need for quality reading material particularly in local languages is on the rise – reading material that speaks to the local market. The majority of reading material is still from France. We have some local publishers doing reading material, but it is not necessarily of quality or like graded or progressive reading material. There is not a diversity.*[232]

> *The need is very dire especially for African languages. I think English is well taken care of, but there is no proper material in African languages for African people. What we have is translated materials from English and they really do not address the problem that is there because language is also culture, so if you translate you can't translate the language only - you may find that language is (lost) to correctness but sending wrong message to children.*[233]

The demand for contextually relevant material has also been highlighted:

> *Well I think that all the countries I worked in; they definitely need materials that are contextually relevant…Because I think you engage better if you engage with something you are familiar with… One has to be sensitive about going into countries and be contextually relevant.*[234]

Novelist and storyteller Chimamanda Adichie tells the story of how she found her authentic cultural voice, and warns that, if we hear only a single story about another person or country, we risk a critical misunderstanding. She highlights that children are vulnerable and impressionable and, being exposed to only British and American books at a young age (and characters with blonde hair, blue eyes who ate apples, drank ginger beer, and spoke about the weather), while it developed her imagination, had unintended consequences as she was not aware that people like her could exist in literature. Only after being introduced to African writers at a later age did she become aware of the marginalization of her culture:

[229] Janet Condy, personal communication to Sarah Hoosen, 28 January 2016
[230] Reading Materials Survey: Findings, Prepared for the Global Book Fund Meeting, October 22, 2015, Prepared by Karon Harden and Ana Robledo, RTI International, Research Triangle Park, North Carolina, USA
[231] Carrie Mashek, personal communication to Sarah Hoosen, 9 February 2016
[232] Karima Grant, personal communication to Sarah Hoosen, 8 February 2016
[233] Masennya Dikotla, personal communication to Sarah Hoosen, 18 January 2016
[234] Janet Condy, personal communication to Sarah Hoosen, 28 January 2016

> *I went through a mental shift in my perception of literature. I realized that people like me, girls with skin the colour of chocolate, whose kinky hair could not form ponytails, could also exist in literature.* [235]

Her experience, while addressing broader issues of stereotyping, also highlights the significance of children needing to have access to different stories with different characters to inspire them.

Tsion Kiros started publishing stories in Amharic for her children because she wanted her children to know about Ethiopian customs and life. Using the tooth fairy as an example, she said:

> *When a girl pulls a tooth, or boy, we throw it on top of the roof. And then a bird takes it, or a mouse takes it. We have this whole other culture. And this is important. Our children have to know how we do things and see our lives.*[236]

It was out of this desire that Kioros and her sister created Midako Publishing and published 'Who Took the Little Girl's Tooth?', which is available in print and as an ebook.[237]

Given that there is a need and demand for contextually relevant books in local languages, it is important to consider how these are generally supplied. Data from interviews revealed that physical books are most often supplied to the public in these ways:

- Booksellers/bookshops (via distributers or directly from publishers);
- Government in schools (usually textbooks);
- Libraries (government or donor supported);
- Donors, sometimes via NGOs, who supply books to community centres, schools and learning centres; and
- Publishers directly to the public via stores or book fairs (for example, the Frankfurt Book Fair or the New Delhi World Book Fair, where the public can buy books directly).

With regards to bookshops/booksellers, books can be purchased online or via physical bookshops (and supplied via delivery or directly). However, it was highlighted that books are expensive (in the African context).[238] In South Africa, while the children's book market may be vibrant, it is highly price sensitive, with high printing costs and low print runs, and books are still considered a luxury for a very large proportion of South Africans who have limited access to books.[239] Thus, buying books may not be a priority when parents are trying to make ends meet and purchasing books may be considered a 'middle class' activity:

> *The situation on lower economic communities. I think the need is more survival for food and shelter, electricity and water. If extra cash then they might buy books* [240]

Shine Literacy runs parent workshops where they give parents books, provide options of where they can buy affordable books, and provide them with a library map to access books.

While the role of parents is also regarded as important in providing books to children and it was argued by two interviewees that there was a need to 'create a demand' for books by parents:

> *People don't necessarily know what they could demand in many settings. That's really the work that needs to be done… advocacy on why is this so important that tiny children engage with*

[235] Adichie, C.N. (2009). The danger of a single storyThe Danger of a Single Story. Presented in July 2009 at TEDGlobal 2009 Retrieved from https://www.ted.com/talks/chimamanda_adichie_the_danger_of_a_single_story?language=en
[236] Van der Wolf, M. . Sisters Aim to Build Ethiopia's Reading Culture. Retrieved from http://www.voanews.com/content/sisters-aim-to-build-ethiopia-reading-culture/3118720.html
[237] Midako Publishing Store. Retrieved from http://www.midakobooks.com/shop/
[238] Carrie Mashek, personal communication to Sarah Hoosen, 9 February 2016
[239] Barrouillet, S. (2015). Agent's Insight into the South Africa's Children's Book Market. Retrieved from http://publishingperspectives.com/2015/09/agents-insight-into-the-south-africas-childrens-book-market/
[240] Janet Condy, personal communication to Sarah Hoosen, 28 January 2016

> *stories, pictures and texts. Why should I bother with books as a mother who can't even find enough food?*[241]

> *Parents buy books because children ask for books. Children will not ask if they are not exposed to books.*[242]

In other contexts, parents indiscriminate buying of books may also not be beneficial:

> *Parents buy a lot of books (obsessively) across the spectrum ...don't necessarily think it serves child's interest – readers, workbooks, assessment, study guides. A lot of reading material for young children is meant to be supported by caring adult – I don't think in Singapore, enough people have the idea that a parent or adult needs to support the child gently as he or she goes through the book.* [243]

With governments, the challenge is that they may focus more on provision of textbooks as opposed to supplementary reading material or graded readers. For example, in South Africa, books selected for use in state schools have to conform to the specifications of the Department of Basic Education (DBE). Many provinces prioritize core materials such as the numeracy workbook and language workbook, but they leave out graded readers. This also has to do with cost considerations, as graded readers generally come in packs and are more expensive. The shortages of reading materials in this context has been described as being severe with very few schools having sufficient quantities of adequate reading material.[244] Additionally, the cost and the logistics of getting physical books to schools is sometimes challenging.[245] Furthermore, the DBE is moving towards greater centralization in the editing, printing and publishing of books.[246] There is also a proposed single textbook policy which the DBE is trying to force through against strong opposition, could throw the publishing industry into turmoil.[247]

Another argument is that, while there is a demand, and books may have been supplied, there is also the issue of whether and how the books are used. There are records of books being provided but then stored in a box in a store room at the school.[248]

> *It is one thing to supply books and materials but it's another for those materials to be utilised – most often we find books locked in store room. The books also need to be mediated. (We need to) show how to use them and give them more training. There are many reasons for teachers locking books – if books are supplied without an accompanying message what the books are to be used for. If they are supplied without warning they also know that there can be financial consequences – supplier may demand money. There is also a lack of enthusiasm towards books. Lack of sophistication, when you get a book without a note and an overwhelmed teacher, it is going to take long to figure what the book for, and how it fits into other book that are being used.*[249]

> *Every time we have project, we give (books) to the head of school. But many times, the head locks the books. So out of 15 only two use the books. Many don't have space to create library. The majority of schools in 2014-2015 don't have a class library.*[250]

[241] Carole Bloch, personal communication to Sarah Hoosen, 19 February 2016
[242] Karima Grant, personal communication to Sarah Hoosen, 8 February 2016
[243] Rosemarie Somaiah, personal communication to Sarah Hoosen, 1 December 2015
[244] Garry Rosenberg, personal communication to Sarah Hoosen, 24 February 2016
[245] Tessa Welch, personal communication to Sarah Hoosen, 14 December 2015
[246] Heale, J. (2015).Yesterday into Tomorrow. The Exciting Progress of South African Literature for Young Readers. Retrieved from http://library.ifla.org/1160/1/215-heale-en.pdf
[247] Barrouillet, S. (2015). Agent's Insight Into the South Africa's Children's Book Market. Retrieved from http://publishingperspectives.com/2015/09/agents-insight-into-the-south-africas-childrens-book-market/
[248] Garry Rosenberg, personal communication to Sarah Hoosen, 24 February 2016
[249] Masennya Dikotla,personal communication to Sarah Hoosen, 18 January 2016
[250] Karima Grant, personal communication to Sarah Hoosen, 8 February 2016

> *The continent is strewn with delivered books, and then they sit in cupboards, and in principal offices. The only way to change that is to engage with the society and communities - the bridging of home, school, and the community.*[251]

This illustrates that just providing a book is not sufficient. Teachers need to know how to use the book and fit it into their teaching programme.

Finally, West and Chew (2014) succinctly highlight that literacy challenges will not be addressed by simply providing books:

> *It is important to qualify that access to books does not, by any means, assure or necessarily even promote literacy. Parachuting books to people – whether through mobile phones or other mediums – is exactly that: dropping books and leaving. Deriving meaning from text is a deeply complex act that does not happen through exposure alone. People who think that literacy can be achieved by mere proximity to reading material should be reminded that it took the most talented linguists on the planet over a thousand years to decipher Egyptian hieroglyphs. The challenge wasn't access to hieroglyphs; it was figuring out what they communicated. Humans may have a language instinct, but there is nothing natural about reading; it is a skill that needs to be taught and practiced, again and again and again. Nevertheless, the primacy of access cannot be overstated. While it is true that books, by themselves, will not remedy the scourge of illiteracy, without them illiteracy is guaranteed.* [252]

Where are large collections of storybooks to be found and who supplies them? Libraries should be the answer to the first question and government the answer to the second. But this is not always the case in low-income countries, as this report illustrates. In many parts of Africa, international organizations, such as Room to Read and CODE, have established and help maintain library programmes because national governments either cannot or will not do so. By the same token, international NGOs have largely been responsible for stocking library and other book shelves, with mixed results in terms of quality and relevance.

[251] Carole Bloch, personal communication to Sarah Hoosen, 19 February 2016

[252] West, M., and Chew, H.E. (2014). Reading in the mobile era: A study of mobile reading in developing countries. UNESCO. Retrieved from http://unesdoc.unesco.org/images/0022/002274/227436e.pdf

Appendix F: Changes in the publishing industry

Introduction

> *All media exist as a result of technological innovation – be it Gutenberg's printing press, cinema, radio, the telephone, TV, or the internet. Compared to other industries, media industries are specifically sensitive to the influence of technology as it is not only the production process that is digitized, but also the product itself.*[253]

The book publishing industry is in a period of rapid and significant change, and is a dynamic and evolving industry. It is facing the most significant change in its history since the 15th century, when Gutenberg invented the movable type printing press. Innovation during the subsequent five centuries may be regarded as largely incremental, with significant shifts beginning to occur as a result of the Internet and as new models of producing, distributing and consuming books emerge.[254] With the proliferation of mobile devices and the Internet, the reading habits of people are changing, and the content, format, and technical infrastructures of publishers are going through a lot of changes to match with the needs of digital readers.[255] These changes are closely bound to the emergence of the digital world. Although the pace is uneven from country to country, the innovations discussed in this appendix have generally occurred more rapidly in the North rather than in the global South. Nevertheless, the publishing industry in developing-world countries is not immune to change and disruption. Even if the tempo is not as rapid, changes along these lines have already begun, and a number of developing-country examples are given.

Going digital

The advent of technology has opened a huge market, full of new opportunities for books, which are no longer confined to print. The introduction of e-readers has altered the way in which books are purchased, promoted, and read.

From a production perspective, new technologies now allow books to be written and produced in a fully digital process.[256] While digital technologies have been around for a while as tools used in publishing-related tasks (such as writing, editing, proofreading, translating, illustration, layout, and printing), their impact is more recently seen on areas such as the management of communication, promotion, marketing, sales, the media on which content is sold and read, and on the very act of reading.[257] Digital content distribution is made possible through a simple download process,

[253] Klein, N. A. (2013). New business models in book publishing: An analysis of start-ups and their strategies. Master Thesis - Masters of Business Administration (MBA). Retrieved from https://www.academia.edu/6306101/New_business_models_in_book_publishing_An_analysis_of_start-ups_and_their_strategies

[254] Rodrigues, M.A.D.S., Chimenti, P., Nogueira, A.R.R., Hupsel, L.F., and Repsold, A. (2014). From print to screen: changes and challenges facing the Brazilian publishing industry. R.Adm., São Paulo, v.49, n.3, p.491-505, jul./ago./set. 2014. Retrieved from www.rausp.usp.br/download.asp?file=RAUSP_v49n3_491-505.pdf

[255] Raykor. (2015). Trends Driving the Changes in Publishing Industry. Retrieved from http://www.raykor.com/blog/2015/09/trends-driving-the-changes-in-publishing-industry

[256] Rodrigues, M.A.D.S., Chimenti, P., Nogueira, A.R.R., Hupsel, L.F., and Repsold, A. (2014). From print to screen: changes and challenges facing the Brazilian publishing industry. R.Adm., São Paulo, v.49, n.3, p.491-505, jul./ago./set. 2014. Retrieved from www.rausp.usp.br/download.asp?file=RAUSP_v49n3_491-505.pdf

[257] Gómez, M. (2015). Challenges and Opportunities for the Publishing Industry. CCCB LAB. Retrieved from http://blogs.cccb.org/lab/en/article_desafiaments-i-oportunitats-per-a-la-industria-editorial/

overcoming traditional industry limitations, such as inventory and logistics, which previously restrained publisher's offerings bounded by the value chain perspective. With the advent of the Internet, books can easily be sold online and delivered physically, or the entire process of purchasing, delivering and reading a book may occur online.[258]

Klein (2013) highlights some significant digital drivers[259] relevant to publishing:

Table 6 Digital drivers

Digital driver	Description
Decoupling of content and medium	Content is no longer bound to one specific medium, it can be transferred flexibly from one medium to another – the internet is multimedia, multipurpose transmitter
Media capacity	Technological capacity is growing: bandwidth, computing power, storage (Cloud Computing etc.)
Compression	Compression rates are growing, which in turn helps to distribute and store larger amounts of content easily, although at the cost of reduced quality
Miniaturization	Growing compression rates and growing media capacity allow for the production and reception of content on physically smaller media devices.
Mobility	Content can be transported more and more easily (mobile, Cloud Computing)
Automation	Digital technologies support the substitution of humans by machines
Modularization, contextualization, individualization	Content can be matched to the preferences of users using filter technologies (HTML5, Metadata, semantic content) but also new printing technologies (POD)

ebooks

An ebook is an electronic version of a traditional print book or a digital publication containing text, images, or both, readable on computers or digital devices.[260] Ebooks have practically no physical limitations. Once the 'master' version is finalized, it is easy to replicate the book onto an unlimited number of devices, at any time and in any place.[261]

Ebooks have a number of advantages, such as a faster and global publication process, lower costs, greater convenience (because there is no need to store or to physically locate a product in order to

[258] Rodrigues, M.A.D.S., Chimenti, P., Nogueira, A.R.R., Hupsel, L.F., and Repsold, A. (2014). From print to screen: changes and challenges facing the Brazilian publishing industry. R.Adm., São Paulo, v.49, n.3, p.491-505, jul./ago./set. 2014. Retrieved from www.rausp.usp.br/download.asp?file=RAUSP_v49n3_491-505.pdf

[259] Klein, N. A. (2013). New business models in book publishing: An analysis of start-ups and their strategies. Master Thesis - Masters of Business Administration (MBA). Retrieved from https://www.academia.edu/6306101/New_business_models_in_book_publishing_An_analysis_of_start-ups_and_their_strategies

[260] Nagy, A.D.(2010). How to Read eBooks on Your Smartphone. Retrieved from http://pocketnow.com/smartphone-news/how-to-read-ebooks-on-your-smartphone

[261] Bacon, B. (2013). Ebooks are actually not books - schools among first to realizing this fact. Digital Book World. Retrieved from http://www.digitalbookworld.com/2013/ebooks-are-actually-not-books-schools-among-first-to-realize/

sell it), simpler processes of content updating, and greater access to additional functionalities, such as manuscript searching and reader participation.[262]

In recognition of developments in ebooks, several businesses developed readers or apps to read books, including iPad, Kindle, the Nook, and the Sony Reader. Mobile e-reader devices are attractive to many consumers because they fulfil the same purpose as physical books and allow a large title storage in an object that weighs no more than a single book. The category of mobile e-readers is typically divided into two types of devices: ebook readers, which primarily offer the ability to read ebooks, and multipurpose devices, such as Apple's iPad, tablets, laptops, and game consoles with ebook reading capabilities.[263]

> *Some print stalwarts find e-readers a step down, but the fundamental experience of immersing yourself in a text is not bound up in any particular medium or venue. Reading never depended too much on sensual verisimilitude, only a mental leap from the words to the ideas they represent. The book is so low-tech, it's hard for technology to degrade it.* [264]

Different formats have been used for ebooks, the most common among them being Adobe's PDF format and EPUB, a standard backed by the International Digital Publishing Forum (IDPF). However, ebooks often function within a proprietary system. For example, Amazon uses a proprietary standard, AZW, which is based on software created by mobipocket, an Amazon subsidiary. If users decide to quit their Amazon accounts, the ebooks they have bought are not transferable.[265]

A number of businesses have been established in Africa that focus on selling African books in ebook format, among them eKitabu in Kenya. eKitabu, whose name is based on the word book in KiSwahili, Arabic, and Hindi, is an educational publisher that has developed its own platform to sell, manage, and deliver books in English, KiSwahilli, Arabic, Kinyarwanda, and other languages to over 650 schools across Sub-Saharan Africa: Kenya, Uganda, Rwanda, and Ghana. According to the eKitabu website, they have been able to lower the cost of delivering books for education in local languages by over 50 percent.[266] eKitabu partners with publishers, network operators, device manufacturers, school networks, government, NGOs, and donors. eKitabu ebooks are in PDF format and, thus, readable on multiple devices. Books can be purchased using Kenya's mobile currency system, m-Pesa.

With regards to children's books, evidence suggests that they still comprise a larger part of the print market, meaning physical stores are important to that market (more so than adult books), and/or haven't as successfully transitioned to digital.[267]

Distribution

Until recently, book distribution has always meant 'print book distribution'. As highlighted, the sheer number of devices that can be used to read ebooks has exploded in recent years. In addition to

[262] Rodrigues, M.A.D..S., Chimenti, P., Nogueira, A.R.R., Hupsel, L.F., and Repsold, A. (2014). From print to screen: changes and challenges facing the Brazilian publishing industry. R.Adm., São Paulo, v.49, n.3, p.491-505, jul./ago./set. 2014. Retrieved from www.rausp.usp.br/download.asp?file=RAUSP_v49n3_491-505.pdf

[263] Frey, T. (2015). The Future Of Libraries: The Fall Of Book Publishing. Retrieved from http://www.davinciinstitute.com/papers/the-fall-of-book-publishing-the-rise-of-new-e-book-business-models

[264] Hughes, E. (2013). The Publishing Industry is Thriving. Books Don't Want to Be Free How publishing escaped the cruel fate of other culture industries. The New Republic. Retrieved from http://www.newrepublic.com/article/115010/publishing-industry-thriving

[265] Klein, N. A. (2013). New business models in book publishing: An analysis of start-ups and their strategies. Master Thesis - Masters of Business Administration (MBA). Retrieved from https://www.academia.edu/6306101/New_business_models_in_book_publishing_An_analysis_of_start-ups_and_their_strategies

[266] EKitabu: Buy ebooks. (n.d.). Retrieved 15 June 2016, from http://www.ekitabu.com/

[267] Nielsen Bookscan, 2004–2013, reported on by Publishers Marketplace in Friedman, J. (2014). 5 Valuable Charts that show how Publishing is Changing. Retrieved from https://janefriedman.com/5-valuable-charts/

dedicated e-readers, consumers in some parts of the world are using smartphones, tablets, and laptops for their immersive reading experiences.[268] As books are now available in multiple formats, they can be distributed through many channels such as web-based delivery, ebook readers and via apps. Thus, the conventional distribution and retail channels are changing. With downloads the supplier is effectively paid instantly for content via a credit card or PayPal-type transaction, and there is no investment in physical stock or distribution. This is an attractive model, but publishers may not be the preferred digital shop, with Amazon, Redbook, and Apple being the current leaders.[269]

The most pressing issue for publishers is not only how best to digitize and structure book content, but increasingly, how best to store their content, manage it effectively, and serve it in multiple formats to a variety of platforms. Thus they face accompanying challenges with regards to the cost of building a digital infrastructure that can serve an adequate volume of files, including server and bandwidth expenses. They also face the larger challenge of the cost of engineering and maintaining a system that can adapt to keep up with the changing formats, standards, and delivery requirements of the rapidly changing digital landscape.

The economics of ebook sales

ebook sales revenue in the US has increased from $0.27 billion in the year 2008 to about $3 billion in the year 2014, and predictions are that the revenue will grow to $8.69 billion in 2018.[270] Historically, as ebooks replaced print books, revenues declined slightly on a title by title basis. However, profitably increases significantly. As digital accounts for more business, HarperCollins expects that its working capital needs will decrease due to faster payment for ebooks and diminishing inventory advertising returns from print.[271]

In terms of economics, ebooks are significantly more profitable for publishers than print books, primarily because ebook royalties from major publishers remain at 25%. Generally, on a hardcover, the author earns 30% of the publisher's gross revenue, and 42.5% of the total margin (what the author and publisher together earn).[272] Below are Illustrative unit economics from a HarperCollins presentation.[273]

Table 7 Illustrative unit economics

Hardcover title	Hardcover	ebook Agency
Retail price	$27.99	$14.99
Publisher's share	49.0%	70.0%
Publisher's revenue	$13.72	$10.49
Manufacturing costs	(1.92)	
Cost of returns	(1.17)	
Royalty	(4.20)	(2.62)

[268] Adobe® eBook Platform: Authoring and delivering eBooks across devices. Retrieved from http://www.adobe.com/products/digitaleditions/pdfs/adobe_ebook_platform_whitepaper.pdf
[269] Smithers Pira. (2011). New Devices and Means of Consuming Content are Changing the Face of the Publishing Industry. Retrieved from http://www.smitherspira.com/news/2011/may/the-changing-face-of-the-publishing-industry
[270] Raykor. (2015). Trends Driving the Changes in Publishing Industry. Retrieved from http://www.raykor.com/blog/2015/09/trends-driving-the-changes-in-publishing-industry
[271] HarperCollins presentation to News Corp.; reproduced at Publishers Marketplace in Friedman, J. (2014). 5 Valuable Charts that show how Publishing is Changing. Retrieved from https://janefriedman.com/5-valuable-charts/
[272] Friedman, J. (2014). 5 Valuable Charts that show how Publishing is Changing. Retrieved from https://janefriedman.com/5-valuable-charts/
[273] HarperCollins presentation to News Corp.; reproduced at Publishers Marketplace in Friedman, J. (2014). 5 Valuable Charts that show how Publishing is Changing. Retrieved from https://janefriedman.com/5-valuable-charts/

Hardcover title	Hardcover	ebook Agency
Distribution/freight	(0.76)	
Contribution profit	$5.67	$7.87
Contribution margin	41.4%	75%

Simon & Schuster reported in February, 2013 that its improved fortunes in recent years were owed largely to 'the growth in more profitable digital book sales as a percentage of total revenues'. A PowerPoint slide presented by HarperCollins to investors also indicated the same thing: 'historically, as ebooks replaced print books, revenues declined slightly on a title-by-title basis. However, profitability increased significantly'.[274]

Reassessing business models

The changes experienced by the publishing industry are affecting its market paradigms and business models. Basic principles, such as economies of scale, which used to be a mantra for this sector, is less significant. Digital books are usually sold at a lower price in compared to physical books. This reflects the pricing schemes that were established by the new market creator (Amazon) when it set digital book prices below their physical equivalents. Furthermore, the publishing industry usually releases several versions of the same book: first a highly priced hardcover version and months later a cheaper paperback release. The increasing availability of digital books is resulting in consumers demanding the simultaneous release of physical and digital books, which may jeopardize the traditional skimming strategy and the consequent profitability strategy. As free public domain books increasingly becoming available, this availability may further threaten the traditional business model of the publishing industry. [275]

Publishing industry actors are thus forced to reassess their business models and redefine their products and services, in order to bring them into line with the changing conditions, needs and requirements of the new playing field. This adjustment process may end up revealing new forms of generating the income required to ensure their profitability and sustainability in the mid- and long-term. Some considerations in this regard are:

- *The omnipresence of mobile devices and internet connections, which means that we are now exposed to a wide range of easily accessible content that seeks to attract and hold our attention;*
- *The devaluation of books as a source of access to knowledge, entertainment, and leisure due to the appeal, speed, agility and instant, short-lived gratification that other low-cost or free options such as videogames, music, videos and social networks can more easily provide;*
- *The rise in the number of consumers who are only prepared to pay very small amounts to access content, or who are even convinced that access should be free, and demand that it be so; and*
- *The change in the way content is consumed as a result of the increasingly widespread use of two alternatives to the traditional model of purchase and ownership of cultural products in physical form, such as books, magazines, films and records: on one hand, paying for licences to access content under terms of use that generally restrict the*

[274] Hughes, E. (2013). The Publishing Industry is Thriving. Books Don't Want to Be Free How publishing escaped the cruel fate of other culture industries. The New Republic. Retrieved from http://www.newrepublic.com/article/115010/publishing-industry-thriving

[275] Rodrigues, M.A.D..S., Chimenti, P., Nogueira, A.R.R., Hupsel, L.F., and Repsold, A. (2014). From print to screen: changes and challenges facing the Brazilian publishing industry. R.Adm., São Paulo, v.49, n.3, p.491-505, jul./ago./set. 2014. Retrieved from www.rausp.usp.br/download.asp?file=RAUSP_v49n3_491-505.pdf

> *mode, the amount of time, and the place of use; and on the other, the legal or illegal downloading of content free of charge.*[276]

Additionally, the boundaries between the creative industries are in flux, as are the traditional roles of the different players. The distinctions between production, distribution and reception are becoming blurred, with new technology players like Amazon, for example, making it clear that distributors and retailers can act as printers and publishers at the same time, and thus assume a dominant position in the market. With the unbundling of services that were traditionally offered by one player, value chains are replaced by value networks.[277]

Consequently, new emerging business models mostly aim to provide publishing services to self-publishers, and/ or platforms for direct interactions between user groups:

- *They support the use of crowdfunding and crowdsourcing to complement the core functions of publishing,*
- *They deliver high quality multimedia books and/ or draw on new sources of income from marketing. The sources of income and the customer value propositions are considerably more diverse in digital publishing than in traditional publishing structures.*
- *Core functions of publishing, such as selection, aggregation, curation and marketing, emerge as functions that are being explored by a plethora of start-ups.*
- *Reproduction and distribution, as well as transformation, are functions that will probably be disintermediated in the future.*
- *The societal value of publishing will rise, with a larger number of players (NGOs, institutions, citizens) partaking in the publishing process, and social values providing important motivation for start-ups.*[278]

Reconfiguration of main actors

> *… the 'digital' in digital disruption isn't relegated to ebooks. When PDF files can be emailed, and books can be printed in minutes anywhere and then sold instantly everywhere, and then shipped same-day most places, the old chain of print-in-China and sell-in-B&N has been radically upturned.*[279]

The dramatic changes in the publishing industry not only offer new and challenging business opportunities, but also constitute threats to current business owners. One of the consequences of the changing landscape in book publishing is the reassessment of the role of the main actors in the value chain of the publishing industry.[280] One of the major disruptions in publishing was the rise of Amazon, which influenced book distribution and changed the way in which books are priced, physically

[276] Gómez, M. (2015). Challenges and Opportunities for the Publishing Industry. CCCB LAB. Retrieved from http://blogs.cccb.org/lab/en/article_desafiaments-i-oportunitats-per-a-la-industria-editorial

[277] Klein, N. A. (2013). New business models in book publishing: An analysis of start-ups and their strategies. Master Thesis - Masters of Business Administration (MBA). Retrieved from https://www.academia.edu/6306101/New_business_models_in_book_publishing_An_analysis_of_start-ups_and_their_strategies

[278] Klein, N. A. (2013). New business models in book publishing: An analysis of start-ups and their strategies. Master Thesis - Masters of Business Administration (MBA). Retrieved from https://www.academia.edu/6306101/New_business_models_in_book_publishing_An_analysis_of_start-ups_and_their_strategies

[279] Howey, H. (2015). Change Keeps Happening - The Wayfinder. Retrieved from http://www.hughhowey.com/change-keeps-happening/

[280] Gómez, M. (2015). Challenges and Opportunities for the Publishing Industry. CCCB LAB. Retrieved from http://blogs.cccb.org/lab/en/article_desafiaments-i-oportunitats-per-a-la-industria-editorial/

distributed, marketed and reviewed.[281] Amazon revolutionized book reading in 2007 when it introduced its Kindle book reader. The explosive sale of book readers has caused a massive surge in the sale of ebooks.[282] The changing landscape is generating debate around the reconfiguration of the sector, with emerging new actors who are bringing their own production and business models into play.

Traditional actors in the publishing industry's value chain are increasingly being 'forced' to face many factors that threaten their survival. These include:

- *The partial or full loss of their role as intermediaries;*
- *The move into the sector by other actors who were previously outside of it – digital native content companies, software developers, telecommunications operators, Internet and online service providers – that could end up taking their place; and*
- *Being subject to the rules imposed by these new actors and losing their power to negotiate when it comes to defining the game rules of their sector.*[283]

Companies – often technology start-ups – are developing tools and services linked to the design, development, production, promotion, commercialisation, display, purchase, organization, and consumption of content in the digital sphere. These initiatives, including self-publishing, the loan of ebooks in libraries, and e-reading subscription services are influencing the direction of the industry.[284]

Decline in large chain bookstores and influence on book sales

One of the major results of this change has been that Borders Books, a large book chain in the US went bankrupt and closed all of its stores during the recession. In addition, Barnes & Noble has had to retrench. In general, book publishers in the past decade have seen a decline in the number of big box bookstores in the United States, although, as discussed elsewhere, independent bookstores are seeing a resurgence. Libraries have also seen a decrease in funding, with more space dedicates to computers, movies and music. Additionally, there are disappearing bookshelf space at bookstores, leading to a growing problem of how readers will discover new authors and books.[285] Moreover, research has indicated that readers don't use online bookstores to discover books; they use them to purchase titles they find out about elsewhere - frequently at physical stores. Publishers fear that, with fewer stores to browse in, book sales could be significantly reduced.[286] Even so, just as big box stores like Borders board up their windows, others open in the most unexpected ways. Amazon, the giant of the online book world, opened its first walk-in physical store in 2015 and is planning more.[287]

Mergers in publishing

Another big change occurring in publishing is mergers between big players in the field – specifically, the merger of Penguin and Random House. There is much debate on what this consolidation means

[281] Price, F. (2014). Dramatic Change in the Book Publishing Industry. Retrieved from https://figtreebooks.net/dramatic-change-book-publishing-industry/
[282] Frey, T. (2015). The Future Of Libraries: The Fall Of Book Publishing. Retrieved from http://www.davinciinstitute.com/papers/the-fall-of-book-publishing-the-rise-of-new-e-book-business-models
[283] Gómez, M. (2015). Challenges and Opportunities for the Publishing Industry. CCCB LAB. Retrieved from http://blogs.cccb.org/lab/en/article_desafiaments-i-oportunitats-per-a-la-industria-editorial/
[284] Gómez, M. (2015). Challenges and Opportunities for the Publishing Industry. CCCB LAB. Retrieved from http://blogs.cccb.org/lab/en/article_desafiaments-i-oportunitats-per-a-la-industria-editorial
[285] Digital Book World. (2014). Biggest Problems Facing Publishing: Disappearing Shelf Space, Discovery, Pace of Change. Retrieved from http://www.digitalbookworld.com/2014/biggest-problems-facing-publishing-disappearing-shelf-space-discovery-pace-of-change/
[286] Hughes, E. (2013). Book Publishers Scramble to Rewrite Their Future | WIRED. Retrieved from http://www.wired.com/2013/03/publishing-industry-next-chapter/
[287] Lam, B. (2016, February 3). The Amazon Store Mystery. The Atlantic. Retrieved 15 May 2016, from http://www.theatlantic.com/business/archive/2016/02/amazon-bookstores/459750/

for the industry, with speculations that this will increase their 'clout', and create additional distribution channels through subscription services.[288] It is also believed that such a move can help stand up to Amazon's market power.[289]

Self-publishing and indie authors

Digital printing also allows for business models based on self-publishing. Until a few years ago, self-publishing was seen as a last resort. However, with the availability of easy-to-use technology tools and useful information online, self-publishing has become much more popular – for example, between 2006 and 2011, the number of self-published books in the US grew by 287%. Big players like Amazon have developed publishing platforms, and players like Apple and Google are also giving the individuals an easy entry into the publishing world.[290]

Hugh Howey is one of the most popular and successful self-publishers. Howey started writing a series of sci-fi novellas called *Wool* in 2011. He had already published a book with a small press, but wanted to retain creative control. He began to sell digital downloads and print editions through Amazon, and in the first six months he sold 14,000 copies. By January 2012 Howey was making approximately $12,000 a month. By May, *Wool* was bringing in $130,000.[291] Howey now produces author earnings reports for indie authors who publish through Amazon.[292]

However, Hughes (2013) argues that Howey and others like him are exceptional. In general, Hughes believes, new writers gain much more than they lose by signing with a major house. Most self-published authors have trouble selling a copy outside of their immediate family. Nevertheless, a real danger to publishers is that more established authors who have already established an audience may be tempted by this.

> *At a time when a writer can post a novel online and watch the revenue pour in by direct deposit, the publishing industry's skill at making books, selling them by hand to bookstores, and managing the distribution of the product threatens to become irrelevant.* [293]

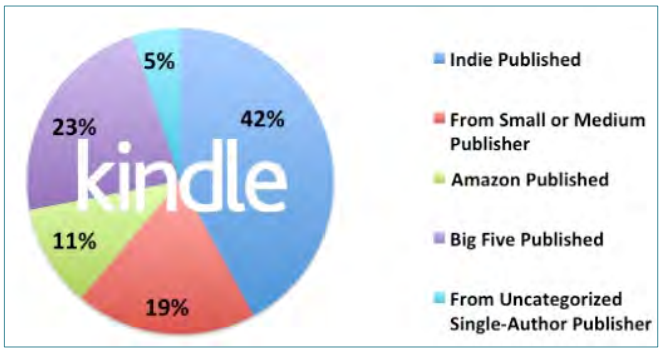
Although writers like Howey may be unusual, Howey's *Author Earnings Reports* demonstrates that the share of certain segments of the reading market held by commercially-minded publishers is diminishing as self-published authors take their content to market on their own.[294] This is particularly true for science fiction, fantasies, mysteries, thrillers, and romance novels. Thus technology is putting the 'middle-man' at risk. Authors can go directly to readers. For publishers, the challenge is the bring value to the industry; for example, as curators who can produce a well-edited book.[295] The writer may need a freelance editor, a publicist, and an agent who functions as a kind of business manager, with

[288] NPR Staff. (2012). Change Is The Only Constant In Today's Publishing Industry. Retrieved from http://www.npr.org/2012/12/27/167640733/change-is-the-only-constant-in-todays-publishing-industry
[289] Hughes, E. (2013). Book Publishers Scramble to Rewrite Their Future | WIRED. Retrieved from http://www.wired.com/2013/03/publishing-industry-next-chapter/
[290] Raykor. (2015). Trends Driving the Changes in Publishing Industry. Retrieved from http://www.raykor.com/blog/2015/09/trends-driving-the-changes-in-publishing-industry
[291] Hughes, E. (2013). Book Publishers Scramble to Rewrite Their Future | WIRED. Retrieved from http://www.wired.com/2013/03/publishing-industry-next-chapter/
[292] Berkowitz, D. (2016, April 4). DBW Interview with Hugh Howey, Author. Retrieved 15 June 2016, from http://www.digitalbookworld.com/2016/dbw-interview-with-hugh-howey-author/
[293] Hughes, E. (2013). Book Publishers Scramble to Rewrite Their Future | WIRED. Retrieved from http://www.wired.com/2013/03/publishing-industry-next-chapter/
[294] Shatzkin, M. (2015). The publishing world is changing, but there is one big dog that has not yet barked. The Shatzkin Files. Retrieved from http://www.idealog.com/blog/the-publishing-world-is-changing-but-there-is-one-big-dog-that-has-not-yet-barked/
[295] How will the publishing industry respond to changes like eBooks and self publishing? Retrieved from https://www.quora.com/How-will-the-publishing-industry-respond-to-changes-like-eBooks-and-self-publishing

authors keeping a bigger share of the proceeds.[296] It has also been argued that publishers are brand names who can be trusted to put out (relatively) good books, and the future thus lies in branding and marketing.[297]

Howey's 10 January 2016 calculation of the share of daily Amazon ebooks sold, segmented by type of publisher is indicative of the power of indie authors on the marketplace.

Figure 4 Daily unit sales of ebook bestsellers (195,000 books 58% of Amazon ebook sales) [298]



And not to be upstaged by innovations in the United States, Okada Books in Nigeria operates a book store for ebooks published by indie authors. The name Okada derives from the motorcycles used for commercial deliveries in Nigeria. The site is in English; books are sold in Nigerian naira. Payment is through Paypal, bank transfer, or Etisalat phone cards.[299] Okada authors are like indie authors elsewhere - many of the best sellers are romance novels, although the comic books on the site lean heavily towards action-based themes.

These new business models have resulted in changes in how publishers do business. For example, F+W Media, which owns and operates Digital Book World, seeks to do business only with authors who already have their own online marketing platforms.[300]

Another example is Book Country,[301] a Penguin initiative attempting to use the untapped market of self-publishing to obtain unsigned talent and gain new and potentially exclusive content. Authors still retain their rights, but Penguin would have the first option to sign a new author. Instead of having the expense of an editor, they use crowdsourcing suggesting edits that would benefit the submitter. The model is a relatively inexpensive way to obtain new content without the difficulties inherent in sifting through submissions.[302] In addition, rather than relying on Amazon's Kindle, Apple's ibooks, or other

[296] Hughes, E. (2013). Book Publishers Scramble to Rewrite Their Future | WIRED. Retrieved from http://www.wired.com/2013/03/publishing-industry-next-chapter/
[297] How will the publishing industry respond to changes like eBooks and self publishing? Retrieved from https://www.quora.com/How-will-the-publishing-industry-respond-to-changes-like-eBooks-and-self-publishing
[298] Author Earnings. February 2016 Author Earnings Report: Amazon's Ebook, Print, and Audio Sales. (2016, February). Retrieved 18 June 2016, from http://authorearnings.com/report/february-2016-author-earnings-report/
[299] Okada Books is an Indie African eBookstore | The Digital Reader. (2015, April 11). Retrieved15 June 2016, from http://the-digital-reader.com/2015/04/11/okada-books-is-an-indie-african-ebookstore/. The Okada website will be found at http://okadabooks.com.
[300] Digital Book World. (2014). Biggest Problems Facing Publishing: Disappearing Shelf Space, Discovery, Pace of Change. Digital Book World. Retrieved from http://www.digitalbookworld.com/2014/biggest-problems-facing-publishing-disappearing-shelf-space-discovery-pace-of-change/
[301] Book Country. Retrieved from http://bookcountry.com/
[302] How will the publishing industry respond to changes like eBooks and self publishing? Retrieved from https://www.quora.com/How-will-the-publishing-industry-respond-to-changes-like-eBooks-and-self-publishing

apps, some publishers are directly marketing and distributing ebooks to readers. Driven by contract disputes with Amazon, HarperCollins now has an online store and reader app for its imprints.

Children's publishers have also begun to capitalize on the possibilities of digital platforms to connect directly with readers. For example, Scholastic, which reaches into schools through teachers, is creating an ebook reading platform called Storia. Storia will be a complete environment, providing services for the purchase and reading of ebooks and tools for parents and teachers to oversee their children's reading. In this model, power transfers to the platform owner from the individual title or author.[303]

Ourboox is a free simple platform for creating page flipping ebooks in minutes. Authors can add pictures, videos and sound, and create the books in any language. Their system is based on the idea that traditional publishers cut out the agent and sign up writers who succeeded well on Amazon. Success on Amazon depends as much on the writer's ability to market his books as on the quality of the books. Platforms like Ourboox capitalize on the searchability of open access books to see them rise naturally in search engine, leading reader to books when the book relates to a topic that interests them. A revenue share system enables writers to earn money based on the number of views their book attracted, and readers will have the option to order a print version from POD if they prefer the good old fashion paper books to the digital version. This enables books to be discovered, shared and read by an audience a good writer but poor marketer would never have reached otherwise. [304]

Although pundits predicted that Amazon and bookstore chains like Barnes & Noble would put independent bookstores out-of-business in the United States, this has not been the case, as independent bookstores are beginning to flourish again. This is because the chains may have over expanded. Moreover, many book purchasers believe that the 'indies' offer services more effectively. It is easy to browse and handle books; staff know their books; they curate and make personal recommendations; book shelves are filled with old and new titles, as well as those from smaller publishers; the indies foster communities through book readings and other activities; and to bring in extra revenue, they sell merchandise, everything from t-shirts to mugs. Illustrated children's books are among the best sellers.[305]

Marketing and the growth of social media

Although publishers still arrange books tours and media interviews for established authors and those whose books are well-reviewed, marketing is now in the hands of additional players. Online marketing and savvy use of social media are essential.

> *Booksellers don't walk people over to a book and put it in buyers' hands. Other readers do it - they write reviews and buy gifts and tell people when they love a book. Publishers should stop worrying about the middleman and worry about the readers.* [306]

[303] NPR Staff. (2012). Change Is The Only Constant In Today's Publishing Industry. Retrieved from http://www.npr.org/2012/12/27/167640733/change-is-the-only-constant-in-todays-publishing-industry

[304] How will the publishing industry respond to changes like eBooks and self publishing? Retrieved from https://www.quora.com/How-will-the-publishing-industry-respond-to-changes-like-eBooks-and-self-publishing

[305] Karabell, Z. (2014, September 9). Why Indie Bookstores Are on the Rise Again. *Slate*. Retrieved from http://www.slate.com/articles/business/the_edgy_optimist/2014/09/independent_bookstores_rising_they_can_t_compete_with_amazon_and_don_t_have.html In addition, see American Booksellers Association. American Bookstores are Thriving. Retrieved from http://www.bookweb.org/for-the-record.

[306] How will the publishing industry respond to changes like eBooks and self publishing? Retrieved from https://www.quora.com/How-will-the-publishing-industry-respond-to-changes-like-eBooks-and-self-publishing

Social media has changed the way people connect and communicate with each other, with social platforms allowing them to be in touch with their family and friends, share information, consume news, and seek entertainment, which opens up opportunities for publishers to push out relevant and tailored content for them.[307] Twitter and Facebook are two massive and powerful media platforms that are enabling the discovery of long-form content.[308] There are also social media tools aimed expressly at the book industry, such as Goodreads, which is owned by Amazon; Shelfari, also owned by Amazon and "merged" with Goodreads; LibraryThing, which is independent, although AbeBooks (now owned by Amazon) has a 40 percent share; and Riffle,[309] which was created by the Facebook marketing platform, Odyl, and works through past reads and also the reviews of friends and experts. Not content with owning Goodreads outright, eliminating Shelfari, and owning a sizable minority stake in LibraryThing, Amazon has now begun to allow third-party blogs, sites, and apps to embed Kindle instant book previews that provide users with the ability to browse excerpts from books without leaving their sites or apps.[310]

Print on demand

The print on demand (POD) model is perhaps one of the most significant changes occurring in the distribution of print books. While build to order has been an established business model in many other industries, POD developed only after digital printing began, because it was not economical to print single copies using traditional printing technology such as letterpress and offset printing.[311] Due to the capabilities of digital printing, POD is capable of filling an order for one book profitably.[312] With digital technology, it is used as a way of printing items for a fixed cost per copy, regardless of the size of the order. While the unit price of each physical copy printed is higher than with offset printing, the average cost is lower for very small print runs, because setup costs are much higher for offset printing. [313]

Friedlander (2009) explains how POD works from the supplier's perspective: POD suppliers, for example Lightning Source, maintain databases of books on behalf of their publisher clients. Publishers submit books to the print on demand supplier (PODS) in the form of two files for each book: one digital file for the book interior and one for the cover. When the files first arrive they are logged into the PODS's system, examined for technical errors, and a proof copy of the book is created for the publisher to review. Once the publisher signs off on the proof, the book is listed by the PODS throughout its distribution channels including booksellers, other offline and online retailers, chain stores, library suppliers, and in some cases exporters.[314] In the same article, Friedlander lays out both the advantages and disadvantages of POD from the perspective of the publisher:

[307] Raykor. (2015). Trends Driving the Changes in Publishing Industry. Retrieved from http://www.raykor.com/blog/2015/09/trends-driving-the-changes-in-publishing-industry
[308] Hyrkin, J. (2014). The publishing industry isn't dead – but it is evolving. Retrieved from http://thenextweb.com/dd/2014/06/21/publishing-industry-isnt-dead-evolving/
[309] Bausells, M. (2014, May 10). Top book-recommendation platforms: What are your favourites? Retrieved 18 June 2016, from https://www.theguardian.com/books/booksblog/2014/may/10/top-book-recommendation-platforms-what-are-your-favourites (This article also suggests additional review platforms.)
[310] Bishop, T. (2016, January 05). Embed a book? Amazon starts offering Kindle book previews for third-party sites and apps. Retrieved 18 June 2016, from http://www.geekwire.com/2016/embed-a-book-amazon-starts-offering-kindle-book-previews-for-third-party-websites/
[311] Wikipedia. Print on Demand, Retrieved 14 March 2016 from https://en.wikipedia.org/wiki/Print_on_demand
[312] Friedlander, J. (2009). How Print-On-Demand distribution works. The Book Designer. Retrieved from http://www.thebookdesigner.com/2009/12/how-print-on-demand-works/
[313] Wikipedia. Print on Demand, Retrieved 14 March 2016 https://en.wikipedia.org/wiki/Print_on_demand
[314] Friedlander, J. (2009). How Print-On-Demand distribution works. The Book Designer. Retrieved from http://www.thebookdesigner.com/2009/12/how-print-on-demand-works/

Advantages:

- Lower costs (for small runs);
- Technical set-up is usually quicker than for offset printing;
- Eliminates the need to keep books in inventory, reducing storage, handling costs and inventory accounting costs;
- Allows books without substantial sales to stay in print;
- Vastly reduces the investment needed to maintain a large backlist;
- Eliminates the waste and expense of pulping thousands of unsold books.

Disadvantages:

- Books printed digitally cost more per unit than books printed offset;
- Digital printing is not efficient for books that will sell in volume;
- The quality and flexibility of digital printing formats is not as good as offset printing.

Friedlander also addresses POD from the customer's perspective. The customer typically finds the book online at a bookseller such as Amazon or Barnes & Noble, and orders the book. If the book is not physically stocked at the retailer's warehouse, the order is sent back up the distribution chain to the PODS, where computers pull the correct files and send them to the appropriate digital printers. A single copy is printed, shipped, and delivered to the customer in approximately seven days. This tightly integrated supply chain is a basic feature of the POD book distribution model. It allows books to be printed for a consistent unit cost regardless of how many are ordered.[315] He concludes by tying together the impact of POD and ebooks on the industry:

> *For small publishers, independent publishers and self publishers, print on demand book distribution has democratized the publishing process. As more book buying moves online, this effect should be more and more pronounced. Combined with a rapid acceptance of ebooks, print on demand promises to change the book publishing landscape forever.* [316]

Data analytics

The digital transformation of the publishing industry is creating new opportunities for publishers to use data and analytics to drive their business strategy. Publishing companies can now practise sophisticated database management, including data mining in large quantities, owing to search technologies and cloud computing. 'Big data' has been heralded the next big thing in publishing. This includes not only metadata to make content searchable, but also the use of customer data for marketing purposes.[317]

[315] Friedlander, J. (2009). How Print-On-Demand distribution works. The Book Designer. Retrieved from http://www.thebookdesigner.com/2009/12/how-print-on-demand-works/

[316] Friedlander, J. (2009). How Print-On-Demand distribution works. The Book Designer. Retrieved from http://www.thebookdesigner.com/2009/12/how-print-on-demand-works/

[317] Klein, N. A. (2013). New business models in book publishing: An analysis of start-ups and their strategies. Master Thesis - Masters of Business Administration (MBA). Retrieved from https://www.academia.edu/6306101/New_business_models_in_book_publishing_An_analysis_of_start-ups_and_their_strategies

Appendix G: Examples of early literacy distribution initiatives

This appendix focuses on some of the players in early literacy. Sometimes there are intersections, such as commercial publishers that supply books and libraries that are responsible for making them available. Other times, programmes can work at cross purposes. This is sometimes true of book donation programmes that can depress local publishing efforts. All have a role in the early literacy ecosystem.

Book donation programmes

Book donation programmes exist for different reasons and have mixed reviews. Some make every effort to provide books in a demand-driven effort. Others focus more on sending books to the developing world, with little attention to quality, suitability, or the book's condition. These latter efforts are often referred to as book dumping. Book dumping, in particular, bypasses one sector or another of 'the local book chain, disempowering African publishers, book retailers, and librarians, since most donations are not specifically requested by their recipients'.[318] Book charities, particularly those that donate children's books, militate against government responsibility to support book purchases. Why buy storybooks locally when they are donated from abroad?

Some programmes provide specific instructions on what types of books they will accept and the condition they must be in - not always new. US book charities have been fuelled by the Internal Revenue Service (IRS) tax codes. US publishers can receive a tax deduction by donating their excess inventory, and book donation programmes have been eager to receive unwanted stock. There is an assumption in some organizations that 'most books that appeal to Americans will also appeal to Africans'.[319]

This section is not an exhaustive listing of book donation programmes. Rather we have profiled a few initiatives in an effort at understanding the motivations and methodology underpinning them.

Book Aid International (BAI) and the Intra-Africa Book Support Scheme (IABSS) are two noteworthy efforts that have been entirely demand-driven. One concentrates primarily on books published in the global north, and the other worked solely with local publishers across Africa. In both instances, the books are new.

Book Aid International

Book Aid international (BAI)[320] was established in the UK in 1954 through the efforts of the Countess of Ranfurly, who believed in the power of books to change lives. African libraries in 11 countries are the lynchpin of BAI's work. Innovations include children's corners located in government libraries in Kenya, Tanzania, and now Uganda; a resource centre in a community library in a rural part of Southern

[318] Cox, J. (March, 2016). 'Intra-African Book Distribution'. *The Academic Book in the South*. Conference convened by the British Library, London, UK. Unpublished abstract

[319] African Library Project. Sort Your Books. Retrieved from https://www.africanlibraryproject.org/book-drives/book-drive-guidelines/sort-your-books. See also Zell, H. M. (2015). Book Donation Programmes for Africa: Time for a Reappraisal? Part I. Retrieved from https://www.academia.edu/13165497/Book_Donation_Programmes_for_Africa_Time_for_a_Reappraisal_Part_Iell.

[320] Book Aid International. Books change lives. Retrieved from http://www.bookaid.org/

Uganda; and a mobile library in Zambia in collaboration with the Zambian chapter of the group, Forum for African Women Educationalists (FAWE).

Book Aid International donates books from the primary through the tertiary levels. It has developed detailed guidelines for publishers and maintains an inventory of available books for the libraries with which BAI works. Although most donated books are published by international publishing houses, some books have been published in Africa, such as through the Intra-Africa Book Support Scheme, which is discussed below.

Intra-Africa Book Support Scheme

The Intra-Africa Book Support Scheme (IABSS), which was an initiative of the African Books Collective (ABC) and Book Aid International, ran from 1991-2004 in an effort to make books published in Africa visible and available across the Continent. IABSS was necessary because the intra-Africa book trade was rife with problems - customs barriers, currency regulations, lack of information about African publishing, and the vicissitudes of African library and educational budgets, to name four…and there were certainly others. Adult fiction and children's books were sent to schools and libraries; scholarly monographs, the core of the ABC catalogue, went to university libraries. The programme was demand driven throughout. According to Zell (2015), an average of 12,000 literary and children's titles and 7,000 scholarly titles were donated each year.[321]

In an evaluation of IABSS and Book Aid International's implementation of the programme, Guy Bentham of the Commonwealth Secretariat quoted a librarian in Cameroon who commented about the utility of the children's books: 'Readers for young learners bought are more focused with pictures of African children in [southern] African countries and other war-torn countries. Names of characters and places reflect a partly African society and all African children identify with the books more'. In several parts of the evaluation, Bentham also noted that IABSS raised the awareness of librarians and users to African publishing.[322] Interestingly, First Book, which is discussed below obtained similar results in one of its surveys:

> *90 percent of respondents agreed that the children in their programmes would be more enthusiastic readers if they had access to books with characters, stories and images that reflect their lives and their neighbourhoods.*[323]

The programme was supported by a number of European donors and US foundations. In addition to promoting the IABSS objectives vis-à-vis African publishing, the income generated was important to ABC during a period when it was trying to move from dependence on donor funding to self-sufficiency. Publishers who also sold books through IABSS also benefited.

Sometimes used, other times new, many times not requested

Just as the two initiatives profiled above are demand driven, other programmes are strongly oriented towards the supply side. In an article published in 2005, Elizabeth Giles assessed the damage that some book donation programmes can precipitate.[324] Books can be used, not new, sometimes referred to as 'gently used'. The shelf life of used books is limited. Donated books from abroad can also be inappropriate to local cultures, dress, and language. Are these used books and books donated by publishers as part of their excess inventory the books that libraries, schools, and parents would choose

[321] Zell, H. M. (2015). Book Donation Programmes for Africa: Time for a Reappraisal? Part I. Retrieved from https://www.academia.edu/13165497/Book_Donation_Programmes_for_Africa_Time_for_a_Reappraisal_Part_I.
[322] Bentham, G. (April, 2005). *Independent Evaluation of IABSS Project 2001-2004*. (Unpublished report)
[323] First Book. The Stories for All Project. Retrieved from https://www.firstbook.org/first-book-story/the-stories-for-all-project
[324] Giles, E. (2015). Evaluating Lubuto Library Collections: A Case Study in Dynamic and Strategic Children's Collection Development. Retrieved from http://library.ifla.org/1095/1/162-giles-en.pdf

for their children if they had their choice? For the cost of shipping one box to Africa, why not help equip a library or home with books published in Africa? There might be fewer books, but they might also be more pertinent to the needs of the children.[325]

A U.S. model

Outside of the developing world and focused entirely on children's books, there is one US donation programme worth mentioning because components of these initiatives might be pertinent. First Book[326] concentrates on providing books to children in need through the First Book marketplace, which sells books, many of them award winners at discounts of between 50 and 90 percent. This allows First Book to aggregate what it terms 'a previously fragmented market for the first time'. The marketplace is available only to community programmes and schools serving children in need, and they must register to participate in the programme. Schools or programmes serving at least 70% children from low-income families are eligible. It also operates a national book bank, which is a clearinghouse for large-scale book donations. Participants receive an email any time a new book becomes available. Considering the low prices and sizable discounts for bulk orders that African publishers of children's books provide, might the First Book marketplace be applicable in the South? Schools and libraries that have any budget at all for book purchases might benefit from this kind of aggregated purchase. Should a marketplace be trialled with an aim to scale up if it is successful?

ebook distribution

The growth of ebooks is transforming the means of circulating texts. This is evident in the development of e-readers (electronic reader), tablets and mobile phones which allow for reading ebooks. Writers and publishers have many options when it comes to choosing a format for publication, and one of the challenges within the commercial ebook world is the proliferation of differing formats, each of which requires its own reader application, referred to as the "Tower of E-Babel".[327] A major reason for this is exclusivity, allowing publishers to lock users into their platform. eBook files can be either unprotected or protected by a DRM (digital rights management) wrapper. DRM, or Digital Rights Management, refers to a number of technologies used to limit the use of digital media after purchase. These technologies seek to manage copyrighted content and limit piracy through access control.[328]

In the interactions with the various experts consulted, it appears that while ebooks may be more popular in developed countries, they are not yet considered popular in developing contexts. This is particularly because Internet connectivity in areas outside of urban centres is generally not good in many developing countries. For example:

> *In reality if I look at children in India or Thailand or Vietnam, on the one hand government is keen to push for technology, but reality in villages, there is no electricity and power breaks down*

[325] Books for Africa estimates that it costs about 50 cents per book for shipping costs. See Books for Africa. Donate Books.. Retrieved from https://www.booksforafrica.org/books-computers/donate-books.html. Develop Africa puts the cost at 50 dollars to ship and deliver an average-sized box. See What Does It Cost to Ship Books or School Supplies to Africa? How Much Do I Need to Donate to Cover These Costs? | Develop Africa. Retrieved from http://www.developafrica.org/faq/what-does-it-cost-ship-books-or-school-supplies-africa-how-much-do-i-need-donate-cover-these. These costs do not include any incurred at the receiving end - such as clearing charges and sorting and discarding unwanted books.

[326] First Book. Retrieved from https://www.firstbook.org/

[327] DRM makes e-Babel of EPUB (2010). Retrieved from http://www.teleread.com/drm/drm-makes-e-babel-of-epub/

[328] eBooks typically use DRM technology to limit copying, printing, and sharing of e-books. It affords different books various rights as determined by the publisher and seller. Some can be read on more than one device. Others will allow for partial copying and printing. Simply put, DRM restricts what users can do with an e-book. It can keep device owners locked into one specific retailer for all their purchases, even if that retailer stops carrying certain titles. Any e-book with DRM cannot be converted to a different format. This is because conversion itself would require the removal of the DRM. Not all e-book formats support DRM and different e-book formats support different sets of privileges granted by the DRM.

> *very often…Apart from difficulty with power/electricity, the other issue with technology is compatibility of hardware and software. With the increasing pace of change, the constant updates/changes can present many problems.*[329]

In addition, if the experience with at the African Books Collective is true elsewhere in the academic sector, ebooks can be useful, but not necessarily for reading. ABC publishers derive income from inclusion in ebook collections, but:

> *ABC feedback from our main US library partners is that whether or not they buy (ebooks), they want print irrespective. Interestingly a couple of universities have recently told us that their imposed "e-preference" purchase policies have been removed, given (that they are) not working. Print is still the driver in Europe.*[330]

Data plans are also expensive and smart phones are not yet the norm in many rural communities. Even so, mobile penetration is growing throughout the developing world, as new subscribers enter the market. According to the June 2015 Ericsson Mobility Report:

> *This growth is expected to be particularly strong in the Middle East and Africa due to a young and growing population and rising GDP – as well as the current penetration being low compared to the rest of the world. Several countries in the Asia Pacific region will experience a strong subscription uptake over the next five years, while more mature regions like North America and Europe will have more moderate growth.*[331]

There are now efforts to provide ebooks in developing contexts, the most popular example being Worldreader. Worldreader started in 2009 as a charity aimed at providing books and Kindles to children in the developing world. Worldreader Mobile is an ebook reading application that allows people to have ebooks on their mobile phones.[332] Such an initiative is regarded as significant in contexts where books are scarce but mobile phones are plentiful. Self-published authors and publishers can upload their books to the Worldreader platform. Worldreader pays to convert content to the right format, an important consideration for authors and publishers without sufficient technical skills to do the job themselves. Worldreader buys the rights to these books and pays a commission for every book sold.[333]

There are also several providers offering free ebooks. These include:

- International Children's Digital Library which provides a large collection of children's books (over 4,600 books) in over 54 languages.[334]
- Oxford Owl provides access to a range of free ebooks in English. Users need to register with the site to access the books.[335]
- Story Place - Developed in the United States in English and in Spanish, and provides children with a virtual experience of going to the library. The stories are accompanied by interactive activities and videos.[336]
- Children's Books Forever – a website created by the American children's book author, Hans Wilhelm, Children's Books Forever allows users to access all his out of print books for free as long as they are not used for commercial purposes.[337]

[329] Rosemarie Somaiah, personal communication to Sarah Hoosen, 1 December 2015.
[330] Justin Cox, personal communication to Lisbeth Levey, 18 May 2016.
[331] Ericsson. (2015, June). *Ericsson Mobility Report: on the Pulse of the Networked Society*. page 8. Retrieved 23 April 2016, from Ericsson website: http://www.ericsson.com/res/docs/2015/ericsson-mobility-report-june-2015.pdf
[332] Worldreader. Frequently asked questions. Retrieved from http://www.worldreader.org/about-us/faq/
[333] Worldreader: E-books on Cell Phones and Kindles in Schools. Retrieved 18 April 2016 from http://www.worldreader.org/
[334] International Children's Library, Retrieved from http://en.childrenslibrary.org/
[335] Oxford Owl. Retrieved 23 April 2016 from http://www.oxfordowl.co.uk/for-home/reading-owl/find-a-book/library-page#
[336] StoryPlace. Retrieved from https://www.storyplace.org/front
[337] Children's Books Forever. Retrieved from http://www.childrensbooksforever.com/

Several book suppliers have also been experimenting with ebook offerings. For example, Skoobe is a German e-subscription service that markets itself a 'ticket to the world of books'. It charges users €9.99 a month to borrow up to two titles for 30 days.[338] The e-books can be read via the App on Smartphones and Tablets as well as on the Kindle Fire. There is no returns deadline for the user, nor must they wait for the books they want to read as the number of copies available is unlimited. [339] However, it is not yet clear how successful their business model is.

In another example, Onleihe is a subscription service application released by Library service provider DiViBib. Also based in Germany, this offering involves the participation of public libraries. For an annual subscription, users can borrow books for a limited period. When the time limit is reached, the e-book is then automatically deleted from the user account. The range of titles on offer depends on the size and budget of the library. The drawback is that most titles only have a single licence which means that an e-book can never be borrowed by more than one user simultaneously. [340] When the loan period expires, the user's licence expires and the title then automatically becomes available for the next download. The model was developed to give libraries a way to retain customers and attract younger ones and provide publishers with an opportunity to expand their presence in the digital marketplace.[341] US libraries have also developed very active programs to permit members to borrow ebooks, as well as those in print.[342]

Yet another example is a distribution model from a young Israeli company Total BooX, which offers a "Read first – Pay later", model in which the customer only pays for the pages of the e-book that they actually read.[343] Their service brings independent self-published ebook providers, libraries and readers together. The platform offers a frictionless service with no limitations, holds, or expirations, thus eliminating frustrations libraries and patrons have faced with ebooks. Their books may be accessed on all major portable devices - including mobile phones and tablets.[344] The service relies on people reading to sustain its business model.[345]

Libraries: the view from Sub-Saharan Africa

Literacy begins in the home when parents read to and play with their children. In many countries, libraries play a key role in encouraging these interactions and helping children to love reading. The one place where books have always been free is libraries. In many communities, public libraries are

[338] Baddeley, A. (2012). Skoobe: the new word in ebook libraries. Retrieved from http://www.theguardian.com/books/2012/mar/16/skoobe-ebooks-library-launch-baddeley
[339] Nikola, B. (2014). Top 3 of the most innovative distribution models for e-books: will books have to be sold individually in the future at all? Retrieved from http://www.i-q-i.net/en/top-3-of-the-most-innovative-distribution-models-for-e-books-will-books-have-to-be-sold-individually-in-the-future-at-all/
[340] Nikola, B. (2014). Top 3 of the most innovative distribution models for e-books: will books have to be sold individually in the future at all? Retrieved from http://www.i-q-i.net/en/top-3-of-the-most-innovative-distribution-models-for-e-books-will-books-have-to-be-sold-individually-in-the-future-at-all/
[341] O'Leary, S. (2011). Mobile Library 'Onleihe' Brings E-book Lending to Germany. Retrieved from http://publishingperspectives.com/2011/05/mobile-library-onleihe-brings-e-book-lending-to-germany/#.VuK4E85OJy0
[342] nouye, A. S. (2016, January 4). What's in Store for Ebooks? *American Libraries*. Retrieved 21 May 2016 from https://americanlibrariesmagazine.org/2016/01/04/whats-store-ebooks/
[343] Nikola, B. (2014). Top 3 of the most innovative distribution models for e-books: will books have to be sold individually in the future at all? Retrieved from http://www.i-q-i.net/en/top-3-of-the-most-innovative-distribution-models-for-e-books-will-books-have-to-be-sold-individually-in-the-future-at-all/
[344] Callari, R. (2015) Total Boox Extends 'Pay As You Read' Model To Libraries & Indie Authors https://www.bookworks.com/2015/05/total-boox-extends-pay-as-you-read-model-to-libraries-indie-authors/#sthash.yyZe4wWq.dpuf
[345] Press release -Total Boox Emerges as a Major Player in the Library Ebook Market (2016). Retrieved from http://2016.alamidwinter.org/sites/default/files/Total_Boox_Growth_January%202016_Final.pdf

the only place where any person, regardless of education or skill level, can have access to information and the Internet free of charge.[346] Libraries constitute a key source of reading material, especially when book stores do not exist or are too expensive. In the United States, public libraries play a central role in early literacy programmes. The American Library Association (ALA) and other professional library groups believe that it's never too early to start. Programming for babies and their parents have been introduced across the country; these activities then segue to activities for pre-schoolers and so on. The ALA has descriptions of all of these initiatives in its section on advocacy.[347] Public libraries have separate sections for children; in some cities there are even special branches for them.

Most countries have public libraries. There are more than 320,000 libraries worldwide, 73 percent of them in developing and transitioning countries.[348] However, with the exception of South Africa, public libraries in Africa are few and far between, especially outside of urban areas. The information below on a handful of African countries is extrapolated from a database on public libraries worldwide maintained by the International Federation of Library Associations (IFLA). Unfortunately, the IFLA database did not include data from Nigeria, the most populous country in Africa, nor from Kenya, one of the most developed countries in Africa. Thus, for Kenya, figures were sourced from the Kenya National Library Service, and for Nigeria, figures were sourced from the database of libraries worldwide maintained by the Online Computer Library Centre (OCLC).

Table 8 Number of public libraries in seven African countries[349]

Country	Number of Public Libraries
Côte d'Ivoire	More than 83, which are located in areas that were badly affected by the socio-political crisis in the country in 2002, when 24 resource centres were almost totally destroyed. By comparison, there were only nine public libraries in 2007.
Ghana	10 regional libraries; 52 branch libraries; 195 community libraries
Kenya[350]	57
Nigeria[351]	62
South Africa	1,800
Tanzania	Approximately 37 (including Zanzibar)
Uganda	24

In a study commissioned by EIFL on perceptions of public libraries in six African countries - Ethiopia, Ghana, Kenya, Tanzania, Uganda, and Zimbabwe - respondents reported that they believe libraries are essential to their individual wellbeing and that of their communities, that they were satisfied with the services they received in libraries, but that they were dissatisfied with the resources available to them and that libraries deserve more funding. Perhaps most important for consideration in this paper, is that the researchers also found that the exposure of young children to libraries was limited and felt that more could be done to enhance the utilization of libraries by these children. The percentage of respondents who talked about libraries with their children ranged from a low of two percent in Ghana

[346] Bill and Melinda Gates Foundation. Global Libraries Strategy Overview. Retrieved from http://www.gatesfoundation.org/What-We-Do/Global-Development/Global-Libraries
[347] Early Literacy & Libraries. Retrieved from http://www.ala.org/advocacy/literacy/earlyliteracy
[348] Bill and Melinda Gates Foundation. Global Libraries Strategy Overview. Retrieved from http://www.gatesfoundation.org/What-We-Do/Global-Development/Global-Libraries
[349] IFLA World Reports. Retrieved from http://db.ifla-world-report.org/home/map#/2/4/T0CDUPUZG2XMB8P (The IFLA database was used for Côte d'Ivoire, Ghana, South Africa, Tanzania, and Uganda).
[350] Kenya National Library Service Public Libraries. Retrieved from http://www.knls.ac.ke/public-library
[351] OCLC. (n.d.). Global Library Statistics (Kenya). Retrieved from https://ww5w.oclc.org/global-library-statistics.en.html

to a high of 16 percent in Uganda. Overall, only 14 percent of library users visited a library with a child.[352] It is possible, however, that parents do not expose small children to public libraries because there are so few age-appropriate titles to be found in them.

School libraries fare even worse than public libraries. A World Bank study of secondary school libraries and textbook provision noted that:

> *Of the 18 countries reviewed, only Botswana managed to achieve a basic level of secondary school library provision for all secondary schools. All other countries were characterized by the widespread absence of effective school libraries, except for a few elite and prestigious secondary schools from both the state aided and private sectors.*[353]

The situation vis-à-vis school libraries in primary schools is worse, even in South Africa, which is far better resourced than other countries on the Continent. In a 2015 study on primary school libraries in Gauteng Province, Margie Paton-Ash and Di Wilmot of the Rhodes University Education Department wrote that:

> *There is no national policy for school libraries which compels school governing bodies and principals to have a library in their schools. It is thus not surprising that in 2011, only 21% of state schools had libraries, only 7% had stocked libraries and 79% of schools had no library at all*[354]

With many African governments unable to maintain sufficient public libraries, particularly libraries to serve the needs of rural districts, local communities have worked to establish their own, as have underserved slum and peri-urban communities. Many of these libraries have been established and maintained by donors and international NGOs. Some of the organizations supporting community libraries are small-scale efforts, such as the Osu Children's Library Fund in Ghana. Obtaining current and accurate information on the number of community libraries may be impossible or nearly so. When Friends of African Village Libraries were requested to help in identifying the number of community libraries in the countries in which the organization works, the response received from Deborah Garvey was:

> *The definition of "community" library varies, so I'm not sure which definition your study is using. I'm a bit surprised that IFLA reports only 195 community libraries in Ghana, because the country is approaching middle-income status. FAVL alone has three village libraries, all in the Upper East region near Bolgatanga.*[355]

Uganda has a well-known and well developed and documented community library system, in part due to the efforts of the Uganda Community Library Association (UgCLA). UgCLA, for example, is one of the collaborating organizations working on the ASb pilot in Uganda. According to UgCLA, there are 101 community libraries, located all over the country.[356] Twelve of these libraries were involved in the ASb project.

The Kitengesa Community Library, which helped found UgCLA and whose activities have been well documented, is an example of a community library that works well, including for small children just

[352] TNS RMS East Africa. (2011). *Perceptions of public libraries in Africa* (Rep.). Retrieved 11 April 2016, from EIFL website: http://www.eifl.net/system/files/resources/201408/perceptions_of_public_libraries_in_africa_-_full_report_hi.pdf

[353] *Textbooks and School Library Provision in Secondary Education in Sub-Saharan Africa* (Rep.). (2008). Retrieved 12 April 2016, from The World Bank website: http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2008/02/18/000333037_20080218061111/Rendered/PDF/425410PUB0ISBN101OFFICIAL0USE0ONLY1.pdf

[354] Paton-Ash, M., & Wilmot, D. (2015). Issues and challenges facing school libraries in selected primary schools in Gauteng Province, South Africa. *SAJE South African Journal of Education, 35*(1), 1-10. doi:10.15700/201503062342

[355] Deborah Garvey, personal communication to Lisbeth Levey, 12 April 2016

[356] Uganda Community Library Association List of Members. (2012). Retrieved from https://espensj.wordpress.com/members/list-of-members/

starting out to read, and has strong support from local residents. Almost all of the books purchased for the library were acquired from Ugandan publishers and booksellers and include all available books in Luganda, the mother tongue of most people living in the Kitengesa catchment area. Although secondary school students constitute a large portion of the library's users, there are also activities for young children. The library organizes children's storytelling times, works with parents to develop their children's reading skills, and stocks a selection of story and other books that are age appropriate.[357]

There are three other efforts that are worth discussing in this paper because each brings something different to the table. They are Friends of African Village Libraries, Lubuto Library Partners, and Osu Children's Library Fund.

Friends of African Village Libraries

The Friends of African Village Libraries (FAVL),[358] which is located in Santa Clara, California, was established in 2001 in order to increase access to reading materials and other resources in rural villages in Sub-Saharan Africa. FAVL provides long-term assistance to small community libraries in Burkina Faso (32 libraries), Ghana (3 libraries), Tanzania (one library), and Uganda (one library). FAVL also assists the Uganda Community Library Association. Each library is in a rural part of the country, belongs to the rural community where it is located, and is under the authority of the locally-elected mayor and rural council or some other local entity. The librarians are local and trained by FAVL, and FAVL provides for their salaries. Libraries in the FAVL network receive regular visits from FAVL staff or affiliated representatives.

FAVL believes that long-term financial commitment and support to the libraries will depend on donor support. Its funding comes from Individual donors and small grants. FAVL is also a partner with Santa Clara University's Reading West Africa study abroad programme. Five thousand dollars is sufficient to establish a new library. FAVL policy is not to establish new libraries until an endowment goal of $15,000 has been reached: $5,000 for start-up and $10,000 for librarian salaries, management oversight, book stock renewal, and maintenance over the following years.[359]

FAVL emphasizes books that are in high demand by local readers: African novels and storybooks, children's books with village themes, and local language materials for the newly literate reader, both children and adults. FAVL also attends relevant conferences. For example, in January 2016 FAVL was represented at the African Languages Book Fair in Bamako, Mali.[360]

FAVL was approached to explain about the African storybooks supplied to the libraries, the use of mother tongue, and African publishers. Based on a series of email correspondence, FAVL replies are outlined in the table below:

Table 9 FAVL collection development[361]

Country	FAVL collection development
Burkina Faso	Languages: French; Mòoré (Mossi), Dioula, and Fula (Peuhl) local languages

[357] See Parry, K., Kirabo, E., & Nakyato, G. (2014). Working with parents to promote children's literacy: A family literacy project in Uganda. *Multiling.Ed. Multilingual Education, 4*(1). doi:10.1186/s13616-014-0013-2
Also see Dent, V. F., Goodman, G., & Kevane, M. (2014). *Rural community libraries in Africa: Challenges and impacts*. Hersey, Pa.: IGI Global.
[358] Friends of African Village Libraries. Retrieved from http://www.favl.org/index.html
[359] Friends of African Village Libraries. Retrieved from http://www.favl.org/donate.html
[360] African Languages Book Fair – SAELLA, Bamako, 20-23 January 2016. Retrieved from http://www.alliance-editeurs.org/african-languages-book-fair-saella,1067?lang=fr
[361] Deborah Garvey, personal communication to Lisbeth Levey. 6 April 2016

Country	FAVL collection development
	Publishers: Harmattan in Ouagadougou; Centre Multimedia Houndé[362]
Ghana	Language: English Publishers: Osu Children's Library Fund Bookstore; EPP Bookstore; and Legon Bookstore (all in Accra)
Uganda	UgCLA is producing its own stories and working with ASb. Publishers: Fountain, Kampala; Mpolyabigere RC RICED Centre Ltd (an UgCLA member library)

In addition, FAVL uses FastPencil in Campbell, California[363] to self-publish books in English for Ghana and French for Burkina Faso written by Peace Corps volunteers, study-abroad students, and study-abroad faculty.

Mpolyabigere RC RICED Centre Ltd. is a not-for-profit organization which collaborates with FAVL and carries out a multitude of activities, both libraries and publishing, under the leadership of Cornelius Gulere. Mpolyabigere, which means 'cooling off the feet' in Lusoga, refers to a big shade tree where travellers pause to rest or a village community sits to discuss its business. Cornelius Gulere adopted the term for the Rural Community Recreation Information Communication Education Development (RC RICED) Centre that he established in 1995 in Eastern Uganda, in what is now Namutumba District.[364]

> *The libraries promote quality early childhood education and functional literacy through creating and making books available to children. In order to do this, I develop stories in the Lusoga language which I have translated into other local languages and English. I mostly circulate the stories as pamphlets, loose bound copies and online materials posted on my personal academia blog, African Storybook, Clarkness, Google Books and Makerere University OPAC (online public access catalogue)* [365] *This has helped learners and parents in "hard to reach areas" in terms of literacy materials in Lusoga to freely access books as conveniently as possible. For the ASb activity, I worked with 12 UgCLA member libraries and schools in Busoga to develop 120 stories. Readers in the urban areas, outside Busoga and Uganda, for example, access the books online while those in the villages use the hard copies either supplied to schools or mobile box library at the back of a car or on a bicycle, through Book Aid International.* I have been doing this since 1991, when I got the first consignment of 4,000 textbooks from BAI. This opened the flow of BAI book donations into Uganda.[366]

Lubuto Library Partners

Lubuto Library Partners,[367] which was established in Zambia in 2005, is headquartered in Washington, DC, where its President, Jane Kinney Meyers lives, and operates a regional office in Lusaka. The organization's goals are to build capacity among communities and educators; to ensure access to high-quality educational information and social services; support holistic development and empowerment of children and youth; and to advocate for children's rights. Lubuto was founded because:

> *…at-risk children in Zambia - including out-of-school and street kids - critically need safe public spaces to learn and grow. Of Zambian youth aged 15-24, only 70.3% of males and 58.5% of*

[362] A multimedia center funded by FAVL and Rotary. See: FAVL and Rotary funded multimedia center of Houndé. Retrieved from http://www.slideshare.net/favlafrica/favl-and-rotary-funded-multimedia-center-of-hound
[363] FastPencil. Retrieved from http://www.fastpencil.com/
[364] Friends of African Village Libraries. (2010). Mpolyabigere: FAVL Blog. Retrieved from http://www.favl.org/blog/archives/2010/06/mpolyabigere.html
[365] There are 36 stories and four eBooks in Lusoga on the Clarkness Website. Scroll down to the bottom of the home page: Free Stories and eBooks for the Beginning Reader.). Retrieved from http://www.clarkness.com/
It is possible to find Gulere's ASb stories on his Academia page, as well as his other publications: Gulere, C. (n.d.). Cornelius Gulere Publications on Academia. Retrieved from https://muele.academia.edu/CorneliusGulere
[366] Cornelius Gulere, personal communication to Lisbeth Levey,15 April 2016
[367] Lubuto Library Partners. Retrieved from http://www.lubuto.org/

> *females are literate. Rather than offering regimented literacy programs, the Lubuto Library model builds an adaptable and inclusive nexus of services and support for young people. It addresses a full range of literacy challenges, informed by collaboration with library experts and a deep understanding of local culture. The model is flexible and thus replicable in other communities.* [368]

Lubuto works to meet its goals through its library system; there are three in operation, with others scheduled to open in 2017 and 2018. It works with the Zambian Ministry of Education, the Zambia Library Service, and the University of Zambia. Lubuto libraries are multi-building complexes that are owned, sustained, and staffed by local host organizations. Library activities include story time, literacy programmes, arts, and mentoring.

Jane Kinney Meyers has been a librarian for over thirty years; she has worked in both Malawi and Zambia. Books for each library are carefully selected in a number of ways - for example through catalogues (both US and African publishers) and attendance at American Library Association meetings, where the exhibit area has many stands devoted to children's books. Lubuto also receives books through Biblionef South Africa. Jane Kinney Meyers believes that 'children in a challenged environment have a stronger need for quality'. Each library receives a 4,000-volume children's library, which is catalogued and classified according to a specially-designed child-friendly classification system developed by Jane Kinney Meyers.[369] Levels one and two of stories and fiction are pertinent to children learning to read and at early stages of reading, as are informational books, such as those in the "concepts sections" of the library's catalogue. They are both in English and in Zambian languages.[370]

Most of the books in the Lubuto collection are in English, although the library makes an active effort to collect multiple copies of titles in the seven Zambian languages. Jane Kinney noted how to retrieve Zambian language books, either by publisher or by language:

> *If you search the catalog for "Bookworld" … you'll retrieve 8 of their titles. "Zambia Educational Publishing House" retrieves 20 titles, most with multiple holdings in each collection. "Zambia Educational Pub" retrieves an additional 13. "Cambridge University Press" will retrieve records for many early readers they produced in 7 Zambian languages (along with some other books by Cambridge). But if you search the catalog by individual language name – Bemba, Tonga, Lozi, Kiikaonde, Nyanja, Lunda and Luvale – you will retrieve citations for all of the books published in those languages that are in our collections. Many, if not most (except the Cambridge titles), of the books are not "early readers," but they span the full spectrum of reading levels of users of Lubuto's libraries, so of course we collect them.* [371]

Lubuto makes active use of technology. In addition to providing readers with print resources, the libraries have a number of computers and devices, including those developed by One Laptop Per Child (OLPC). Technology is very popular to members of Lubuto. Lubuto also makes use of ZeduPads, touch-screen tablets loaded with interactive lessons for the Zambian primary curriculum.[372] In an imaginative innovation to promote reading to children, Lubuto is translating storybooks into Zambian languages and partnering with Sparkup, the magical book reader, starting with translations into three languages.[373] The Sparkup device, which contains a small camera and computer chip, clips directly on to any picture book and reads it aloud in any language that is recorded. Sparkup's internal memory

[368] Michael Frigand, Programme Associate, quoted in Jane Kinney Meyers, personal communication to Lisbeth Levey 6 May 2016.
[369] The collections are online at Lubuto. Collections. Retrieved 21 May 2016 from http://www.lubuto.org/scanned-volumes-1
[370] Giles, E. (2015). Evaluating Lubuto Library Collections: A Case Study in Dynamic and Strategic Children's Collection Development. Retrieved from http://library.ifla.org/1095/1/162-giles-en.pdf
[371] Jane Kinney Meyers, personal communication to Lisbeth Levey 6 May 2016.
[372] ZeduPads: An education revolution. Retrieved from http://www.zedupad.com/
[373] Sparkup. Retrieved from http://sparkup.com

holds up to 50 books with 250 minutes of recording space. The camera recognizes pages by pictures. Sparkup is not cheap -it is sold on Amazon for $50.00.

Lubuto also works intensively to create digital Zambian language learning materials, which are available through its library system and to anyone with a computer. With the help of a local programming expert, two reading teachers and three youth who regularly use the Lubuto libraries and know computers, worked together to develop computer-based programmes for teaching children to read in their mother tongues, using OLPC XO-15 laptops and Etoys, a free educational software platform that works on any operating system.[374] The teachers had subject expertise, but little computer experience; but the young people and the techie were able to help them. Other teachers served as project translators in six Zambian languages (Bemba, Lunda-Ndembu, Luvale, Kiikaonde, Lozi and Tonga). Finally, in order to ensure that illustrations were relevant to the children who would use these programmes, Lubuto enlisted the assistance of participants in the Lubuto*Arts* programme.[375] The lessons are being updated, as of 21 May 2016, they were not available on the Lubuto website.

Lubuto Collections also contains stories in PDF format, of out-of-print and in the public domain books that were copied and scanned from the Library of Congress in the United States and other sources. In addition, Lubuto partnered with the Zambia Library Association to establish the Zambian Board on Books for Young People, which aims to bring together writers, illustrators, publishers, and educators to produce high-quality bilingual literature for children and youth.

Lubuto would like to work with Zambian educational publishers by installing a sales kiosk at the library in Lusaka for the Zambian Educational Publishing House (ZEPH), as a way of selling ZEPH textbooks and storybooks. Such an approach is based on the belief that it is important to work with publishers rather than through an NGO system to ensure that books can receive the widest circulation possible.

Lubuto Library Partners has received grants from USAID, eIFL (Electronic Information for Libraries), Comic Relief, the Open Society Initiative of Southern Africa, and other donors. A number of Zambian organizations have also collaborated with Lubuto, including Barefeet Theatre, which was founded by former street children and works with at risk children.

Osu Children's Library Fund

Kathy Knowles, who is Canadian and lived in Accra for several years with her family, founded and directs the Osu Children's Library Fund (OCLF).[376] The first library was established in 1990 in the Knowles family garden in order to make books available to the neighbourhood children and help them with reading. Since then, eight community libraries have been established in the Greater Accra region with support to more than 200 libraries in Ghana, primarily small (less than 500 books) school-based facilities. Knowles has also worked in partnership with community libraries in Zimbabwe, Burkina Faso (with FAVL) and the Philippines. OCLF constructed a one-room library in Arkatan, Tanzania in 2014. The libraries focus on teaching children to read, but there are also a number of other activities, such as drama.

Osu Children's Library Fund receives donations for library infrastructure and books. The government of Ghana pays librarian salaries. In two instances, libraries are located in school compounds and the Ghana Education Service pays for the teachers who staff them. In addition, the Accra Metropolitan Assembly pays for non-teaching staff for libraries within its district. OCLF is responsible for Library maintenance.

[374] Squeakland: Home of E-toys. Retrieved from http://www.squeakland.org/
[375] EIFL. (2011, March). One Laptop Per Child Zambian Language Literacy Progamming. Retrieved from http://www.eifl.net/sites/default/files/resources/201411/case_study_zambia_2.pdf
[376] Osu Children's Library Fund. Retrieved from http://www.osuchildrenslibraryfund.ca/

In addition to co-publishing with sub-Saharan Publishers the Osu Children's Library Fund is a publisher in its own right, mainly very simple concept books with photographs taken by Kathy Knowles for beginning readers. There are books to teach the alphabet, numbers, colours, shapes, etc. There are also books for adult learners. Although several of the books co-published with Sub-Saharan Publishers have been translated into other languages, the Osu Children's Library Fund only lists those books in English (but there are also two books in Kiswahili for Tanzania and Kenya).[377] *Fati and the Honey Tree*, for example was published in four Ghanaian languages and French.

International non-governmental organizations

The role of international NGOs is complicated. Many of them receive grants and contracts to carry out their mission. At the same time, some of them use the funds that they receive to support organizations in the countries where they work. There are too many organizations that work on literacy issues in the developing world to list them all.[378] Instead, we are limiting ourselves to four of the major organizations in this field, each of which represents a different aspect of this work.

Biblionef International

Biblionef is an international organization, which was founded in France in 1989, aims to give children without sufficient access to books 'the joy of reading'. [379] It is now a network of independent Biblionef organizations in Europe (France, the Netherlands, and Belgium), Suriname, South Africa, and Ghana.

The Dutch office is responsible for establishing local and self-supporting branches. Biblionef believes that it is important to stimulate the local publishing industry. This office also helps with support to the two African branches for library, reading, and literature projects, as well as translation into local languages and production of Braille and large-print books for the visually impaired.

Bbiblionef South Africa[380] has a very well-developed programme.

The South African Biblionef offices receive requests from children's organizations on a daily basis to assist them with donations of books. There is a demand for early readers other than those they get from the Department of Education. The demand is for books in all official languages, but especially Xhosa, Zulu and Afrikaans.

Each request is then assessed, according to merit and needs. When the request is approved, the organization is informed and they will receive a simple grant agreement form to read, sign and return to Biblionef. Once the signed grant agreement reaches the Biblionef office, the books are packed according to the children's needs and despatched. Beneficiaries usually receive their books approximately three weeks after applying. They have a rolling book stock of more than 300 books available.

Each beneficiary organization has to commit to keep the Biblionef books in a safe and secure environment and to share the books by reading to the children. Beneficiaries are also expected to

[377] Osu Children's Library Fund. Book Catalogue. Retrieved from http://www.osuchildrenslibraryfund.ca/publications/book-catalogue/

[378] A blog in the UK published an exhaustive list of reading and literacy charities worldwide in 2012: Worldwide list of reading/literacy charities. (2012). Retrieved 1 April 2016, from http://www.playingbythebook.net/2012/01/09/worldwide-list-of-readingliteracy-charities-2012/

[379] Biblionef: English summary. Retrieved from http://biblionef.org/english-summary/

[380] Biblionef South Africa .1 Million Books Campaign.). Retrieved from http://biblionefsa.org.za

write a short report to Biblionef after receipt of the donation of the books. This gives Biblionef an indication of the impact of the donation.

Biblionef also requests that beneficiaries complete a community project, such as reading to elderly people or painting their school, as a way of expressing their thanks by 'paying it forward'. A second, and sometimes a third donation, may be made to organizations that prove their commitment to promoting reading and keeping to these conditions.

Their books contain stories that children in Africa can relate to and the majority of the books are written, illustrated and published in South Africa. Biblionef tries to ensure that as wide a range of titles as possible is available in all of South Africa's eleven languages, as many of these titles are not readily available from any other sources. They also have titles in Braille, Large Print and Tactile books for the visually impaired, as well as some titles in Portuguese and some titles in Sesotho sa Lesotho for beneficiaries in Lesotho. In addition, Biblionef plans to print and distribute a selection of African Storybook titles in Sesotho for Lesotho.[381]

Biblionef acquires books by:
1. Purchasing titles from publishers (such as like New Africa books, Macmillan, Garamond, Anansi, Oxford) and booksellers at a discounted price;
2. Receiving book donations from publishers, booksellers and individuals;
3. Commissioning the publishing of appropriate titles - Biblionef has been instrumental in commissioning the publishing and reprinting of more than 98 titles in indigenous South African languages.[382]

Biblionef raises funding from Donors in the non-corporate and corporate world both nationally and internationally. Donated books or those that are purchased must be new and relevant. Books in South African languages are a key to Biblionef's work.

CODE (formerly the Canadian Organization for Development through Education)

CODE,[383] which is located in Canada, has as its mission advancing literacy and education by supporting the publication and distribution of 'engaging books' for children around the world; professional development for teachers and librarians on teaching literacy; and school and community libraries and reading corners.

CODE supports local publishers in order to facilitate the availability of learning and reading materials.[384] CODE's overall approach is one of subsidizing demand (guaranteed purchases), as opposed to subsiding production, which tends to stifle both the initiative and the performance of private-sector publishers. A good example of this approach is CODE's Burt Literary Award, which recognizes excellence in young adult fiction from Tanzania, Ethiopia, Ghana, and Kenya. Separate competitions are held for citizens of each country. The award encourages authors to write relevant, high-quality novels in English (the medium of instruction of high schools) for young people, aged between twelve and eighteen years. Winning authors share CAD$21K in annual prizes in each country. Publishers are willing to publish the winning titles because CODE guarantees the purchase of 60 percent of the initial print run, which is distributed to schools and libraries, on condition that publishers pay for and actively market the remaining 40 percent. The goal of the Burt Award is to promote a love of reading by publishing engaging books that reflect young people's reality. The books

[381] Tessa Welch, personal communication to Lisbeth Levey, 16 March 2016
[382] Jean Williams, personal communication to Sarah Hoosen, 11 and 12 February 2016
[383] CODE. Retrieved 21 May 2016 from http://www.codecan.org/
[384] Scott Walter, personal communication to Lisbeth Levey, 27 January 2016

are also digitized and made available online through the African Books Collective. CODE organizes similar Burt Awards in the Caribbean as well as in Canada for First Nations, Inuit and Métis peoples.[385]

In addition to the Burt Award initiative, CODE's local partners support the production of high-quality reading materials aimed at the primary-school market through workshops for illustrators and authors. CODE also subsidizes book production costs in countries where no private-sector publishing exists in order to build local publishing capacity. In countries where a publishing sector exists, CODE works through guaranteed purchases (subsidization of demand). An annual call is issued to submit proposals for children's fiction or nonfiction books. Each proposal is reviewed by an independent committee, with representation by parents, teachers, linguists reading specialists, etc., after which each title is rejected, accepted with modifications, or accepted unconditionally. As with the Burt Awards, winning publishers are required to produce a minimum of five thousand copies of the title. Three thousand copies are purchased by the CODE partner with a forty percent discount; the publisher is responsible for marketing and selling the remaining two thousand copies in this initial print run. Winning publishers are also required to submit a marketing and sales strategy. As is the case anywhere in the world, an indicator of success is when the publisher must order additional print runs in order to keep the book "in print". This is mainly true for books used in private secondary schools.

Using the 25-year history of the Children's Book Project (CBP) of Tanzania as an example, more than 300 children's book titles in Kiswahili have been published and some 25 private sector Tanzanian publishers strengthened.[386] As with all CODE partners, CBP also organizes professional development training for authors, illustrators, publishers, booksellers, teachers, and librarians. (CBP is discussed in more detail in the section on national NGOs.)

In addition to Tanzania, CODE works in seven other African countries - Ethiopia, Ghana, Kenya, Liberia, Mali, Mozambique, and Sierra Leone.[387] Its programmes in these countries form the basis of CODE's activities, all of them involving local partners. These partner organizations carry out activities similar to the ones that CBP organizes. In addition, publishers with which CODE has had a relationship sometimes help in other countries. Akoss Ofori-Mensah of Sub-Saharan Publishers in Ghana, for example, has assisted with training in Sierra Leone and Liberia, two countries with very little publishing capacity.

Room to Read

Room to Read is an NGO headquartered in San Francisco, which works in collaboration with communities and local governments across Asia and Africa to develop literacy skills and a habit of reading among primary school children.[388] Promoting girls' education at the secondary level is also an important component of Room to Read's work. Countries include six in Asia (Bangladesh, Cambodia, India, Laos, Nepal, and Sri Lanka) and three in Africa (South Africa, Tanzania, and Zambia).

There are three components to Room to Read's comprehensive literacy strategy – learning environments, including the selection of child-friendly furniture for libraries and schools, publishing and teacher training and support. Room to Read support for schools lasts for four years, after which schools are expected to cover their own costs.

Room to Read's library programme is varied. Sometimes Room to Read builds a free-standing library outside of schools; other times an unused classroom is turned into a library or a library is created in

[385] CODE's Burt Award. (2015). Retrieved 21 May 2016 from http://www.codecan.org/burt-award
[386] Children's Book Project for Tanzania. Retrieved from http://www.cbp.or.tz/index.php?option=com_content
[387] A country list with links will be found at: CODE. (2015). Where We Work. Retrieved 21 May 2016 from http://www.codecan.org/where-we-work
[388] Room to Read. Retrieved on 21 May 2016 from http://www.roomtoread.org/

an existing classroom. In these later two instances, local school authorities guarantee that the rooms or corners will remain dedicated to library use. Room to Read also helps with school renovations when necessary.

Room to Read, which believes strongly in the importance of print for young children, is a publisher in its own right, although it buys books from commercial publishers. To date, Room to Read has published 1,200 books. Books are written in mother tongues, and illustrated locally in order to be culturally and linguistically relevant to the children who will read them. Training workshops for authors and illustrators are organized in each country from which Room to Read wants to acquire books. Layout, design, and printing are all done by Room to Read, which holds the copyright. This approach can lead to challenges. Books are mostly distributed to Room to Read libraries, which constricts their circulation and widespread availability. Because storage space at Room to Read offices is limited, print runs can be very small, sometimes as few as 600 copies, although books are reprinted when necessary. Because Room to Read would like to grow its publishing outreach, it would be interested in exploring the possibility of co-publishing and collaboration with other organizations, such as in Tanzania. In addition to reaching a wider audience, co-publishing would result in economies of scale and greater sustainability for book titles. Larger print runs would be feasible, particularly if the in-country publisher would take on warehousing the books. Room to Read's storage problem could also be addressed because the publisher would be responsible for warehousing the books.[389]

Teacher training entails a number of streams. Teachers learn how to set up and maintain a library according to Room to Read classification systems. Room to Read libraries classify storybooks, nonfiction texts and chapter books by reading level (primary one through six) using very simple "GROW BY"[390] labels coloured by level of difficulty, so that readers can find materials at their level. As their skills improve, students can move up the scale and find more challenging books. Teachers also learn how to use the books in their classroom work. There are four types of reading activities - the teacher reads a story to the children; the children share a book, usually a big book; there is paired reading; and the children read independently. Teachers receive training in all of these activities. They also learn how to assess their pupils' reading skills.

Room to Read has just received a sub-contract from USAID, which will require Creative Commons licensing for any books published through this funding. Room to Read might also be receptive to open licensing for some of the older books in its collection.

National NGOs providing literacy support

There are national NGOs offering support for literacy development in young children in a number of countries. One example is given for Ethiopia, two for South Africa, and one for Tanzania. Each takes a slightly different approach in achieving the objective of offering support for literacy development in young children.

CODE Ethiopia

CODE Ethiopia (CE), which receives the bulk of its funding from CODE Canada, is a not-for-profit and nongovernmental organization, which has been operating in Ethiopia since 1994. Its mission is to create an enabling environment to promote literacy in Ethiopia's rural population, particularly by stimulating children's ability to read and their pleasure in doing so. To this end, CODE Ethiopia is a

[389] Alisha Berger, personal communication to Lisbeth Levey, 28 January 2016
[390] Green, red, orange, white, black, and yellow. Many small children's libraries use this system. A good explanation can be found on the Rotary Club website. Retrieved from http://rotaryteach.org/library/Library%20Creation.pptx

publisher of supplementary books and readers; develops community libraries; and provides training to authors, illustrators, editors, and librarians. CE also receives donated books from Book Aid International (BAI) and the International Book Bank (IBB). Both groups send CE lists of books from which to select. BAI, which donates useful books from early childhood through to university schooling, is especially helpful with books at the tertiary level.

CE collaborates closely with the Ministry of Education and the regional educational bureaus. The Ministry also provides warehouse space on its compound in Addis Ababa and rents CODE office space nearby at a heavily subsidized price

The books CE publishes are closely aligned with school curricula; 36 new titles and some reprints are published annually for CE established libraries and attached schools, 1,100 copies per title. Many more copies are needed, however, for parts of the country with large populations. For example, the Dire Dawa and Harari regions require relatively small numbers of copies, perhaps 1,000-1,200 of each title. Populous regions, such as Oromia and Amhara would be able to use between 5,000 and 6,000 copies of each title in order to reach at least 1,000 schools with five copies of each title. Generally, speaking, the Amhara, Oromia, and Southern Nations, Nationalities and Peoples' regions (SNNPR), which are quite populous, have large numbers of schools and could use the most books, if they were available.[391].

Over the years, CODE Ethiopia has become a major educational publisher, of both supplementary books and readers, in Amharic and six other local languages, as well as in English. Children begin learning English in the first form and are taught entirely in English starting in 9th form, although SNNPR and Gambella sometimes begin as early as 5th form. It is clear, however, that young children need picture books in their own mother tongue more than those in any other language when they are beginning to read. This is what sets the CE books apart from the books it receives through donations. The donated books are far more useful for students in secondary school and at the tertiary level.

The importance of mother-tongue children's books was emphasized in a 2012 assessment of CODE Ethiopia when the evaluators contrasted the limited role of the donated materials with the importance of CE's own publications.

> *There is overwhelming evidence that the various CODE-Ethiopia publications are having a major impact on the literacy and learning of children and youth throughout Ethiopia. Repeatedly, the research team heard stories of how the books produced in local languages are popular with children.*[392]

The authors therefore recommended that CODE Ethiopia increase its publishing output in local languages.

In addition to attention to language, CODE books pay close attention to overall appropriateness. It is not enough to translate a story from one Ethiopian language to another. CODE must also ensure that the illustrations are acceptable. For example, on a visit to CODE Ethiopia, Lisbeth Levey was given a copy of a book in Amharic and in Somali, which is loosely translated into English as *New Year and Children.* Note Figure Five below - the females in the Somali version on the left are covered, while the Amhara girls are not. The illustrations in the story are equally appropriate in each language.

[391] Yalew Zeleke, personal communication to Lisbeth Levey, 17 May 2016.
[392] Asselin, M., Doiron, R., Kassman, Y., & McPerson, K. (2012, March). Assessment of CODE's Partnership Program with CODE-Ethiopia, 2007-2012 (Rep.). Retrieved 10 May 2016, from CODE Canada website: http://www.codecan.org/sites/default/files/CODE-Ethiopia Assessment April 18 2012.pdf, p.40

Figure 5 "New Year and Children" in Somali and in Amhara

CODE Ethiopia has also produced outsize picture books in a number of Ethiopian languages and subjects - each geared to the curriculum. These "big books," such as the one on sanitation at home, are suitable for children and for adults, who are either illiterate or have difficulty reading in any language. The illustrations help tell the story.

Books can be published more cheaply because CE has been able to convince writers, illustrators, and editors to lower their charges. They contribute their time and talent because they know that CE does not charge for the books it publishes. For example, when the large format books mentioned above were published, CODE Ethiopia paid 200 *birr* (US$9.2) per page to the writers, 500 *birr* (US$23) per page to the illustrators and 100 *birr* (US$3.6) per page to the editors, a fraction of what other organizations would pay. One picture for a commercial publisher would cost more than what CODE Ethiopia pays for authors, illustrators, and editors combined. CE's challenge, however, is that living costs in Ethiopia are rising and there is a concomitant demand by the writers, illustrators, editors, and others to increase their fees.

Developing community libraries is an important part of the CODE Ethiopia mission. To date, CE has developed 97 libraries in 97 rural districts of Ethiopia. CE support concentrates on provision of books, furniture, ICT equipment and other related equipment for four-five years and sometimes a few years longer. After that, the local community is responsible for maintaining the library, including paying the librarian's salary, although CE continues to add books to the library's collection.

What sets CODE Ethiopia apart from educational publishers in Ethiopia and elsewhere in much of Africa is the fact that since 2014 many CODE Ethiopia publications bear a Creative Commons License. This includes both books and training materials. CE was introduced to open licensing through its collaboration with EIFL, the program to promote electronic information for libraries. The EIFL link began, in part through CE's interest in bringing parents to the library to read with their children. CE

was one of ten organizations to win a one-year innovation program grant aimed at using ICT to promote family literacy programs in three rural community libraries (Durbetie, Fiche, and Dire Dawe).[393]

CE continues to experiment with digital technologies. In a new one-year program in collaboration with IREX/Beyond Access.[394] CE will produce 12 local language digital books, and three apps - one for letters, one for words and one for stories. CE is also collaborating with ASb on the Internet component of its work. One story is on the ASb website and more are planned. There is also a recently signed Memorandum of Understanding between CE and ASb.

CODE Ethiopia also stresses the importance of training. As a part of its community library programming, CE has implemented an extensive training program of three-week workshops for library staff on library management and collection development as well as the principles and strategies associated with reading promotion and literacy support. These training resources were developed in collaboration with CODE Canada volunteers, and are available online free of charge.[395]

Shine Literacy, South Africa

Shine is an early literacy intervention for children from disadvantaged communities. It started in Cape Town to support children who do not speak English as a first language and attend schools where English is the language of instruction. Shine offers English language and literacy support programmes in 46 primary schools. It runs literacy centres (a room in a school) using a volunteer model. Shine Centres provide individualised support to children in Grades Two and Three to strengthen their English reading, writing and speaking skills. Children work with trained volunteers once or twice a week, during the school day, for at least one year.[396] Volunteers offer a minimum of 1 and half hours a week providing literacy support. There are 16 Shine Chapters (social franchises) in three provinces in South Africa which are independently run and funded.[397]

Shine also developed a 'Book Buddies' model which pairs older and younger children in schools together to enhance the reading skills of both. They meet two to three times a week for 15 minutes and do paired and shared reading – methodology also used in all Shine Centres during the Literacy Hour programme.[398]

The initiative is funded by local funders, trusts, or by companies as part of their CSI projects. Shine purchases books from publishers such as Oxford, Cambridge, Juta and Biblionef. While the focus is on English, at times, they provide support/resources to children in local languages. [399]

Nal'i Bali, South Africa

Nal'ibali (isiXhosa for "here's the story") is a South African national reading-for-enjoyment campaign to spark children's potential through storytelling and reading.[400] The campaign started in 2012 by the DG Murray Trust and PRAESA (The Project for the Study of Alternative Education in South Africa), combining a national mass media and awareness campaign with a programme of face-to-face

[393] EIFL. (n.d.). Rural libraries improving early literacy levels of pre-school children | EIFL. Retrieved 21 May 2016, from http://www.eifl.net/eifl-in-action/rural-libraries-improving-early-literacy-levels-pre-school-children
[394] IREX. Beyond Access. Retrieved from https://www.irex.org/projects/beyond-access (Beyond Access is working with local organizations in eight countries to support libraries).
[395] CODE Ethiopia. It Takes a Village to Raise a Reader. Retrieved 14 May 2016, from https://codelibraries.wordpress.com/
[396] Shine. Shine Centres. Retrieved from http://www.shineliteracy.org.za/what-we-do/
[397] Carrie Mashek, personal communication to Sarah Hoosen, 9 February 2016
[398] Shine. Shine Centres. Retrieved from http://www.shineliteracy.org.za/what-we-do/
[399] Carrie Mashek, personal communication to Sarah Hoosen, 9 February 2016
[400] Nal'ibali. About Us. Retrieved from http://nalibali.org/about-us/

mentoring and support facilitated through a network of Cluster Mentors and Story Sparkers in six provinces across South Africa

The campaign includes collaborating with Times Media, to produce a weekly bilingual Nal'ibali reading-for-enjoyment newspaper supplement. These are produced and circulated through insertion into newspapers and are also directly distributed to schools, reading clubs, literacy programmes and NGOs.[401] These materials are scaffolded (and includes stories, with ideas and suggestion to adults on how to use the materials) so that adults are able to use them to run a reading programme. Nal'ibali works with publishers to allow them to abridge their picture stories.

> *One of the elements…is that we work with publishers to allow us to abridge their picture books …we make them always bilingual, so it's English and one African language. We do a lot of work on translation. So this means that children can collect their own library of story books, although they are abridged versions of these storybooks.*[402]

> *Working with publishers allows their available stock of stories to become known. I think that the solution to creating children's literature in Africa is to work in a combination of ways, with publishers on board. Because if you don't work with publishers, there is no sustainability for books in Africa. My belief is very strongly (that) at the same time we are growing the desire to read, we have to be thinking into the future – we have a responsibility to work with publishers and not to divide or weaken them.* [403]

Nal'ibali also offers a children's radio programme in all official languages three times a week on SABC public radio stations, in partnership with SABC Education.[404] Further, it has a mobi site to allow resources to be downloaded.[405] The campaign also focuses on developing, producing and providing a regular supply of reading and writing materials to it reading clubs, working with partners such as Biblionef to provide books and the Little Hands Trust and publishers to create and translate relevant, good-quality reading materials for children in English and African languages.[406]

At the provincial level, the programme involves establishing a Nal'ibali presence regionally, enlisting and supporting the development of reading clubs and community action groups to support reading for enjoyment, and conducting workshops and mentorship programmes.[407]

Children's Book Project for Tanzania

The Children's Book Project for Tanzania, which is an initiative of CODE Canada, was established in 1991 in response to Tanzania's acute shortage of children's books and lack of capacity in the book sector to produce relevant resources. At the time, there were only two publishers, both owned by the government and neither publishing books for young children. CBP's mission is to develop a strong reading culture through the provision of high-quality reading resources in Kiswahili.

At the time of its founding, CBP's immediate objectives were twofold: to coordinate book production in the early childhood sector and to train book stakeholders. In CBP's first years, writers, illustrators, editors, and printers were sent to Kenya, Zimbabwe, and the UK. For the kind of training that they

[401] Nal'ibali. Our media platforms & reading materials. Retrieved from http://nalibali.org/about-us/our-programmes-platforms/
[402] Carole Bloch, personal communication to Sarah Hoosen, 19 February 2016
[403] Carole Bloch, personal communication to Sarah Hoosen, 19 February 2016
[404] Nal'ibali. Our media platforms & reading materials. Retrieved from http://nalibali.org/about-us/our-programmes-platforms/
[405] Carole Bloch, personal communication to Sarah Hoosen, 19 February 2016
[406] Nal'ibali. Our media platforms & reading materials. Retrieved from http://nalibali.org/about-us/our-programmes-platforms/
[407] Nal'ibali. Our training, mentoring & support programme. Retrieved from http://nalibali.org/about-us/our-training-research/

could not receive at home. In Africa, Kenya and Zimbabwe were particularly advanced in book publishing. Although output at the outset was low quality, slowly quality began to improve as more experience was gained at home.

CBP began to focus on more than the supply side when, in 1996, a study revealed that the books produced through CBP efforts were being stored in school cupboards or were still unpacked in the boxes in which they arrived. Providing books was not enough. Training teachers how to teach reading and writing was essential, as was establishing school and classroom libraries. With the establishment of the reading program in 1997, CBP added book management and utilization to its portfolio of activities, which continued to include the book sector. The reading program began in a small number of pilot schools; today it is being carried out in 271 schools in four regions and twelve districts.

Through workshops and other mechanisms, CBP has trained more than 5,000 teachers, some of whom have gone on to train other teachers, within the school system and at teacher training colleges. Because many children arrive at school without Kiswahili language ability, CBP has developed a methodology to train teachers to teach these children Kiswahili reading skills, even though this is not their mother tongue.

Reading 100 books and winning a wrapper

In a CBP reading competition, one mother read 100 books and won a wrapper to wear. When asked how she had managed to read so many books, she replied that she read after completing chores on her farm, with her children, and with other family members.

Equal attention is given to training and working with school and classroom librarians. CBP also promotes reading clubs, reading competitions, and other activities to instill a love of reading. Parents and other family members are encouraged to visit the library and participate in activities. When someone borrows a book from any of the school libraries, it will circulate within the family, to neighbors, and to others living nearby.

CBP continues to promote children's publishing through Requests for Proposals (RFPs). Publishers are invited to submit book proposals, which are then reviewed by teams of experts. Winning publishers are expected to produce a print run of 5,000 copies. CBP purchases 3,000 for distribution to the schools and libraries with which it collaborates; the remaining 2,000 are sold by the publishers on the open market. To date, CBP has facilitated the publication of more than 350 titles, stories, novels, poetry, and four nonfiction titles.

Commercial publishers

Publishers have traditionally been the lynchpin of the publishing industry supply chain. They pay authors and illustrators, either through a flat fee or royalties; they are responsible for editing, design and layout, production, marketing, and distribution. This section focuses mainly on the African experience, with two examples of smaller commercial publishing houses that are known for their children's books. The National Book Trust of Uganda is also included in this section, in part because of its experience in an IDRC-funded research project on alternative licensing models for books. Additionally, a commercial publisher from India is described here.

African publishing has been buffeted by declining economies, compromised funding for educational systems and resources from primary to the tertiary level, donor policies that have favoured provision of foreign educational materials over those that can be produced locally, and book donation programmes, which are discussed in detail above. But starting in the 1990s, donors helped initiate three initiatives to strengthen publishing in Africa overall. These are the African Publishers Network

(APNET), which was established in 1992 and remained active for about two decades. The Bellagio Publishing Network, inaugurated in 1991 and wound down activities in 2007;[408] and the African Books Collective (ABC), established in 1985 and still going strong.

With headquarters in Harare, Zimbabwe, APNET was set up by Swedish SiDA and nine other donors to strengthen and promote 23 indigenous publishing. It regularly convened capacity-building workshops and at least one annual *indaba* at the Zimbabwe International Book Fair (ZIBF). APNET collaborated with ZIBF to make the fair one of the most vibrant literary activities on the African continent. In addition to workshops, the two organizations collaborated on "Africa's 100 Best Books of the 20th Century" to celebrate African literary achievement.

APNET also sponsored African publishers to attend book fairs, both in Africa and Europe, and supplied funds for computers and other equipment at national publishers' association secretariats. Tainie Mundodo, the APNET Trade Promotion Officer always exhibited African-published books at the Bologna and Frankfurt Book Fairs, and even at the Taipei Book Fair.

There are a number of reasons why APNET was ultimately unsustainable. As a Pan-Continental organization of member publishers' organizations across Africa, it was impossible to satisfy the needs of every country because conditions varied so much. In addition, APNET was totally dependent on donor support, with few attempts to explore sustainability possibilities.[409] Akoss Ofori-Mensah of Sub-Saharan Publishers recalls that:

> *APNET paid to send its members to workshops, book fairs, conferences, etc. Thus African publishers really never learnt to pay for themselves. Members even reneged on the $100 annual membership fee. Indefinite total dependency on donor support was unrealistic. Moreover, the hasty relocation from Harare to Abidjan [just as the country's political crisis was beginning] did not help the cause of the organization.*[410]

The Bellagio Publishing Network (BPN) was also established by donors, in cooperation with ABCin order to bring together key practitioners (publishers, NGOs, etc.) with European and US donors. Its name is derived from the Rockefeller Foundation Bellagio centre, where the organization was founded. The active participation of publishers in the inaugural meeting and thereafter ensured that BPN was not perceived as a donor-driven exercise. In its heyday, the network published a number of studies on publishing in the South, primarily in Africa; organized a discussion forum; and produced a newsletter. It ceased operation after the establishment of APNET and the diversion of donor resources to this organization.[411] However, its publishing output is still available on the BPN website.[412]

African Books Collective

ABC is the only one of the three organizations discussed above to survive and thrive. It was established in 1985 in London by 17 active sub-Saharan African publishers. Start-up funding came from the Swedish International Development Cooperation Agency (SIDA). ABC is located in Oxford, UK for logistical reasons associated with international shipping and because the UK is such an important publishing center. It is a not-for profit organization, which is owned and governed by its member

[408] Bellagio Publishing Network. Retrieved 15 May 2016 from http://www.bellagiopublishingnetwork.com/
[409] Capacity Building in the African Book Industry. (1999). Retrieved from http://www.sida.se/contentassets/908dabcbfe65424ab0b2784b22feba7b/sida-evaluations-newsletter8_1811.pdf
[410] Akoss Ofori-Mensah. Personal Communication to Lisbeth Levey, 4 May 2016.
[411] Much of the information on the Bellagio Publishing Network, APNET, and ABC comes from Bgoya, W., & Jay, M.. (2013). Publishing in Africa from Independence to the Present Day. *Research in African Literatures*, *44*(2), 17–34. http://doi.org/10.2979/reseafrilite.44.2.17; Jay, M. (1994). African Books Collective Its Contribution to African Publishing. *Africa Bibliography Afr. Bibliogr, 1992*, Vi-Xviii. DOI: http://dx.doi.org/10.1017/S0266673100005699.; and from Justin Cox, personal communication to Lisbeth Levey, 4 and 15 December 2015
[412] Bellagio Publishing Network. Retrieved 15 May 2016, from http://www.bellagiopublishingnetwork.com/index

publishers of which there are now 155 in 24 countries. To become a member, publishers once paid a one-time fee of £500. However, the fee was eliminated in 2000. ABC has always remitted sales income to member publishers, holding some sales income back to cover ABC's own costs, which are delineated in ABC's FAQ's.[413] ABC's goal is to return 55 percent of sales income to member publishers. ABC is successful because it fulfills its members' need to promote, market, and sell their books to an international community of scholars. It also remits funds in a timely manner.

ABC focuses on scholarly books and literature, which is the source of most of its income, although there are some children's book titles included in its catalogue.[414] These are categorized under the collection for 'children and teens'. ABC is particularly interested in promoting books aimed at teens, and partners with Canadian CODE on the Burt Award for young adult literature by digitizing, marketing and distributing prize-winning books.

ABC sells worldwide, including in Africa, but not in the publisher's own country unless permission is given. Within Africa, the Intra-Africa Books Support Scheme (IABSS), launched by ABC and Book Aid International in 1991 enabled the flow of African publications across Africa. IABSS is discussed in detail in the section on book donation programs above.

At the start, all publishers mailed a hard copy of their books to the UK, where books were warehoused, and then mailed to buyers. ABC now uses print on demand (POD) and ebooks to the maximum extent possible, although some titles, such as illustrated art books or very long cased volumes may not be suitable for POD. In addition, occasionally donors require publishers to produce a specific print run. ABC uses POD machines all over the world as part of an integrated solution that is offered by two different wholesalers. Although ABC finds that unit costs for POD are more expensive than offset printing, ABC only prints when an order is received and paid for. Thus, the publisher incurs no upfront costs and books never go out of print.

ebook sales are more cost-effective because there are no shipping costs. ABC has different mechanisms for selling ebooks, either library platforms for academic books or readers for trade books. Academic libraries worldwide subscribe to various ABC collections through Johns Hopkins University's not-for profit Project Muse[415] or through a number of commercial library platforms, such as EBSCO Host. Academic readers and libraries frequently order print copies in addition to having digital access because ebooks are more useful for discoverability at her than for reading. Retail ebook vendors listing titles marketed by ABC include Kindle and iBook.

Mkuki na Nyota, Tanzania

Located in Dar es Salaam and established in 1991 by Walter Bgoya, Mkuki na Nyota[416] is an independent publisher that focuses on educational, children's, scholarly, art, and trade books. Many are published in Kiswahili, both children's and adult titles. Before founding Mkuki na Nyota, Bgoya was the general manager of the Tanzania Publishing House, a position he held for 18 years. Bgoya was also the founding chair of the African Books Collective and continues to retain that position. Bgoya has also written and translated children's picture books.

Mkuki na Nyota means 'spear and star' in Kiswahili. According to Walter Bgoya, his motivation is 'to produce beautiful, relevant and affordable books'. He explained that he started with a few children's books before adding scholarly books and fiction. He publishes some textbooks, but not many. Heretofore, textbook publishing was the most lucrative part of the industry, but profits might decline

[413] African Books Collective. FAQs. Retrieved from http://www.africanbookscollective.com/faq
[414] About 125 titles out of a book list of more than 1,500 titles.
[415] Project MUSE. Retrieved from https://muse.jhu.edu/
[416] Mkuki na Nyota Publishers. Retrieved from http://www.mkukinanyota.com/

now because the government plans to create its own textbook monopoly. According to Bgoya, the government does not generally purchase children's books, except when they are designed as a supplemental reader.[417]

In addition to marketing its books internationally through ABC, Mkuki na Nyota imprints are sold in bookstores in Tanzania and Kenya and online through Amazon, Foyles, and Kalahari, to name three services. There are 52 English and Kiswahili children's titles published by Mkuki na Nyota, 37 of them in Kiswahili. In 2014, Mkuki na Nyota won two awards as a part of CODE's Burt Award for African Literature, Tanzania. It won first place for *The Detectives of Shangani: the Mystery of Lost Rubies* by Nahida Esmail and third place for *The Wish* by Mwamgwirani J. Mwakimatu.[418]

National Book Trust of Uganda

The National Book Trust of Uganda (NABOTU)[419] was established in 1997 to promote authors, publishing, and the development of a reading culture in Uganda. NABOTU works with partner organizations, such as the Reading Association of Uganda and the Ugandan Children's Writers and Illustrators Association,[420] and with publishers to organize book donations (80 percent of them storybooks), book fairs and weeks, and reading tents for children. NABOTU also coordinates work on book policies, copyright, and other issues pertinent to publishers. Finally, NABOTU is an affiliated institution of Creative Commons Uganda.

Most books published in Uganda are printed overseas to reduce costs. Batambuze, NABOTU's Executive Secretary, estimated that even so, paper, production, and shipping to Uganda account for about 70 percent of a book's production costs. Editorial costs (writing, editing, illustration, design, layout, and formatting) accounts for the remaining 30 percent.[421]

According to Batambuze, the government buys most school books, mainly textbooks, although it also purchased storybooks until 2008; since then very few storybooks have been purchased. But some parents buy them, sometimes because they want their children to read these kinds of books and sometimes because the private schools their children attend require them. Batambuze also commented on the USAID-funded Uganda School Health and Reading Programme (SHRP),[422] which is led by RTI International and carried out with the Ministry of Education of Uganda[423] and NGOs to produce books in mother-tongue languages and train teachers. Batambuze thought that publishers should have been involved. He asked about where capacity, competency, and the books themselves would be housed after the programme's completion. This corresponds with information provided by Akoss Ofori-Mensah in Ghana (see below.)

[417] Walter Bgoya, personal communication to Lisbeth Levey, 21 January 2016

[418] CODE. (2014). Burt Award for African Literature. Retrieved 15 May 2016, from http://www.codecan.org/book-type/burt-award-for-african-literature

[419] National Book Trust of Uganda. Reading is Key. Retrieved from http://nabotu.or.ug/

[420] Uganda Children's Writers & Illustrators Association. Retrieved from http://www.ucwia.or.ug/
UCIA is the Ugandan chapter of the International Board on Books for Young people, discussed in the section on international NGOs. It is also a book publisher.

[421] Batambuze, W, personal communication to Lisbeth Levey, 15 December 2015

[422] RTI International. International Education Projects: Uganda - Uganda School Health and Reading Program (Uganda SHRP) Project (2012-2017). Retrieved from http://www.rti.org/page.cfm?obj=39BFD6D0-5056-B100-0CC4429A093082DE and Centre for Education Innovations. Uganda School Health and Reading Program (SHRP). Retrieved from http://www.educationinnovations.org/program/uganda-school-health-and-reading-program-shrp.

[423] Batambuze specifically mentioned the National Curriculum Development Centre (http://www.ncdc.go.ug) , which is an arm of the government.

Sub-Saharan Publishers, Ghana

Sub-Saharan Publishers[424] focuses on publishing books on environmental issues, the history of the trans-Atlantic slave trade, African literature and other scholarly subjects. In addition, Sub-Saharan Publishers has a strong commitment to producing children's storybooks.

Akoss Ofori-Mensah is the director of Sub-Saharan Publishers. She is a council member of the African Books Collective, an executive committee member of the International Board for Books for the Young (IBBY), and was an executive board member of the African Publishers Network (APNET).

Sub-Saharan Publishers has a catalogue of children's books, including picture books for the very young.[425] Internationally-recognized illustrators, such as Meshack Asare, have written and illustrated Sub-Saharan titles. Asare won the prestigious Neustadt Prize for Children's Literature in 2015 for *Kwajo and the Brassman's Secret*, which he also wrote.[426] Two titles published by Sub-Saharan Africa Publishers were also recipients of CODE's Burt Award for African Literature in 2010. In addition, many stories are about other countries - *Mimi Mystery*, for example, is about an Ethiopian child. Empowerment of women and the girl child are important themes; many of the picture book protagonists are girls.

Most of the list is sold within Ghana because shipping elsewhere in Africa is difficult. Books are purchased by 'educated parents, visitors to the country, and occasionally by the Ministry of Education'.[427] ABC is responsible for fulfilling orders internationally, including a few in Africa, but there are very few orders via ABC for the children's books. Sub-Saharan Publishers also sells its books on Kindle through Worldreader. Books ordered through Worldreader cost $3.99. Ofori-Mensah likes the Worldreader connection because titles are typically ordered for all of the Kindles in a class; thus more than one copy is sold at a time. She doesn't think that more traffic comes to the website as a result of exposure on Amazon.

Sub-Saharan Publishers regularly exhibits at international book fairs, such as Bologna, Frankfurt, and Cape Town.

According to Ofori-Mensah, most books are in English because 'it is easier to sell them in English than in local languages. The snag is that the educated elite do not allow their children to speak their mother tongue: they speak English with them. Unfortunately, the teaching of local languages in the public schools has gone down drastically'[428] Ofori-Mensah has worked with Kathy Knowles, Director of the Osu Children's Library Fund[429] to co-publish stories in English and in Ghanaian languages. One child told Kathy Knowles the stories, which Kathy then wrote, and Ofori-Mensah was responsible for illustrations, layout, and production. The four books in the *Fati* series have sold very well, with *Fati and the Honey Tree* being the most popular. Ofori-Mensah estimates that each book has had a print run of over 5,000. *Fati and the Honey Tree* was also translated into some Ghanaian languages. The Dagaare edition was selected for inclusion in a USAID/Ghana Education Service project, and 9,600 books were ordered through this contract.[430]

[424] Sub-Saharan Publishers. Retrieved from http://www.sub-saharanpublishers.com/
[425] In addition, CODE presents an annual award for young people's fiction, with winning titles distributed by ABC. Sub-Saharan Publishers won this award for two titles in 2010.
[426] Meshack Asare Announced as the 2015 Winner of the Prestigious NSK Neustadt Prize for Children's Literature - The Neustadt Prize. (2014). Retrieved 11 March 2016 from http://www.neustadtprize.org/meshack-asare-announced-2015-winner-prestigious-nsk-neustadt-prize-childrens-literature-2/
[427] Akoss Ofori-Mensah, personal communication to Lisbeth Levey, 17 December 2015
[428] Akoss Ofori-Mensah, personal communication to Lisbeth Levey, 17 December 2015
[429] Osu Children's Library Fund. Retrieved from http://www.osuchildrenslibraryfund.ca/
The Osu Children's Library Fund is discussed in the section on Libraries.
[430] Akoss Ofori-Mensah, personal communication to Lisbeth Levey, 8 January 2016

In addition, *Fati and the Honey Tree* and *Sosu's Call* were translated into French in 2002, with support from the French Ministry of Foreign Affairs. The project was handled by LaJoie par les livres, a French NGO that supports the development of children's literature and reading in the developing world, particularly former French colonies.[431] Fatoumata Keita, an Ivorian award-winning writer of children's stories and a professor at the University of Cocody in Abidjan, did the translation. Ofori-Mensah is also paying her to translate *Yennenga, the Dagomba Princess* into French. Yennenga is the matriarch of tribes in northern Ghana and in Burkina Faso. Ofori-Mensah therefore believes that this storybook would be particularly relevant in Francophone Africa.[432]

Like Batambuze, Ofori-Mensah believes that publishers should be the linchpin for projects and pilots in production of children's books because there is more continuity and better dissemination of books nationally, throughout Africa, and internationally. For example, some of the books published by Sub-Saharan Publishers are available through its catalogue, ABC, Osu Children's Library Fund, on Amazon Kindle, and through Waterstones and other publishers. In addition, as Figure Three shows, it is possible to find the Meshack Asare stories by searching Google and following the links to Sub-Saharan Publishers. This kind of circulation might not have happened if donors had worked exclusively with NGOs, as after funding and projects end, books can get lost. She mentioned that USAID books produced with the Ghana Education Service are not always available after projects conclude.[433]

Amalion Publishing, Senegal

Amalion Publishing,[434] established in 2009, is based in Senegal. It produces publications under general trade, academic books as well as literary fiction. They publish in English, French and hope to publish in Portuguese and local languages (if the market allows). The focus is mainly on publishing scholarly work for a wider readership and some higher education textbooks. They are looking to publish young adult and children's books in the future.

Amalion follows a traditional distribution model, and it has agreements with a few distributors who deal with the market. Initially, Amalion tried to distribute directly, but they faced many obstacles – for example, when people purchase in the US, the money came in small amount which was swallowed by bank charges, and online systems such as PayPal was not feasible for sellers with bank accounts in Senegal and most other African countries. With distributors, they receive the money in a lump sum (and did not lose as much funds on bank charges), but payment schedules take longer timeframes. Distributors are given a lump sum commission to place titles with other sellers and bookshops and they also work with online stores. Amalion has distributors in France, Belgium, Switzerland, UK and non-UK market, US, and Nigeria. In Kenya, Amalion deals directly with a bookshop and tries to get the material directly to them.

> *At times, in Africa it is partly formal, partly informal. We take books when we or authors go for meetings. The cost of transportation and customs clearing, could be a big impediment for some bookshops to sell the material. So when books are available locally they grab it. If they order, within a distribution agreement, we pay for transportation.*[435]

Printing, warehousing and distribution is done in the UK, because Amalion's Director has had long business relations with printers there for several decades, and the printer has a warehouse facility. Its main challenge is transportation and distribution costs.

[431] BnF. Retrieved from http://lajoieparleslivres.bnf.fr/masc/
[432] Akoss Ofori-Mensah, personal communication to Lisbeth Levey, 19 January 2016
[433] Akoss Ofori-Mensah, personal communication to Lisbeth Levey, 8 December 2015
[434] Amalion Publishers Retrieved from http://www.amalion.net/en/
[435] Sulaiman Adebowale, personal communication to Sarah Hoosen, 2 February 2016.

Most of its printing is done in bulk, particularly for scholarly books between 300 and 500 pages. It also uses Lightening Source for shorter works where less than 500 copies are required. However, there are high costs associated with printing as well as transportation using this model:

> *The problem is that all their shipments to most countries are sent through DHL. We can't even tell them to use other shipment options (because) they have a one size fits all model. The DHL is costly in our part of the world, and it is difficult to pass on all the cost to the buying consumer, makes the book price more costly.*[436]

Sterling Publishers, India

Sterling Publishers[437] is one of approximately 17,000 publishers in India. It publishes 99% of its books in English and exports many of its books for international markets. In some instances, it buys international licences to use characters like Barbie, Barney and Warner Brother's characters and they create material based on these characters for the local market. Sometime licensors provide their own text, and at other times Sterling Publishers creates new text, which is approved by licensors before printing. Most of the content is created in-house by a team of writers, researchers and editors. It also produces and exports storybooks and crafts and games.

Sterling Publishers tries to keep the pricing of their books low as there isn't much buying power in India. Usually the final product is three or four times the cost. The challenge is to keep the prices low so that the product reaches more hands and they are able to do so as they have their own production facility - it has its own printing unit and materials are printed in-house. It prefers to do big print runs (the print runs start from 3,000). It has its own warehouses and all invoicing and checking of the stock is done using technology – so at any one time they are able to check the availability of stock. Sterling Publishers sells whatever it produces.

Sterling Publishers uses books distributors, but also supplies books directly to book sellers, parents and schools, but noted the challenge in gaining space in bookstores for books. Book sellers are increasingly becoming stationary stores, gift stores and the space for books is reducing:

> *We have our own representatives who go to book sellers, and to schools. Many schools have exhibitions. We have invested the money, and produced the product, so we can't sit and wait for distributors or wholesalers, because they (only) take interest if there is a demand.*[438]

It mainly supplies key retail chain stores. In shopping malls – there are about 10-15 key retail chain stores, who do not only sell books. Sterling publishers supplies them with books in large numbers (3,000-5,000 copies).

It has an online system to verify that delivery has taken place. It usually uses transport companies, the post office or a courier service for delivery (depending on the size of the shipment), and within New Delhi it supplies materials using its own vehicle.

Book Clubs

Commercial publishers are also making provision for direct to consumer marketing of children's books. An example from South Africa is Kids Book Club,[439] which offers 'bestselling age appropriate educational, activity & reading books', delivered to customers. The cost is R160 per month ($11.21) for two books. They cover children aged from 0-9 years old, and provide a range of book types from touch and feel for babies and toddlers through to activity and reading books for older children.

[436] Sulaiman Adebowale, personal communication to Sarah Hoosen, 2 February 2016.
[437] Sterling Publishers. Retrieved from http://www.sterlingpublishers.com/
[438] Surinder Kumar Ghai, personal communication to Sarah Hoosen, 3 March 2016
[439] KidsBookClub.co.za. Best Selling Kids Books Delivered Monthly to Your Door. Retrieved from http://www.kidsbookclub.co.za/

Similarly in the US, Scholastic offers Reading Club[440] in which many primary and secondary children in America bring home a monthly flyer. The flyers are distributed on newsprint through the child's school and come home in their backpack. The flyers are also distributed to parents via email. Parents decide what, if anything, to purchase from the flier and send a check to school or pay online. The shipping and delivery is coordinated through the school. So this brings down prices by eliminating the need for retail space and shelving, by consolidating delivery, and by pushing a limited number of titles at a time to best realize printing economies of scale. This model also likely encourages families to spend more on books than they otherwise would. It is very easy for the parents to do, they don't have to take the initiative to go to a bookstore, there is a regular monthly reminder, and the not-so-subtle angle of "Don't let your child be left out when all their friends are getting new books!" These are all strong factors for pushing demand. Mostly the books are paperback, to lower the cost.[441]

> *I imagine that families without income from employment are not really participating in this. But for working-class and middle-class American families, this is a major way that storybooks books are purchased. To the extent that a society has some disposable income to buy books, this seems like a very cost-effective distribution model.*[442]

Scholastic is also a major children's publisher called Scholastic Trade Publishing. It releases both original titles and also franchises well-known books, such as Harry Potter for older children and Clifford, the Big Red Dog for beginning readers.

Online free, hard copy for a fee

There are a number of examples of online free, hard copy for a fee in scholarly and scientific publishing. The US National Academies Press (NAP) publishes its books in several formats. *A Framework for K-12 Science Education* costs $39.95 for the paperback and $29.95 for the ebook. But it is free to read online or to download as a PDF file.[443] In setting this pricing model, NAP needed to heed the call of many Academy members to open up research to the public, while at the same time recognizing NAP's fiduciary responsibility to the Press and its sustainability. To create a business model that satisfied these two competing demands was not easy, but enough readers want to own NAP publications in print or as an ebook to meet these two objectives.[444] Thus, online and PDF for free and other formats for a fee.

In South Africa, the Centre for Higher Education Transformation (CHET) has a similar policy. Online is free; there is a fee for hard copies. Online PDFs can be downloaded from the CHET website or through Google Books. Books can be ordered in a number of ways – including through book stores, ABC, and Amazon.[445] CHET's policy is different in one way from the others, however – its online books are open access, with a Creative Commons licence. Another example is the HSRC Press, which is responsible for disseminating the HSRC's research outputs through print and electronic media. It acts as a not-for-profit publisher, and collaborates with international publishers and book distributors to meet their

[440] Scholastic Reading Club Online. Retrieved 14 March 2016 from https://clubs2.scholastic.com/
[441] Lea Shaver, personal communication to Neil Butcher and Lisbeth Levey, 12 December 2015
[442] Lea Shaver, personal communication to Neil Butcher and Lisbeth Levey, 12 December 2015
[443] A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas. Retrieved from http://www.nap.edu/catalog/13165/a-framework-for-k-12-science-education-practices-crosscutting-concepts
[444] A detailed explanation will be found in: Kannan, P., Pope, B. K., & Jain, S. (2009, May 19). Pricing Digital Content Product Lines: A Model and Application for the National Academies Press. *Marketing Science*. 28(4). Retrieved 6 March 2016, from http://pubsonline.informs.org/doi/abs/10.1287/mksc.1080.0481
[445] CHET Books. Retrieved from http://chet.org.za/publications

dissemination goal.[446] HSRC Press prides itself as pioneering an Open Access model allowing free downloads of many of its books worldwide.[447]

> *Our books are scholarly books in the social sciences and humanities (as opposed to trade, educational textbook, reference, general books). Our open access enabled us to become the leading scholarly book publisher in Africa though citation and other measures, as well as to become well known globally as a publisher of distinctive African-lead research.*[448]

It offers books in print, open access, and as e-books available from online bookstores like Amazon and Barnes and Noble. This model is believed to be important for knowledge building. Not all books are available under an open licence – and the intellectual property rights are determined on a book-by-book basis and are covered in the contract with authors.[449]

The Council for the Development for Social Science Research in Africa (CODESRIA) in Senegal mounts many of its publications free-of-charge on its website. ABC, which sells CODESRIA publications, does not think that there has been any diminution of sales revenue for print copies.[450]

Donor requirements that the research for which they pay must be made publicly available, usually within 12 months, has upended the commercial journal publishing industry. They must now offer authors a number of possible ways to meet these requirements. These range from publishing with a Creative Commons licence to freely available after an embargo period. Authors who wish Creative Commons licensing and immediate access must pay the publisher an extra fee. These charges are typically passed on to the donor and grantees are encouraged to include a line item in their budget for publishing charges. There are a number of organizations that track publisher and donor policies, most notably SHERPA/RoMEO, a database maintained by the University of Nottingham in the UK.[451]

A research study funded by IDRC - Publishing and Alternative Licensing Models in Africa (PALM) - is another example of flexible licensing models. The study, which was carried out in South Africa and Uganda, [452] is worth describing at length because it is one of the few instances in which a concerted attempt was made to experiment with Creative Commons licences for scholarly publications outside of South Africa. PALM differed from other research projects focused publishing because of two major reasons - it experimented with a mix of paper and print as well as online free, hard copy for fee modalities.

Eve Gray was overall lead investigator and responsible for South Africa. Gray has a background in publishing, with a specialty in utilizing open licensing to increase the access and impact of African scholarship. She is located in the Scholarly Communication in Africa programme of the University of Cape Town. NABOTU, under the direction of Charles Batambuze, led PALM's Uganda portion. Batambuze has a background in publishing and library sciences. In addition to his post as Director of the National Book Trust of Uganda (NABOTU), he is Executive Director of the Uganda Reproduction

[446] Human Sciences Research Council. HSRC Press. Retrieved from http://www.hsrc.ac.za/en/ria/about-us/HSRC-press
[447] HSRC Press. Retrieved from http://www.hsrcpress.ac.za/
[448] Jeremy Wightman, personal communication to Sarah Hoosen, 25 February 2016
[449] Jeremy Wightman, personal communication to Sarah Hoosen, 11 May 2016
[450] CODESRIA. CODESRIA Publications in full text. Retrieved from http://www.codesria.org/spip.php?rubrique65
[451] SHERPA/RoMEO - Publisher copyright policies & self-archiving. (n.d.). Retrieved from http://www.sherpa.ac.uk/romeo/index.php?la=en
[452] Batambuze, C., & Ikon-Odongo, J. (2010). *Publishing and Alternative Licensing Models for Africa* (pp. 19-21; 28). International Development Research Centre. Retrieved from https://idl-bnc.idrc.ca/dspace/handle/10625/46275. See also Ikoja-Odongo, J.R. *Publishing in Uganda with Notes from Africa: A Review*. (n.d.). National Book Trust of Uganda. Retrieved 10 March 2016 from http://nabotu.or.ug/wp-content/uploads/ikoja.pdf. The entire report will be found at Gray, E., Rens, A., & Bruns, K. (2010). Publishing and alternative licensing models in Africa: Comparative analysis of the South African and Ugandan PALM studies. Retrieved 29 March 2016, from https://idl-bnc.idrc.ca/dspace/handle/10625/45649 (The PALM research question quoted on the following page is on page 10 of the PALM report.)

Rights Organization (URRO) a Collective Management Organization, he was an officer of the Uganda Library Association, and previously was project manager of the National Library of Uganda's Mobile Digital Bookmobile, which is described in detail in the section on Print on Demand. Batambuze collaborated with John Robert Ikoja-Odongo, a professor of Library and Information Science in the East African School of Library and Information Science at Makerere University.

The PALM project sought to address two serious weaknesses inherent in African publishing: The conventional book trade does not reach a large enough audience, and it does not operate under sustainable business models. Because bandwidth capacity on the continent is improving, the project built its research question with technology as the foundation:

> *How can flexible licences, innovative publishing models and the use of ICTs enable African research institutions, development organizations and book publishing businesses to increase access to and production of knowledge and learning?*[453]

Publishers in each country required briefings on alternative models of licensing because they were only familiar with all rights reserved copyrights. The world of Creative Commons and flexible licences was new to them. it was consequently necessary to overcome their fears of book piracy, plagiarism and the possibility of sales erosion.

Each country formulated demonstration projects, but the Uganda experience most closely parallels the overall situation in Sub-Saharan Africa. The publishing sector and online capacity in South Africa are far more developed than elsewhere on the Continent.

In Uganda, both commercial and not-for-profit publishers participated in the workshops and the demonstration, but only one publishes children's books - Fountain Publishing. PALM work in Uganda was hampered by three major problems:

- Publishers did not understand open access concepts and consequently feared book piracy. Therefore, a great deal of sensitization was necessary.
- Publishers lacked ICT skills themselves and were unfamiliar with epublishing mechanisms and technologies. Poor bandwidth was a contributing factor.
- Given the two challenges outlined above, there was insufficient time to carry out the analysis necessary and the demonstration project.

In the end, three publishers agreed to carry out a demonstration activity - Fountain Publishers; Femrite, the Ugandan Women's Writers Association; and Mastermind Publishers, a small business press. The experiment involved making digital copies free, using different types of Creative Commons licences. Fountain used CC BY ND NC (free to share with attribution, for non-commercial purposes only, and no attribution). Mastermind's licensing, CC-BY, permitted everything, but only for non-commercial uses. Femrite was most flexible, with a CC-BY licence, requiring attribution, but all else permissible. The publishers agreed to charge for print copies. Fountain and Femrite were aided by the fact that they are members of ABC and were thus able to use ABC services to ship print copies of the titles internationally.

Fountain mounted three titles and Femrite mounted two titles on their websites. In the end, Mastermind did not participate due to lack of ICT skills and poor infrastructure. The results were meagre - web traffic was monitored imprecisely; time was insufficient; lack of ICT skills were an impediment; the experiment was under-powered; and it was not publicized. It might have been better if the two publishers had tried to use the ABC website for the experiment.

[453] Gray, E., Rens, A., & Bruns, K. (2010, March 31). *Publishing and Alternative Licensing Models in Africa* (Rep.). https://idl-bnc.idrc.ca/dspace/bitstream/10625/45649/1/132110.pdf page 10

Following the PALM study, Batambuze submitted a proposal to Creative Commons for a small grant to provide necessary tools to Ugandan publishers to create ebooks with a Creative Commons licence.[454] Unfortunately, it was not funded.

How might the examples above resonate in children's publishing in the developing world? Examples are sparser, but there are a few. African Storybook, which is discussed in the section on open licensing, has begun to work with children's book publishers to make selected titles freely available. For instance, *The Rain Bird*,[455] which was published by the Nal'ibali initiative of the Project for the Study of Alternative Education in South Africa (PRAESA)[456] demonstrates the power of open licensing. The book has also been translated into French; two versions of Lugbarati, which is spoken in parts of Uganda and the Democratic Republic of the Congo, with both official and unofficial orthographies; and Ng'aturkana for Kenya. In addition, there is also a level three adaptation in English, which was then translated into Sesotho for Lesotho. [457]

Pratham Books is another example of how children's publishers use the 'online free, hard copy for a fee' model. In 2008-9, this publisher began a process of releasing its titles online under an open licence, using the Creative Commons Attribution licence. In the first 12 months of implementing an open licence, Pratham discovered that these books tended to outsell the print version of those that were still subject to an All-Rights Reserved licence by two to one.

There can also be complications with open licensing when publishers donate books that are published under one licence and the book is then published on the African Storybook website, using its more liberal licence. This is the case with stories published by READ and the University of KwaZulu-Natal. *Look at the Animals* is a case in point. Even though the ASb website clearly states the terms under which the book can be used (Creative Commons Attribution Non-Commercial Licence), users of the website might be confused because the ASb website as a whole uses a Creative Commons Attribution licence, which permits adaptation and commercial uses. The ASb licensing story becomes even more convoluted because ASb has improved and re-illustrated some of the KwaZulu-Natal stories.[458] ASb is probably not the only organization to confront mixed-message licensing dilemmas.

Another example from ASb is a new experiment with Print on Demand (POD). ASb compiled four existing stories in isiZulu into an anthology of 64 pages for KwaZulu-Natal school libraries. Five thousand copies in full colour were printed, at a cost of about $1.00 each. Black and white copies of each book were printed for the children in packs of ten per class, for about 15 cents each. Thus, a mixture of full colour and black and white are being used in the KwaZulu-Natal schools that participated in this experiment. ASb hopes that these schools will use a mixture of online and print in their classrooms.[459]

Expansion possibilities would be to pair with additional groups. For instance, would organizations, such as publishers, libraries and international NGOs, which produce and publish books be interested in some sort of arrangement with ASb to widen circulation through digital access in the same ways as mentioned above? The ASb collection includes many titles in African languages, but just as many languages are under-represented. If donors require free online access for research they fund, could this model be brought to bear for the children's books published with their support? The availability of training materials is another area that could be made more efficient if there were collaboration and

[454] Batambuze, C. (2010). Grants/Publishing open e-books in Uganda. Retrieved from https://wiki.creativecommons.org/wiki/Grants/Publishing_open_e-books_in_Uganda
[455] PRAESA – Growing biliteracy and multilingualism. Retrieved from http://www.praesa.org.za/
[456] Bloch, Joanne. (n.d.). *The Rain Bird*. Retrieved from http://my.africanstorybook.org/stories/rain-bird-level-3
[457] Tessa Welch, personal communication to Lisbeth Levey, 16 March 2016
[458] Tessa Welch, personal communication to Lisbeth Levey, 16 March 2016
[459] Jenny Glennie, personal communication to Lisbeth Levey, 8 March 2016

coordination. Some organizations have written training materials for authors, illustrators, and teachers, but they are only available to the groups with which they work. Other organizations are more open. African Storybook, for example, has prepared a Guide for Making and Using Stories, which is online with a Creative Commons licence.[460] In addition, the Osu Children's Library Fund has a guide on establishing community libraries.[461] There are certainly other useful guides. A simple Google search turned up several examples of guides that are freely available. Two include: *How to Create a Fantastic Picture Book*[462] and *Writing Picture Books for Children*.[463] As a start, organizations producing resources closed to outside readers might be encouraged to make them freely available. Secondly, it would be helpful to have a place to mount information about available guides, including those identified through search engines and provide links to them.

The role of donors in open licensing

The international donor community, ranging from the multilaterals and bi-laterals to private foundations are all heavily involved in funding efforts focused on early literacy in the developing world, both in publishing and also support to libraries.[464] Until now, however, encouraging the use of open licences for early literacy materials has not been a priority. This now may be changing. As part of US government policy, the Agency for International Development (USAID) now requires that resources produced with its funding, including early reading materials, be openly licensed. The rationale behind this decision is that publicly funded resources should be made freely and widely available.[465]

Although open licencing for materials in early childhood education is not yet widespread, most donors, both governments and private foundations, now require that the research they support be published in open access formats. Additionally, with donor support, several countries are also moving towards widespread usage of OER and open textbooks in the classroom. These include the United States in North America,[466] Poland in Europe,[467] and South Africa in Africa.[468] Could this movement towards openness be expanded to include children's book publishing in the same way that USAID has done?

[460] African Storybook. Retrieved from http://www.africanstorybook.org/ (Go to the ASb home page, click on help and notes. You will be referred to the Guide).
[461] Osu Children's Library Fund. How to Set Up Community Libraries for Children. Retrieved from http://www.osuchildrenslibraryfund.ca/wp-content/uploads/2010/01/How-to-Set-Up1.pdf
[462] Blackburn, E. (n.d.). How To Create A Fantastic Picture Book. Retrieved from https://www.writersandartists.co.uk/writers/advice/327/dedicated-genre-advice/writing-for-children/
[463] Cambridge Center for Adult Education. Writing Picture Books for Children. Retrieved from http://www.writingpicturebooksforchildren.com/
[464] Although they also receive government and local support, as discussed in the section on libraries above, school and community libraries receive much of their funding from donors.
[465] *Open Licensing Policy Rationale*. (n.d.). Retrieved 4 March 2016 from https://www.usaid.gov/sites/default/files/documents/1865/NW2-CCBY-HO4-Open_Licensing_Policy_Rationale.pdf
[466] The William and Flora Hewlett Foundation has been a leader in all forms of open, from kindergarten through university. See its December 2015 policy statement: *Open Educational Resources: Advancing Widespread Adoption to Improve Instruction and Learning*. December 2015. Retrieved from http://www.hewlett.org/sites/default/files/Open_Educational_Resources_December_2015.pdf
[467] See European Open Edu Policy Project. Polish Ministry of Education releases an open primer textbook under CC BY. Retrieved from http://oerpolicy.eu/polish-ministry-of-education-releases-an-open-primer-textbook/ and Śliwowski, K., & Grodecka, K. (2013). *Open Educational Resources in Poland: Challenges and Opportunities* (Rep.). Retrieved from : http://iite.unesco.org/pics/publications/en/files/3214727.pdf
[468] The promotion of OER and open access started at the university level in South Africa, as it did in the United States. But there are some noteworthy initiatives at the primary school level. These include Nolwazi, a digital repository of OER teaching and learning resources funded by the CoZa Cares Foundation (*Nolwazi*. Retrieved from http://nolwazi.co.za); initially funded by the Shuttleworth Foundation, Siyavula has produced OER science and math textbooks at the primary and secondary levels (Siyavula. Retrieved from http://www.siyavula.com/index.html).

But openness comes with a price tag, even if the reader is not charged. Open Access journals that are not subsidized by a government, institution, or foundation typically charge the author an article processing charge to cover publisher costs.[469] Although using OER can reduce costs and improve quality, OER content creation and production costs are not insignificant. Authors, illustrators, instructional designers, and web specialists must be paid for their time, if not from the institution where they work, then from someplace else. Someone must be also responsible for copyright clearance, if necessary, and technical support.

Although government should be responsible for these costs if they are committed to open licensing for early literacy reading materials, this is not a realistic expectation for many countries in the short- and medium-term. Donor support is required both to initiate programmes to make early childhood education resources freely available and to work with ministries of education to map out in-country support for these materials in the future. In addition, donors can play another important role - helping to improve capacity to create, produce, and distribute materials using local talent, expertise, and infrastructure.

Finally, effective donor funding must also be adjusted in light of different circumstances. There is no such thing as one size fits all. Some NGOs cannot meet donor tendering or reporting requirements, for example:

> *While I know everyone always wants to scale, organizations like our, that do substantial work with very limited funds, are often constrained by the huge reporting requirements of large donors, and the usual refusal of such donors to actually pay salaries to editors and writers. If we had $10,000 a year that we could use to pay two staff members, we could probably produce 50-100 titles a year.*[470]

Furthermore:

> *We indeed print the books primarily for the libraries that we support in Burkina - currently 34 - and those are paid from grant funds and donations. Each of the libraries has about 50-100 of those Fastpencil books. The market for books in Burkina is tiny. A $5 book = 2500 FCFA, or about 3 days of work for a typical villager. At a minimum wage in the US, that would mean the book would cost the equivalent of $10x8x3 = $240! How many books would you buy if they cost $240? So a Global Fund would definitely be very important if it could lower the cost (or help stock libraries).*[471]

Exploring open-access business models

Exploring the business models associated with the above examples is critical if they are to be successfully harnessed in a way that builds local content creation capacity. Of course, someone always has to pay for content creation in some form, whether it is OER, journals, or books. In some of the examples above, though, the cost centre shifts and can become more opaque. In order to analyse and suggest an open-access business model for early literacy readers, it helps to know how children's publishers have costed their production.

First, what are typical print publishing cost components? They include:[472]

[469] Open access journal. (2016, February 16). In *Wikipedia, The Free Encyclopedia*. Retrieved 5 March 2016, from https://en.wikipedia.org/w/index.php?title=Open_access_journal&oldid=705196134
[470] Michael Kevane, personal communication to Lisbeth Levey, 15 April 2016
[471] Michael Kevane personal communication to Lisbeth Levey, 16 April 16 2016
[472] Hans Zell helped with cost delineations. Personal communication to Lisbeth Levey, 3 March 2016

1) Author and illustrator fees - either a flat fee or a royalty. Both might vary, depending on the reputation of the person commissioned to do the work. In addition, who owns the copyright?
2) Editing - either in-house copy and content editing or freelance. Attention also needs to focus on the importance of copywriting and proofreading, "which is especially critical for emerging readers and can be particularly challenging in countries where governmental bodies are still agreeing on an orthography".[473]
3) Design and layout - typography and layout of pages together with cover and rear cover artwork. This can be a challenge in countries where the variety of programs is limited and the skill levels of designers is weak.
4) Production - from pre-press to printing and delivery.
5) Warehousing of print copies and digital storage of design files.
6) Marketing.
7) Publisher human-resource costs.

There are other cost considerations such as training for the resource producers – the authors, illustrators, designers, and editors – as well as teachers and librarians.[474] Translation fees also need to be factored into determining publishing costs. When asked whether she would be interested in free local language publication of her books online, Kathy Knowles, Director of the Osu Children's Library Fund noted:

> *I would be interested in free local language publication of our books online but only if the responsibility of the translation, file preparation and so on was not on my shoulders. I work solely as a volunteer. Writing and publishing books is in addition to OCLF's mandate of supporting literacy and creating libraries. Taking on additional tasks would be difficult at this time*[475]

Below are examples from two small commercial publishers, one in Ghana and the other in Ethiopia, on how they cost and price their children's books.

Ghana: Fati and the Honey Tree

An example of publishing costs in a developing country context, is the book, *Fati and the Honey Tree*, which was co-published with the Osu Children's Library Fund (OCLF). It has gone through two print runs and has been translated into various Ghanaian languages.[476] The idea for *Fati and the Honey Tree* came from a 12-year old Ghanaian girl living with the Knowles family in Canada. It was written and edited by a friend of the Knowles family, with approval from the girl who told the story. Fati and her adventures in subsequent books tell the story of a typical girl from Ghana's Upper West region. There were no author or editorial fees involved in this community writing effort. The editing was done by Sub-Saharan Publishers.

This and other *Fati* books are illustrated by Therson Baadu, a Ghanaian illustrator. He received a flat fee, with the copyright owned by Sub-Saharan Publishers and Osu Children's Library Fund.[477] Sub-Saharan Publishers was responsible for the costs associated with design and layout for the first edition

[473] Alisha Berger, personal communication to Lisbeth Levey, 10 May 2016
[474] Yalew Zeleke, personal communication to Lisbeth Levey, 9 May 2016
[475] Kathy Knowles, personal communication to Lisbeth Levey, 1 May 2016
[476] Information on *Fati and the Honey Tree* comes from Kathy Knowles, personal communication to Lisbeth Levey, 25 January 2016 and 7 March 2016) and from Akoss Ofori-Mensah, personal communication to Lisbeth Levey, 10 March 2016
[477] This is the case for most of the illustrators commissioned by Sub-Saharan Publishers. There is a separate arrangement with Meshack Asare, an award-winning illustrator. Asare produces both content and illustratrations, and owns the copyright. Heis paid royalties for his work as well as support to participate in conferences. (Asare won the 2015 NSK Neustadt Prize for Children's Literature, for example. (Meshack Asare Announced as the 2015 Winner of the Prestigious NSK Neustadt Prize for Children's Literature - The Neustadt Prize. (2014). Retrieved 11 March 2016, from http://www.neustadtprize.org/meshack-asare-announced-2015-winner-prestigious-nsk-neustadt-prize-childrens-literature-2/)

of *Fati and the Honey Tree*, while the Osu Children's Library Fund paid a graphic designer to make corrections for the second print run, particularly for colour saturation.

Sub-Saharan Publishers and the OCLF do not print in Ghana. This first *Fati* book was experimental as part of a 2002 cooperation project with Vagn Plenge of the Danish Forlaget Hjulet (Wheel Press) to publish the book in Belgium.[478] About 4,500 copies were printed at this time, for a cost of approximately $3,000, with expenses paid evenly by Sub-Saharan Publishers and OCLF. OCLF produced the second edition in 2008, which was printed in Canada, and with a print run of 5,000 copies. The cost was $9,250 Canadian (US$6,995), which was shared equally. In addition, USAID has ordered 9,600 copies of the Dagare translation of *Fati and the Honey Tree*, as part of a cooperation programme with the Ghana Education Service.[479][480]

Although Ofori-Mensah noted that pricing should be six times the production cost, this is not the case because the books would be too expensive in Ghana. Both Sub-Saharan Publishers and OCLF have a sliding scale, depending on where books are purchased. *Fati and the Honey Tree* costs $10 internationally (US or Canadian), but Ghanaians only pay ten Cedi ($2.60). The hope is that large orders will make up for any losses.

Midako Publishing, Ethiopia

Midako Publishing was established in 2015 by two sisters who wanted to read stories in Ethiopian languages to their children.[481] Thus far it has only produced six titles, one in Oromifa and five in Amharic. Midako Publishing is currently developing 182 titles in Amharic, Oromifa, Hadissa, Wolayita, and Somali for the Ministry of Education, with a contract from Save the Children. All books are printed in full colour in Ethiopia. The print run is 5,000 copies for each book. There have been no reprints yet because the publishing house is new. Like Sub-Saharan publishers, prices are low for print - 29 Ethiopian Birr ($1.36) per book. There will also be an online shop in the future.[482]

Children's books: breaking even, but perhaps not much more. Price per book:

- Sub-Saharan Publishers: $2.60
- Midako Publishing: $1.36
- Mkuki na Nyota: $2.00

It would seem for these two African publishers, and probably others on the Continent, that the business model is more closely akin to structuring a price that is consistent with ability to pay in country rather than how much it costs to produce these books. One hopes that none of these publishers is losing money, but their profit margin is probably not large. Contracts from donors and International NGOs, such as USAID, CODE and Save the Children allow for larger print runs and sometimes cover all the costs.

Promoting regional collaboration

The African Books Collective (IABSS) distributed print copies children's books across the Continent. Could a digital business model be constructed somewhat like the IABSS initiative? In a 2005 evaluation of IABSS by Guy Bentham, he noted that encouraging intra-African trade was one area that was more

[478] Akoss Ofori-Mensah seeks out both good cost and good quality, and now prints in Hungary, after using print houses in Mauritius, India, and Dubai. (personal communication to Lisbeth Levey, 25 January 2016)
[479] Akoss Ofori-Mensah, personal communication to Lisbeth Levey, 8 January 2016
[480] *Fati and the Honey Tree* and another children's book were translated into French in 2002, with funding from the French Ministry of Foreign Affairs and handled by Joie par les livres, a French NGO, a group that 'supports the development of children's literature and reading in developing countries, especially former French colonies'. (personal communication to Lisbeth Levey, 19 January 2016)
[481] Van der Wolf, M. (2015, December 25). Sisters Aim to Build Ethiopia's Reading Culture. Retrieved from http://www.voanews.com/content/sisters-aim-to-build-ethiopia-reading-culture/3118720.html
[482] Tsion Kiros, personal communications to Lisbeth Levey, 8 and 9 March 2016

difficult to achieve.[483] But Bentham was writing about intra-African sales for print materials. Digital books would be far more easy to cross borders. Could an IABSS construct be created, with funding to cover publisher costs? Justin Cox at ABC told Lisbeth Levey that he would be interested in using ABC as a convening mechanism for children's book publishers to lay out the parameters of Creative Commons licensing for their work. Charles Batambuze at NABOTU remains interested in alternative licensing. There might be a nucleus of organizations intrigued by different licensing options.

Alisha Berger took this idea one step further when she inquired about the idea of co-edition publishing, where resources could be pooled, a concept that comes with its own set of possibilities and challenges:

> *This of course does not address cultural relevance or local identity, but my philosophy is that we need a multi-pronged approach to getting more books in kids' hands. If we produce everything... locally, it's not making the most out of all those resources - what about regional collaborations that could be adapted into more than one language? If we shared resources in this way, then more $$ could be spent on the development of each title (within local publishers) with the result that cultures of many places could be shared. Illustrating stories with non-specific pictures from a standard library isn't going to spread the kind of quality level that I would like for children to experience. But it's not either-or, let's try for both.*[484]

This, of course, is what open licensing is meant to achieve, as evidenced in not-for-profit initiatives such as African Storybook. But how to bring on board publishers of children's books? There are numerous challenges related to the publishing industry to be explored and overcome. Berger also pointed to a number of issues inherent in working within the children's books' publishing industry, which we have shown to have difficulty making ends meet:

> *Publishers appreciate the costs inherent in the industry more than outsiders do… and might be receptive to paying a small fee to another publisher to use their content.*

In the same email, she asked the most important question if we want to ensure that local industries and organizations can be sustained and thrive:

> *Do we ultimately imagine a publishing 'industry' to develop in these countries without any profit motive? When an aid project or NGO makes a free book, what does that say to local entrepreneurs about the value of a book or books as business? How does that stimulate creativity...I think overall there are many countries where we could and should hope for more in the nascent industry than a dependence on donor money and an expectation within the community that books are free.*

Thus, we must ask ourselves how can we promote sustainability and open licensing as much as is feasible. What kind of flexibility in licensing models can be built into the system to ensure that local industries are encouraged to grow? How can we encourage creativity nationally and across regions?

[483] Bentham, G. (April, 2005) *Independent Evaluation of IBSS Project 2001-2004* (unpublished report), page 8

[484] Alisha Berger, personal communication to Lisbeth Levey, 10 May 2016. (This quote and the two below it come from the same email.)

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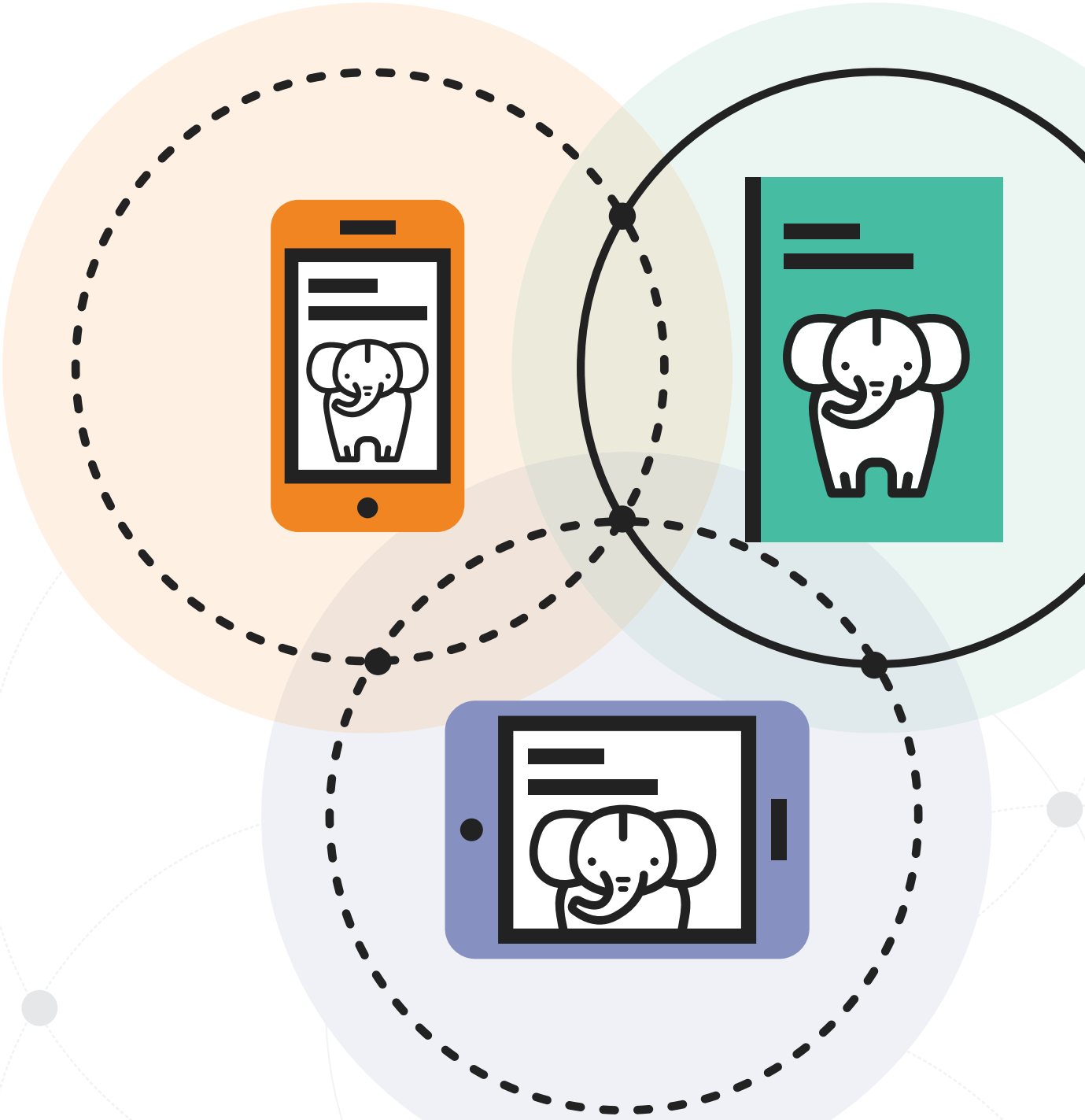

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