Open Licencing Made Plain
A Primer on Concepts, Challenges, and Opportunities for African Publishers

Neil Butcher, Lisbeth Levey, and Kirsty von Gogh
With funding from the William and Flora Hewlett Foundation, and as part of its work on the early literacy ecosystem and open licensing, Neil Butcher & Associates (NBA) is conducting research on costs and economic models associated with storybook content production. NBA's goal is to contribute to enhancing the availability of children’s books in mother-tongue languages in Africa, using open licensing.

Openly licensed resources are ‘free’ to access, but there can be significant user, creation, adaptation, and production costs. The long-term sustainability of African publishing in local languages requires that these costs be met fairly and completely, using models that will encourage people to establish, grow, and sustain excellent content creation organizations. This research will assist content producers to make informed arguments to funders (governments or donors) about the costs associated with open licensing to ensure long-term sustainability of the publishing industry in African countries.

The aim of this primer on open licensing for African publishers is to lay out issues to take into account when considering the use of open licensing in early literacy.

NBA has also created a website, the Early Literacy Resource Network (ELRN), to share information on toolkits and research about open licensing, teacher training, national language and book policies, access and distribution, and key players in early literacy. The resources on the ELRN website gather together work carried out by the major organizations and researchers in this field. Please visit at: http://www.earlyliteracynetwork.org/.

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Cover page photo: Ejere community library, Ethiopia, Kirsty von Gogh
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Why this primer?

Until recently, the book publishing supply chain offered a tried and tested way to produce content. Publishers commissioned books, paid authors, illustrators, designers, and others. They arranged for printing and distribution. Books were protected by copyright.

But technology and licensing changes have disrupted traditional publishing practices everywhere, including in Africa. Digitized content-creation processes, e-books, and online distribution of content are now a normal part of the publishing industry.

Digital technology has brought an end to the ‘neatness’ of traditional supply and value chains in publishing. Digital platforms and devices have disrupted a linear chain or end-to-end process with something more complicated. Digital content can complement print and, in certain circumstances, may even replace it entirely. It can also shift the burden of printing (or access in the case of e-readers) from publisher to reader. With digitization, publishers do not incur printing costs, but users of the resource must if they want to read a hard copy.

Copyright protection is no longer the reliable gatekeeper it once was, partly because digital content is so easy to copy and share but also because governments and donors increasingly require some form of open licensing for the research and educational publications they fund. This includes textbooks and supplementary materials, such as storybooks. Open licensing alters how rights are protected, but also offers some protection in a world in which illegal copying is now so easy.

At a January 2018 regional workshop in Abidjan, Côte d’Ivoire, aimed at members of the African publishing industry and sponsored by the Association for the Development of Education in Africa (ADEA) and the US Agency for International Development (USAID), some participants expressed fears that open licensing might:

1) Destroy the livelihoods of African content creators (authors, illustrators, editors, and translators), booksellers and publishers. It was argued that it is copyright and the associated return on investment that supports quality writing and publishing. It takes special abilities and rare dedication to invest the time, talent and capital needed to create quality works, and that requires remuneration. With open licensing, it seemed publishers would not get a return for their investment. Perhaps one of the confusing issues is that the potential of Creative Commons licensing has emerged simultaneously with the explosion in possibilities surrounding digital publishing. It was expressed severely that people need more training in Creative Commons and Open Licensing.

This primer is thus intended for African publishers, like those at the January workshop, to share insights on the concepts, challenges, and economics of open licensing, without which it will be increasingly difficult to maintain a sustainable and vibrant publishing sector on the continent. Much of the information below is focused on those content producers who work on children’s illustrated storybooks and supplementary readers, though it hopefully retains wider relevance. This primer aims to introduce key terms and provide concrete examples of how publishers might use open licensing creatively to increase visibility and sales.

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What are open licences and how do they work?

Open licensing permits users to share and, under some licences, translate or otherwise adapt the work of others without requesting written permission. Open licences thus give more choice about how content may be used. Open licensing does not replace copyright, but it does revise ‘all rights reserved’ licences to ‘some rights reserved’ ones. They can be applied to any creative work, including music, books, articles, photos, and videos. Output can be online and/or offline. Some licences only permit sharing, while others enable sharing and adaptation. Unless explicitly stated otherwise, all open licences require that the original work, author, and publisher be acknowledged.

Creative Commons licences, which are outlined in table 1 below, are the ones most frequently used for open licensing in publishing and education. They permit copyright owners to retain their copyright while determining the extent to which others are legally allowed to reuse material. Creative Commons licences range from very permissive, allowing copying, modification, and commercial use (CC BY), to those that are more restrictive, for example, permitting distribution of a work in its original form, but no modification (CC BY-ND). In 2006, there were 140 million resources with Creative Commons licences; that number rose to 1.4 billion in 2017. Perhaps more important, Creative Commons licences are designed in conformity to copyright law to help content creators who believe that their work has not been appropriately acknowledged and decide to litigate.

A Creative Commons licence applies around the world and lasts as long as copyright, because the licences are built on copyright. Creative Commons licences are not revocable; if a copyright owner stops offering their materials under a Creative Commons licence, it does not affect the rights associated with copies of this work already in circulation.

Creative Commons wrote its licences with an eye on their legality and ability to enforce them. According to the Creative Commons website:

One of CC’s goals is ensuring that all of its legal tools work globally, so that anyone anywhere in the world can share their work on globally standard terms. To this end, CC offers a core suite of six international copyright licenses (formerly called the ‘unported’) that are drafted based largely on various international treaties governing copyright, taking into account as many jurisdiction-specific legal issues as possible. The latest version (4.0) has been drafted with particular attention to the needs of international enforceability.

Open licensing is not the same as placing resources in the public domain. When resources are released into the public domain, authors and copyright holders relinquish all rights because they have chosen to do so or because the copyright has lapsed. Open licences permit authors to grant different levels of permission. Thus, although both provide free access, the scope and nature of each is different.

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2 When we share, everyone wins. (n.d.). Retrieved August 14, 2018, from https://creativecommons.org
3 About the Licenses. (n.d.). Retrieved August 14, 2018, from https://creativecommons.org/licenses/
4 State of the Commons 2017. Retrieved August 14, 2018, from https://stateof.creativecommons.org/ (Click on data to obtain information on the growth of CC licences from 2006-2017.)
5 About the Licenses. (n.d.). Retrieved August 14, 2018, from https://creativecommons.org/licenses/
Figure 1: Public domain vs. open licence

Public Domain
- Copyright ownership waived or lapsed.
- Author gives away rights to the public to reproduce and distribute creative work.

VS.

Open Licence
- Copyright ownership retained.
- Author grants broad rights to reproduce and distribute creative work.
- Authors can grant different kinds of rights.

Table 1: From copyright to Creative Commons: a summary of rights

<table>
<thead>
<tr>
<th>Copyright</th>
<th>Creative Commons</th>
<th>Public Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Rights Reserved</td>
<td>Attribution Non-Commercial</td>
<td>Attribution No Rights Reserved</td>
</tr>
<tr>
<td>Non-Commercial No Derivatives</td>
<td>Attribution Non-Commercial Share Alike</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attribution Non-Commercial</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attribution No Derivatives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attribution Share Alike</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attribution</td>
<td></td>
</tr>
</tbody>
</table>

Most Restrictive                      Most Accommodating

Table 2: What do the logos mean?

<table>
<thead>
<tr>
<th>Logo</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="https://creativecommons.org/licenses/by/4.0" alt="Creative Commons licence (CC)" /></td>
<td>Creative Commons licence (CC)</td>
</tr>
<tr>
<td><img src="https://creativecommons.org/licenses/by/4.0" alt="Attribution (BY)" /></td>
<td>Attribution (BY) You must credit the author and illustrator.</td>
</tr>
<tr>
<td><img src="https://creativecommons.org/licenses/by-nc/4.0" alt="Non-commercial (NC)" /></td>
<td>Non-commercial (NC)</td>
</tr>
<tr>
<td><img src="https://creativecommons.org/licenses/by-nd/4.0" alt="No derivatives (ND)" /></td>
<td>No derivatives (ND) Copying, distribution, and display are permitted, but without any alterations.</td>
</tr>
<tr>
<td><img src="https://creativecommons.org/licenses/by-sa/4.0" alt="Share alike (SA)" /></td>
<td>Share alike (SA) Distribution permitted, but only under the licence of the original work.</td>
</tr>
</tbody>
</table>

*This figure is a derivative of What is the difference between public domain and open license? (n.d.). Retrieved July 10, 2018, from [https://training.instructure.com/courses/1276118/pages/what-is-the-difference-between-public-domain-and-open-license](https://training.instructure.com/courses/1276118/pages/what-is-the-difference-between-public-domain-and-open-license) (This course content is offered under a [CC BY licence](https://creativecommons.org/licenses/by/4.0)).

*This table is a derivative of Hodgkinson-Williams, C., Paskevicius, M., & Brown, R. (2009, May 18). A Culture of Sharing: Open Education Resources An introduction Cheryl Hodgkinson-Williams, Michael Paskevicius, Roger Brown Teaching with Technology Seminar. Retrieved July 7, 2018, from [https://slideplayer.com/slide/6853266](https://slideplayer.com/slide/6853266) (This presentation carries a [CC BY licence](https://creativecommons.org/licenses/by/4.0)).
The first logo (CC) in the table states that you are using a Creative Commons licence. The four logos below it are the conditions under which the licence must be used.

What are open licences used for?

Open licences are now used to share many kinds of resources in different media. For example, all content in Wikipedia is licensed under a CC BY-SA licence. Platforms such as YouTube, Flickr, and Scribd10 allow contributors to share their content under Creative Commons licences. Additionally, international organizations such as the World Bank, USAID, and UNESCO now routinely distribute many of their resources and reports under Creative Commons licences. Likewise, museums such as the Brooklyn Museum and the Metropolitan Museum of Art, are opening large collections of images and other artefacts for reuse using open licences. In Africa, the National Museums of Kenya is working with Google, Intel, and Digital Divide Data to create an open-access digital archive of the Museum’s collection, starting with 10,000 records relating to its most valuable artefacts from its Archeology and Paleontology collections. In explaining the rationale behind this effort, Dr Fredrick Manthi, head of earth sciences at NMK said:11

*If we are able to successfully digitize this collection, it will be a wonderful thing. It’s a collection for all of us, it’s a collection for the world. This is humanity’s heritage that we keep and Kenyans are just custodians of this heritage. I’m so happy we can come together to share it with everyone.*

Some musicians and artists also share content under open licences, in the hope that wider distribution will bring in new revenue streams. For example, Creative Commons maintains a list with links to openly licensed music that can be used for videos.12 Creative Commons also lists several music communities that use its licences.13 Discussions about and examples of African music and video are also available online with a CC BY-NC licence, through Music in Africa.14

Open licensing is now used widely for various educational purposes, from early childhood literacy to university. Likewise, many scholarly publications, both monographs and journals, are now licensed openly. Some researchers also circulate the data they collect in open access format, although the data are typically stripped of identifying markers. Institutions are creating and using Open Educational Resources (OER), the term used for any educational materials that are freely available and carry an open licence. Although Africa lags behind other geographic regions,15 there are some good examples of OER use on the continent, particularly at African universities that wish to create, adapt, and use relevant and timely materials cost effectively.16 For example, at the University of Ghana, Professor Richard Adenu prepared an OER series of videos on how to perform a Caesarean Section because he wanted his students to know C-Section techniques under Ghanaian conditions. The videos have been viewed over 37,000 times.17 There are also a few examples of openly licensed African textbooks, such as South Africa’s Siyavula Education, which has published mathematics and science textbooks from grades 4 to 12.18

In early childhood literacy, there are several organizations that mount online stories in English and other languages for young children. The stories are published under a Creative Commons licence, which allows users to read,

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12 Legal Music for Videos. (n.d.). Retrieved July 9, 2018, from https://creativecommons.org/about/program-areas/arts-culture/arts-culture-resources/legalmusicforvideos/
13 Music Communities. (n.d.). Retrieved July 9, 2018, from https://creativecommons.org/about/program-areas/arts-culture/arts-culture-resources/music-communities/
15 Cat Johnson, New Report Details the Incredible Growth of Creative Commons, November 25, 2014 http://www.shareable.net/blog/new-report-details-the-incredible-growth-of-creative-commons, retrieved July 18, 2017 (This article is the most recent with information on the inclusion of Africa in Creative Commons.)
download, print, translate, and otherwise adapt each one. Users are also encouraged to write their own stories. These organizations include African Storybook (ASb),

StoryWeaver (SW), and Bloom’s Book Library. Although SW started with a focus on South Asia and its languages, there are now many African stories available on the site. The Global Digital Library (GDL) is another platform to access and translate stories, but users are not permitted to mount their own work. As of July 25, 2018, there were 8,766 stories in 115 languages, which had been read 1,239,097 times, on SW. Bloom’s Book Library contains 2,115 books in 131 languages. ASb is smaller, but there are 1,033 stories on the site in 153 languages. African Storybook can reach scores of children at a time by projecting stories onto a wall in community libraries. In Kibera, an informal settlement in Nairobi, for example, up to 100 children crowd into a room to listen to, read aloud, and discuss stories with community librarians.

Can open licences result in theft of intellectual property?

All open licences require full attribution of authors and publishers in the same way that copyright does. Plagiarism is easier online, but it may also be easier to detect through Google searches and plagiarism checkers, especially if the source content is readily accessible. But the problem is less about attribution and plagiarism than about intellectual property (IP) theft.

Online, pirated software, movies, and music are ubiquitous. In Lagos, some musicians pay for their work to be on pirated CDs because they want the exposure to boost their careers. The simple reality is that any content that has been shared publicly in a digital format, regardless of how it is licensed, is susceptible to intellectual property theft.

Print resources worldwide are equally at risk of copyright infringement. Publishers in Kenya, for example, are reported to lose billions of shillings because of counterfeit textbooks. The box on the left describes efforts by Kenyan publishers to deter book piracy.

Fighting Book Piracy in Kenya

In 2016, the Ministry of Education, the Kenya Publishers Association, and the Kenya Institute of Curriculum Development commissioned a survey of instructional materials. Darius Mogaka of the Ministry of Education said: ‘We were shocked to find out that half of the books used countrywide are pirated.’ The three organizations are developing a barcode [CHKTAG] solution to identify whether a book is pirated or legitimate.

Print resources worldwide are equally at risk of copyright infringement. Publishers in Kenya, for example, are reported to lose billions of shillings because of counterfeit textbooks. The box on the left describes efforts by Kenyan publishers to deter book piracy.

David Waweru, the Chief Executive Officer of WordAlive Publishers in Kenya explained that the CHKTAG digital strategy has only been partially successful. CHKTAG is a self-adhesive hidden 16-digit code that is meant to be placed on every book. According to Waweru:

27 Personal communication to Lisbeth Levey from David Waweru, July 19, 2018
The few publishers who adopted the system only applied the CHKTAGs on their most lucrative titles, like the literature set books. This inconsistency is the perfect loophole for pirates.

In addition, Waweru wrote that there is also a burden on the book purchaser:

- It requires that a buyer of books scratches the special barcode at the point of purchase, feeds the PIN into their phone and sends a text message. For buyers to do this, there must be mass public education on the value of IP and the implications of IP theft. Secondly, there must be an incentive for the buyer to spend their time and money (even though just one Kenya shilling). So, if they have no clue what the label is, they won’t care much about something they don’t understand, and hence, the whole system collapses.

All work can be misused and the risks are no greater under open licences than under all-rights reserved copyright. This will be scant consolation, however, to those content creators whose business models depend on all-rights reserved protection of copyright and who are victims of IP theft and piracy. Some argue that open licences reduce the incidence of IP theft because they legalize the online sharing of digital content and minimize the reasons for theft and piracy. Returning to the issue of open licences and copyright, Waweru ended his email by writing:

The challenge is to innovate viable business models that make it possible for creators and owners of content to generate revenue while still licensing their content for free.

How can openly licensed resources be stored and shared?

Open licensing increases visibility, but only if the resources are findable. All the resources discussed in this primer are mounted in a format and on a platform that is easily findable by search engines such as Google.

Publishers can choose where and how they share openly licenced content. How content is shared and the format of the work will determine how this content can be used. Publishers must also consider donor and government Creative Commons requirements, which do not always specify where this work must be available and in what format.

Below are some options for where to store and share openly licensed resources, outlining the benefits and cost implications for each. No matter how one chooses to share content, when uploading any openly licensed materials, it is good practice to include searchable data so that users can find content easily.

Hosting content on your own website

Publishers can share their openly licensed resources on their own websites, which permits them to select the format and licence. Publishers can upload PDFs so that content is laid out in the same format as the print versions, EPUBs so the files are optimized for the device being used to read the content, or HTML so the content can be viewed as a webpage. Self-hosting may also bring increased visibility for users to obtain information about other services and titles the publisher is selling. Users can buy these resources directly from the website or be directed to other commercial sites where they can purchase books.

Examples of organizations that share content on their own websites include Book Dash, Siyavula Education, and the Molteno Institute for Language and Literacy (MILL). Book Dash makes its books available as print-ready PDFs and EPUBs, and supplies source files in a repository to adapt EPUBs. Siyavula shares branded EPUBs and PDFs of their textbooks under a CC BY-ND licence, and unbranded EPUBs under a CC BY licence. MILL’s titles are published under a CC BY-NC-ND licence and are available online as downloadable low-res PDFs.

Publishers must pay hosting costs for their website, but the costs of adding content to the platform are minimal because publishers can upload existing content, using formats that may have been generated for print, such as PDF. The cost of converting titles to EPUB or HTML formats may need to be considered if these formats are chosen.
Uploading content onto platforms/repositories that require CC licences

As noted above, some repositories encourage publishers to mount their own storybooks, using a CC licence. Publishers must use the site’s template, including metadata, text and images. StoryWeaver allows publishers to have a webpage with information about the publisher, links to the publisher’s website, and links to the publisher’s content. (See the discussion of Sub-Saharan Publishers in below.)

Considerations in using platforms and repositories that require CC licences include:

- Each platform has its own template and formats to which the content producer must conform;
- All platforms have size restrictions for illustrations;
- Print-book illustrations that will be reproduced online can be tricky to mount if the original image spreads across two pages, as online formats do not allow for double-page spreads;
- Some platforms, such as StoryWeaver, have a list of ‘Dos and Don’ts,’ which must be followed;29 and
- Content producers using local languages must ensure that the platform has mounted the appropriate font and language, should this be required. Otherwise, there will be orthographical mistakes.

South Africa’s Western Cape Education Department has an education portal30 that allows content creators to share educational resources, including books, courses, and videos, on its site. Content is categorized according to subject and grade, can be shared under various licences, and is free to users. The site is open to all and not password protected.

The benefit of using sites such as these is that publishers can see how many times their titles have been read or translated, and can track these versions. Publishers are allowed to use translated content to create another version of their books for sale, if the CC licence permits it, as long as the translator is acknowledged. PDFs and EPUBs are created automatically on some of these repositories.

Using a third-party site

Publishers can share their content through other websites or online repositories that mount both copyright-protected and openly licensed resources. Each site will have a different audience; some will charge users for content and pay publishers a royalty if they do so. Examples of these sites and services include World Reader,31 Storyberries,32 eKitabu, Vodacom Digital Classroom,33 Free Kids Books,34 and Scribd.

Some sites will digitize content for the publisher, while others require PDFs or EPUBs. Publishers do not normally have to pay for these services and sometimes can make money from sharing their books on these websites.

Sharing content on a cloud-hosted site

Some governments are sharing content on education clouds, such as the Kenya Education Cloud35 and South Africa’s Department of Education (DBE) Cloud.36 These web portals allow publishers to submit content for approval; the sites are password protected and not open to the public.

The benefit of this is that content will be accessible to students and teachers and can be linked to other products and services.

Are open licences really free?

Openly licensed digital resources may be ‘free’ to the user, but there are still costs to consider; paper if they want hard copy, a computer or mobile device, and Internet charges for reading online or downloading. The box below outlines these costs for a community library in Ethiopia.37

Minimum specifications and costs for an Ethiopian community library

- 10-inch Android tablet: 16 GB memory, 2 MB RAM: (US$572)
- 1 MB broadband Internet
  - Installation fee (US$35)
  - Monthly fixed rate (US$90)
- Children and parents can read on smart phones, but many do not own such devices.

Photo: Holeta Community Library, Ethiopia, Kirsty von Gogh

There are also significant costs involved for the publisher, who must pay authors, illustrators, designers, for printing, and for distribution. Additional costs for digital production include layout and design, together with digital hosting, management, and storage fees. Content producers must budget for a permanent place to archive their digital resources, even if they mount them on a third-party platform.

Some organizations, such as African Storybook and StoryWeaver, can produce and release openly licensed content online by harnessing volunteers, who do not always need to be experienced children’s writers, translators or illustrators. Other groups, for instance Book Dash in South Africa, recruit professional authors, illustrators, and designers to volunteer their time. Costs for these efforts are usually covered by grants, donations, and contracts. Regardless of the source of income, though, publishers must cover these expenses.

It is not always possible to determine true costs because many organizations are not willing to share the data or do not track full costs systematically enough. It is also difficult to know whether the price of a book reflects the full cost of production (including organizational overhead costs). Examples of commercial publisher and NGO production costs are delineated below.

Production costs for commercial publishers are usually reasonably straightforward. Using Sub-Saharan Publishers in Ghana as an example, the costs entailed in producing a 32-page illustrated children’s book are outlined in the table below. Overhead costs of ten percent are included in the amount given for each individual line item. SSP’s minimum print run is 5,000 copies.

37 Personal communication to Lisbeth Levey from Abebe Alemu, CODE Ethiopia 7 April 2018
Table 3: SSP publishing costs

<table>
<thead>
<tr>
<th>Cost driver</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Royalty</td>
<td>10 percent of net sales up to 10,000 copies</td>
</tr>
<tr>
<td></td>
<td>12.5 percent of net sales exceeding 10,000 copies</td>
</tr>
<tr>
<td>Illustrator’s fee</td>
<td>$1,113 per full-colour book title</td>
</tr>
<tr>
<td>Editorial fee</td>
<td>$22 per page</td>
</tr>
<tr>
<td>Translation fee</td>
<td>$668 per title</td>
</tr>
<tr>
<td>Translation review</td>
<td>$223 per title</td>
</tr>
<tr>
<td>Proofreading</td>
<td>$111 per title</td>
</tr>
<tr>
<td>Design and layout</td>
<td>$1,103 per title</td>
</tr>
<tr>
<td>Typesetting</td>
<td>$780 per title</td>
</tr>
<tr>
<td>Pre-press review</td>
<td>$446 per title</td>
</tr>
</tbody>
</table>

Table 4: Asia Foundation hackathon costs

<table>
<thead>
<tr>
<th>Cost driver</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project management</td>
<td>The annual cost of a project manager for the Cambodia e-book hackathons and translations is $13,000.</td>
</tr>
<tr>
<td>Writing fee (honorarium)</td>
<td>$150 to $200 for a hackathon, with a one-day pre-event meeting and a draft story submitted before the hackathon.</td>
</tr>
<tr>
<td>Editorial fee (honorarium)</td>
<td>$50 per title for a hackathon. Editors work on approximately four books, so get paid $200 for an event.</td>
</tr>
<tr>
<td>Translation</td>
<td>$10 per 250 words if not crowdsourced, and free if they are.</td>
</tr>
<tr>
<td>Proofreading</td>
<td>16c per word.</td>
</tr>
<tr>
<td>Design and layout</td>
<td>$50 per title.</td>
</tr>
<tr>
<td>Full colour illustration (honorarium)</td>
<td>$200 to $250 for a hackathon title.</td>
</tr>
<tr>
<td>EPUB creation/conversion</td>
<td>$130 per title for a developer to convert simple image and text files into standalone EPUBs. $20 per title to create a very basic EPUB from existing content and images.</td>
</tr>
<tr>
<td>Overhead costs</td>
<td>16 percent is the basic overhead rate.</td>
</tr>
</tbody>
</table>

The Asia Foundation table above does not reflect the salaries or administrative costs for staff at the organization’s San Francisco offices. Management of content creation projects requires two-three full-time US-based management positions. The costs entailed in creating and maintaining the Let’s Read website\(^38\) on which Book for Asia’s stories are mounted, are also not included.

If governments or donors want to commission openly licensed books and are committed to the long-term sustainability of African publishing, they must be willing to pay for the work of authors, illustrators, and others involved in the production process, as well as for the organizational costs of the publisher or NGO coordinating the development process. Book commissions should be sufficiently large and frequent to ensure that publishers and other content creators are able to retain the internal capacity needed to create high-quality content.

Why are governments and donors interested in open licensing?

Donors responsible for educational publishing in sub-Saharan Africa typically want to see that the resources they support are used as widely as possible. They are also keen to ensure that access to IP is not lost if the organizations they have funded cease to exist at some point. Openly licensed resources provide a relatively simple mechanism to achieve these goals (provided care is taken to ensure that sustainable online hosting solutions are included as part of the open licensing requirement). Finally, some donors are increasingly interested in open licensing because the governments with which they have working relationships want to have control over IP generated for use in the public sector, seeing this as a long-term strategy to reduce education spending. For those reasons, many funders, such as USAID, now require its contractors to publish textbooks and other learning materials under Creative Commons licences.

In South Africa, the Zenex Foundation, which supports MILL), now requires the organization to release its educational resources in the Vula Bula series freely under a Creative Commons licence. The MILL model is discussed in more detail below.

Also in South Africa, Siyavula Education released maths and science textbooks aligned to the South African curriculum under an open licence. The government, which provides the books to all learners, pays only the cost of printing and distribution, thereby amassing huge savings because it avoids procurement through traditional publishers.

Why does open licensing matter to publishers?

As seen above, open licensing matters to publishers, at the very least, because it is part of a wider process of content digitization that is rapidly transforming the business models of many different creative industries, including music, films, publishing, and journalism. Although some trends are emerging in these industries, the reality is that the long-term economic effects of content digitization and online sharing are not yet well understood. It will likely be some time before there is clear direction, a situation compounded by the astonishing speed with which new technologies are still developing. In a context of uncertainty, knowledge about emerging trends and their potential effects on the publishing industry is a key weapon in ensuring long-term business sustainability.

Important to remember, open licences emerged not to undermine the concept of copyright, but to expand it in a global context in which online sharing of digital content (often illegally) is instantaneous and ubiquitous. Thus, for many content creators, open licences have become a way of enabling this sharing legally while retaining some of the protections offered under copyright. Some do it because they view open licensing as a strategy to promote the ‘public good’; others hope that sharing some content will generate income. For those in the latter category, the process of sharing content under open licences has initiated exploration of new business models, some of which have showed early signs of success, while other have failed. (See section below on revenue creation.)

Most openly licensed resources are available digitally, even when they are intended ultimately to be used in print form. Experience and research have shown that open licensing can bring greater visibility and a wider audience to research literature.

41 The Open Citation Project maintains a bibliography on the effect of open access for research publications. Go to http://opcit.eprints.org/oacitation-biblio.html.
name a few). Open licensing can therefore make sense for two reasons. Governments and donors sometimes require it and content creators of all kinds want the visibility and discoverability.

Figure 5: It’s All the Cat’s Fault on StoryWeaver

Why does open licensing matter to authors and illustrators?

This section pertains only to authors and illustrators who derive income from their work, not those who volunteer their skills. In their publication titled Managing Intellectual Property in the Book Industry, Monica Seeber and Richard Balkwill lay out copyright ownership for content creators:

Typically, the first owner of copyright in any created work – a novel, a biography, a letter, a drawing, a photograph, a song, a concerto – is the person who created it... Books often contain more than one copyright: in the literary content (the text) and also in different artistic works if it contains drawings, paintings or photographs. Each one of these... is the subject of a contractual agreement permitting its reproduction and publication...

Specifically, content creators, defined by Seeber and Balkwill, have the following rights:

Content creators are writers, journalists, photographers, artists and illustrators. Content creators are usually the first copyright owners. One of the underlying principles of copyright is fair reward for their labor and, concomitantly, encouragement to develop more creative works.

They go on to explain that authors typically receive payment through royalties based on sales. Illustrators are usually remunerated by a flat fee, with copyright ‘often assigned to the publisher, and this transfer of copyright can be a condition of payment.’ The same is not the case with authors, who always retain copyright, unless the contract assigns copyright to the publisher.

In their negotiations with publishers who wish to produce content under an open licence, authors and illustrators should receive fair compensation for their efforts in lieu of the opportunity to earn royalties. The source of the funding is not important, only that neither author nor illustrator forfeits income. (The same is true for publishers and every person involved in the publishing ecosystem, of course.)

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44 Ibid.
45 Ibid.
Similarly, Alisha Berger of Room to read wrote the following about why open licences should matter to illustrators:

Broad open licensing, like CC-BY, does not mean that a creator cannot continue to monetize their work. Mostly, this is relevant for illustrators. It is important to note that an open license may be granted only to the instance of the work in question—for example, if an illustrator grants an open license to a digital platform for their book to be mounted online, it does not necessarily mean the high-resolution Photoshop files on an illustrators’ computer automatically are part of that open license. The extent of the license depends on the language of contract signed by the illustrator, and on what assets the illustrator is required to share per that license.

Often, online books have a different format than printed books, and may be in differing qualities of resolution and cropping. Per a CC-BY licence, any new party can use the online version of the illustrations to their discretion. However, other parties may find barriers to using the openly-licensed format of the work. They may find it easier to pay the illustrator for a higher resolution file and/or for adaptations of the original work. In this way, open licensing may open doors for other income through online exposure for the illustrator.

Is it possible to generate revenue using open licences?

There are models emerging in which openly licensed content can still provide revenue streams for content creators. The most obvious of these is to shift from ‘content-as-a-product,’ where the costs of content creation are incurred at risk with a view to achieving business sustainability through sales of content products, to ‘content-as-a-service,’ in which the creation and adaptation of content are services that the organization sells to people willing to commission them. The latter approach typically entails governments or donors commissioning a resource and paying a once-off amount for content development, production, and/or translation services. Reliance on donors, however, means that business sustainability depends on their willingness to continue to pay for these services, which is never certain.

Beyond this, Paul Stacey, who writes extensively on open licensing business models, differentiates between ‘closed’ and ‘open’ as follows:

Traditional business models start with exclusivity, denying access to a good until money is paid. There is no impact without first a financial transaction.

Open business models start with inclusivity, participation, and universal access. Impact is enabled up front and revenue generation follows.

Emergence of revenue-generating publishing models that harness open licensing is in an embryonic phase. There is no clarity yet as to which will be successful specific business models and which will not. As in other content creation industries, there is likely to be extensive experimentation, with many failures, before sustainable business models are found. Although nothing is certain, it does seem clear that publishers wishing to navigate the uncertainties generated by digital disruption and open licensing will do well to stay abreast of the many changes taking place globally and the new models emerging (whether succeeding or failing). Concomitantly, they might work out how to embrace these changes to their long-term benefit rather than simply resist them because of the threats they seem to pose. A few models and examples are listed below.

Online free, print for a fee

African Storybook in Africa and Pratham Books’ StoryWeaver in India, which are mentioned above, are responsible for most of the openly licensed early literacy content in the developing world.

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46 Personal communication to Lisbeth Levey from Alisha Berger, July 12, 2018
Established in 2013, ASb’s goal is to make African stories in mother-tongue languages available and easily accessible to readers across the continent and worldwide. It prides itself on being ‘an African initiative with an African identity – storybooks are developed by and with the communities that use the storybooks.’

Both African Storybook and StoryWeaver are free online to all readers and organizations that wish to read and otherwise use them, but Pratham sells its print editions. Likewise, African Storybook is also able to generate some income by providing large-scale print runs through commissions.

Suzanne Singh, Chairperson of Pratham Books, believes that print sales continue to do well, even though the online version of every story is free. She notes that she:

> looked at a selection of our top rated books on SW - some are new titles and some are old ones and it looks like print is continuing to thrive in spite of the open free version. A case in point is the first title - Fat King, Thin Dog which is one of our older and more popular titles and in spite of the high readership of the free version, it continues to sell in large numbers. Equally the last 4 titles in the list which are about a year old, have consistent sales even with the free version which would have been released in parallel with the print version.

The table Singh provided is below.

### Table 5: Print sales versus online readership in StoryWeaver

<table>
<thead>
<tr>
<th>Title Name</th>
<th>Copies Sold in 2017</th>
<th>Readership on StoryWeaver</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Older Titles</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fat King Thin Dog</td>
<td>12,011</td>
<td>20,414</td>
</tr>
<tr>
<td>Bheema the Sleepyhead</td>
<td>8,893</td>
<td>3,387</td>
</tr>
<tr>
<td>Season 3 Spring Everything</td>
<td>3,866</td>
<td>8,582</td>
</tr>
<tr>
<td>Looks New</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Boy and the Drum</td>
<td>2,758</td>
<td>13,824</td>
</tr>
<tr>
<td><strong>New Titles</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Butterfly Smile</td>
<td>3,663</td>
<td>3,686</td>
</tr>
<tr>
<td>Ammachi’s Amazing Machines</td>
<td>4,501</td>
<td>6,169</td>
</tr>
<tr>
<td>How Old is Muttaiji?</td>
<td>4,985</td>
<td>5,501</td>
</tr>
<tr>
<td>Jadav and the Tree Place</td>
<td>2,723</td>
<td>5,735</td>
</tr>
</tbody>
</table>

As mentioned above, the MILL is implementing a new business model based on open licensing at its donor’s request. Its Vula Bula graded readers and accompanying materials (including posters and alphabet friezes) are now openly accessible online as low-resolution PDFs. They are also sold in hard copy through booksellers, directly to customers, and via a payment gateway on its website. Separately, donor support (effectively buying content development services) has enabled further development of these materials under open licences in more local languages. MILL attributes the need to change its business model to trends in the global environment, including an explosion in global access to ICT, specifically digitization of information, which influences how educational content is developed and shared, as well as growing pressure from the South African government to find more cost-effective strategies to deliver educational content.

The organizations above are not-for-profit organizations, but what about for-profit publishers, particularly those that produce children’s content that is not subsidized by governments or donors?

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48 Personal communication to Lisbeth Levey from Tessa Welch, 4 July 2017
49 Personal communication to Lisbeth Levey from Suzanne Singh, August 3, 2018
Sub-Saharan Publishers has agreed to carry out action research on the impact of open licensing on its business. Three stories based on tales from Northern Ghana – *Fati and the Honey Tree*, *Fati and the Green Snake*, and *Fati and the Soup Pot* – will be digitized and mounted on African Storybook and StoryWeaver in English and three Northern Ghanaian languages, Dagbani, Sisaali and Dagaare, using a Creative Commons licence. Print versions will still be sold. These books were selected for several reasons, including that the author agreed and illustrators had already been paid for their work, so there were no intellectual property rights’ issues to block digitization and open licensing.

**Figure 6: Sub-Saharan Publishers profile on StoryWeaver**

StoryWeaver will make Sub-Saharan Publishers a ‘featured’ publisher and will publicize the stories through its social media channels. Sub-Saharan Publishers will also receive detailed analytics on the number of times these stories are accessed, downloaded, printed, translated, and otherwise distributed. Finally, there will be a link to the company website for print sales. The aim is to use openly licensed content as a marketing tool for the paid product. SSP hopes that StoryWeaver’s experience with digital and print will be the same for its stories.

This experiment is taking much longer to implement than anticipated because of numerous problems pertaining to the illustration formats and fonts. These challenges are a part of the action research and will be written up in the resulting report to guide other commercial publishers that wish to experiment with the ‘online free, print for a fee’ revenue model.

**Voluntarism**

Content creators sometimes rely on volunteers for different elements of content creation. This reduces the costs of production but needs to be combined with other revenue streams to remain sustainable. SW, ASb, and Bloom rely on volunteers to translate stories, and encourage users to submit stories and illustrations for the platforms. The GDL and the Asia Foundation’s Let’s Read platform rely on volunteers to translate stories.

The South African non-profit, Book Dash, relies on professional authors, illustrators, editors, and designers to volunteer their time to create a book in twelve hours. Book Dash is different from StoryWeaver and African Storybook in that its stories are not created on a web platform. Book Dash, instead, uses traditional publishing tools, such as InDesign, because, like a traditional publisher, Book Dash is print focused.

Although Book Dash stories are free to download online, the organization also sells its printed books to promote sustainability. Book Dash additionally initiates what it calls ‘collaborative print runs.’ In this case, Book Dash will put forward some titles for print and anyone can place an order for copies of these books. As orders reach different quantity thresholds, everyone benefits from cheaper prices. For example, when one book reaches 3,000 copies ordered, everyone gets that book for R10 (US$0.75) per copy. In this way, Book Dash is harnessing the power of printing in bulk.51

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https://docs.google.com/document/d/1QOw1GkZ5MBvxMGouWy15UuOvAOvdH4k4ohaiW-K3Re/edit
Value-added services

In addition to generating revenue by selling content development services and using this content to promote the organization, MILL obtains revenue from paid-for teacher training services and is also developing a dedicated research and evaluation service focused on literacy.\textsuperscript{52}

Siyavula Education provides an example that is not linked to early childhood education, but is nevertheless pertinent to value-added educational services, albeit for older students. In addition to publishing textbooks under a Creative Commons licence, Siyavula Education\textsuperscript{53} has developed an online adaptive practice programme for high school mathematics and science. Although the textbooks are free, its examination preparation and online practice programmes are paid-for services that have been zero-rated on two of South Africa’s major cellular networks, meaning that users do not pay for data when they use the site. In addition, Standard Bank customers receive a 50 percent discount off the programmes they purchase.\textsuperscript{54}

Advertising

BookBox\textsuperscript{55} is a for-profit social enterprise that uses openly licensed content from platforms such as StoryWeaver to create animated books, called AniBooks. The StoryWeaver illustrations are converted to animations. The narration, subtitles, and soundtrack are inserted, thus adding value to the original stories. AniBooks can be viewed free on YouTube, where BookBox gets revenue from advertising. However, YouTube views from the USA and Europe typically pay 100 times more than views from Africa and India. Consequently, AniBooks are also sold on DVD and through mobile subscription services.

How can I learn more?

For information on the Creative Commons licences, and how to start sharing your work, visit: https://creativecommons.org/share-your-work/.

This video explains the Creative Commons licences: https://www.youtube.com/watch?v=4ZvJGV6YF6Y&index=4&list=PLWZ0HETZeWsN2h70E3MFCUQD1kh59wTt

To create and upload openly licensed storybooks, visit StoryWeaver (https://storyweaver.org.in/about), African Storybook (http://www.africanstorybook.org/) or Bloom (https://bloomlibrary.org/landing). These sites contain tutorials for uploading content. Content is automatically published under a CC BY licence.

To create and share OER for higher education, visit OER Africa (http://www.oerafrica.org/) for information on creating, adapting, and sharing resources to support higher education institutions.

To create and share OER from primary education to higher education, visit OER Commons: (https://www.oercommons.org/).

For information on creating and publishing resources, lessons, and modules, go to: (https://www.oercommons.org/authoring-overview#open-author-section).

For information on business models that use Creative Commons licenses, go to: 


Another excellent resource: Made with Creative Commons by Paul Stacey and Sarah Hinchliff Pearson: https://creativecommons.org/use-remix/made-with-cc/. This carries a CC BY-SA licence.

Exploit social networks for publishing openly licensed content. Flickr (www.flickr.com) allows its users to publish photographic materials with Creative Commons licences, while YouTube (www.youtube.com) allows the same for digital video materials. Networks like Twitter and Facebook can be used to spread awareness of the materials posted on the Internet by sharing the link.
Open Licensing Made Plain

A Primer on Concepts, Challenges, and Opportunities for African Publishers

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