Librii: A Case Study in the Anticipatory Library

The bottom of the socio-economic pyramid represents the largest untapped and underserved market for design. There is currently significant pressure—both from social and market-driven sectors—to discover how to operate effectively in this space. This essay offers a case study in a project that bridges social enterprise, the academy, and the world of corporate architecture.

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LIBRII

One billion people live in Africa, but less than three percent of the population has access to broadband Internet. Admission to—and indeed participation in creating—the expanding ecosystem of online knowledge stimulates social mobility, economic growth, and can further well-being. Finding ways to increase access to affordable high-speed Internet represents a significant opportunity to achieve social impact throughout this culturally diverse and physically immense continent. This is fertile soil for entrepreneurial action, not only for the technology companies or aid organizations, but also for architects—specifically, *architects* who are able to build transdiciplinary teams for embarking on anticipatory design projects.

Librii is a digitally enhanced, community-based, revenue-generating network of libraries designed to thrive in the developing world. This project emerged as collaborative research between US architecture and business schools, received seed funding from the World Bank, and was incubated in one of the largest global architecture firms. In Spring of 2013, Librii launched with funds collected through crowdsourcing, and is moving forward into construction, with an operational pilot due to be open on the ground in mid 2014. Despite not yet being operational, the project has attracted support and input from hundreds of academics and professionals from dozens of fields and specializations.

The project is bold in scope, modeling itself off the Carnegie Library Endowment, which 100 years ago built 2,500 libraries globally in a sustained 30-year push. It also has deep roots in architecture theory, shifting the basic functional diagram of the library away from the historic models on quiet, contemplative spaces of learning to a more unruly "free space" advocated for by Cedric Price in projects like the *Fun Palace.* This thinking is a product of the systematic curiosity inherent in academic research, but is finding its path to production from within a large, multi-national architecture practice.

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The situation that has emerged is mutually beneficial. Corporate practice, with a growing appetite for innovative projects, is willing to absorb pro-bono fees to bring a project like Librii into its fold. The architect-entrepreneur, finds the likelihood of success greater from operating within a global leader in project delivery, as opposed to striking out alone. The project has a strong ideology, which creates an easy bridge to the academy, where increasing numbers of students are interested in socially-engaged work. The project, if successful, will be a *win-win-win-win* for the firm, the architect-entrepreneur, the school, and the end-user.

An interesting question is whether this relationship will stay in symbiotic balance—the living together of unlike organisms—or if one realm will become fully part of the other. Specifically, will development-orientated anticipatory work become part of mainstream practice or academic instruction? The following is a description of the project, highlighting the shifts and disruptions to the library typology made possible, in large part, to the unique combination of forces that is bringing the project forth.

ATMOSPHERE OF INFORMATION

Librii is an attempt to rethink the potentials of architecture at the point of connectivity in developing countries. The vast majority of the one billion people on the African continent, for example, access the web through low bandwidth channels, such as cell phones or old computers hobbling along on dial-up connections. These methods of access have a critical failing; while they are passable for *accessing* content, they are deficient in terms of *producing* new content. Production is the essence of the modern web, and the basis of design for Librii.

The proto-typical library is designed on a simple three-part diagram. The first component is an **anchor** building, either an existing structure or new construction designed and built in the community suited to local materials, labor, and climate. The second element is an **eHub**, which is retrofitted shipping container with the technical apparatus of the digital library, prefabbed for quality and cost control. The third element is an **agora**, which is simple the void mediating the two buildings. Shaded during the day and lit at night, the agora opens itself up to the community and can be used for a variety of programs.

This basic diagram is engineered to be flexible enough to work various site configurations. Each of these spaces is calibrated to support content production. For most members of the community, the eHub will be the only place to access tools to create high caliber digital content.

Figure 1: Section of a Librii - Anchor, Agora, eHub.
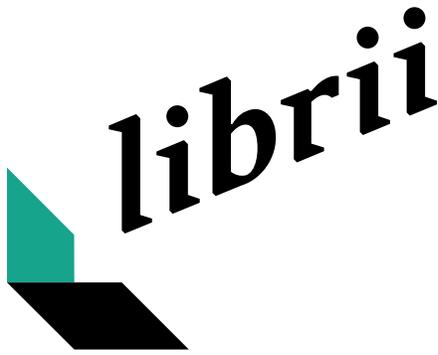
FLIP THE BUSINESS MODEL

As a project born out of collaboration between architects and MBAs, Librii is *designed* to run on a revenue-generating business model. This was not done so the investors will get rich. It prevents the library from having to rely on funding from governments or philanthropic organizations beyond startup capital. Reconsidering the financial structure outside of traditional publically or institutionally funded models also reveal a variety of revenue streams. The challenge is to activate the fewest streams so that the most people can have access to the highest number of resources at the lowest cost. For example, if you charge a premium for people who want to browse at peak traffic times and integrate modest advertising into the library environment, you can provide subsidized browsing off-hours access to more resources, including a physical collection of books.

Financial sustainability is critical to Librii's successful implementation. The library is designed to meet high performance metrics in order to operate on a minimal budget. Revenues generated from basic services will fund overhead costs and any profits generated by a Librii library will be used to increase the quality of the offerings and build additional libraries. As a network, Librii gains additional efficiency from sharing resources, personnel, and generates brand recognition in the marketplace.

SHIFT FROM CONSUMPTION TO PRODUCTION

What is the space that produces an atmosphere conducive to knowledge production as opposed to concentrated learning? This question does well to summarize in an instant the major challenges that are being brought to bear on the contemporary library. As a type, the library needs to change. The approach of the previous generation, predicated on the book as the dominant means of communicating information, is a model that, if not already outmoded, is rapidly becoming so. Compared to the book, new forms of media are radically different in their approach to creating, storing, and accessing knowledge. Likewise, those facile with new forms of media have an alternative relationship to that knowledge. Where the library of the book was a place of contemplative learning, the library at the outset of the digital age is one where users come to aggressively reconstitute the sea of data they're immersed in. In other words, the contemporary library is an environment deeply concerned with the activity of knowledge production.

The physical/digital environment of libraries have to shift from homogeneous, quiet environments to variable collections of zones that allow for collaboration, presentation, performance, making, doing, observing, testing, in addition to isolated concentration. Librii provides that space, plus the hardware and software resources, as well as guidance from the librarian to support whatever users are inspired to do and create. The web is already built to accept digital content production and Librii's physical collection is articulated to mirror this trend.

ON-DEMAND COLLECTIONS

Since the earliest civilizations, man has created physical artifacts that have become the repositories of identity and, while scales and mediums of these objects vary immensely, their anthropologic role is constant. Taken together, the assemblage of objects and places we create formulate something akin to what Aldo Rossi referred to as the "collective memory" of a people. What a library is depends on what it does: it is a social enterprise, a physical infrastructure, a symbolic site of collective memory. These memories could be in the range of Homeric epics, tracing far across time and space, encompassing all of humanity, or they could be utterly specific, accounting for the subtlest nuances of a locality at an exact time.

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Figure 2: Librii is an architectural proposition, a company, and a brand.

However, computation has changed the rules of the game and currently anything that is not dependent on a bodily form is migrating to the much more immediate, glamorous and flexible domain—that of the electronic. This migration is certainly not limited to newly created materials. Google is in the midst of a well-publicized campaign to scan as many books as possible to create a database of universally accessible knowledge. They are not alone. Parallel efforts are underway by a variety of other groups throughout the world and all are constantly adding to the burgeoning pool of digitized material.

A library's collection should mirror the attributes of the community in which utilizes it. The Librii model is built on the idea that instead of predetermining what a particular library will hold, the building opens with empty shelves and prints books on demand, as they are requested. The technology for this already exists: Xerox currently manufactures printing / binding machines while Google and others have the content. The publishing industry has, up until now, bristled at adopting it. However, according to Cisco's projections, the shear size of the Internet will triple by from 2012 to 2016. It seems unlikely that the traditional publishing industry will not be able to stand against the tide.

Collectively, these shifts dramatically recast the architectural proposition of the library, both in the material and immaterial sense. Forces in advocating for change are coming from many more disciplinary sources than were present in the pre-digital age, and architects need to act with great agility and leadership to coordinate teams that can produce the kinds of performative spaces that live up to the new potentials of this typology. The role of the end user has also shifted from passive consumer to participant in the act of unfolding "construction" of the library (bearing in mind that library has a dual definition, referring to both the collection AND the building that houses it). The next step in the evolution of the library depends on the collective intelligence and pivoting behaviors of all these stakeholders.

RETHINK THE NETWORK

One man, Andrew Carnegie, personally altered the history of the library. Between 1886 and 1917 he underwrote the construction of nearly 1,700 libraries in the U.S., representing roughly half the 3,500 of libraries in the entire country by the time the final endowment was issued. Additionally, the philanthropic juggernaut would build another 800 libraries abroad, and in the process spearhead the modernization of the library; brining it from a conservative ninetieth century autocracy to a squarely public agency streamlined for maximum efficiency. While it is impossible to precisely quantify the impact that this undertaking had on American culture, clearly the institution of the popular library became cemented into the nation's psyche as never before.

Creating a cohesive network of libraries in Carnegie's era was impractical, and he clearly separated his corporation and each individual project. The most common method for this was requiring local governments to tax themselves 10 percent of the buildings' construction cost to underwrite the operations. Today, the concept of a network means something totally different. The potential—in terms of knowledge, personnel, and resource sharing—of thousands of libraries operating under the umbrella of a single company could be significantly more efficient than a individual libraries each run by a local governments. It is not a stretch to think of Librii as the "McDonald's of libraries."


Librii Corp.
(US 501c3)

Individual
Library
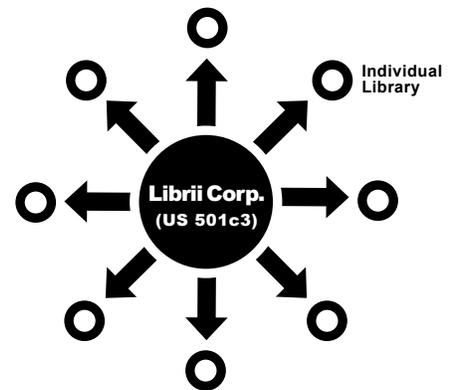
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Figure 3: Librii organizational structure.

Figure 4: Rendering of Osu Librii – Accra, Ghana.

ENDNOTES

1. Van Slyck, Abigail. *Free to All: Carnegie Libraries and the American Culture 1890-1920.* Chicago: University of Chicago Press.

2. Matthews, Stanley. *From Agit-Prop to Free Space: The Architecture of Cedric Price.* London: Black Dog Publishing.

3. Rossi, Aldo, *"The Architecture of the City,"* in The Architecture Reader: Essential Writings from Vitruvius to the Present, ed. A. Krista Sykes (New York: George Braziller Publishers, 2007), 201.

4. Paraphrased from Rem Koolhaas' acceptance speech of the 2000 Pritzker Prize.

5. The dizzying pace at which Google has moved forward with its book digitalization initiative has caused anxiety among some European intellectuals, especially in France and Germany, that if the vast majority of archived knowledge online is English, it will weaken the agency of works done in other languages. The result has been a rippling of accelerated scanning in throughout Europe.

NAVIGATING NEW FRONTIERS

Large-scale movement into the area of social enterprise design, once stubbornly slow, is gaining significant momentum. Still, one of the chief reasons for the still vastly unsatisfied need is an inability for the profession or the academy to work in this space through standard approaches. Traditional client relationships and fees simply are out of the question for this segment of the population. New models are emerging, though, and these can be broken down into two broad types: 1) the non-profit funds who collect donations to do work pro-bono or 2) groups who are developing business plans that invest heavily upfront in hopes that there investments will be recouped. Some of the pioneering efforts, such as Architecture for Humanity and Elemental, may have impressive numbers of projects in their portfolios, but their work is still a small drop in a very big bucket. Experimentation with new transdisciplinary models in collaboration with in deeper collaboration with the corporate side of the profession can only amplify these efforts.

When you boil down all the questions surrounding socially engaged design, the issue that remains is money. Who is going to pay the design fees? Who will pay to build and maintain these projects? While sustainable funding models are critical, this cannot draw all the focus. Entering into emerging markets will require an entire ecosystem of stakeholders whose input is necessary to get the work going. Some inroads into this market exist and are active, others are known but are latent, and some are yet to be invented. A broad but focused look at how this space operates will increase the effectiveness of current models of practice and help suggest openings for new modes of operation.

Librii operates out of a corporate office, which brings with it the tools of project delivery and deep, global connections across a variety of industries. Simultaneously, the project has one foot in academia, where faculty and students from a variety of disciplines (architecture, graphic design, library studies, anthropology, and business to date) have used Librii in a project-based learning capacity. Both these relationships are viewed to be in beta stages and every indication is that as the project moves toward implementation more doors will be opened to deeper integration.

The societal demand, the market opportunity, and disciplinary desire for engaging the bottom of the pyramid is enormous, but the thinking, research, and dissemination of best practices is lacking. This is a temporary condition and in the coming years the design disciplines will continue to carve deeper and more interesting channels into this frontier.