The Future of Public Libraries as Convivial Spaces: A Design Fiction

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Abstract

The proliferation of information and communication technologies (ICT) along with pressures of global capitalism has called in to question the role of public libraries in the future. At the same time, communities continue to rely on public libraries for social and civic functions. In this paper, the authors use research through design (RTD) and design fiction methods to explore alternative conceptions of public libraries and the role of ICTs in them The authors propose a design fiction in the form of a call for grant proposals issued by the Institute of Museum and Library Services. The design fiction focuses on the concept of conviviality to propose future design spaces for new kinds of interactions between library patrons and the world around them.

Author Keywords

Public library, design fiction, futures, research through design.

Introduction

Public libraries occupy a unique cultural and political status in the United States. According to the American Library Association, there are over 119,487 libraries in the U.S., which include public libraries, academic libraries, school libraries (private and public), special libraries, armed forces libraries and government

libraries [2]. This research focuses on public libraries, of which there are 9,057 consisting of more 17,000 branches. Public libraries serve a range of important functions in the community and surveys have shown that public libraries enjoyed steady support. A recent study showed that 55% of voters view the public library as an essential local institution and 70% of voters have visited the library in person in the last year. [10] However, like many other community and local government services, their status and role are being challenged by information and communication technologies (ICTs). The role of libraries is not diminishing but expanding to incorporate ICTs as well as new services. This phenomenon is not new to public libraries. Weigand's historical account of public libraries in America shows they do not only serve the culture they are in, but they are also shaped by the culture [16]. As culture changes, so does societies' expectations about public libraries and who is entitled to use them. As digital technology transforms the way people access and use information, it will continue to influence expectations about libraries.

This dynamic of change and uncertainty has generated much discussion and debate about the future of libraries among library professionals, patrons and policy makers. However, the future is by its nature uncertain and unpredictable. The concept of the future is, at least in part, socially constructed [12]. This research is situated in the middle of the socio-political debate about the future of libraries and seeks to use research through design (RTD) and the method of design fiction to explore alternative conceptions of the public library.

RTD is a is a practice of using design to generate new knowledge rather than solve a problem. There has been much discussion and debate in the scholarly design discourse about the nature of knowledge produced by RTD [6, 15], especially in relation to scientific knowledge. One way design knowledge is distinguished from scientific knowledge is that it seeks to describe the "the ultimate particular" [15] rather than universally generalizable. Furthermore, design knowledge resides within people (i.e. designers), the processes and the artifacts that they create [4]. One of the key characteristics of RTD is that it can invite to speculate about possible futures, stimulating and investigating what can and should be [17]. There have been several strands of RTD that engage in such future-oriented speculation and contestation. While one can argue that all design is future-oriented, speculation in RTD is more informed and reflective [5]. This reflective practice can take place in the lab, during the design of the artifact, in the field, as part of the engagement of participants in the design process, or in the gallery, as part of engagement of the public with the designed object. Bruce Sterling's notion of design fiction can be seen as mode of RTD, but there are important differences. Design fiction, being closely linked to science fiction, is more concerned with narrative and creation of belief. At its core, design fiction is "the deliberate use of diegetic prototypes to suspend disbelief about change." [14] Therefore, we argue that design fiction is more intentional and outcome-driven compared to other future-oriented RTD methods, which don't have to rely on various pre-defined forms of narrative. In this project, we used both RTD and design fiction methods to produce a fictional artifact that explores library futures.

Library, Public Space and Conviviality

In addition to the development and advancement of ICTs, another key factor that contributes to the uncertainty about the future of public libraries has to do with the broader decline of public space. This is due to the rise of global capital and the subservice of local government to the demands of capitalist institutions and market logics [3]. Spaces such as public parks, which served important role in functioning democracy, gave way to private spaces such as shopping malls. These spaces are designed not for social interaction but rather for entertainment and consumption [1]. Furthermore, public libraries, like many other public institutions, are under pressure to be evaluated using notions of economic productivity (e.g. circulation, patron satisfaction, return on investment etc.), characteristic of global capitalism and corporate management [13]. Their traditional ideals and social functions are either underappreciated, not measured or ignored altogether in such evaluations.

We engaged with the issue of encroachment of private interests on public space using concept of conviviality proposed Ivan Illich. In his influential work, Illich critiqued how industrial mode of production forecloses any possibility of alternative modes of social organization and relationships. As such, he defines conviviality in opposition of industrial productivity as "autonomous and creative intercourse among persons, and the intercourse of persons with their environment; and this in contrast with the conditioned response of persons to the demands made upon them by others, and by a man-made environment." [7] In other words, conviviality demands not just collaboration among persons, but a resistance against outside influences and demands imposed upon them. Illich argued that "a convivial society should be designed to allow all its members the most autonomous action by means of tools least controlled by others." More recently, Lisa Peatie argued that while urban planners have focused their attention on designing spaces to create a sense of community, they have completely ignored conviviality. For Peatie, conviviality includes activities such as "small-group rituals and social bonding in serious collective action, from barn raisings and neighborhood cleanups to civil disobedience that blocks the streets or invades the missile site." [11] The concept of conviviality can be a useful resource to try to make sense of the tensions between public and private space and to explore alternative futures of public libraries. While Illich's conception of conviviality focuses on resistance against power and control, it also suggests the need for different kinds of relationships, not just among humans, but also non-humans. It is a "triadic relationship between persons, tools and new collectivity." [7] We expounded on this aspect of conviviality in developing the design fiction, which helped us speculate about alternative relationships that the libraries of the future could facilitate.

We should note that libraries have traditionally been interested in serving and supporting their local communities. For example, the Institute of Museum and Library Services (IMLS) a federal funding body in the U.S., manages a program called Community Catalyst Initiative which focuses on supporting community engagement, capacity-building, community development and other related activities.[8] While this program and the notion of community is valuable, we wanted to focus on conviviality due to its potential to help speculate on new kinds of relationships that the notion of community might not allow. In the context of

public libraries, the term community is relatively more settled and institutionalized compared to the notion of conviviality. Nevertheless, the term community is still present throughout the design fiction.

Research Site and Design Process
The design of this process consisted of two stages. In the first stage, we used a future-oriented RTD in which we designed representations of the future of libraries in the course of a field study at the Fulton County Public Library (Atlanta, Georgia). The study included a series of interviews with public librarians, visits to public hearings related to upcoming renovations, volunteering and secondary research of current and emerging issues in public libraries. As part of this research, we developed a variety of fictional concepts about future public libraries and designed representations of these concepts. At this stage our focus was not to create a coherent narrative but facilitate reflection through design about libraries, librarians, patrons and technology. The representations covered a variety of themes we uncovered in qualitative research. They included inventive practices of librarians, existing infrastructures, use of data, human and non-human relations, automation, gender issues in the work of librarians, homelessness, social inclusion, and many others. In some cases, the designs helped represent these issues in a new way. In others, they explored new problem spaces in an open-ended and speculative manner. We employed a variety of representational strategies including data visualizations, architectural drawings, product sketches, collages and digitally manipulated photographs. Although not all of the design representations became part of the final design fiction, they contributed knowledge about how libraries and librarians may be changing.

In the second stage, we used the method of design fiction to create a more well-rounded narrative about an alternative future of public libraries. One of the insights uncovered during the first stage was the fact that public libraries are part of a complex infrastructure. It includes a whole range of inter-related elements and systems including laws, funding mechanisms, social and material arrangements and so on. Much of this infrastructure is invisible. For example, the E-Rate is a federally funded program which provides high-speed internet connection to public libraries at discounted rates, but most people are unaware of this program. Patrons simply enjoy free internet access on library premises. Our interest in library infrastructure helped us select the artifact for the design fiction. We wanted to highlight a piece of invisible library infrastructure that could reveal some underlying values that could shape public libraries in the U.S. Specifically, we used the format of a call for grants from IMLS. The design fiction artifact represents a printed page from the official IMLS web site.

To develop the design fiction, we focused on the notion of conviviality. Using themes and insights from the first stage of the research, we developed three topics that the call for applications would cover: 1) Convivial interactions 2) conviviality with Non-humans 3) Spiritual and Mental Conviviality. This classification allowed us to extend Illich's original framing of conviviality beyond tools and beyond human relations. Some of these topics corresponded to the design representations from the first stage of the research. Others necessitated new designs.

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Fostering Conviviality in Communities

Deadline: February 23, 2035
Application: FY 2025 Notice of Funding Opportunity (https://www.imls.gov/sites/default/files/fy25-ols-appnofo.pdf) (pdf 320KB)
Grant Amount: $75,000 - $100,000 or BTC equivalent
Grant Period: 3 years
Cost Share Requirement: None
Open Source Documentation Requirement: Yes

Background
Following the passage of the Public Domain and Copyright In the Digital Age Act in 2025 (PDCDA), public libraries saw an unprecedented rise in usage of materials. It has never been easier for public library patrons to get access to information goods. This includes both historical material digitized due to regulatory and funding opportunities provided by PDCDA and newest releases in books, films, video games and periodicals, due to novel library-friendly content licensing and loaning mechanisms. However, as it become easier to get access to information digitally, the public has become increasingly reliant on libraries to satisfy other social and civic needs of the patrons. In their role as the only remaining truly public and open space, libraries continue to provide information goods and services as well as programming. At the same time, technological, economic and social factors have continued to intensify citizens' sense of isolation and loneliness across the country. With income inequality that has been stagnant at highest levels since the beginning of the 20th century, and with social development indicators (depression, suicide rate, community trust, civic participation, and others) at alarming rates, public libraries are called on to tackle these realities in new ways.

Program Overview
Fostering Conviviality in Communities (FCC) is a special initiative of the National Civic Engagement in Public Libraries (NCEPL) program. The goal of this initiative is to increase convivial interactions and relationships in local communities. In this initiative, the term conviviality refers to collaborative, autonomous and creative interactions by and among library patrons in their communities. IMLS invites applicants that focus on the following topics.
1. Convivial Interactions
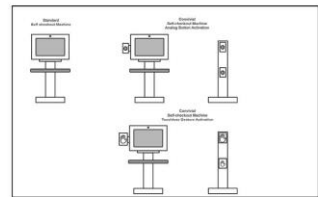2. Conviviality with Non-Humans
3. Spiritual and Mental Conviviality
The following descriptions and examples are based on past grant awards. They are for illustrative purposes only. Applicants are encouraged to develop proposals that address unique contexts of their communities.

1. Convivial Interactions
This topic covers technological and social interventions in the library space that encourage interactions among two more people. These interactions can be both creative or mundane and do not always require the patrons to be acquainted with each other. Convivial interactions often cause things to slow down rather than speed up.

Example 1-1: Convivial Self-Checkout
The self-checkout machine requires two people to activate it simultaneously. The machine can be activated by a button (touch sensor) or gesture. This example is from Boston Public Library (Grant number IMLS-CCV-2031-01). The machine serves as an intervention and a reminder for the patrons that slowing down, asking for help from and engaging in activities with strangers is an important part of a healthy and happy community.

Example 1-2: Conviviality as Civic Education
This example reiterates that grant proposals need not rely on technological solution. The Phoenix Public Library has developed a series of programs targeted at children to foster conviviality in service of civic participation (Grant number IMLS-CCV-2032-12). Children are not only taught how to participate democratic process, but are empowered to make decisions at a small scale. These decisions cover simple issues within the library, such as organization of library furniture and artwork on a regular basis, and in the community such as selecting a tree planting site or allocating funds for small public arts projects in parks, playgrounds and schools. The program includes work with local governments, educational institutions and non-profits to create new infrastructures to enable such participation.

2. Conviviality with Non-Humans
This topic includes proposals for libraries to foster human connectivity and collective action with animals and machines. Emphasis should be placed on working and living with a non-human entity as a community, rather than instrumental values, such as increased productivity, effectiveness or convenience.

Example 2.1. Quilting Companions
The quilting machines are part of the elderly program in the Seattle Public Library (Grant number IMLS-CCV-2033-03). Quilting has been a popular programming activity in many public libraries for decades. In this project, specialized quilting robotic arms work with patrons to help create new designs which the machines learn by observing the work of humans. The machines can also recognize voice and gesture commands to perform simple tasks with the humans, such as holding one end of a quilt or stitching quilts together.

Figure 1: Pages from the design fiction object. Full document can be found at http://sandjar.me/wp-content/uploads/2019/11/IMLS-Call-For-Grants-Final-Updated.pdf Image: Sandjar Kozubaev

Example 2.2. Companion Bacteria
In this example, the Fulton County Public Library (Atlanta, GA) used connected sensors and advancements in electromagnetic radiology to foster bacterial growth in its compost garden (Grant number IMLS-CCV-2031-18). Ambient electromagnetic radiation from the library building is channeled into the compost garden. Furthermore, patrons periodically perform electromagnetic symphonies using specialized musical instruments to promote growth of certain kinds of microorganisms depending on the season and the composition of the compost pile. The symphonies are taught as part of the library's music and engineering workshops. Sensors and instruments can also be checked out by patrons.

3. Spiritual and Mental Conviviality
This topic calls for proposals around novel and inventive ways to address spiritual and mental needs of community members. Emphasis should be placed on collective practices and rituals that encourage active engagement of the person with her own inner world, as well as the inner worlds of others.

Example 3.1. BCI Meditation
The Portland Public Library used brain-computer interface (BCI) devices to create collective meditation programs (Grant number IMLS-CCV-2031-18). Unlike traditional meditation practices which focus mostly on the individual, BCI meditation provides the practitioner feedback about both her individual and collective state of mind. Various exercises and mini-games help the practitioner focus her attention and even help other members of the group. Haptic and audio-visual feedback sent through the BCI devices, as well the environment, allow the practitioners to sense members of the group who are struggling or need extra support. BCI meditation devices can also be checked out by patrons to participate in meditation sessions remotely.

Eligibility
See the Notice of Funding Opportunity for eligibility criteria for this program.

Program Contacts
If you have questions, we encourage you to contact staff members listed under the topic area that best fits your project.

Convivial Interactions	Conviviality with Non-Humans	Spiritual and Mental Conviviality
Octavia Le Guin Senior Program Officer o_leguin@imls.gov	Cory Atwood Senior Program Officer c_atwood@imls.gov	Mariam Ibn-Haldoun Senior Program Officer m_ibnhaldoun@imls.gov

Webinars and VR Conferences
Webinars and VR conferences for potential applicants will be held on December 10, 2034 and January 15, 2035. Slides and a recordings will be available.

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PDCDA

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Privacy & Terms of Use

EEO

Accessibility

Open Government

Office of Special Counsel

USA.gov

Figure 2: Pages from the design fiction object. Full document can be found at http://sandjar.me/wp-content/uploads/2019/11/IMLS-Call-For-Grants-Final-Updated.pdf Image: Sandjar Kozubaev

Design Fiction

The design fiction object, a grant funding announcement, is a four-page document printed (or exported to a PDF file) from a web page (see Figure 1 2). The various parts of the document perform a range of diegetic [9] and reflective functions. For example, the background section explains how the future world came to be, including historical legislation and other social issues that led IMLS to take interest in conviviality. As mentioned above, the document provides three topic areas for potential applicants to focus on. These topic areas, along with examples within them serve as speculative design spaces for the reader to engage with. Other clues throughout the document such as dates, pseudo-links and casual mentions of emerging technologies (e.g. VR conference calls, bitcoin etc.) are designed to deepen a sense of immersion and suspension of disbelief as well as enrich the story world. Finally, the fictional names of program officers are based on distinguished science fiction authors such as Octavia Butler, Margaret Atwood and Cory Doctorow. Using character names that have hidden or cryptic meaning is a common technique used in science fiction literature and offers readers an additional way to engage with the text. Taken as a whole, the design fiction helps the reader imagine an alternative conception of a public library through the notion of conviviality, by reading textual artifact from a part of the public infrastructure.

Conclusion

In this project, we used RTD and design fiction methods to explore public library futures. We re-interpreted Illich's notion of conviviality to develop an alternative design space for public libraries through representations. Next, we designed a fictional call for grant proposals issued by the IMLS in the year 2034 to engage the reader with the concept of conviviality and encourage reflection about the social and civic role public libraries could serve in the future. More broadly, this research contributes to the social computing literature by highlighting the role of ICTs in public spaces and civic institutions, in contexts that are alternative or oppositional to dominant logics of market capitalism.

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