The Public Library as a Community Hub for Connected Learning

Åke Nygren

Stockholm Public Library, Digital Library Dept, Stockholm, Sweden.
ake.nygren@stockholm.se

Abstract:

This paper provides a brief overview of the ideas and principles underlying the connected learning movement, highlighting examples of how libraries are boosting 21st-century learning and promoting community development by partnering with a range of organisations and individuals to incorporate connected opportunities into their programmes.

The connected learning movement supports interest-driven, peer-supported, and academically oriented learning for youth by promoting the core values of equity, participation, and social connection. By connecting formal and informal learning organisations with youth in production-centered and openly networked activities with a shared purpose, youth gain access to learning opportunities beyond school.

Adopting connected learning ideas and principles, libraries — working together with after school centres and other community partners — can make learning more engaging, relevant, and passion-driven. The Mozilla Foundation has supported several "Hive Networks" — collaborative connected learning communities that facilitate cross-boundary dialogue and events focused on making, creating, remixing, and learning. Through 'Maker Parties' and other co-designed learning events, members of a connected learning community can support digital inclusion, digital literacy, and an expanded sense of self-efficacy. Learning by making is the motto.

The skills and knowledge gained through connected learning experiences can be recognized, validated, and aggregated through a system of digital badges, which transcend institutional silos and provide a rich picture of personal achievements, interests, and attributes.

Parallel to the spread of the maker movement, a growing number of public libraries worldwide are adopting connected learning approaches to augment the role they already play as critical community hubs for lifelong learning. Examples from North America and Europe are highlighted, where public libraries are joining forces with partners from academia as well as the public and industrial sectors with the aim of developing innovative opportunities to serve the needs of both digital outsiders and insiders.

The paper concludes with some practical ideas about what librarians and library managers can do to make their library a "connected" library.

1. Connected society

Sweden is one of the world's most connected societies. Ninety-four percent — almost all Swedes — have access to the internet (Percentage of Individuals using the internet 2000–2012, 2013) and 86 percent use internet at home, while 96 percent own a mobile phone (Findahl, O., 2013). Despite these comparably high levels of internet access and use, there is still a digital divide that needs to be addressed: around one million Swedes — almost 10 percent of the population — are non-users and do not show interest in using the internet. The growing importance of the internet for getting access to government service, education, the job market and civic participation shows that internet access and digital skills, including coding skills, are becoming prerequisites for citizenship in a digitized democratic society. In order to bridge this gap and ensure that those Swedes who want to get online can, a nationwide campaign called *Digidel 2013* was launched in 2009 and ran through to 2013. It mobilized large parts of the Swedish public and commercial sectors: libraries, adult education, learning centers, and others, together with many individual volunteers.

Over the four years of the campaign, 500,000 people went from being non-users to internet beginners. This was, without any doubt, a remarkable achievement and an important step towards social and digital inclusion. However now that a majority of the Swedish population has internet access and has tried to surf the web at least once, we need to ask ourselves: Is this enough?

In the *Digidel 2013* final report, the authors conclude that a lot remains to be done: "Despite the successful efforts, the needs remain large. More than one million people in Sweden still do not use the internet, and four out of ten Swedes are "shaky users". The need for action to support people in internet use is large — for the individual's welfare, for the national economy and for the democratic society." (Summary - Final Report, 2013)

In a blogpost written at the beginning of the *Digidel 2013* campaign, Peter Johansson argued that we need a public education effort not only for digital 'outsiders' but also for digital 'insiders':

> "democratically motivated participation presupposes a fairly adequate knowledge of how the
> internet really works, about what goes on online without direct human intervention, and what
> is special about the net, compared to our usual way of doing things. It is a specific kind of
> awareness, associated with some specific skills, that needs to increase in society if the talk
> about democratic participation is to have any real substance. We can't escape from the need of
> a massive public education effort here, even for many of those who are already "on the net".
> That is to say, for 'insiders' just as well as for 'outsiders' ". Translated from Swedish.
> (Johansson, P. 2010)

In short: there is still a lot to be done and in our digital literacy curricula we need to address both digital insiders and digital outsiders. Providing internet access is not enough. In order for learning to thrive in modern public libraries, we need to foment digital literacy among all groups, all ages, and at all levels. In order to support real digital citizenship in an open and democratic information society we need to expect more from libraries:

> "to thrive, communities need libraries that go beyond bricks and mortar, and beyond books
> and literature. We need to expect more out of our libraries. They should be places of learning
> and advocates for our communities in terms of privacy, intellectual property, and economic
> development." (Lankes, 2012)

Public libraries, without any doubt, have an important role to play for the development of media and information skills for all, not only at a beginner's level but at all educational levels. In the IFLA Public Library Manifesto it is stated that: "public libraries should strive at "facilitating the development of information and computer literacy skills" (…) "supporting both individual and self-conducted education as well as formal education at all levels". (IFLA/UNESCO Public Library Manifesto 1994). Supplementing support for this idea is to be found in the IFLA Media and Information Literacy Recommendations:

> "The following key missions which relate to information, literacy, education and culture
> should be at the core of public library services: (...) supporting both individual and self
> conducted education as well as formal education at all levels; providing opportunities for
> personal creative development; stimulating the imagination and creativity of children and
> young people; (...) facilitating the development of information and computer literacy skills;
> supporting and participating in literacy activities and programmes for all age groups, and
> initiating such activities if necessary." (Ifla.org - IFLA Media and Information Literacy
> Recommendations, 2014)

How can public libraries facilitate learning opportunities for those who just recently started using the internet and who want to continue to develop their digital skills? I believe that the answer to a large extent lies in the ability of public libraries to engage the more experienced internet users in learning programs - those referred by White and Cornu (2011) as "digital residents". Librarians don't always have all the skills needed in order to satisfy the digital learning needs of all groups, but they have the ability to connect people. We need to facilitate knowledge exchange between digital insiders and digital outsiders. It's all about connecting communities — connecting people of different digital literacy levels, and inviting them to come together to play and create in collaborative learning programs. Everyone has the potential to both teach and learn, depending on the context and the character of the task. Inviting all to share their knowledge with others provides opportunities to boost digital literacy for all and strengthen community ties. A public library can be an empowering learning environment for collaborative digital learning if we find the right connections between digital outsiders and insiders of all ages, and if we connect the library to learning partners and opportunities outside of the library. To a great extent that is what makerspaces in libraries are experimenting with right now. The maker culture's openness, playfulness,

inclusiveness, and desire to experiment bring fresh perspectives to our ICT training programmes and can redefine what we mean by bridging the digital divide. A maker approach says that anyone can be co-creator of digital literacy. Anyone can collaborate. This is also the perspective in the connected learning movement, which we will take a brief look at in the following section.

2. Connected learning

> "*Kids are already learning after school — there are studies out there that show they're online, finding interests from peer circles and becoming experts and reaching mentors. So all that we really need to do is for libraries and schools and other like-minded agencies to realize how they can be a part of that learning, which is already happening*" (*Learningfreedomandtheweb.org, 2010*)

In the networked society, learning is everywhere and everywhere is here. We all learn 24/7 and in all kinds of environments — physical or digital, public, semi-public, or private — all are potential learning spaces. Interconnected with each other, schools, community centres, libraries, after-school programs, youth recreation centres, homes, and coffee shops have the potential to build communities that boost learning and develop digital skills.

In the 'connected learning' approach, learning is accelerated when it is powered by an individual's interests and passions, supported by peers, and in spaces where an individual feels valued and safe. The design of a learning environment is most powerful when it has a shared purpose and when it is production-centered and openly networked. In order to become digitally literate we don't just need access and devices, we also need methods and mentors — ways to get organized in a sometimes confusing online world, mentors to motivate and support, personal networks to form connections to new opportunities in the academic and industrial sectors.

Connected learning principles are now being adopted in a growing number of learning environments worldwide, including in public libraries. Linked to this global trend is a growing interest in open-source methods and tools for exploring, making and connecting to people and opportunities on the web. The Mozilla Foundation plays an important role in this space, creating practical learning frameworks, along with open, free, and easy-to-use online tools like Thimble, Popcorn Maker, and X-Ray Goggles. Accompanying all of these tools are teaching kits and examples to facilitate 'learning by making'. The goal is to boost web literacies for everyone so that, over the long term, more people have the ability to participate in increasingly technical public decisions. Mozilla, in its efforts to support learning and teaching on the web, recently launched a Web Literacy Map, describing "competencies and skills (...) important to pay attention to when getting better at reading, writing and participating on the web". (Webmaker - Web Literacy Map, 2014) The Web Literacy Map, and its accompanying teaching resources, lay the theoretical ground for a worldwide campaign named 'Maker Party'. The objective is to engage educators to 'teach the web' by hosting maker and hacker events open for all. (Mozilla Webmaker Web Maker Resources, 2014).

For those in the connected learning movement, youth in under-served communities are most in need of these skills and literacies. Over the last few years, a growing number of new partnerships and alliances, such as the Hive Learning Networks, have been established with the aim of supporting participatory, interest-driven learning that connects to educational, civic, and career opportunities for young adults in cities. Public libraries are key partners, and those that adopt connected learning principles can demonstrate their value in this ecosystem, highlighting the importance of an open, safe, physical space — a community hub where people can gather, create, support each other, make connections, and advance skills.

Learning values

The core values of connected learning, as explained by The Digital Media & Learning Research Hub and The Connected Learning Alliance, (Connectedlearning.tv, 2014) are equity, full participation, and social connection:

- *Equity:* Education opportunities shall be available and accessible to all young people and bridge the gap in informal learning opportunities that exists between youth in wealthy and under-privileged circumstances.
- *Full Participation:* "learning environments, communities, and civic life thrive when all members actively engage and contribute."
- *Social connection:* learning requires a sense of belonging, it is "meaningful when it is part of valued social relationships and shared practice, culture, and identity."

Learning Principles

Based on these values of equity, participation, and social connection, connected learning strives to connect young people to learning opportunities that are:

- *Interest-powered:* connecting to the learner's innate and developed interests
- *Peer-supported*: connecting to friends and peers, including adults
- *Academically oriented:* connecting to academic subjects, institutions, and credentials

Design principles

Connected learning recognizes the effectiveness of today's interactive and networked media, *if* the following design principles are respected:

- *Shared purpose:* adults and youth together, when making use of social media and sharing the same interests and goals, can boost intergenerational learning and connection

- *Production-centered:* learning by making: effective learning spaces are makerspaces where creating, making, producing, experimenting, remixing, decoding, and designing is facilitated
- *Openly networked:* "Learning is most resilient when it is linked and reinforced across settings of home, school, peer culture, and community."

At the core of connected learning is the conviction that web literacy, together with reading and writing, are the literacies of the future and that we need to prepare efficient learning pathways for youth that are relevant for a society where coding is as important as writing:

> *(...) web literacy is quickly becoming just as important as reading, writing and math. By 2024, there will be more than 5 billion people on the web. And, by then, the web will shape our everyday lives even more than it does today. Understanding how it works, how to build it and how to make it your own will be essential for nearly everyone.* (Surman, M. 2014)

The Mozilla Foundation, a global nonprofit mostly known for their Firefox web browser, is one of the driving forces and sponsors behind the connected learning movement. Mozilla's mission is to promote openness, innovation, and opportunity on the web, so that it remains open, accessible, knowable, and interoperable. In short: to ensure that the web remains a public resource. Teaching the web and promoting web literacy and privacy, consequently, are at the core of Mozilla's activities. Through the collaborative creation of the Web Literacy Map and Maker Parties, together with engagement in Hive Learning Networks, among others, Mozilla supports web literacy in all kinds of settings. Together with partners from the formal and non-formal learning sector, including libraries, Mozilla supports learning that is networked, open and focused on the web as one of the main drivers for progress and new opportunities in the world of today.

Recognizing learning and skills with digital badges

Connected learning puts a strong emphasis on motivation, participation, and the recognition of skills. Mozilla Open Badges (Openbadges.org, 2014) are a way to put this into practice. They are a new way to accredit and verify learning. The project was initiated by Mozilla, but it works openly with other organizations and individuals in the Badge Alliance Network. Their purpose: "to build and support an open badging ecosystem, with a focus on shared values including openness, learner agency and innovation." (Badgealliance.org, 2014)

Among the libraries in the United States that have integrated connected learning into their youth programmes, there is an ongoing conversation about digital badging as a way to connect informal learning achievements to academic and professional opportunities. Recently the first in a series of Hive digital badges was launched. (Announcing the new Hive Community Member badge!, 2014). On a national level the Young Adult Library Services Association (YALSA) has been testing badges for librarians since 2012. An official launch of the YALSA digital badges programme is due in 2014 (YALSA, 2014) A recent case study about the progress of the project is available on Reconnectlearning.org (Open Badges Case Study 2014). Apart from recognition of skills, digital badges can be used for 'gamification' of a library, meaning that game mechanics and game design principles are being used to engage and motivate people to achieve their goals. (Badgeville.com, 2014) A commercial product offering this to libraries is Library Game, a web application that connects to a LMS and issues digital badges based on user activity. (Librarygame, 2014). A comprehensive listing of overall opportunities with digital badging in library settings is available on the OCLC Webjunction website. (Webjunction, 2013)

3. 'Connected' libraries

> *"Connected learning is learning that is interest-driven, socially connected, and tied to school achievement and real world opportunity. And, libraries are smartly becoming hubs for such learning. Libraries, which have long been centers of community activity, are uniquely situated to become a nexus of connected learning because their mission centers on personalized and interest-driven learning. They are another space, besides school and home, that allows activities and practices to meld together. As guides to online information and technical literacy, librarians often already are guides to connected learning." (Connecting Youth Interests Via Libraries. 2014)*

The connected learning movement originated in the United States and is now spreading around the world. The establishment of Hive learning networks and communities worldwide works as a driver for libraries to hop onboard a cross-border movement for interest-powered, peer-supported and academically oriented learning, the fundamental learning principles of connected learning. For some libraries, these principles are somewhat new and not yet tested, while for others they match quite well what they already have been experimenting with in various learning initiatives inspired by collaborative learning programmes and trends such as Learning 2.0, (Plcmclearning.blogspot.se, 2014) and E-learning 2.0 (Learning Solutions Magazine, 2014).

In this chapter, we take a brief look at some of the libraries that have taken decisive steps to become community hubs for connected learning. Some of the libraries mentioned don't use a specific connected learning vocabulary in their way of describing themselves, but since they are using methods that in one way or another match connected learning principles they qualify as 'connected libraries', and therefore they are included in the list.

The list is only a small collection, and by no means comprehensive. Hopefully, this paper will inspire more research on the subject that will contribute to a more complete picture.

United States

Brooklyn Public Library
Brooklyn Public Library, together with New York Public Library and Queens Library, are members of a 55 members strong Hive NYC Network. Hive NYC is a distributed learning lab connecting middle and high school-aged youth, informal educators, partners, technologists and tool-builders. The aims are to develop digital and web literacy skills through hands-on making and exploration, build innovative and transformative educational experiences and young makers and inventors. (Hive NYC, 2014)

Chicago Public Library
Chicago Public Library is one of the veterans in the connected learning movement. Since it runs the renowned project YOUmedia, in cooperation with Digital Youth Network, and supported by MacArthur Foundation. Based on connected learning principles, reinforced by insights from an ethnographic youth study in 2006, YOUmedia "operates as a drop-in, out-of-school learning environment for teens to develop skills in digital media, STEM and making" (Chipublib.org, 2014)

Chattanooga Public Library, Tennessee

This library's vision is to create "a public laboratory and educational facility with a focus on information, design, technology, and the applied arts." Instead of merely offering access to internet for consumption, the library "supports the production, connection, and sharing of knowledge by offering access to tools and instruction." (Chattlibrary.org, 2014). The fourth floor of the library has been transformed into a makerspace and thanks to funding from the Mozilla Gigabit Fund the library is participating in a crossboundary partnership that aims at boosting creativity and innovation in Chattanooga: "The Gigabit Fund is transforming how communities learn and the accessibility of learning methods by piloting next-generation innovation as 'living labs' in classrooms, cultural institutions and other informal educational environments, putting technology in the service of education." (Ten Projects Receive $165,400 from Mozilla Gigabit Community Fund, 2014)

Multnomah County Library, Portland

This library has recently introduced collaborative learning as a way to convince teens to start using the library on a regular basis. Following the connected learning principles, the library seeks to be a learning space dedicated to fostering collaboration, creativity and learning among teens. Mentor-based programs that immerse teens in specific topics, such as beat making classes, are intended as motivating activities that will keep teens coming back for more. The programming is targeted at low-income families. With these efforts the library therefore complies with the connected learning values of equity, full participation and social connections. (OregonLive.com, 2014)

Netherlands

FryskLab

FryskLab is Europe's first Mobile Library FabLab, housed in a former mobile library. The project, initiated by Bibliotheekservice Fryslân (Library Service Fryslân) in November 2012, aims at boosting creative, technical and entrepreneurial skills among children and young adults. Frysklab is supported by the local government and as well as by private funds and is currently awaiting a funding round by the Dutch Media Literacy Institution (Mediawijsheid.net) to set up a project around programming & Mozilla Webmaker. The aim is to promote maker/DIY skills within Dutch libraries and primary & secondary education. FryskLab already realized an educational program (FryskLab Elements) which brings together digital fabrication and locally important themes like water technology and sustainable energy. Frysklab also developed a project titled Fab the Library! (supported by SIOB, the Netherlands Institute for Public Libraries) to help other libraries to integrate Fablab, or related activities, into their services. With support of the Pica Foundation FryskLab is working on FabML, a dedicated linked open data ontology for FabLabprojects, which will be made available for FabLabs worldwide to work with. This project has the support of the international Fab Foundation. (Het mobiele FabLab van Fryslân, 2014)

Sweden

Bibblerian Library

The Bibblerian is a recently opened library and learning centre in the Stockholm suburb of Hässelby Gård. The library offers an open learning and citizen service environment in cooperation with different learning and culture partners in the public and private sector. With support from Sweden's Innovation Agency, and in partnership with the development project Public Office, an open and rent-free work and meeting place will be created in the library. (Thepublicoffice.se, 2014) The library's ambition is to support informal and collaborative digital learning by means of various kinds of co-creative activities, such as digital storytelling, digital book clubs, Scratch events and Maker Parties: Marika Alneng, the library's library pedagogue explains how they are hoping to make a difference in their community: "We are starting small. We still don't have much equipment, but we have a venue and we do have commitment. I like to think that if we who work here are open and curious to learn, it will become 'infectious'. You do not have to know everything from the beginning. We will grow together with the young people coming and getting involved." Marika participates in 'Connected Learning Sweden', a cross-professional informal learning community that meets up at different cafés in the Stockholm area for discussions and idea sharing about connected learning. Inspired by her networking and by a recent study visit to YouMedia and Hive Chicago, Marika is now planning to implement digital badges in the library's curricula as a means to give cred to user involvement and learning achievement by youth.

Kista library

Kista library has been a dedicated learning centre for several years, offering study environment for non-formal and formal education as well as for informal learning, such as ICT classes for seniors and language cafés. The library's learning profile is both collaborative and intergenerational. In August 2014 the library, together with partners from the public and industrial sector as well as from academia, will be relaunched at a new location inside a shopping mall. Apart from being a meeting point for culture experiences and reading, the library will hold a sharp focus on digital learning. A 'blackbox', offering a 'prosumer' test space for technology, together with a digital art exhibition area and a digital learning zone with 3D printing facilities, will give new opportunities for library users of all ages to enhance both reading, writing and digital skills. Digital literacy will be promoted in the library with e.g. child hack events and simple programming. Elisabeth Aquilonius, library director for Kista new library, explains: "we are building a library with the ability for all to make and share creative content that will be visualized digitally and physically in various ways inside the library and shared in social media. Language cafés (promoting language and intercultural skills) and digital signage (where user generated content will be shared) are just a few examples of how we, with this new library by means of collaborative learning, will do our best to become as relevant for the users as possible."

Knivsta Makerspace

In 2013, the Public Library of Knivsta launched Sweden's first public library makerspace. Supported by the Swedish Agency for Economic and Regional Growth and Sweden's Innovation Agency, the makerspace wants to stimulate idea growth and enable more young people to realize their ideas. (Knivsta Makerspace, 2014)Vaggeryd Makerspace

Vaggeryd Maker Library
The 'Maker Library' (Skaparbibblan) is Sweden's second public library makerspace. In partnership with Fenix high school and Vaggeryd Business Council and School of the Arts, the Vaggeryd Public Library aims at supporting learning experiences and inspiring children and youth to get engaged in science and technology. (Skaparbibblan, 2014) The vision of the makerspace matches the need for local industries and businesses to recruit skilled personnel. The project supports craftsmanship and design learning and aims at boosting the entrepreneurial spirit already present in the small town dominated by manufacturing and furniture industry. (Framsidan.net, 2014)

IT-guide – Örebro is a project for intergenerational learning, combining IT coaching and language learning for seniors and young immigrants. By means of 'internet cafés' at meeting points for seniors and at public libraries, immigrant youth teach the elderly how to use computers and surf the web. The learning outcomes are mutual, a win-win situation: the seniors can improve their IT and internet skills and the young immigrants get a chance to practice their Swedish. The project shows how learning can be boosted with a collaborative and intergenerational learning model that involves non-users, digital visitors and digital residents of all ages. Even though this project doesn't use an explicit 'connected learning' vocabulary they do follow the connected learning principles of shared purpose, full participation and social connections. In 2013, the IT Guide project was granted the most appreciated Swedish digital inclusion project of the year. (It - guide vann Folkets pris i Utmaningen, 2013)

4. Connect your library

How can your public library 'get connected' and become a learning environment for 21st century skills? What concrete actions can you take in order to optimize the library as a community hub for connected learning? Below you'll find some of my own ideas and suggestions that librarians and library managers might find useful.

Things *librarians* can do:

- Build a transboundary network with professional peers with shared interests. Networking outside of your own library context is crucial. In social media there are lots of opportunities to find the peers and mentors you need to start building a crowd of peers with a shared interest. This crowd can become your tribe for learning, feedback and even social and economical support in your efforts to adopt connected learning principles in your library. One example of a project trying out new methods for local community networking was Kista Idea Lab (Web.archive.org 2010), a Stockholm Public Library project doing digital outreach work in Kista Science City, as a way of learning about the local community and preparing partnerships for the new Kista library and learning centre. Another example of peer networking with connected learning ambitions, but outside of the library context, is the "Connected

breakfast" initiative. It was recently launched by the Mozilla Stockholm community, as a step-by-step tool towards the building of a Hive Stockholm community.

- Reach out to your local community – digitally and physically
  Apart from networking with professional peers, you need to reach out to your local community. One way of reaching out in a connected society is to adopt a proactive social media strategy, such as the one used in Kista library: on Twitter members of the local cultural and sport communities are being pinged and retweeted on a regular basis as a way of connecting to the local community and building a network of library fans. In the library itself, events with local young celebrities, representing different angles of local youth culture, attract youth to the library.

- Throw events for tinkering, making and learning
  A connected library is a library with and for makers. A powerful and easy way to introduce maker culture in your library is by throwing a Maker Party, an event format and campaign run by Mozilla Foundation and based on connected learning principles. (Party.webmaker.org, 2014) A Maker Party can be anywhere and it can be either small or big. All depends on the time, enthusiasm and opportunities you find in your library. Lots of teaching resources and event gear, made by members in the Mozilla community, are available online for anyone to use, and remix. (Party.webmaker.org - Resources, 2014) For a comprehensive list of resources for libraries and learning spaces, see a recent post on The Webmaker Blog (Maker Party 2014). A good resource worth mentioning, if you want to turn your library into a makerspace, is YALSA's Making in the Library Toolkit. (Compton, E. et al. 2014)

- Join a MOOC
  Making Learning Connected (#clmooc) "a collaborative, knowledge-building and sharing experience open to anyone interested in making, playing and learning together about the educational framework known as Connected Learning." (Making Learning Connected, 2014)
  Webmaker Training (#teachtheweb) "Join anytime. Learn at your own pace. Connect with our global community helping one another teach web literacy, digital skills and open practices. Learn how to #TeachTheWeb." (Training.webmakerprototypes.org, 2014)

Things *library managers* can do:

- Empower your staff
  A library without staff can certainly be digital but definitely not connected. A connected library needs connected staff and they need time to spend on planning, networking and events. Make sure your goals match reality in terms of staffing and give your staff the digital tools they need in order to serve their communities. Adopt connected learning principles at your library. Make space for innovation and release a passion-driven occupation culture: let your staff reinforce their personal learning environments and let them develop their own ideas and projects, regardless of their formal professional position.

- Say no to digital environments that block learning
  Most libraries nowadays facilitate digital access but many of them block learning. The blocking of software, online services and social media, the implementation of internet filters, not allowing more than one operating system and only providing proprietary software in the library are all examples of obstacles in libraries that hinder the effective creation of personal learning environments among staff and patrons. They are contra productive for any library that wants to boost digital literacy in its communities. Challenge the existing digital paradigm in your organisation and reclaim the ownership of your library's digital presence.

- Be an API for learning - find partners in Academia, Public sector and Industry
  Finding partners can be easy but finding a balanced *mix* of partners that match the needs of your library community can be tricky. One way of making this process easier can be to structure the partnering process around a Triple Helix model. The idea is that when the public, academical and industrial sectors collaborate freely, and in the open, innovation is possible. An example of such a Triple Helix model is the ICT cluster Kista Science City (Triple Helix - Strengthening Stockholm's ICT Cluster, 2012). The new library in Kista has been partly inspired by such a partnership building concept. (Kista Idea lab - Mindmeister, 2011).

  In Denmark, the Citizens' Services and Libraries in Aarhus, together with Roskilde Libraries and Roskilde University, have also been exploring the issue of partner building. In the joint project 'Out of the Box!', running from 2010 to 2012, new methods for partnerships were developed. In 2012 a useful toolkit was published that can be used by anyone who establish cross-boundary partnership in a library community. The toolkit is available for download on the project website. (Overgaard and Staunsager Larsen, 2012)

- Start a Hive community
  A way of taking connected learning in your community to a more structured and targeted level is to start a so called Hive community or network. The Hive model is supported by three levels of engagement: Hive learning 'events', Hive learning 'communities' and Hive learning 'networks'. A step by step guide on how to get started can be found on the new Hive network website (Hivelearningnetworks.org, 2014)

Here are some practical things that you can do to prepare your library for a 'connected learning journey', and the possible future establishment of a Hive community:

Get peer-supported and production centred: create a physical/digital space in the library where everyone can 'hang out and mess around', tinker, play and make new things that can be displayed and showcased for all library visitors.

Get interest powered, with a shared purpose and openly networked: create a physical/digital forum where people can share their interests and passions. Make room for ideas on new projects for intergenerational learning. Set engaging challenges that activate the need to know and share.

Get academically oriented: start a mentorship programme and/or invite a learning organisation to launch one at the library.

Acknowledgments

References

Announcing the new Hive Community Member badge!. (2014). [Blog] *The Webmaker Blog*. Available at: https://blog.webmaker.org/announcing-the-new-hive-community-member-badge [Accessed 23 Jul. 2014]

Badgealliance.org, (2014). *Badge Alliance » About*. [online] Available at: http://badgealliance.org/about/ [Accessed 24 Jul. 2014]

Badgeville.com, (2014). *What is Gamification? | Gamification.org*. [online] Available at: http://badgeville.com/wiki/Gamification [Accessed 4 Aug. 2014]

Chattlibrary.org, (2014). *4th Floor | Chattanooga Public Library*. [online] Available at: http://chattlibrary.org/4th-floor [Accessed 25 Jul. 2014]

Chipublib.org, (2014). *YOUmedia*. [online] Available at: http://www.chipublib.org/youmedia/ [Accessed 31 Jul. 2014].

Compton, E., Yusko, S., Teeri, S., Lewis, J. and Boese, A. (2014). *Making in the Library Toolkit*. 1st ed. [ebook] Young Adult Library Services Association. Available at: http://www.ala.org/yalsa/sites/ala.org.yalsa/files/content/MakingintheLibraryToolkit2014.pdf [Accessed 19 Jul. 2014]

Connectedlearning.tv, (2014). *Connected Learning Principles | Connected Learning*. [online] Available at: http://connectedlearning.tv/connected-learning-principles [Accessed 19 Jul. 2014]

Connecting Youth Interests Via Libraries. (2014). [Blog] *DML Central*. Available at: http://dmlcentral.net/blog/crystle-martin/connecting-youth-interests-libraries [Accessed 1 Aug. 2014]

Create a hub of Connected Learning. (n.d.). 1st ed. [pdf] The Digital Media & Learning Research Hub and The Connected Learning Alliance (CLA). Available at: http://connectedlearning.tv/sites/connectedlearning.tv/files/CL-Checklist-K12Educators.pdf [Accessed 24 Jul. 2014]

Findahl, O. (2013). *Svenskarna och internet 2013*. 1st ed. [ebook] .SE (Stiftelsen för internetinfrastruktur), pp. 9-10. Available at: https://www.iis.se/docs/SOI2013.pdf [Accessed 20 Jul. 2014]

Framsidan.net, (2014). *Skaparbibblan i Vaggeryd*. [online] Available at: http://www.framsidan.net/2014/04/skaparbibblan-i-vaggeryd/ [Accessed 27 Jul. 2014]

Het mobiele FabLab van Fryslân, (2014). H*et mobiele FabLab van Fryslân*. [online] Available at: http://www.frysklab.nl/ [Accessed 27 Jul. 2014].

Hive NYC, (2014). *About - Hive NYC*. [online] Available at: http://hivenyc.org/about-hive-nyc/ [Accessed 31 Jul. 2014].

Hivelearningnetworks.org, (2014). *Hive Learning Networks*. [online] Available at: http://hivelearningnetworks.org [Accessed 4 Aug. 2014].

Ifla.org, (2014). *IFLA Media and Information Literacy Recommendations | IFLA*. [online] Available at: http://www.ifla.org/publications/ifla-media-and-information-literacy-recommendations [Accessed 31 Jul. 2014]

Ifla.org, (2014). *IFLA/UNESCO Public Library Manifesto 1994 | IFLA*. [online] Available at: http://www.ifla.org/publications/iflaunesco-public-library-manifesto-1994 [Accessed 31 Jul. 2014].

It - guide vann Folkets pris i Utmaningen. (2013). 1st ed. [ebook] Örebro: IT Guide. Available at: http://www.it-guide.se/uploads/2/3/0/9/23092200/pressmeddelandevinnareiutmaningen.pdf [Accessed 27 Jul. 2014].

Johansson, P. (2010). Digital delaktighet" -- i vad? Och varför?. [Blog] *Infontology*. Available at: http://infontology.typepad.com/infontology/2010/04/digital-delaktighet-i-vad.html [Accessed 20 Jul. 2014]

Kista Idea lab - Mindmeister, (2011). *Partnerships for Inclusion*. [online] Available at: http://www.mindmeister.com/101533034/partnerships-for-inclusion [Accessed 21 Jul. 2014]

Knivsta Makerspace, (2014). *Knivsta Makerspace*. [online] Available at: http://knivstamakerspace.wordpress.com/ [Accessed 27 Jul. 2014].

Lankes, D. (2012). *Expect More: Demanding Better Libraries For Today's Complex World*. [online] Virtual Dave...Real Blog. Available at: http://quartz.syr.edu/blog/?page_id=4598 [Accessed 23 Jul. 2014]

Learning Solutions Magazine, (2014). *What Is E-Learning 2.0? by Brent Schlenker : Learning Solutions Magazine*. [online] Available at: http://www.learningsolutionsmag.com/articles/83/what-is-e-learning-20 [Accessed 28 Jul. 2014].

Learningfreedomandtheweb.org, (2010). *Learning, Freedom and the Web.* [online] Available at: http://learningfreedomandtheweb.org/ebook/learningeverywhere.html [Accessed 24 Jul. 2014]

Librarygame, (2014). *Librarygame - gamification for public and academic libraries*. [online] Available at: http://librarygame.co.uk

Maker Party 2014 - Resources for Libraries and Learning Spaces. (2014). [Blog] *The Webmaker Blog*. Available at: https://blog.webmaker.org/maker-party-2014-resources-for-libraries-and-learning-spaces [Accessed 21 Jul. 2014]

Making Learning Connected, (2014). *Making Learning Connected #clmooc*. [online] Available at: http://clmooc.educatorinnovator.org/2014/ [Accessed 24 Jul. 2014]

Mozilla Webmaker Web Literacy Resources [online] Available at: https://webmaker.org/resources [Accessed 31 Jul. 2014].

Nygren, Å. (2014). Library Maker Parties. [Blog] *Mozillarian*. Available at: http://mozillarian.org/library-maker-parties/ [Accessed 21 Jul. 2014]

Openbadges.org, (2014). *Open Badges*. [online] Available at: http://openbadges.org [Accessed 24 Jul. 2014]

Open Badges Case Study February 2014. (2014). 1st ed. [pdf] Mozilla Open Badges HASTAC. Available at: http://www.reconnectlearning.org/wp-content/uploads/2014/01/YALSA_case_study_final.pdf [Accessed 23 Jul. 2014

OregonLive.com, (2014). *Multnomah County Library turns to 'collaborative learning' to lure teens in, keep them engaged*. [online] Available at: http://www.oregonlive.com/portland/index.ssf/2014/07/headline_multnomah_county_libr.html [Accessed 28 Jul. 2014].

Overgaard, L. and Staunsager Larsen, S. (2012). *Build Partnerships! Tools for Strategical Library Development*. 1st ed. [pdf] Available at: http://udafboksen.nu/wp-content/uploads/2012/07/Build-Partnerships_Tools-for-Strategical-Library-Development.pdf [Accessed 21 Jul. 2014]

Party.webmaker.org - Home (2014). *Maker Party - Home*. [online] Available at: http://party.webmaker.org/ [Accessed 21 Jul. 2014]

Party.webmaker.org - Resources (2014). *Maker Party - Resources*. [online] Available at: http://party.webmaker.org/en-US/resources [Accessed 21 Jul. 2014

Percentage of Individuals using the internet 2000-2012. (2013). 1st ed. [pdf] Geneva: International Telecommunications Union. Available at: http://www.itu.int/en/ITU-D/Statistics/Documents/statistics/2013/Individuals_internet_2000-2012.xls [Accessed 20 Jul. 2014]

Plcmclearning.blogspot.se, (2014). *Learning 2.0 : 23 things you can do to become web 2.0 savvy*. [online] Available at: http://plcmclearning.blogspot.se/ [Accessed 28 Jul. 2014].

Skaparbibblan, (2014). *Om Maker spaces*. [online] Available at: http://skaparbibblan.wordpress.com/om-maker-spaces/ [Accessed 27 Jul. 2014]

Summary - Final Report: Major improvement of digital inclusion in Sweden, but one million Swedes are still outside in internet. (2013). 1st ed. [ebook] Stockholm: Digidel 2013. Available at: http://www.digidel.se/wordpress/wp-content/uploads/Summery-final-report.docx [Accessed 1 Aug. 2014]

Surman, M. (2014). How do we get depth *and* scale?. [Blog] *Commonspace. Things I'm learning along the way.*. Available at: http://commonspace.wordpress.com/2014/07/16/depthandscale/ [Accessed 20 Jul. 2014]

Ten Projects Receive $165,400 from Mozilla Gigabit Community Fund. (2014). [Blog] *The Webmaker Blog*. Available at: https://blog.webmaker.org/ten-projects-receive-165400-from-mozilla-gigabit-community-fund [Accessed 23 Jul. 2014]

Thepublicoffice.se, (2014). *The public office*. [online] Available at: http://thepublicoffice.se [Accessed 27 Jul. 2014].

Training.webmakerprototypes.org, (2014). *Webmaker Training: Teach the Web*. [online] Available at: https://training.webmakerprototypes.org/en/ [Accessed 3 Aug. 2014].

Triple Helix - Strengthening Stockholm's ICT Cluster. (2012). 1st ed. [ebook] Stockholm: AEIDL, the European Association for Information on Local Development. Available at: http://www.aeidl.eu/images/stories/50bestpractices/se_stockholm_case-study.pdf [Accessed 21 Jul. 2014]

Web.archive.org, (2010). *Kista Idea Lab | a re:library think tank – let's play and learn*. [online] Available at: http://web.archive.org/web/20100813014332/http://kistaidealab.se/ [Accessed 21 Jul. 2014]

Webjunction, (2014). *Badging the Library, Part 1: What and Why*. [online] Webjunction.org. Available at: http://www.webjunction.org/news/webjunction/badging-the-library-part-01.html [Accessed 23 Jul. 2014]

Webjunction, (2014). *Badging the Library, Part 2: Tools*. [online] Webjunction.org. Available at: http://www.webjunction.org/news/webjunction/badging-the-library-part-01.html [Accessed 23 Jul. 2014]

Webmaker, (2014). *Web Literacy Map - 1.1.0 - Mozilla Webmaker*. [online] Available at: https://webmaker.org/en-US/literacy [Accessed 31 Jul. 2014].

White, D. and Cornu, A. (2011). Visitors and Residents: A new typology for online engagement. *First Monday*, [online] 16(9). Available at: http://journals.uic.edu/ojs/index.php/fm/article/view/3171/3049 [Accessed 19 Jul. 2014]

YALSA, (2014). *Badges for Learning | Young Adult Library Services Association (YALSA)*. [online] Available at: http://www.ala.org/yalsa/badges-learning [Accessed 23 Jul. 2014]