Bridging the digital divide: Loanable WiFi Hotspots
Executive Summary

Portable WiFi hotspots are an emerging technology which has caught the interest of organisations wanting to expand the reach of broadband internet access to the community. In Australia, the loan of the portable WiFi hotspots are a recent phenomenon and information and knowledge on good practice and implementation strategies is yet to emerge.

There are a number of public libraries in America which are in the initial stages of implementing the portable WiFi hotspot lending program into their services. As this is a recent phenomenon, apart from periodical press releases, no official data has been published detailing the program. This has led to a gap in information and knowledge for any other organisation considering undertaking a similar service.

This report aims to begin to fill this knowledge gap by providing background information useful to inform of good practice of a loanable WiFi hotspot program. A brief literature review has been carried out to support the need for a service, details of a similar established service, and to provide an overview on the available literature in relation to a WiFi hotspot lending program. A case study has been completed to provide a more detailed look at the service currently in place in various branches of the New York Public Library. Portable WiFi hotspot devices, service costings and network coverage has been investigated to begin to address the practicalities of setting up a similar service in State Library of Queensland, with the possibility of expanding it to a statewide service.

Key findings show that public libraries provide an important service by offering free internet access to the public and need to investigate ways to expand this service. Recommendations are presented with the requirement to provide justification of the need for a program of this type via initial client surveys and a pilot program being an important consideration.

The report concludes with suggestions of further study in the area, including obtaining published reports regarding implemented programs to establish good practice for developing a WiFi hotspot lending program in public libraries.
# Table of contents

Executive Summary ................................................................................. 1

1. Introduction ......................................................................................... 4

2. Background ......................................................................................... 4
   2.1 The internet in public libraries ..................................................... 4
   2.2 The digital divide ........................................................................... 5
   2.3 Portable WiFi hotspots ................................................................. 5

3. Literature Review ............................................................................... 6
   3.1 Scope of review ............................................................................. 6
   3.2 Libraries, the internet and the digital divide ................................. 6
   3.3 Looking at tablet loans ................................................................. 7
   3.4 Loanable WiFi hotspot devices .................................................... 8
   3.5 Leading the pack ........................................................................... 8
   3.6 Key themes ................................................................................... 9

4. Case Study ......................................................................................... 9
   4.1 New York Public Library ............................................................... 10
   4.2 Brooklyn Public Library ............................................................... 10
   4.3 Queens Library ............................................................................. 10
   4.4 Introduction of the WiFi Hotspot .................................................. 11
   4.5 Deployment .................................................................................. 11
   4.6 Building a lending program ......................................................... 12
       4.6.1 User eligibility ...................................................................... 13
       4.6.2 Loan renewal period ............................................................. 13
       4.6.3 Penalty and replacement fees ................................................. 13
   4.7 Future considerations ................................................................... 13

5. Grants and funding ............................................................................ 14
   5.1 OPAL Program ............................................................................. 14
   5.2 Telstra Foundation ...................................................................... 15
   5.3 Optus Community Grants ............................................................ 15

6. Device ............................................................................................... 15

7. Network coverage ............................................................................. 16
Key findings and recommendations ................................................................. 16
Conclusion ........................................................................................................... 17
References ........................................................................................................... 18
Appendix A – New York Public Library submission ........................................... 24
Appendix B – Goals ............................................................................................. 29
Appendix C – WiFi hotspot devices ................................................................. 30
Appendix D – Program details and circulation policies .................................... 31
Appendix E – Telstra mobile broadband device / costings ............................... 34
Appendix F – Optus mobile broadband device / costings ................................. 36
Appendix G – MediaSurfer Library Single Kiosk .............................................. 41
Appendix H – Keeping up with Library Technology 2013: MediaSurfer – The iPad Lending Machine ................................................................. 43
1. Introduction

As more resources are primarily being made available online, access to the internet is seen as essential to thrive in today’s world. Visser and Ball reflect that by not having access “the social repercussions increase from merely not being able to access entertainment and news to being unable to participate in the knowledge-based society of the twenty-first century” (2010, p. 192).

To address this issue, this report aims to: Conduct a review of the literature and practice examples from Australia and overseas of loanable WiFi hotspot programs to help inform the State Library of Queensland of good practice in this area.

Included in the report is background information on the current availability of internet access within public libraries, the issue of the ‘digital divide’ and an overview of portable WiFi hotspot devices. Portable WiFi hotspot devices are a recent phenomenon and therefore limited information and knowledge is available. To counter this, a comparable program is explored in the form of libraries offering the loan of iPads and tablets to clients. A case study of the New York Public Library’s pilot program and subsequent extension of a portable WiFi hotspot lending program is presented, followed by the presentation of potential costing and the process involved in setting up an Australian program.

This report has been designed for submission as an assessment piece for a university study course and as such, is subject to limitations which have implications to the included content. These limitations include a 5000 word count and ethical considerations which meant that interviews with telecommunications experts, State Library of Queensland (SLQ) staff and other industry experts could not be carried out in this instance. Due to these limitations, the report is not exhaustive and other areas needed for consideration have been identified and detailed in the Recommendations section of this report.

2. Background

2.1 The internet in public libraries

To keep up with rapidly changing technologies and consumer expectations, the public library needs to revisit its service strategies on a regular basis. According to the Australian Library and Information Association (ALIA) (2013, p. 3), internet access is seen as a core public library service. The Australian Public Libraries Statistical Report (State Library of Queensland, 2014a, p. 5) states that in 2012-13, there were 10,255 public access internet terminals provided within Australian public libraries, rising by 18.5% since 2008-09. This figure equates to 4.43 public access internet terminals per 10,000 persons, an increase of just over 12% in the past five years (SLQ, 2014a, p. 20). To relieve the pressure placed on the public access internet terminals within SLQ and other local government owned public libraries across the state, other ways to provide Internet access to the public are being explored.
SLQ and other Brisbane City Council (BCC) public libraries provide public access internet terminals and free WiFi access, which is available to the public 24 hours a day, 7 days a week and during opening hours respectively (SLQ, 2014b; Brisbane City Council, 2014). For patrons to use their own mobile devices, such as smartphones and laptops, out-of-hours or away from the physical library space, they would need a broadband connection in the home. Those that don’t have broadband at home may find themselves at a disadvantage and on the wrong side of the digital divide.

2.2 The digital divide

The phrase digital divide refers to “the social implication of unequal access of some sectors of community to Information and Communication Technology [ICT] and the acquisition of necessary skills” (Foster, as cited in Partridge, 2007, para. 3). The Australian Bureau of Statistics (ABS) has found that in 2012-13, only 57% of households with a household income of less than $40,000 had access to the internet, compared to 98% of households with an income of $120,000 or more (Australian Bureau of Statistics, 2014). Households which are unable to afford the cost of the technology and connection required to access these services may be severely limited in their education, employment and economic prospects.

The International Federation of Library Associations (IFLA) Public Library Service Guidelines (Koontz & Gubbin, 2010, p. 2) states that public libraries have an important purpose: to meet the needs of individuals and groups regardless of age, race, sex, religion, nationality, language or social status (p. 35). One of the many ways public libraries fulfil this purpose, is by providing the community with free access to the Internet. By incorporating new and evolving technologies to their service platform, such as the portable WiFi hotspot, SLQ will continue to meet its service provision commitments to all sectors of the community, and in doing so contribute to bridging the digital divide.

2.3 Portable WiFi hotspots

The portable WiFi hotspot combines the Wireless Local Area Network (WLAN) device and the hotspot technology to provide a portable device. WLAN devices appeared on the market in the mid-1990s and by the early 2000s, the devices were the standard technology used to interconnect computers wirelessly with each other and the internet (Sauter, 2011, p. 321). A hotspot is “a physical location that offers Internet access over a wireless local area network (WLAN) through the use of a router connected to a link to an Internet service provider. Hotspots typically use WiFi technology” (Wikipedia, 2015, para. 1).

Unlike WLAN devices, which require an external broadband modem and only provide connectivity within a specific fixed location, the mobile WiFi hotspot provides a portable, high-speed internet connectivity that can be shared between multiple users and WiFi enabled devices such as laptops, smartphones, cameras, gaming devices or portable media players (Novatel Wireless, 2009, para. 2).

3. Literature review
With an increase in use of personal mobile devices and the reliance on the internet to access information online for educational, personal and business purposes, and limited space and public internet access computer terminals within public libraries, SLQ has identified that there is a need to provide clients with alternative, portable access to broadband.

This literature review aims to identify the need for a loanable WiFi hotspot program in public libraries and present ideas evident in recent literature on the topic. As this is a new and emerging service, limited academic literature is available, therefore articles from newspapers and online trade magazines, industry associations and press releases will be relied upon for an overview on the program. In the absence of literature on the specific topic of loanable WiFi hotspots, other loanable devices will be investigated to provide an overview of a similar program currently in place in public libraries.

3.1 Scope of review

This literature review covers a period of 8 years, from 2007 to present. This allows for the rapid advancement of information technology and communications in recent years, and the role of the library in adopting new technology and addressing the digital divide.

3.2 Libraries, the internet and the digital divide

A search of relevant literature examining the role that public libraries play in providing internet access to the public, and the importance of this access for the community was conducted.

Bertot (2009, para. 2) notes that public libraries were early adopters of internet-based technologies and have provided public access to the internet and computers since the early 1990s. The pivotal role that libraries play in bridging the digital divide by providing internet access to the public, including those in lower socioeconomic areas and rural and regional communities has been explored by Aqili and Moghaddam (2007) and Anderson and Whalley (2014). Interestingly, Heuertz, Gordon, Moore and Gordon (2002, p. 6) found that computer users at public libraries represent far more equally all income, education, and employment categories, but go on to say that public libraries provide an important source of computer access for “disenfranchised citizens, including the poor, the less educated, the unemployed, and various minority groups” (p.8). According to Bertot, McClure and Jaeger (2008) and Kinney (2010, p. 114), some communities and members of disadvantaged groups respectively, are more likely to rely on the library as their only source of internet access.

A restriction on the public utilising internet access computers in public libraries is that library buildings are increasingly out of space and unable to support more public internet access workstations and are also insufficiently wired for the power requirements of patron-provided laptops (Bertot, McClure, Wright, Jensen and Thomas, 2009, p. 10).

In an attempt to satisfy library user demand, most individual public libraries in Australia offer wireless internet access (ALIA, 2013, p. 3). However, at least a quarter of the 820 public library service points surveyed by ALIA in 2011 did not offer this service at all.
(2013, p. 7), whilst others restrict access to opening hours only (2013, p. 2). Wireless internet access is provided to library members in all BCC libraries during opening hours, (BCC, 2014, para. 4), and SLQ offers free WiFi to the public 24 hours a day 7 days a week (SLQ, 2014c, para. 1).

Even if libraries are able to provide adequate public access to computers and the internet, this may not provide the same benefits as home access can (Kinney, 2010, p. 120). A report by the US Department of Commerce (2002, p. 38) states that “home internet access may be thought of as a higher quality type of access because it is available (theoretically) 24 hours a day, seven days a week, while school or library access periods are limited to specific hours and often with time limits per session”. The literature highlights the pivotal role played by libraries in providing internet access to all communities. To continue in this role, a few public libraries have been investigating expanding access to mobile devices to patrons.

3.3 Looking at tablet loans

One of the goals of circulating iPads to library customers is to provide them with “opportunities to gain familiarity and comfort with new technology… and to more fully explore the Internet and its vast resources” (L.E. Phillips Memorial Public Library as cited in Yelton, 2012, p. 22).

A number of articles and reports have been written about a selection of public and university libraries in America which loan iPads and other tablet devices to patrons. The L. E. Phillips Memorial Public Library in Wisconsin (Yelton, 2012, p. 22) loans iPad Airs to clients which are available to check out for 14 days, and also iPads for use in the library. The University of Arizona is offering a four hour loan period for iPads to students (Capdarest-Arest, 2013, para. 5) with early survey responses suggesting that the experience has been a positive one (2013, para. 9). The Drexel University in Philadelphia has extended their service and installed an iPad vending machine which uses a swipe card reader to verify IDs before releasing one of twelve iPads from its docking slot, providing a four hour loan (Gianakaris, 2015, para. 1). Lending policies, programs and best practices vary from library to library (Freeman, 2015). The Drexel University and University of Arizona both have user agreements available on their website which clients need to agree to in order to borrow the iPads (Drexel University, n.d. and University of Arizona, 2015).

In Australia, Blacktown Public Library (2009) in New South Wales, offers loans of tablets to clients. A three week loan period is available, with no renewals or reservations and clients are potentially liable for the full replacement cost if the device is lost or irreparably damaged. No user agreement was available to view on the Blacktown Public Library website.

The Library at The Dock in Melbourne has installed an iPad vending machine that’s free to clients who don’t have access to their own device (City of Melbourne, 2014, p. 5).

The purchase of tablets is seen as a considerable expense for a library with restricted budgets and both Yelton and Landau (2012, p. 23; 2011, p. 152) advise that libraries
should consider applying for funding from outside of the regular library operating budget when considering lending mobile devices.

3.4 Loanable WiFi hotspot devices

Portable WiFi hotspot devices, which are described as packing “fast internet access into tiny, pocketable devices so you can stay connected wherever you go” (Dachis, 2013) first appeared on the market in 2009 (Novatel Wireless, 2009, para. 1).

The loaning of portable WiFi hotspot devices provides clients with the opportunity to utilise technologies away from the physical library space. Even if more Australian public libraries offered tablet loans to clients, this service would still not address the issue of the lack of internet access in people’s homes. iPads require wireless access to connect to the internet (Baig & LeVitus, 2015, p. 25) and statistics show that in 2012-2013, up to 33% of all households in Australia did not have access to the internet via a broadband connection (ABS, 2014). To address this issue, the introduction of a loanable WiFi hotspot device program would allow clients to access technology and devices in their own home.

3.5 Leading the pack

The New York Public Library (NYPL) published several press releases tracking the implementation of loanable WiFi hotspot devices into their services:

- June 2014 - the NYPL received a grant of US$500,000 awarded by the Knight News Challenge (New York Public Library, 2014a) to establish the program to loan mobile hotspots to families living without broadband access;
- December 2014 - announcement of the expansion of the library hotspot program to include the Brooklyn Public Library and Queens Library, which was made possible by a further $1,000,000 donation by Google, in addition to the original $500,000 grant from the Knights News Challenge (NYPL, 2014b);
- April 2015 - announcement of the second round of the expansion of the WiFi hotspot lending service to a further 11 branches of the NYPL. (NYPL, 2015a).

The Chicago Public Library (CPL) (2015, para. 1) announced in January 2015 that the “Internet to Go” hotspot lending pilot program will begin in three CPL locations in early 2015: Brighton Park, Greater Grand Crossing, and Douglass branches. As with the NYPL, this was made possible by a $400,000 grant from the Knight Foundation and a contribution of $175,000 by Google to support the initiative. If successful, the program is intended to expand to three additional communities within the Chicago region.

The examples of the established loanable WiFi hotspot programs within the NYPL will be expanded on in a later stage of the report.

In 2014, infoDOCKET, ABC News and Techsoup for Libraries are just a few of the online media organisations who reported on the NYPL’s and CPL’s initial grant award to implement the WiFi hotspot lending program and the subsequent donation from Google enabling them to expand the program (infoDOCKET, 2014a; 2014b; ABC Inc., 2014; Techsoup for Libraries, 2014). Each article mentioned that a large amount of New
Yorkers, around 2.5 million according to the ABC report (2014, para. 9) do not have internet access at home and this program would contribute to closing the digital divide.

3.6 Key Themes

A common theme found in the selected literature is the role libraries have in connecting patrons with the internet and mobile devices. The purpose of this literature review is to provide information on public libraries currently offering loanable WiFi hotspots to their clients in anticipation of a similar service being implemented by SLQ. It was found that the introduction of the program to the services offered by the NYPL and CPL has proven to be successful resulting in the extension of the initial pilot program to include other branch libraries.

However, due to the lack of published reports or survey findings by either the NYPL or CPL to date, it is difficult to ascertain the overall long term success of the programs, or to determine any limitations or problems encountered by the libraries in loaning out the devices, or by the clients themselves.

4. Case Study

After an initial review of the available published material on the topic of loanable WiFi hotspot programs had been carried out, a single-case design was chosen for the case study. The rationale for this decision is that one project can be seen as the representative case. According to Yin (2009, p. 48), this type of case study design may be undertaken when a typical project may be used as the representative project amongst many different ones and where the lessons learned from this case may be assumed to be informative about the experience of the average institution.

As this single-case study involves more than one unit of analysis, with the New York Public Library being the main unit, and the Brooklyn Public Library and Queens Library the subunits, the resulting design is known as an embedded case study design (Yin, 2009, p. 50).

The following study aims to provide information on an implemented loanable WiFi hotspot program to fill in the knowledge gap and to help inform other similar organisations of good practice in this area.

The New York Public Library, in a joint initiative with Brooklyn Public Library and Queens Library, is currently in the process of implementing the WiFi hotspot lending program. However, all three libraries have information regarding the program on their websites, and the available published literature, although not of an academic nature, contains enough information to provide an overview of the service.

Whilst the CPL has also recently implemented a program to loan WiFi hotspots to patrons, at the time of writing this report, there is a lack of available information on the program which impedes the process of an in-depth study. As identified in the Literature Review contained within this report, there are a number of press releases and articles published in online trade
magazines, although the CPL itself does not list any details about the ‘Internet to go’ Tech lending program on its website. An assumption is that this may be due to the service being run as a trial for a period of time and the CPL may be recording data about the program which would be evaluated and released at a later stage.

It is suggested that further investigation is carried out by SLQ to stay informed of any published data regarding the details of the program.

4.1 New York Public Library

New York Public Library was founded in 1895 and includes 88 neighbourhood branches throughout the Bronx, Manhattan, and Staten Island and four scholarly research centres. The Library has an extensive collection of books, e-books, DVDs and renowned research collections, and also offers educational initiatives such as Out-Of-School-Time Programs (OSL) and English Classes for Speakers of Other Languages (ESOL) to its patrons. NYPL is dedicated to expanding online access to its digital collections and to bridging the digital divide. To help achieve this, they have implemented a Library Hotspot program into their service, which allows students enrolled in NYPL educational programs to borrow free home internet access (NYPL, 2015c, p. 2).

4.2 Brooklyn Public Library

Brooklyn Public Library (BPL) exists independently alongside the New York Public Library and the Queens Library. It was established in 1896 and consists of 58 branches. The BPL’s vision is that it “will be a leader in traditional and innovative library services which reflect the diverse and dynamic spirit of the people of Brooklyn” (Brooklyn Public Library, 2015, p. 12).

4.3 Queens Library

Queens Library (QL) became a free circulating library in 1884 and is an autonomous library system that serves 2.3 million people from 62 locations. The vision of the Queens Library states that it is dedicated to the needs of its diverse communities and advocates and supports appropriate technology to “empower people to take charge of their lives, their governments and their communities” (Queens Library, 2015, para. 6).

4.4 Introduction of the WiFi hotspot

Each year, the Knight Foundation, a private, independent foundation which supports the arts, community and national initiatives, and journalism and media innovation, puts forward a challenge in an open call for ideas. Non-profits, for-profits or individuals anywhere in the world can enter the challenge and if their submission is one of the winning entries, a share of up to $3,000,000 USD is awarded to implement the idea (Knight Foundation, 2015). In 2014, the challenge was to discover programs that make the internet better. The New York Public Library put forward an application to implement a service where patrons would have the opportunity to borrow a portable WiFi Hotspot device (see Appendix A). They saw this service as being able to "substantially expand the Internet access that is currently available only when libraries are physically open; with
this effort, patrons would bring the internet into their homes, 24 hours a day.” (Marx, 2014, para 1.)

In June, 2014, the announcement was made that the NYPL was one of 19 entries that won the challenge and was awarded USD $500,000 towards their initiative. Towards the end of 2014, Google contributed an additional USD $1,000,000 donation as part of their commitment to increasing accessibility to technology (NYPL, 2014b).

In July 2014, English (2014, slide 2) reported that a pre-pilot survey was carried out by the NYPL with four goals in mind:

“Goal 1 Increase household access to at home broadband internet
Goal 2 Raise digital exposure and confidence
Goal 3 Increase engagement with library-provided and/or recommended learning resources
Goal 4 Establish a scalable public library model for tackling the national digital divide”

Out of a total of 91 households, 47 of the participants were enrolled in an ESOL program and 44 in the OSL program. Each participant received a loan of a wireless router and the also had the option to borrow a laptop for a period of time (not specified) (English, 2014, slide 4).

Indicators and measures of the four goals were gathered by data tracking/capture, by survey and anecdotal tracked data (see Appendix B). Preliminary survey results were positive, with respondents’ feedback indicating that all four goals were being met.

4.5 Deployment

In recognising that the program needs to be highly cost-effective, the NYPL are looking to partner with other not-for-profit organisations and also negotiate with internet service providers and WiFi device manufacturers in order to keep the rates low (Marx, 2014, para. 17). In their submission to the Knight News Challenge, the NYPL estimated the cost of supplying 10,000 devices and a full year of service to each household in the initial pilot is $2,000,000 USD (Marx, 2014, para. 18). The retail price for the devices range from $40 to $200 and secure access for each family is estimated to cost $10 per month. There is currently no published report available detailing other costs associated with implementing and maintaining the program, such as staffing, marketing and promotion, website design and cataloguing.

In a press release by the NYPL (2014c, para. 3), they state that the Wi-Fi devices are powered by Sprint, a provider of telecommunication services in the United States. As the exact model of device is not mentioned, an example of a similar device by the same provider has been provided. At the time of this report, the page on the Sprint website which lists the WiFi Hotspot devices is being enhanced and is therefore unavailable. An online review of a WiFi hotspot device (Segan, n.d.) which lists the specifications and costing of the device has been included (refer to Appendix C).

4.6 Building a Lending Program:
Miller, Moorefield-Lang, Meier and Hage (2011, slide 44; 2003, p. 133) and Yelton (2012, p. 22) recommend that as with all library resources, there is a need to develop policies and procedures to manage the use of the devices. These include the issues of:

- loan period
- late fees
- loss and damage fees
- renewals/holds
- user agreements/contracts
- procedures to keep track of any included accessories.

The name of the WiFi hotspot lending program varied slightly in each library, although each incorporated the basic principle of the program. The program names are Library HotSpot, Library HotSpot Loan Program and Mobile Hotspot for the NYPL, BPL, QL respectively. Only the BPL listed the name of the device provider, Sprint, although as the program is one of a joint initiative, the assumption can be made that the same organisation is the principal supplier for all three libraries.

An overview of the user eligibility, loan/renewal period and penalties and replacement fees are listed below. For full details of the program details and circulation policies for each library, refer to Appendix D.

### 4.6.1 User Eligibility

Each library specified eligibility requirements for patrons to borrow the WiFi hotspot device. The commonalities of the eligibility requirements were that a patron must:

- have a valid library membership card; and
- have no internet broadband access at home (NYPL and BPL).

Other requirements were specific to the individual library. Some examples include that patrons must:

- be enrolled in an education program run by the library, including the adult literacy program, Out-Of-School-Time program or ESOL;
- fill out a borrower’s agreement (QL);
- participate in surveys and other outcome based evaluations (BPL);
- follow the device provider’s (Sprint) acceptable use policy (BPL).

### 4.6.2 Loan / Renewal Period

The loan period at each library varied considerably with the NYPL offering an initial six month loan period with one renewal of six months, the BPL loan period was one year with no renewals offered and the QL offered a one month loan period with three renewals allowed.

### 4.6.3 Penalties and Replacement Fees
The BPL charges the highest penalties stating that if the Library HotSpot is more than 14 days overdue, the patron's account will be blocked and a fee of US$210 for the replacement of the device and any included accessories will be charged. A late charge of US$1.00 per day is also added to the patron’s account.

The NYPL will block the library card privileges of the borrower and add a charge of US$100.00 for the replacement fee to the patron’s account if the device is lost or not returned.

QL does not list any penalties or replacement fee charges on its website.

4.7 Future Considerations

As well as the circulation policies, Miller, Moorefield-Lang and Meier (2011, slide 41) suggest that the following be taken into consideration when setting up a program:

- purchasing
- developing policies
- staff training
- technical support
- user support
- marketing
- assessing

Public libraries in particular have a mission of continuing to provide access to technology that bridges the gap between society’s haves and have-nots (Chow & Bucknell, 2012, p. 132). It is important that the services offered continue to reflect the changing needs of the users.

The above case study has been demonstrated that a one-size-fits-all approach is not the most effective way to meet a patron’s wide-ranging needs when it comes to addressing the service implication of technology in a library (Pearlmutter & Nelson, 2012, p. 105). Instead tailoring the circulation policies to fit both the requirements of the library and taking into consideration the needs of the patron is considered a good practice approach.

5. Grants and funding

As part of Vision 2017, Queensland public libraries have recognised that to be seen as “technology trendsetters” they need to “champion new technology and social media in the operation of the library and delivery of services” (State Library of Queensland, n.d., p. 3 & p. 8)

In a report from 2012, the Australian Library and Information Association (ALIA) (p. 6.) states that funding and technology are two powerful trends which have a considerable impact on
Australian public libraries. There is an ongoing and increasing expense to deliver services to clients that incorporate the rapid developments in broadband and mobile device technology.

Funding projects to implement these services is often beyond the reach of tight operational budgets and a grant may be seen as an important source of supplemental income (Landau, 2011, p. 152). To assist with the expense of establishing the loanable WiFi hotspot program into current State Library of Queensland services, a small selection of funding possibilities which focus on introducing new and innovative technologies to services have been examined.

5.1 OPAL Program
The Online Public Access in Libraries (OPAL) Program provides $600,000 in funding annually towards a program of work which supports online access to information and resources for Queenslanders in or through public libraries (SLQ, 2015).

Two of the three streams of funding which relate to the implementation of the loanable WiFi hotspot program are:

**OPAL Innovation**
Amount: $300,000
Purpose: Partner projects with public libraries which promote the development of information-rich communities.

**OPAL Grants**
Amount: $200,000
Purpose: Grants to Councils to support the embedding of 21st century online services in public libraries.

5.2 Telstra Foundation
The Telstra Foundation (n.d.a, para. 2) recognises that Australian public libraries are heavily used as community centres and are vital community hubs which are able to reach out to some of the most disadvantaged members of society.

Since 2002, the Telstra Foundation, together with various partners, have worked with community organisations to bring digital communication technologies to all Australians so that they can "enjoy the social and economic benefits of being connected" (Telstra Foundation, n.d.b, para 3).

Telstra is one of the leading telecommunications organisations within Australia, and a supplier of the mobile broadband device and service. It is suggested that SLQ explore ways in which they could partner with Telstra through its foundation to access grant
funding and negotiate a suitable price for the supply and ongoing service cost of the devices and service plan.

5.3 Optus Community Grants

Optus Community Grants have been supporting organisations that provide assistance to young people (from the age 4 up to 26) of Australia. The “Access to Technology” selection criteria funds projects that focus on the delivery of technology that improves access to disadvantaged young people. (Optus Pty Ltd, 2015a)

If SLQ decided to focus the WiFi hotspot lending program to young people within the age bracket listed by Optus, they would be eligible to apply for funding from the Optus Community Grants. Also, Optus is another leading telecommunications organisation within Australia and negotiations could be considered to explore ways to provide the devices and a service plan at a discounted price.

6. Device

Before making a decision on the type of WiFi hotspot to purchase, the following specifications may be considered:

- Price
- Operating system
- Connectivity
- Accessories
- Size and weight
- Features
- Storage
- Battery life
- Available technical support
- Any noted drawbacks

Miller, Moorefield-Lang and Meier (2011, slide 20)

Specifications for suitable devices and details of costings of plans vary from Telstra and Optus (Telstra.com, n.d.; Singtel Optus Pty Ltd, 2015a, 2015b) (refer to Appendix E and F respectively).

7. Network coverage
Other specifications to be considered include network coverage. Over a four month period, German mobile-testing specialists P3 Communications and Australian telecommunications industry journal CommsDay, conducted an independent and impartial survey of the network coverage of Australia's three mobile network operators, Vodaphone, Telstra and Optus. Capital cities, regional centres and along link roads in New South Wales, Victoria and South Australia were driven along to measure a raft of benchmarks including voice connection quality, call quality, and data services including web browsing, file transfers, and YouTube videos on mobile devices (Wilton, 2014, p. 8 & p. 12).

Whilst all three networks were strong performers, Telstra scored highest overall in call success ratio (or the ability to connect and avoid drop outs) and 4G web page access, file download (3MB) and access to YouTube, with Optus close behind (Wilton, 2014, p. 22).

Although the testing was carried out in states other than Queensland, the study provides an insight into the network coverage of a vast section of metropolitan and rural areas which could translate to Queensland.

8. Key findings and recommendations

The key findings of this report include:

- Public libraries are limited in the available physical space and number of public internet access computers in the library;
- Many people do not have access to the internet in their home, which makes them susceptible to falling into the category of the technology have nots, otherwise known as the ‘digital divide’;
- Public libraries are seen as an important provider of the internet to the public and therefore need to contribute to closing this divide;
- The loan of portable WiFi hotspots to clients is a viable solution to this issue.

A loanable WiFi hotspot program must be tailored to fit both the requirements of the library and the needs of the patron. To facilitate this, the findings in this report support the following recommendations to SLQ:

- conduct a survey of patrons, including those using the public access internet computer terminals, to establish the need for a loanable WiFi hotspot program;
- once the need for the service is identified, investigate the implementation of a pilot program, deciding on the borrowing regulations and number of devices required to support the program;
- contact service providers to negotiate the cost of supplying the devices and a suitable network plan;
- locate and apply for an appropriate grant to assist with funding;
once the pilot program has concluded, conduct a survey and evaluation of the pilot program to establish its success or limitations and the possibility of continuing and expanding the program.

As previously done, NYPL and other branch libraries are likely to release reports discussing the current portable WiFi hotspot lending program and SLQ are advised to access the reports to remain informed of potential outcomes and advancements of the program.

9. Conclusion

After reviewing the literature, it was found that many people in the lower socioeconomic section of the community rely on public libraries to provide access to the internet. The benefits of this access include increased educational and social opportunities, which may otherwise be outside of their reach due to economic considerations.

This issue of limited space and public internet access terminals within public libraries has been addressed in this report and the loanable WiFi hotspot program has been presented as a workable solution to increase access to the internet for patrons.

The review of practice examples of loanable WiFi hotspot programs in the NYPL, BPL and QL has shown that after an initial investigation by the libraries on the need for the service, and a pilot program to support this finding, the program was deemed successful enough to justify the expansion of the service to other libraries within the borough.

The key findings and recommendations outlined in this report go towards demonstrating how good practice in this area can be achieved, with further investigation in the form of negotiating with telecommunications companies and obtaining published industry reports as and when they are released.
References


Check Out the Internet: Libraries Lending Internet Access

The goal of this project is to expand the reach and benefits of free access to the Internet provided by The New York Public Library (NYPL) to underserved youth and communities by allowing them to borrow portable WiFi Hotspot devices from their local libraries for a sustained period of time. This service would substantially expand the Internet access that is currently available only when libraries are physically open; with this effort, patrons would bring the Internet into their homes, 24 hours a day.

Check Out the Internet: Libraries Lending Internet Access

Andrew Carnegie believed that the “industrious and ambitious; not those who need everything done for them, but those who, being most anxious and able to help themselves, deserve and will be benefited by help from others.” His belief and ambition led him to establish over 2,509 Carnegie libraries between 1883 and 1929. As part of that legacy, NYPL is exploring ways to meet Carnegie’s historic charge and provide a helping hand to those seeking to advance themselves in the digital age.

Because many Americans find themselves unable to afford quality Internet at home, they are caught on the wrong side of the digital divide. This chasm presents an obstacle to participation in America’s $8 trillion dollar digital economy and deprives the Internet of contributions from these individuals. In New York City alone, 27% of NYC households do not have access to broadband. This figure is tilted heavily to those in low- and lower-income households: 46% of
those earning less than $35K do not have access. In a city where the Internet is easily available but where an estimated 1.7 million residents fall below the federal poverty line, surveys have shown NYPL that expense is the most often-cited reason for not subscribing to available Internet. Last year, NYPL provided a significant bridge to this divide, hosting over 3.1 million computing sessions and 2.8 million Wi-Fi sessions and providing patrons with access to 1,539 laptops, which were borrowed for on-site use 409,912 times.

Through an innovative pilot initiative to provide mobile Internet access, The New York Public Library (NYPL) seeks to increase the overall population who can have the benefit of the open Internet. Through this effort, NYPL will demonstrate a new model of public Internet service by which libraries provide portable 4G LTE WiFi devices, (which use cellular networks to create a personal broadband Internet hotspot), to public school students and others underserved to use at home, work, or anywhere they may be. Specifically, NYPL proposes to begin lending devices to students participating in the Library’s Out of School Time (OST), English for Speakers of Other Languages, and Technology Training programs.

This innovative NYPL initiative will bridge a major gap in the availability of the Internet for a critical segment of the population, which has the most to gain from its use. The program will provide essentially 24/7 quality access to those who are currently limited to accessing the Internet during a 40-minute, once-a-day time slot at one of NYPL’s 92 physical facilities, allowing them to continue to learn, work, explore, and create even after library doors have closed. In short, this effort will connect wired users who live in disconnected households, fostering an expanded community for reading, learning, and creativity.

This is a logical extension of libraries’ mission to make information available to all. NYPL, and libraries in general, have long been in the business of ensuring that even those who cannot afford books and other resources have access to that material, so that they may be able to learn from, enjoy, and ultimately contribute to the global body of information. This program builds on NYPL’s recent efforts to create a vibrant library model in an increasingly digital world, by developing and facilitating online access to NYPL’s rare and unique collections and negotiating with publishers in an effort to help shrink or eliminate the widening gap between access to and use of ebooks commercially versus through libraries, which was evidenced in the divergence between ebook sales in the market and ebook circulation in libraries.

Who are the users or target customers of your project, and what have you learned from them so far? Please give specific examples.
Initially, The New York Public Library NYPL plans to deploy this pilot to 10,000 households in New York City. Specifically, NYPL will target participants in three key educational programs that it conducts throughout neighborhood branches in New York City: Out of School Time programs, Technology Training classes, and courses in English for Speakers of Other Languages (ESOL).

In the 2014-15 academic year, when this pilot would be implemented, NYPL expects to serve approximately 20,000 students in its formal Out of School programs and ESOL courses, both of which require at least a semester-long or ten-week session commitment, and over 84,000 participants in its Technology Training classes.

NYPL has detailed demographic data about the neighborhoods in which these programs are located, since those sites that had the highest need for after-school programming, ESOL classes, and technology training tended to be those communities that are under-resourced, high-poverty, and home to large immigrant populations. Correlative to economic-need, as evidenced in a report released by New York City’s Comptroller in April 2013, is a lack of home broadband Internet, with 60 percent of households in New York City without broadband Internet having annual incomes lower than $35,000.
By running surveys of current users to assess their home broadband status, NYPL has learned that its patrons have a great need for this project; fifty-five percent of those accessing the Library’s free Internet and computers do not have Internet service at home. That number grows to sixty-eight percent for those with annual incomes of less than $25,000. In May 2014, NYPL will be launching a preliminary test pilot program in which it will lend 100 WiFi units to current participants in its Out of School Time Programs. NYPL will be using the results of this test to refine the larger 10,000 unit pilot to be launched this fall.

What assumptions are you making in what you propose, and how will you test them?
NYPL believes that by providing broadband Internet access to 10,000 households who currently do not have access at-home, the Library will be implementing an innovative program that has the potential, at scale, to tackle the national digital divide. The project’s key assumptions are: (1) providing at-home broadband Internet access will result in: (a) raised digital exposure and confidence; and (b) increased engagement with library-provided and/or recommended learning resources. Additionally, through this project NYPL will be (2) establishing a scalable public library model for tackling the national digital divide. NYPL will test and assess these assumptions as follows:

Access
NYPL will track: data on the number of devices lent and average duration of the loan via the same system that it currently uses to track other lendable library materials; the number of users within the household via surveys, which will also yield additional information on user demographics; and enrollment and re-enrollment rates of eligible households. NYPL will also survey participants about their intentions to continue within the program or purchase the devices/service after participation.

NYPL will also evaluate the specific subgoals by:

- Tracking hours of use, and bandwidth and urls visited (in aggregate); using surveys to (1) evaluate general user attitude towards computers and the Internet and their perception of specific skills related to computers and the Internet, and (2) track participant usage of the Internet for various purposes (information search, job skills/search, lifelong learning, entertainment, and social networking, to name a few -- for different members of the household).
- Tracking usage of educational and library resources (urls); using surveys to assess user awareness of library educational programs.

Scalable public library model
NYPL will analyze the demand data (including re-enrollment rate) from the initial pilot to estimate potential demand. NYPL will evaluate cost per use (per household per month), which will include all upfront and ongoing costs, including the replacement cost for damaged and/or unreturned devices. NYPL will also know how many partner libraries will sign on to the pilot by the end of the year. NYPL will keep track of commitments received by corporate partners, by the FCC for ongoing funding, and by other potential future funders, as well as of interest in the program expressed by other cities/major library systems.

How will you get your project in front of the necessary people or organizations?
Most importantly, NYPL plans to target some of its most highly engaged patrons, who are also residents of high-need neighborhoods, for this pilot program. As noted above, two programs from which NYPL will draw potential participants require that they commit to at least a full semester or ten-week session, during which they visit the Library at least one time each week, often more, and participate in a formal class or program with a dedicated instructor. The staff responsible for rolling out the WiFi pilot program will work with the staff who lead these
programs to promote the project to their students and recruit participants who could benefit from access provided by the WiFi devices.

NYPL has also established key partnerships to start to test the scalability of this solution. To enable rollout New York City-wide, NYPL will be working with the Brooklyn and Queens Borough Library systems, who have already expressed interest in participating in the pilot. To test this solution in more rural parts of the country, NYPL has built a relationship with the State Library systems of Kansas and Maine, who will be working with NYPL staff to see how the program could be adapted throughout the country. Additionally, NYPL has the committed support of the New York City’s Mayor’s Office, which is helping to both design this pilot and think creatively about sustainability.

To attract participants and to promote any in-kind donations to the program, NYPL will promote the program to local and national news outlets. Additionally, NYPL is actively making the case to the FCC that they consider innovative models such as mobile WiFi internet lending as they rethink the eligibility requirements of their $2 billion annual e-rate program.

What are the obstacles to implementing your idea, and how will you address them?
This program needs to be highly cost-effective to be able to scale. NYPL staff is working with non-profit Education Broadband Service (EBS) providers to connect this idea to the available education spectrum owned by EBS organizations nationwide. Doing so would help to keep the costs reasonably low (for the data service and the WiFi devices) for the scale of the 10,000 unit pilot and, perhaps beyond. However, reaching a scale of millions of households, while maintaining a cost-effective model, will require new and different types of partnerships, including with for-profit Internet Service Providers. NYPL, which has a demonstrated track record in negotiating breakthrough access agreements with e-book publishers, will negotiate with service providers to keep rates low for the pilot program and will request that the WiFi device manufacturers provide them at cost or as an in-kind donation.

How much do you think your project will cost, and what are the major expenses?
NYPL estimates that the initial pilot to 10,000 households will cost $2 million, which includes the cost of the devices and a full year of service for each household. The devices that NYPL is exploring range from $40 to $200, retail, and NYPL is currently negotiating with service providers to secure access for each family for $10 per month.

What are the goals for a “successful program with pilot funds,” and how will you work toward those goals?
The goal for the initial pilot is to provide high-speed internet access to 10,000 households who currently do not have access for one year, starting in September 2014. The initial pilot design calls for devices to be loaned out for periods ranging from 3 to 12 months with student loans being set for a 9-month period concurrent with the school year.

Pilot funds would enable NYPL to launch the program, and consequently provide 24/7 quality access to the Internet for those who currently are limited to accessing the Internet during the school day, or a 45-minute, once-a-day time slot at a library facility, allowing them to continue to learn, work, explore, and create even after library doors have closed. A “successful program with pilot funds” will place participants on a “digital parity” with students who otherwise have broadband access at home. In short, this effort will connect wired users who live in disconnected households, fostering an expanded community for reading, learning, and creativity.

Throughout the project’s first year, NYPL will undertake an assessment of the program as outlined above, evaluating what elements of the program were successful and those that were not. With demonstrated success after year one, NYPL will work with other public and private partners to expand the availability of the program and obtain additional devices for use.
As noted above, NYPL is discussing expanding this pilot to the two other library systems in New York City: the Queens and Brooklyn Library Systems as well as the State Library systems of Kansas and Maine to see how the program could be adapted throughout the country. NYPL estimates that at a national level this could reach millions of households (based on 77 million people already using library-provided computers and Internet access).

**In ONE sentence, tell us about your project to strengthen the Internet for free expression and innovation.**

The Library has historically played a role in strengthening communities by supporting literacy and providing access to knowledge; in an increasingly digital society, the Library will continue to do so through technology training, access, and resource advisory.

**Who will benefit from what you propose? What have you observed that makes you think that?**

Data shows that there are children participating in NYPL’s learning programs who live in households where their parents or caregivers cannot afford to pay an Internet bill. These students and others underserved by the current lack of low-cost ubiquitous access have the most to gain from this project, since it is well established that access and skills associated with access to the Internet are a prerequisite for success in the 21st century global economy. More broadly, society at large will benefit: by bringing high-speed Internet access into lower-income households, a greater number of diverse voices will explore, experiment with, and contribute to the world wide web, ensuring that the Internet is not restricted to the needs and perspectives of a more affluent society.

**What progress have you made so far?**

NYPL has begun talks with the Federal Communications Commission to petition that E-rate funding be expanded to include paying for the cost of Internet access beyond the physical walls of schools and libraries, as is currently the case. In addition, NYPL has begun exploratory discussions with wireless carriers, educational broadband services providers, and others to understand how best to lend safe and affordable mobile internet services from the Library at scale.

**What would be a successful outcome for your idea or project?**

One successful outcome for the Internet Lending Project would be the creation of a scalable and replicable model for libraries everywhere to expand their Internet services beyond the walls of their buildings. A second successful outcome would be demonstrating a successful program with pilot funds from the News Challenge that would encourage the investment of ongoing federal funding for a program at scale.

**Who is on your team, and what are their relevant experiences or skills?**

The NYPL team, led by President Tony Marx and Chief Library Officer Mary Lee Kennedy, consists of experts in the fields of education, information technology, and operations, as well as the hundreds of library service professionals who served patrons who logged over 3.5 million hours of public computer time last year in one of NYPL’s 92 locations in the Bronx, Manhattan, and Staten Island. Leading coordination with students participating in the Library’s Out of School Time programs will be Education Director Maggie Jacobs and Out of School Time Manager Siva Ramakrishnan. In the past year, they have designed and launched four innovative Out of School Time programs in branch libraries in high need neighborhoods of New York City. Richard Stalzer is NYPL’s Director, Technology Infrastructure and Service Delivery, who has built, maintained, and upgraded high-speed broadband access in all 92 library sites. Members of NYPL’s in-house Strategy team will test and select devices, track their usage, and help to modify the program as needed to ensure its success. In developing this project, NYPL is advised by a group led by Andrew Rasiej, the Chairman of the 38,000
member NY Tech Meetup, and Founder of Personal Democracy Forum, and Tim Wu, Columbia University Law professor, and author of the Master Switch, along with Joshua Briebart, recently of the Open Technology Initiative. NYPL is also coordinating this effort with the New York City Mayor’s Office.

**Location**
New York, NY, United States

**Entry submitted by:** Tony Marx  
**March 18, 2014, 15:33PM**

(Marx, 2014)
Appendix B – Goals

We have developed a logic model to identify how we can measure impact against the programs 4 goals.

<table>
<thead>
<tr>
<th>Indicators / Measures</th>
<th>Goal 1</th>
<th>Goal 2</th>
<th>Goal 3</th>
<th>Goal 4</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>By data tracking/capture:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># of devices lent, average length of loan</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>Tally</td>
</tr>
<tr>
<td>% enrollment of eligible households</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>Tally</td>
</tr>
<tr>
<td>% return enrollment of eligible households</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>Tally</td>
</tr>
<tr>
<td>Hours of use, bandwidth used, nature of use (URLs visited)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>ISP</td>
</tr>
<tr>
<td>Library online resource use - measured by URLs visited</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>ISP</td>
</tr>
<tr>
<td>Educational online resource use - measured by URL categories visited</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>ISP</td>
</tr>
<tr>
<td>Cost per use (per $/household, $/mo)</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>Tally</td>
</tr>
<tr>
<td>Return rate (devices returned without damage/total devices lent out)</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>Tally</td>
</tr>
<tr>
<td>By survey:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># of household users (by age, income, employment status)</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>Survey</td>
</tr>
<tr>
<td>% of households intending to continue “library lent” internet access</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>Survey</td>
</tr>
<tr>
<td># of households intending to purchase a computer post lend</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>Survey</td>
</tr>
<tr>
<td># of households intending to internet service post lend</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>Survey</td>
</tr>
<tr>
<td>Level of satisfaction with and attitudes related to the service</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>Survey</td>
</tr>
<tr>
<td>Attitudes of perception of skills of participants understanding of the Internet and computer skills (Confidence, Skills Learned, new usage - comparators)</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>Survey</td>
</tr>
<tr>
<td>Programs users are aware of that they did not know about before</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>Survey</td>
</tr>
<tr>
<td>Programs users have used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Survey</td>
</tr>
<tr>
<td>By other tracked data: (Anecdotal)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitments received by corporate partners</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>Tally</td>
</tr>
<tr>
<td>Commitments received by FCC for ongoing funding</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>Tally</td>
</tr>
<tr>
<td>Commitments received by other potential funders</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>Tally</td>
</tr>
<tr>
<td>Partner libraries sign on to pilot by end of year</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>Tally</td>
</tr>
<tr>
<td>Interest expressed by other cities/major library systems</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>Tally</td>
</tr>
</tbody>
</table>
## Appendix C – WiFi hotspot devices

<table>
<thead>
<tr>
<th>Wi Fi Hotspot Specification Category</th>
<th>Wi Fi Hotspot Specification Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device:</td>
<td>Netgear Zing Mobile Hotspot (Sprint)</td>
</tr>
<tr>
<td>802.11x/Band(s):</td>
<td>802.11 b/g/n</td>
</tr>
<tr>
<td>Bands:</td>
<td>1900 2100 2600 800 850 900</td>
</tr>
<tr>
<td>Battery Life:</td>
<td>7hrs 55mins</td>
</tr>
<tr>
<td>Cellular Technology:</td>
<td>CDMA 1X EDGE EV-DO Rev A HSPA+ 21 LTE UMTS</td>
</tr>
<tr>
<td>Mac Compatible:</td>
<td>Yes</td>
</tr>
<tr>
<td>microSD Slot :</td>
<td>No</td>
</tr>
<tr>
<td>Size:</td>
<td>10.9 x 6.8 x 15.2 cm (HWD)</td>
</tr>
<tr>
<td>Weight:</td>
<td>112 grams</td>
</tr>
<tr>
<td>Number of Devices Supported:</td>
<td>10</td>
</tr>
<tr>
<td>Service Provider:</td>
<td>Sprint</td>
</tr>
<tr>
<td>Cost (USD):</td>
<td>$34.99 for 3GB</td>
</tr>
<tr>
<td></td>
<td>$49.99 for 6GB</td>
</tr>
<tr>
<td></td>
<td>$79.99 for 12GB</td>
</tr>
<tr>
<td>Cons</td>
<td>Relatively short Wi-Fi range.</td>
</tr>
<tr>
<td>Bottom Line</td>
<td>The Netgear Zing is a great-looking, very easy to manage wireless hotspot for Sprint's LTE network.</td>
</tr>
</tbody>
</table>
Appendix D – Program details and circulation policies

New York Public Library:

<table>
<thead>
<tr>
<th>Category</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service title</td>
<td>Library HotSpot</td>
</tr>
<tr>
<td>Device</td>
<td>Not listed</td>
</tr>
<tr>
<td>Provider</td>
<td>Not listed</td>
</tr>
<tr>
<td>Loan period</td>
<td>6 months.</td>
</tr>
<tr>
<td>Renewals</td>
<td>1 renewal for another 6 months - the device can be renewed online or at any NYPL location.</td>
</tr>
<tr>
<td>Loaned to</td>
<td>Families with at least one:</td>
</tr>
<tr>
<td></td>
<td>- student enrolled in NYPL’s Out-of-School-Time programs</td>
</tr>
<tr>
<td></td>
<td>- student enrolled in Adult Literacy classes</td>
</tr>
<tr>
<td></td>
<td>- who do not have Internet access at home.</td>
</tr>
<tr>
<td></td>
<td>- have a valid adult library card</td>
</tr>
<tr>
<td></td>
<td>- with no outstanding fines</td>
</tr>
<tr>
<td>Conditions of loan</td>
<td>The program is open to families with:</td>
</tr>
<tr>
<td></td>
<td>● at least one student actively enrolled in an NYPL Out-of-School-Time program or Adult Literacy class</td>
</tr>
<tr>
<td></td>
<td>● no household Internet access at the time of sign-up</td>
</tr>
<tr>
<td></td>
<td>● a valid adult library card with no outstanding fines</td>
</tr>
<tr>
<td>Limitations / requirements</td>
<td>N/A</td>
</tr>
<tr>
<td>Penalties</td>
<td>If the device is lost or not returned, a fine of $100 will be assessed and library card privileges will be blocked until the device is returned or the fine is paid.</td>
</tr>
<tr>
<td>Replacement fee</td>
<td>$100.00 USD</td>
</tr>
<tr>
<td>Comments</td>
<td>The NYPL Library encourages patrons to attend a Patron Lending Event to find out more about the program. This event explains the program and policies and allows eligible patrons to check out the HotSpots (NYPL, 2014d).</td>
</tr>
</tbody>
</table>
### Brooklyn Public Library:

<table>
<thead>
<tr>
<th>Category</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service title</td>
<td>Library HotSpot Loan Program</td>
</tr>
<tr>
<td>Device</td>
<td>Sprint Mi-Fi Device (including SIM card, battery, or battery case)</td>
</tr>
<tr>
<td>Charger</td>
<td></td>
</tr>
<tr>
<td>Provider</td>
<td>Sprint</td>
</tr>
<tr>
<td>Loan period</td>
<td>1 year</td>
</tr>
<tr>
<td>Renewals</td>
<td>No renewals</td>
</tr>
</tbody>
</table>
| Loaned to      | - Adult aged 17 and older  
- Have a valid BPL Library Card  
- Have a current government issued photo ID - e.g. a valid New York State ID (Driver's License, Permit, or Identification Card), Passport, or Armed Services card  
- Enrolled in an adult education or inclusion programs, including ESOL, Adult Basic Education, or Citizenship Preparation classes |
| Conditions of loan | - Have less than $15 in overdue fines and be cleared of any BPL collection agency fees  
- Have a recent piece of mail postmarked within 90 days  
- Have no internet access at home  
- Agree to participate in surveys and other outcome based evaluations  
- Agree to Sprint's acceptable use policy, which prohibits pirating, illegal downloads, viewing child pornography, etc. |
| Limitations / requirements | - 1 per household  
- Equipment must be returned to the location from which it was borrowed and returned to a staff member (no book drop returns) |
| Penalties      | - Late charges: $1.00 per day  
- If the Library HotSpot is 14 days overdue, the account will be blocked and a replacement fee of $210 will be charged to the borrower's library account.*  
*After 60 days in which the item is billed or not returned, your account will go into Collections. Additional fees may apply. |
| Replacement fee | - Library HotSpot device (including any missing parts, such as SIM card, battery, or battery case) $200. Charger: $10                                                                                   |
| Comments       | To participate in this program, patrons must register for and attend an orientation session (Brooklyn Public Library, 2014, para. 2)                                                                     |
# Queens Library:

<table>
<thead>
<tr>
<th>Category</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td><a href="http://www.queenslibrary.org/services/computers-wifi/mobile-hotspot">http://www.queenslibrary.org/services/computers-wifi/mobile-hotspot</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service title</td>
<td>Mobile Hotspot</td>
</tr>
<tr>
<td>Device</td>
<td>-</td>
</tr>
<tr>
<td>Provider</td>
<td>-</td>
</tr>
<tr>
<td>Loan period</td>
<td>1 month</td>
</tr>
<tr>
<td>Renewals</td>
<td>Can be renewed 3 times</td>
</tr>
<tr>
<td>Loaned to</td>
<td>Queens Library card holders</td>
</tr>
<tr>
<td>Conditions of loan</td>
<td>First time borrowers:</td>
</tr>
<tr>
<td></td>
<td>- photo ID to be provided</td>
</tr>
<tr>
<td></td>
<td>- borrower's agreement to be filled out</td>
</tr>
<tr>
<td>Limitations / requirements</td>
<td>Students in the Adult Learner Program will have access to mobile</td>
</tr>
<tr>
<td></td>
<td>hotspots in 2015.</td>
</tr>
<tr>
<td>Penalties</td>
<td>-</td>
</tr>
<tr>
<td>Replacement fee</td>
<td>-</td>
</tr>
<tr>
<td>Comments</td>
<td>-</td>
</tr>
<tr>
<td>Source</td>
<td><a href="http://www.queenslibrary.org/services/computers-wifi/mobile-hotspot">http://www.queenslibrary.org/services/computers-wifi/mobile-hotspot</a></td>
</tr>
</tbody>
</table>
## Appendix E

### Telstra Mobile Broadband Device

<table>
<thead>
<tr>
<th>Mobile Broadband Device</th>
<th>Number of WiFi devices able to simultaneously connect to, such as laptops, smartphones, tablets, printers</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telstra Wi-Fi 4G Advanced II</td>
<td>10</td>
<td>$6 per month on a Device Payment Contract (DPC) over 24 months on a Telstra Mobile Broadband Explorer Plan. (Minimum cost on a 1GB plan over 24 months is $744. A $9.95 delivery fee may also apply.)</td>
</tr>
<tr>
<td>Telstra Wi-Fi 4G Advanced Pro X</td>
<td>10</td>
<td>$7 per month on a Device Payment Contract (DPC) over 24 months on a Telstra Mobile Broadband Explorer Plan. (Minimum cost on a 1GB plan over 24 months is $768. A $9.95 delivery fee may also apply.)</td>
</tr>
</tbody>
</table>
## Telstra costings

Telstra Mobile Broadband Explorer Plan:

<table>
<thead>
<tr>
<th></th>
<th>S</th>
<th>M</th>
<th>L</th>
<th>XL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data included</strong></td>
<td>1GB (cost per MB 2.44c)</td>
<td>4GB (cost per MB 0.85c)</td>
<td>8GB (cost per MB 0.67c)</td>
<td>15GB (cost per MB 0.68c)</td>
</tr>
<tr>
<td><strong>Plan length</strong></td>
<td>24 months</td>
<td>24 months</td>
<td>24 months</td>
<td>24 months</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>$25 per month ($600 over 24 months plus device cost. Excess data usage costs 3c per 1MB)</td>
<td>$35 per month ($840 over 24 months plus device cost. Excess data usage costs 3c per 1MB)</td>
<td>$55 per month ($1320 over 24 months plus device cost. Excess data usage costs 3c per 1MB)</td>
<td>$105 per month ($2520 over 24 months plus device cost. Excess data usage costs 3c per 1MB)</td>
</tr>
</tbody>
</table>

(Telstra.com, n.d.)
## Appendix F

**Optus Mobile Broadband Device:**

<table>
<thead>
<tr>
<th>Mobile Broadband Device</th>
<th>Number of WiFi devices able to simultaneously connect to, such as laptops, smartphones, tablets, printers</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huawei E5377 WIFI Modem</td>
<td>10</td>
<td>Dimensions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● 98mm x 57.1mm x 14.4mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weight</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● 82g (including battery)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Colour</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Matte White</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Expandable Memory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Support MicroSD up to 32GB (sold separately)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3G Network</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● 900/2100 MHz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4G Network</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● FDD 700/1800/2600 MHz, TDD 2300 MHz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Battery</td>
</tr>
<tr>
<td>Mobile Broadband Device</td>
<td>Number of WiFi devices able to simultaneously connect to, such as laptops, smartphones, tablets, printers</td>
<td>Specifications</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● 1500 mAh (removable)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Up to 300 hrs 3G standby time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Up to 6 hrs web browsing time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>System requirements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Windows XP S3, Windows Vista SP1/SP2, Windows 7, Windows 8 (does not support Windows RT)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Mac OS X 10.6, 10.7, 10.8 and 10.9 with latest upgrades</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Standard USB interface</td>
</tr>
<tr>
<td>Huawei E5786 WiFi Modem</td>
<td>10</td>
<td>Screen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● 1.45” TFT-LCD screen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dimensions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● 106.0 mm × 66.0 mm × 15.9 mm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weight</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● approx. 145 g (including the battery)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SIM Type</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Micro SIM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>External Interface</td>
</tr>
<tr>
<td>Mobile Broadband Device</td>
<td>Number of WiFi devices able to simultaneously connect to, such as laptops, smartphones, tablets, printers</td>
<td>Specifications</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>----------------</td>
</tr>
</tbody>
</table>
|                         |                                                                                                 | ● Support USB 3.0  
|                         |                                                                                                 | ● Support microSD up to 32GB  
|                         |                                                                                                 | WiFi Bands  
|                         |                                                                                                 | ● 802.11a/b/g/n/ac at 2.4 GHz and 5 GHz  
|                         |                                                                                                 | WiFi Hotspot  
|                         |                                                                                                 | ● Yes  
|                         |                                                                                                 | GSM Bands (MHz)  
|                         |                                                                                                 | ● 850 / 900/ 1800 / 1900 MHz  
|                         |                                                                                                 | 3G Network  
|                         |                                                                                                 | ● 900 / 2100 MHz  
|                         |                                                                                                 | 4G Network  
|                         |                                                                                                 | ● LTE FDD: 700 / 900 / 1800 / 2100 / 2600 MHz  
|                         |                                                                                                 | ● LTE TDD: 2300 MHz  
|                         |                                                                                                 | System requirements  
|                         |                                                                                                 | ● Windows XP S3, Windows Vista SP1/SP2, Windows 7, Windows 8 (does not support Windows RT)  
|                         |                                                                                                 | ● Mac OS X 10.6, 10.7, 10.8 and 10.9 with latest upgrades  


<table>
<thead>
<tr>
<th>Mobile Broadband Device</th>
<th>Number of WiFi devices able to simultaneously connect to, such as laptops, smartphones, tablets, printers</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Battery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● 3000 mAh</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Up to 10 hours working time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Up to 500 hours stand-by time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>What’s in the Box</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● E5786 4G WiFi modem × 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Rechargeable Battery (irremovable, 3000 mAh) × 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● USB 3.0 Cable (1 m) × 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Charger × 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Safety Information × 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Quick Start Guide × 1</td>
</tr>
</tbody>
</table>

**Optus Costings**

N.B. these plans are also offered as a 12 months plan and month to month plans at an increased price.

<table>
<thead>
<tr>
<th>Huawei E5377 WIFI Modem</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data included</td>
<td>250MB</td>
<td>2.5GB</td>
<td>4GB</td>
<td>8GB</td>
<td>10 GB</td>
</tr>
<tr>
<td>Huawei E5377 WIFI Modem</td>
<td>1.</td>
<td>2.</td>
<td>3.</td>
<td>4.</td>
<td>5.</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>1MB included data</td>
<td>$0.0195</td>
<td>1MB included data</td>
<td>$0.0078</td>
<td>1MB included data</td>
<td>$0.0073</td>
</tr>
<tr>
<td>Plan length</td>
<td>24 months</td>
<td>24 months</td>
<td>24 months</td>
<td>24 months</td>
<td>24 months</td>
</tr>
<tr>
<td>Cost</td>
<td>$10 per month</td>
<td>$25 per month</td>
<td>$35 per month</td>
<td>$50 per month</td>
<td>$65 per month</td>
</tr>
<tr>
<td></td>
<td>($5 My Mobile Broadband Plan + $5 device repayment)</td>
<td>($20 My Mobile Broadband Plan + $5 device repayment)</td>
<td>($30 My Mobile Broadband Plan + $5 device repayment)</td>
<td>($45 My Mobile Broadband Plan + $5 device repayment)</td>
<td>($60 My Mobile Broadband Plan + $5 device repayment)</td>
</tr>
<tr>
<td></td>
<td>$240 over 24 months</td>
<td>$600 over 24 months</td>
<td>$840 over 24 months</td>
<td>$1200 over 24 months</td>
<td>$1560 over 24 months</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Huawei E5786 WiFi Modem</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data included</td>
<td>250MB</td>
<td>2.5GB</td>
<td>4GB</td>
<td>8GB</td>
<td>10 GB</td>
</tr>
<tr>
<td></td>
<td>1MB included data</td>
<td>1MB included data</td>
<td>1MB included data</td>
<td>1MB included data</td>
<td>1MB included data</td>
</tr>
<tr>
<td></td>
<td>$0.0195</td>
<td>$0.0078</td>
<td>$0.0073</td>
<td>$0.0055</td>
<td>$0.0059</td>
</tr>
<tr>
<td>Huawei E5786 WiFi Modem</td>
<td>1.</td>
<td>2.</td>
<td>3.</td>
<td>4.</td>
<td>5.</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td><strong>Plan length</strong></td>
<td>24 months</td>
<td>24 months</td>
<td>24 months</td>
<td>24 months</td>
<td>24 months</td>
</tr>
<tr>
<td><strong>Cost</strong></td>
<td>$13 per month ($5 My Mobile Broadband Plan + $8 device repayment)</td>
<td>$28 per month ($20 My Mobile Broadband Plan + $8 device repayment)</td>
<td>$38 per month ($30 My Mobile Broadband Plan + $8 device repayment)</td>
<td>$53 per month ($45 My Mobile Broadband Plan + $8 device repayment)</td>
<td>$68 per month ($60 My Mobile Broadband Plan + $8 device repayment)</td>
</tr>
<tr>
<td></td>
<td>$312 over 24 months</td>
<td>$672 over 24 months</td>
<td>$912 over 24 months</td>
<td>$1272 over 24 months</td>
<td>$1632 over 24 months</td>
</tr>
</tbody>
</table>

(Singtel Optus Pty Ltd, 2015a; Singtel Optus Pty Ltd, 2015b)
Appendix G

MediaSurfer™ Library Single Kiosk

MediaSurfer™ Single Kiosk
The MediaSurfer™ is a self-checkout kiosk system for internet tablets in libraries. The system allows a library to automatically lend iPads® to library patrons, letting them use the latest mobile technology and embrace digital learning. The system also provides the necessary functions to maintain the tablets, including charging, without utilizing the library staff.

**MediaSurfer™ Features:**
- Touch screen controlled
- Recharges the iPad, removes previous user apps
- Attached iPad cradle with optional micro and standard USB ports. If not ordered, the cradle contains no USB ports.
- Library card scanner
- Magnetic Library card swipe
- E-mailed receipts
- Only charged iPads dispensed
- Blue light dispenser indicator
- iPad ® configuration

**iPad 4 Features:**
- The App Store allows users to download their own apps
- Multi-touch display
- (iPad 4) 42.5-watt-hour rechargeable lithium-polymer battery. 10 hour battery life.
- Safari is the iPad's web browser
- Virtual onscreen keyboard
- (iPad 4) 2048-by-1536 resolution at 264 pixels per inch (ppi)
- (iPad 4) Dual-core A6X with quad-core graphics
- Wi-Fi + 3G (optional), Bluetooth 2.1 + EDR technology are available options
- 16 GB flash memory
- Support for display of multiple languages and characters simultaneously
- (iPad4) Back camera: 1.2 MP photos, Video recording, HD (1080p) up to 30 frames per second with audio; still camera with 3x digital zoom; Front camera: Video recording, VGA up to 30 frames per second with audio; VGA-quality still camera. Photo and video geo-tagging over Wi-Fi are available. “Tap to Control” exposure.
- Built in speaker
- (iPad4) Included Apps are Safari, Mail, Messages, iPhoto, FaceTime, Maps, Newsstand, App Store, Calendar, Reminders, Contacts, iTunes, Music, Videos, Game Center, Clock, Photo Booth, Notes, and Camera
- 3.5-mm stereo headphone mini-jack
- Built in microphone and speaker
- (iPad 4) Internet access, Wi-Fi technology, cellular connectivity (option), iOS®

Tech Logic Corporation • 1818 Buerkle Road • White Bear Lake, MN 55110
* Tel: 800.494.0330 • Fax: 651.747.0493 • www.tech-logic.com • www.mymediasurfer.com
Technical Specifications

Mechanical Data
- Kiosk Weight: 325 lb. (147 kg)
- Kiosk Dimensions: 52.75” x 32.75” x 24.7” (134 cm x 83 cm x 62.7 cm)
- Connections for Kiosk: 120 VAC cord and Ethernet cable
- iPad 2 Weight: (Wi-Fi) 1.33 pounds (601 grams), (Wi-Fi+3G) 1.35 lbs. (613 g)
- iPad 2 Dimensions: 9.50” x 7.31” X 0.34” (241.2 mm x 185.7 mm x 8.8 mm)
- iPad 2 Charging: USB, micro USB (optional)
- Cradle Dimensions: Length 11.78”, Width 7.59”, Height 1.0’ (299 mm x 193 mm x 25.4 mm)

Electrical Data
- Kiosk Power Supply: 120 Volts AC, 15 A, 60 Hz
- Kiosk Power Consumption: 1300 W
- Kiosk Circuit Breaker AC Mains: 15 A
- Kiosk Fuse on DC Charge Circuit: 40 A

Communication
- Ethernet (Kiosk)
- Wi-Fi (for internal Kiosk use only)
- Wi-Fi/ (iPad 4) Wi-Fi + 3G (optional)
- (iPad 4) Bluetooth 2.1 + EDR Technology
- Uses Sip2 Protocol for ILS

Battery (iPad 4)
- iPad 4 Rechargeable Li-Po Battery, 42.5 W-hours
- Run Time: 10 hours

Supplied Components
- MediaSurfer Kiosk™
- (16) iPad Cradles
- Wall Charger (optional)

Supported iPads
- iPad 2, iPad 3, iPad 4

Trademark List (Apple Inc., registered U.S. and other)
- iPad 2, Safari, Mail, Messages, Photos, FaceTime, Maps, Newsstand, Messages, Reminders, Calendar, App Store, iTunes, Videos, Music, Game Center, Photo Booth, Camera, Contacts, and Notes

Tech Logic Corporation • 1818 Buerkle Road • White Bear Lake, MN 55110
• Tel: 800.494.9330 • Fax: 651.747.0493 • www.tech-logic.com • www.mymediasurfer.com
Overview

1. What We Do Libraries
2. Generation Thinking
3. The Next Chapter
4. What is MediaSurfer
5. MediaSurfer Benefits
6. MediaSurfer Demonstration
7. MediaSurfer Connections

MediaSurfer, January 2012
+ Founded in 1997
  – Focus is exclusively to serve Libraries
+ 67,500 square foot manufacturing facility based in White Bear Lake, MN
+ Invented and developed the concept of Automated Material Handling systems (AMH) for libraries
+ Invented “Self Pay” at Checkout
+ Invented MediaSurfer
+ Profitable and Successful
+ Family-owned company

What We Do For Libraries

+ Self Check-Out
+ Check-In
+ RFID Security
+ Tagging Solutions
+ Inventory
+ Automated Sorting Technology
+ MediaSurfer – iPad lending kiosk
Next Generation Thinking

+ Today’s library patrons are defined as “mobile-centric information consumers” with an unprecedented appetite for information.

+ 44% of academic libraries and 34% of public libraries currently offer patrons some type of mobile services (the most popular are mobile-optimized web sites and catalogs, and SMS reference and notifications).

+ In order to remain relevant to patrons and prevent the erosion of membership, two out of five libraries of all types plan to “go mobile” in the near future.

The Next Chapter

MediaSurfer bridges the gap between traditional libraries and today’s digital information hungry patrons, putting the power of hand-held technology within easy, affordable reach for both.
What is MediaSurfer?

+ MediaSurfer is a stand-alone kiosk that lets patrons borrow hand-held tablets, automatically, simply by completing a few steps on an intuitive touch-screen and swiping their library card.

+ MediaSurfer securely dispenses the tablets, recharges them when returned, and manages the content for you.

MediaSurfer Benefits

+ Kiosk keeps iPads secure
+ Manages content on iPads – to fit needs of patrons and library – save $$ on an internal resource
+ Swipes iPads clean once returned – back to original state
+ Connected to your ILS – you know who checked them out
+ Prevents theft
+ Case protects the iPad from damage
+ Conveniently organized
+ Small footprint to fit anywhere within your library
Checkout- Steps One and Two

Checkout- Scan Library Card and Removal of iPad
Checkout - User Agreement and Acknowledgment

USER AGREEMENT

I HAVE READ AND AGREE TO THE TERMS OF THE USER AGREEMENT.

I'D LIKE A RECEIPT EMAILED TO ME.

I DON'T NEED A RECEIPT.

THANKS.

Checkout - ILS Connection and Dispensing Directions

YOU'RE GOOD TO GO!

1. LOOK FOR THE LANYARD BELOW YOUR TRAY BEFORE YOU PULL OUT YOUR CARDS.
2. PULL OUT YOUR CARDS UP TO THE TOP OF THE TRAY.
3..'.$$.

THINKING...
Checkout - Relock Warning and Thank You

Check In - Prompt Screens
MediaSurfer Data Checkout

+ Check In - Instructions

WELCOME BACK!
RETURN TABLET:
• IN ANY SLOT
• SCREEN FACING LEFT
• FOLLOW ARROWS ON CASE

MediaSurfer, January 2012
Welcome to the next chapter.