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## **eBooks for public libraries – Sähkökirjoja yleisiin kirjastoihin 2013**

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## Johdon yhteenveto

Sähkökirjoja kirjastoihin 2013 on jatkoa vuonna 2012 aloitetulle hankkeelle. Hankkeessa tavoitteena oli synnyttää malli, joka mahdollistaa liiketoiminnan harjoittamisen kustantajille, korvausten maksamisen kirjailijoille ja jonka avulla yleiset kirjastot voivat tarjota laadukasta kotimaista kirjallisuutta sähkökirjoina kirjastojen käyttäjille. Hankkeen lähtökohtana oli kirjastojen, kustantajien, käytettävyyss- ja verkkopalveluasiantuntijoiden yhteistyöllä luoda palvelu, joka houkuttelee käyttäjiä lukemaan kotimaista kirjallisuutta.

Vuonna 2012 projektissa arvioitiin erilaisia lisensointimalleja sekä teknologioita sähkökirjojen ja niihin liittyvien palveluiden saamiseksi yleisiin kirjastoihin. Hankkeessa kehitettiin uusi lainauspalvelu, Ebib, joka oli pääkaupunkiseudun (Helsinki, Espoo, Vantaa, Kauniainen) kirjastojen asiakkaiden käytössä 15.10.2012 alkaen. Ebib-palvelussa kirjastojen käyttäjille tarjottiin kaksi vaihtoehtoista tapaa lukea sähkökirjoja: uusi ”lue selaimessa” ja olemassa oleva ”lataa koneellesi” -lukemistapa, jossa sähkökirjatiedosto tallennettiin omalle tietokoneelle.

Hyvin alkanutta yhteistyötä jatkettiin vuonna 2013. Kustantajia projektissa edustivat Otava, Tammi, WSOY, Suomen Kustannusyhdistys ja Viestinnän keskusliitto, kirjastoja Helsingin kaupunginkirjasto ja Kansalliskirjasto, palveluntarjoajia Ellibs ja Kirjavälitys sekä tutkimusorganisaatioita Aalto ARTS, VTT ja Metropolia. Koekäyttökokoelmassa oli mukana myös vuonna 2012 projektissa mukana olleen Editan kirjoja. Vuonna 2013 projektin kirjavalikoimaa haluttiin laajentaa ja saada sitä kautta uusia käyttäjiä palvelulle. Kokoelmassa tulee olla riittävästi kirjoja, jotta se herättää kirjastoasiakkaiden kiinnostuksen ja jotta sieltä löytyy luettavaa jatkossakin. Kokoelmaan saatiinkin useita kymmeniä uusia nimekkeitä ja nimikemäärässä päästiin yli 100 nimikkeeseen.

Projektin alusta alkaen pidettiin tärkeänä, että sähkökirjapalvelun tulee olla helppo käyttää ja siksi käyttöliittymän kehittäminen oli tärkeä osa projektia. Uuden palvelun käyttöönotto voi viivästyä merkittävästi jos käyttäjien ensimmäinen kokemus palvelun käytöstä on niin huono, että heiltä menee vuosia ennen kuin he palaavat uudelleen käyttämään samaa palvelua. Tämä haluttiin Ebib-palvelussa välttää. Vuonna 2013 projektissa testattiin kokoelman laajentamisen ja käyttöliittymän kehittämisen lisäksi uusia lisensointimalleja, metadata- ja hankintaprosesseja sekä sosiaalista lukemista. Metadataprosesseista ja sosiaalisesta lukemisesta on julkaistu erilliset raportit <sup>1</sup>.

Sähkökirjojen käytöstä kerättiin koekäytön aikana monipuolisia käyttötilastoja. Sähkökirjojen käytöstä saatiin tilastoja nimikkeittäin, aihealueittain, ja käyttäjäryhmittäin. Pilotissa kerättiin tietoa myös siitä, millä laitteilla asiakkaat sähkökirjoja lukivat sekä vertailtiin sähkökirjojen ja vastaavien painettujen nimikkeiden käyttöä. Asiakaspalautetta kerättiin kyselyn, sosiaalisen median ja palveluosoitteen kautta. Ajantasainen asiakaspalaute mahdollisti sen, että kun

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<sup>1</sup> <http://www.nextmedia.fi/> > Publications

asiakkailta alkoi tulla samantyyppistä palautetta, projektissa pystyttiin nopeasti muuttamaan palvelua asiakkaiden toivomaan suuntaan.

Projekti järjesti myös seminaareja eri sidosryhmille, kuten kirjailijoille ja kirjailijaliitoille. Seminaarien tavoite oli keskustella projektista ja projektissa saaduista kokemuksista.

Ebib-palvelusta kehittyi vuoden 2013 aikana elinvoimainen palvelu ja palvelu otetaan tuotantokäyttöön vuonna 2014. Kirjastopilotti osoitti, että sähkökirjojen myynti kirjastoille ja käyttö kirjastoissa on mahdollista. Sähkökirjojen monimutkainen ekosysteemi (useita kauppapaikkoja, luku- ja suojausohjelmia ja lukulaitteita) edellyttää, että asiakkailta on mahdollisuus kokeilla sähkökirjojen käyttöä omilla laitteillaan. Kirjastokäyttö tarjoaa tähän erinomaisen mahdollisuuden. Pilotti kuitenkin osoitti, että sähkökirjojen yleistymisen kirjastoissakin edellyttää markkinointia ja valmiutta vastata asiakkailta tuleviin kysymyksiin.

## Executive Summary

An objective of E-books for Public Libraries 2013, the continuation of a project initialised in 2012, was to generate a model that would facilitate publishers' business practices, enable the payment of royalties to authors, and formulate a framework that would enable public libraries to provide high quality domestic literature as e-books to the libraries' users. A starting point of the project was the establishment of a co-operative mechanism among libraries, publishers, as well as usability and online service experts, to create a service that would encourage users to read Finnish literature.

In 2012, the project assessed various types of licensing models, as well as the technologies required to bring e-books and their related services to public libraries. Ebib, a new loan service developed in the project, became accessible to the customers of libraries in the Helsinki Metropolitan Area (Helsinki, Espoo, Vantaa, Kauniainen) beginning 15 October 2012. The Ebib service offered two alternative e-book reading techniques: the new "read on browser", and the existing "download to your device", in which an e-book file could be downloaded to a user's own computer.

The teamwork that began successfully continued into 2013. The project's publishers were Otava, Tammi, WSOY, the Finnish Book Publishers Association, and the Federation of the Finnish Media Industry; the libraries were the Helsinki City Library and the National Library of Finland. Also participating were the service providers Ellibs and Kirjavälitys, as well as the research organisations Aalto ARTS, the Technical Research Centre of Finland (VTT), and the Helsinki Metropolia University of Applied Sciences. Certain books published by Edita, who was part of the project group in 2012, were included in the project's trial use collection also in 2013. In 2013, the decision was made to expand the book selection as a way of attracting new users to the service. There had to be enough

books in the collection to provoke the interest of library users, and ensure that they would be able to find reading also in the future. Dozens of new books were acquired for the collection and the number of titles exceeded 100.

Because the user-friendliness of the e-book service had been considered essential from the very inception of the project, the development of the user interface was an extremely important part of the project. The taking into use of a new service can be significantly delayed if users' first experience with the service is so unpleasant that it might be even years before they return to attempt to use the same service. This scenario was to be avoided in the Ebib service. In 2013, the project's activities included, besides the collection's expansion and the development of the user interface, the testing of new licensing models, metadata and procurement processes, as well as social reading. Separate reports have been published on metadata processes and social reading<sup>2</sup>.

A diverse range of statistical information related to the use of e-books was compiled during the trial periods. Statistics on e-book use were gathered by title, subject, and user group. Data was also collected regarding the types of devices used by customers to read e-books, and comparisons were made between the use of e-books and their equivalent printed versions. Customer feedback was collected through questionnaires, social media, and service addresses. Up-to-date customer feedback meant that, when customers began sending the same types of feedback, the project was capable of rapidly altering the service in the directions hoped for by customers.

There were also seminars directed to different interest groups such as authors and their associations. The purpose of the seminars was to discuss the project and experiences gathered in the project.

During 2013, the Ebib service developed as a vital service that will be taken into use in 2014. The library pilot project demonstrated that the sale of e-books to libraries, as well as their use in libraries, is possible. The complex ecosystem of e-books – the multitude of sales locations, reader and DRM software, as well as reading devices – require that customers be able to test the functionality of e-books on their own devices. Although libraries offer an excellent opportunity for this, the pilot project showed that the dissemination of e-books in libraries requires marketing and the preparedness to rapidly respond to customers' queries.

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<sup>2</sup> <http://www.nextmedia.fi/> > Publications

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## 1 Introduction

The “Finnish e-books at Libraries” project aims at the formulation of models for providing Finnish e-books to library customers. During 2012, the project created a test database, conducted e-book licensing negotiations with authors, tested two licensing models at Helsinki Metropolitan Area libraries, and gathered information on functionality and usage patterns. In 2013, the accumulated usage information has been used to further develop licensing models to find viable e-book business models and services at libraries and to improve users’ experiences with e-book services.

Libraries can play an essential part in introducing e-books to users. Finland’s extremely high library utilisation rate makes it an excellent testing laboratory for e-books. Libraries also play a key role as book buyers, purchasing 20 % of Finnish fiction for adults.

The results of this project gained in 2012 have already shown that discussions with the various partners of the e-book chain have enhanced the mutual understanding of e-books’ possibilities. The project has led to an improved familiarity with sustainable business models, as well as possibly one or two models that could be used in Finland to provide e-books to libraries. The data gathered during the project has also shed light on the future directions of eReading in libraries and more efficient resource allocations.

## 2 Book collection

From its very inception, the pilot project focused on new titles in Finnish literature that were thought to be of interest to readers. The aim was to provide a sufficiently comprehensive selection of fiction, non-fiction, as well as literature for children and young adults. Publishing houses drafted proposals for appropriate items suitable for the experiment. One of the prerequisites was that the books also had to be available in e-book versions. Helsinki City Library acquired all the available titles (see Appendix 1).

Authors were contacted prior to the pilot project and were informed of the upcoming experiment and its lending conditions. Writers contacted were interested in hearing about users’ reactions to the e-books, as well as the progress of the project at the library.

During the first trial phase from 15 October 2012 to 6 April, 2013, two publishers, Edita Ltd and Otava, participated in the project. The first phase was originally scheduled to take place between 15 October and 31 December 2012; at that time the collection contained 36 titles with a varying number of concurrent licenses. The successful start of the project led to its uninterrupted continuation past the end of the year. In early 2013, five Edita books for which the project no longer had rights were removed from the collection. In 2012, the collection consisted of

11 Edita books by 17 writers. Books published by Otava consisted of 25 titles by 15 writers. In total, there were 490 simultaneous use rights.

During the second trial phase from 5 June to 31 December 2013, Bonnier (WSOY and Tammi) joined the project and 79 new titles were acquired for the collection, which continued to retain the titles already acquired from Otava and Edita. During the summer and autumn, additional books from Bonnier were acquired for the collection, and by 30 September 2013, the Ebib collection contained 103 titles with a total of 938 simultaneous use rights.

Estimating the number of licenses was fairly challenging because experiences concerning e-book lending volumes were still lacking. License quantities were thus estimated on the basis of printed books' loan statistics. The utilisation rate of new printed books within the first year in the Library was approximately 95 %, but the utilisation rate of e-books was approximately 45 % during the first trial phase, and 40 % during the second phase. For 30 books all licenses were in use and there were holds for 8 of them when statistics were compiled on 30 September 2013. Other 70 titles had available licenses at the end of September, 2013. Even though utilisation rate in relation to available copies was lower in e-books than in printed books, e-book usage per license was higher in e-books than in printed books (see chapter 4.5.2.2).

Based on the trial, it can be concluded that the demand for e-books differs from printed literature. Assessing the demand and the number of licenses cost-effectively is fairly difficult because so far there is little information on e-book usage. It is important to collect usage information on e-books in order to be able to anticipate the potential usage more precisely.

### 3 Licensing models

Three different licensing models were tested in the pilot. The first model, known as a printed book model, is an annual license with one simultaneous user. The total quantity of loans during the year is unlimited. This model suits books with low demand and so-called "long tail books" published long time ago. One or a few licenses for these kinds of books are sufficient at their present level of demand.

Eighty-two titles were acquired with the above-mentioned license model. All of Otava's and Edita's books, as well as Bonnier's lower demand titles, used this model. The number of licenses for the Edita and Otava books ranged from 1-35; the number of licenses for Bonnier's books varied from 1-10.

The second license model was an annual license that allows for 20 simultaneous users. In this model, the price per license is more affordable for major customers compared to the purchasing of 20 licenses for a single simultaneous user. The total number of loans during the year is unlimited. This license model suits new books that are in high demand. Ten titles from Tammi and WSOY had 20 user licenses.

A partial year license, allowing for 20 simultaneous users and purchasable for six months at a time, was also tested with this license model. This license model can be used for popular books whose initially high demand is followed by a rapid decrease. The total number of loans is unrestricted during the period. One book in the collection utilised this model.

The third license model is a lending pool where, for example, 100 loans a year can be acquired for a single title, but the number of simultaneous users is unlimited. The model is designed for the books in their mid-life cycles. The idea is that after the high demand has passed, the book can be read without reservation queues and with unlimited simultaneous usage. This concept also applies to books with a sudden peak in demand at any given time but whose demand is otherwise low. These books include textbooks and course books, as well as certain tour guides. This model best suits course book literature at the school libraries of universities of applied sciences and universities, where the number of loans may be more accurately assessed based on the number of pupils.

This model was tested for printed books in their mid-life cycles. Additionally, 100 loans were related to the remaining 7 months; the license pool was 60 loans. Eleven titles were purchased for the pool license, but the e-books had a higher demand than had been anticipated, and the pool became depleted much faster than expected. The first license purchased for a title in the pool model expired in less than a month, even though the license had been expected to last until the end of the year. Six books' pool licenses expired within two months and the remaining four title licenses expired within three months. The selected license models by title can be seen in Appendix 1.

Based on this pilot project, it can be concluded that two license models, the single simultaneous user license and the 20 simultaneous user license, suit a library's e-books. Besides being readily understood by libraries, publishers, and authors, these models more easily facilitate the determination of license quantities than, for example, the pool model which, as stated above, is better suited to textbooks and school libraries.

## **4 Ebib-service**

### **4.1 Technical implementation**

#### **4.1.1 Technical environment**

The pilot environment was built on top of Drupal CMS. A lot of modification in help texts was needed, and by selecting a CMS as the system base guaranteed that the editing of the textual content could be done quite easily also by non-technical people. Changes to the user interface were achieved by extending Drupal's own logic with PHP and JavaScript and CSS –based front-end frameworks. These techniques are more thoroughly described in later chapters.

### 4.1.2 Content Deliveries

There were two different book delivery mechanisms implemented for the lending models (models described in detail in later chapters). The delivery mechanisms contained the following solutions:

- Adobe Content Server 4

Adobe Content Server 4 software is a server solution, that digitally protects PDF and EPUB e-books. The solution requires purchasing a server installation from one of the Adobe partners (such as Bluefire Productions). With this approach, the content is being protected with Adobe DRM, and the deliveries from the server are meant for Adobe Digital Editions software and supported mobile devices, including the E Ink, smartphones, and tablet devices.

- Browser Reader (HTML5, CSS3, JavaScript)

This mechanism utilised a custom implementation and a separate file server. The EPUB content was extracted and saved into a separate location, from where an HTML5-based reader solution was reading the content directly to a browser. The approach utilised streaming-like reading – this means that the book chapters were delivered one by one into the browser cache while reading, and the previous chapters were being replaced with the new content. The cache was protected from copying by random scrambling, and also some other customised protections were done inside the browser (such as copy and print protection). For the customised online reader, the source engine utilised a technique from a project called Monocle (<https://github.com/joseph/Monocle>). However, the source was modified heavily during the preparations of the pilot, to be able to better conform to the identified requirements.

### 4.1.3 Search

The search engine initially used PHP-MySQL search queries, but the implementation was replaced with Lucene (<http://lucene.apache.org/>), a separate Java-based solution.

Lucene was augmented with Lingsoft's (<http://www.lingsoft.fi/?lang=en>) search enhancing technique, a so-called search expander, using a service from the Lingsoft Language Management Central platform. This solution guaranteed that users' search queries also matched inflected forms of Finnish (matches for example "käteen – käsi"), thus covering the utilised metadata fields with the highest possible degree of accuracy.

The implementation adhered to a SOA-like architecture; the search solution was placed on a separate Tomcat server, from where it displayed a set of JSON interfaces for Ebib searches. Separating the interface from, for example, the content delivery and search solutions guaranteed a scalable and extensible system.

#### 4.1.4 Web Interface development

For the initial testing phase, web interfaces were developed with Drupal plugins using PHP, HTML5, CSS3, and jQuery. The reservation system was built with Messto, an SMS delivery system. The system techniques remained unaltered during most of the testing period.

For the later responsiveness and user interface upgrade, front-end development was extended with the following tools

- Bootstrap (<http://getbootstrap.com/>)
- iDangero.us Swiper (<http://www.idangero.us/sliders/swiper/>)

Bootstrap is a front-end framework for faster and easier web development, based on JavaScript. It enables layout templates for different use cases and brings the responsiveness to a layout. For the pilot library, the templates were customised in order to achieve the desired functionality for collection browsing (mainly book grid). By applying this framework, the service interface gained much better support for different layouts for tablet and also mobile layouts.

The collection browsing was implemented with iDangero.us Swiper, which added mobile touch slider and brought a framework for handling transitions between views with a lot of items. This approach was very handy since the main view contains a lot of items, and the browsing has to be implemented with a technique that supports mobile, tablet and traditional browser environments.

## 4.2 Two lending models (streaming, Adobe DRM)

An e-book platform poses certain limitations in library environments. Because all materials are loaned, the service must be capable of removing books from the end users' devices. The service must also keep track of loan periods, and protection against copying and/or printing may be necessary. These requirements play key roles when selecting the technical implementation; the control of content in end users' devices is usually implemented with Digital Rights Management (DRM) – based techniques. Adobe DRM's widespread use as an open system for e-book deliveries made it a natural choice for loan controls, also in the pilot system.

There are, however, a substantial number of users that appear to be considerably concerned with the DRM systems' usability issues. Creating the Adobe ID necessary for authorising the device to read software is considered laborious, and users are often confused by the multiple logins and passwords required, particularly when the reader software is being accessed for the first time. When authorising the reader software with Adobe DRM, a username+password combination is required for the Adobe ID, and another username+password is required to access the loaning platform.

Acting on these usability concerns, alternative delivery mechanisms were investigated for e-book loans before starting the pilot project. It was discerned that

fully server-based and server-controlled mechanisms would be able to meet the demands of the library platform if most the content remained on the server side. The results of further investigations showed that the contents of loaned e-books could be displayed within a browser. These so-called Books in Browsers (BIB) techniques have different approaches, but the mechanism selected for the pilot system implementation was to stream the content chapter by chapter into the browser. The reader software, built with HTML5 within the end user's browser, also enabled content protection by disabling copying and printing.

The pilot service was launched with these two content delivery methods: an online reader without DRM for users able to read with an almost continuous internet connection, and Adobe DRM deliveries for the users wishing to download files for offline purposes. The details of both approaches are explained in the following chapters.

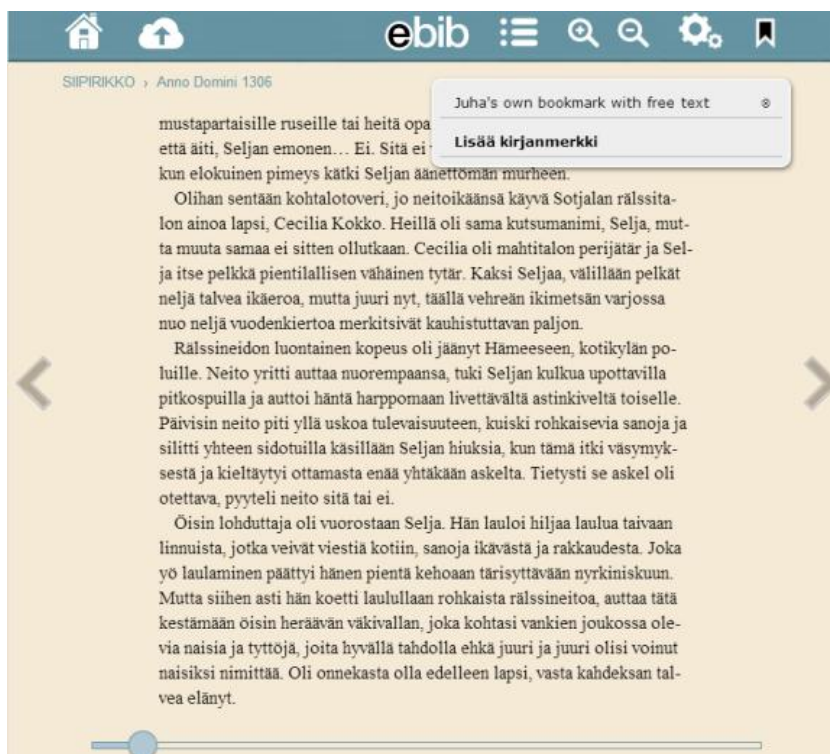
#### **4.2.1 Streaming – online reader**

As explained above, streaming the content chapter by chapter into the browser was the selected mechanism. The contents were displayed with as few conversions as possible; the book format thus played a key role in this development. The widely used e-book format, ePUB 2.1 is excellently suited to an online reader because the format resembles a web-page containing (X)HTML; basically the format can be viewed as a representation of the book and it can be embedded in browsers with only a minor conversion. ePUB 3.0, the newer version that expands tag support to HTML5 tags, will most likely work well in the current implementation, but was not thoroughly tested during the pilot phase. Support for PDF files was not built into the online reader; the conversion for the reader was considered unfeasible, and the scalability of the PDF format for different devices is limited.

Although the interface of the online reader remained unaltered after the development phase when the online reader was released for the pilot, certain updates were implemented during the piloting. The reader initially contained a setting for changing the font. After the feedback from Aalto ARTS, the font changer was simplified and a settings menu was created over it. A background color changer was also added to the settings menu, and a bookmark feature was added at the upper right corner. Based on feedback, the functionality of the bookmark feature was adjusted to resemble its “known” implementations. An option facilitating the renaming and addition of multiple custom bookmarks was included in the implementation.

Instead of a full browser-sized expansion of the text, margins were added for both sides of a book page. To further enhance the reading experience and address the need for the high degree of scalability required for different screen sizes, a high-quality hyphenation feature was added to the book reading capability. The hyphenation feature was implemented as a background service supplied by Lingsoft Language Management Central. The service hyphenates books in the

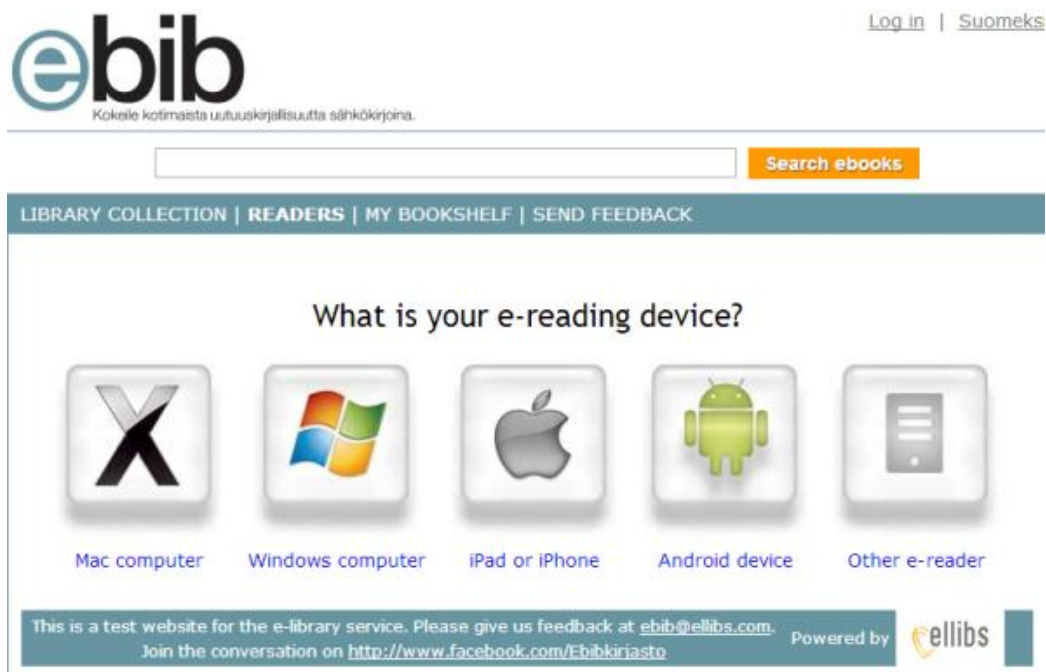
background during the insertion process as hyphenation commands sent to the browser. When the browser changes its screen size, the commands are applied to the text. This approach guarantees the books' correct hyphenation for all screen sizes.



**Figure 1. Ebib online reader with sepia background color.**

#### 4.2.2 Adobe DRM – offline reader software

As it was already known that the users consider the creation of an Adobe ID for Adobe DRM downloads complicated and somewhat confusing, special attention was paid to the formulation of the use instructions of the pilot site. For the initial implementation, more user-friendly help pages were created by completely rewriting the instructions. A quick help feature for this task was also added to the book information page next to the loan initialisation buttons. A wizard-like quick help function for selecting the correct software was created with its own dedicated page. Based on feedback, the instructions were revised and improved during the pilot project, and the survey results (Chapter 5) indicate that most users were fairly satisfied with the manual for the site; compared to the 2012 and 2013 results, the satisfaction level increased slightly during the testing period.



**Figure 2. Wizard-like quick help feature for selecting the right reader application**

During the development, a considerable quantity of feedback was received concerning the “return loan” feature. Because the maximum number of loans during the piloting phase was limited to one per person, active service users, as well as speed readers, felt compelled to return books before the expiration of the loan period so they could loan another title. In reader software such as Adobe Digital Editions and Bluefire Reader, the return feature has been available from the reader software itself; it was thus also implemented in the online reader to conform to the behavior of all reader software. Users, however, were looking for the feature in their “own bookshelf” because it already contained other loan-related features such as Continue reading (online reader), Download again (Adobe DRM) and Change loan type. In certain feedback messages, the placement of this feature was criticised as illogical and users were trying to find it in the wrong locations.

Because DRM-based loans are also available offline, it was initially thought that the return feature could not be added to the server’s bookshelf. When one returns a book from the server side, a connection also has to be made to the user’s reader software to terminate the loan. With the reader software in offline mode, no return-triggered connection could be made from the server to the client. Based on emphatic user feedback, further investigations attempted to address the “return book” issue. It was discerned that if the server terminates the loan centrally, the user’s reader software will also terminate it immediately when the user activates the software with a working internet connection. Because users need Adobe ID-authorized reader software to loan additional books, and the authorisation works only for a limited number of devices, it was initially concluded that a server-based return feature can be considered fairly reliable. At the time of this writing, the



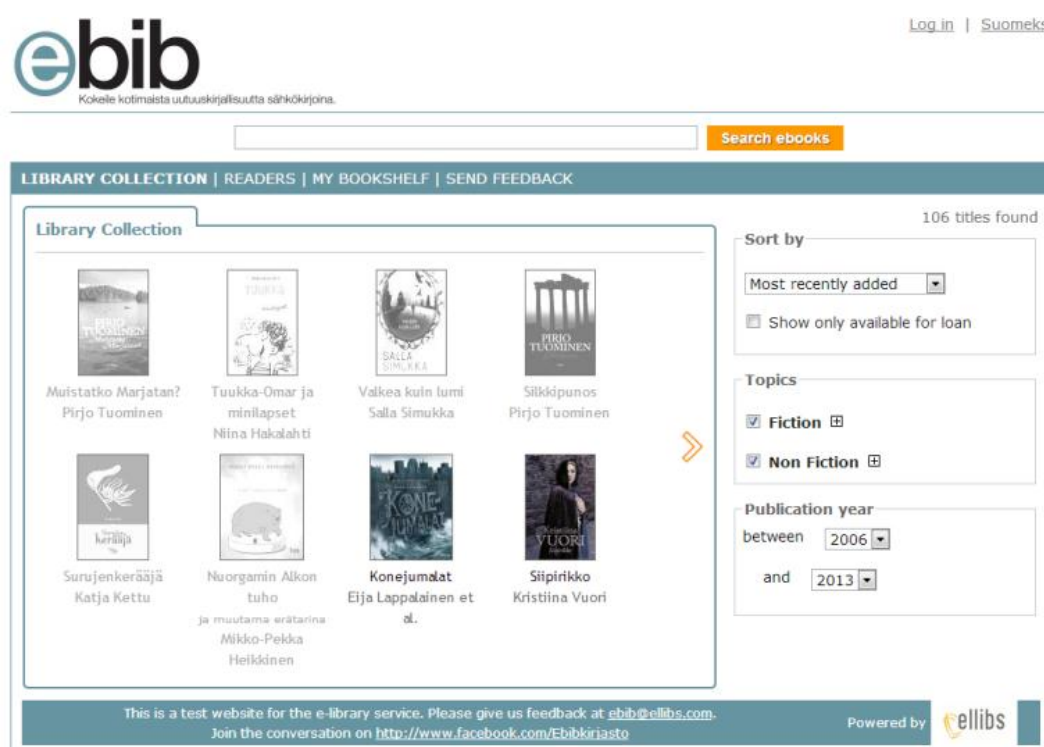
feature is still being tested and investigated further, but if it functions as expected, the return loan feature will be added to the user's "own bookshelf".

### 4.3 User interface

During the pilot a lot of attention was put into the user interface development and usability for the service. Project wanted to develop better user experience than most of the Finnish e-book services could provide in terms of instructions, layout and usability.

Aalto ARTS's usability testing before the initial launch had a big role for tuning the layout into the right direction, and also a lot of effort was put to fine-tune the online reader into the right shape before starting. After the initial launch, new features were added to the user interface during piloting, and a smaller test group (Aalto ARTS, VTT, Ellibs, HelMet library) was formed for agreeing and testing the user interface changes. Most of the updates were applied to the service with no service interruptions. The improvement ideas from customers were taken into account for the update releases. The improvements and bigger feature updates were also discussed in a larger project group whenever needed.

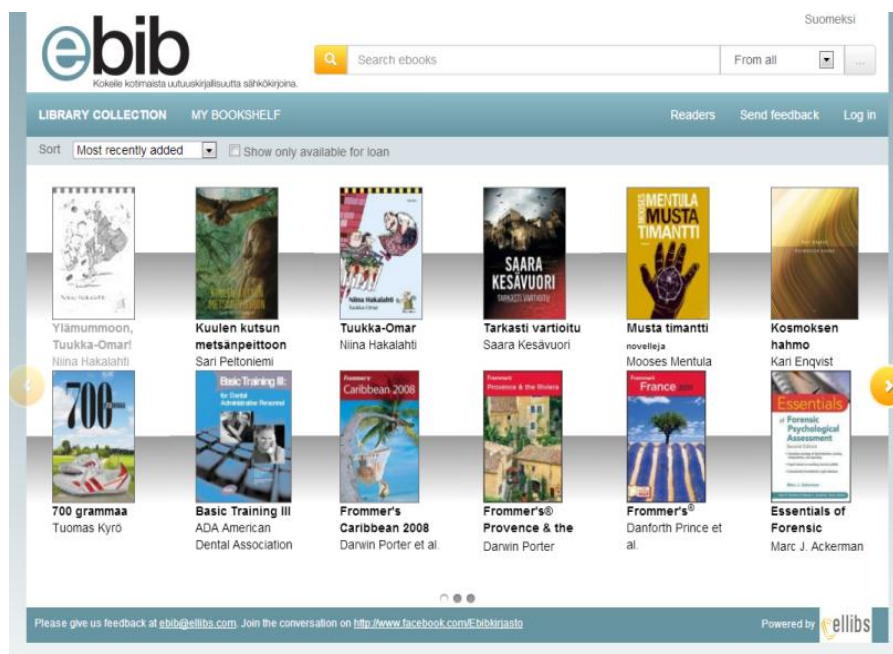
During the second phase of the trial, 5 June -31 December 2013 the collection was extended with more books and new features were added, based on customer feedback and discussions within the project group.



**Figure 3. Ebib layout at second test phase 5 June 2013 – 31 December 2013**

Statistics from the beginning of 2013 show that most of Ebib users were using a table device when using the service. Since there were an increasing number of different screen sizes also in tablet environment, it was considered important that the service had wider scalability support; in the previous versions, the screen was optimised mainly for iPad. For better collection browsing, a mock-up for a new main page was created by Aalto ARTS and VTT. Ellibs implemented the suggested layout into the service, and added support for better responsiveness by applying additional front-end frameworks. The collection page's mock-up style was also extended to other pages, and for example page containing user's own bookshelf was completely rewritten for better scalability support.

While the improvements of the last major upgrade focused mainly on better collection browsing and the search, also a feature of returning loans from own bookshelf was added. This feature can be considered as an important update based on the feedback received from service users.



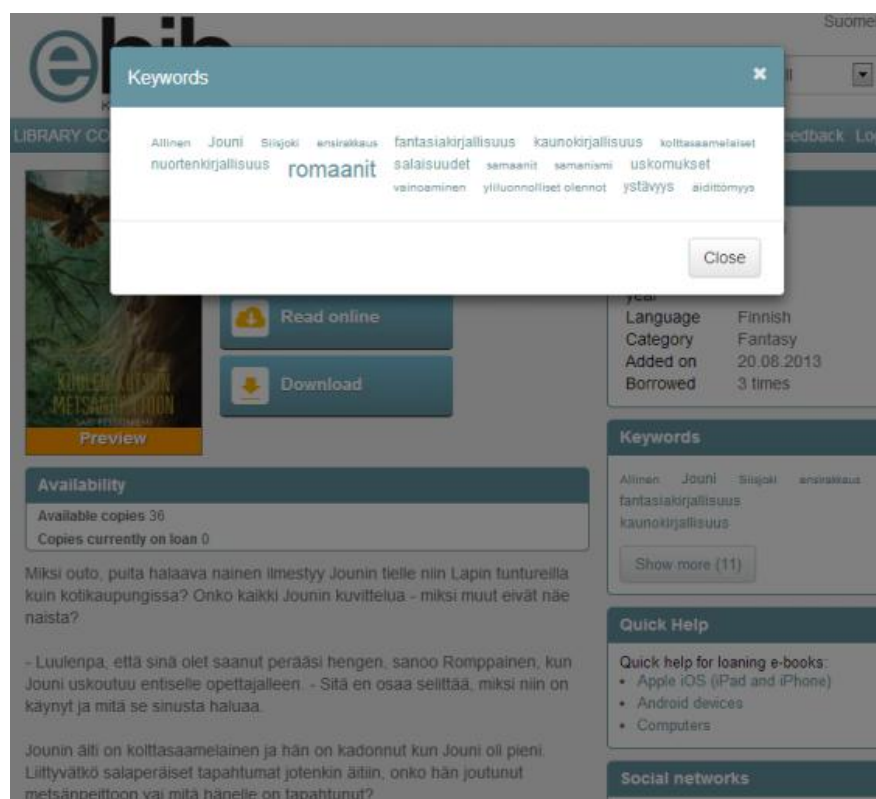
**Figure 4. Ebib layout after the latest update**

The user interface contains a public part for end users and for library administrators there is an extra menu. The menu exposes a set of username/password controls, statistics for the collection usage, user device and traffic information and messages sent by users via the feedback form. Currently the social media features consist of share-links on the book information page, from where the user is able to share book information or recommend a title to his/her friends. There is a possibility to share information for example to Twitter, Facebook, Google+, and more.

### 4.3.1 Collection Browsing

When the book collection grew it was more important to improve browsing features. Features like search, categories and the keywords became more important for the browsing experience. With these features, the book metadata plays an important role, and it was ensured during the piloting that the material deliveries also contained the needed product information.

The category division of Ebib was done on the basis of the HelMet library's own classification, but the implementation was done in a way that YKL can be used, too. The keyword metadata was enriched by applying library's own keywords on top of the content delivered. Keywords were shown on the book information page, containing links to the search engine queries. The keyword feature was brought into the testing group at start, and after some feedback, it was upgraded to all users.



**Figure 5. Display of keywords at book information page.**

The usage showed that a lot of users borrowed an e-book that was on the first screen. This led to a situation where the user had to click through several titles before finding a title that was available for loan. To improve this, a small layout update was added into the collection – when all reading rights for a particular title were in use, the title cover was shown in gray. This approach enables users to traverse through the whole collection and find available titles without extra steps to the book information page and back.

On the basis of the feedback, the collection browsing was later enabled without logging in – only the actions requiring user identification now triggered the login box, implemented with a popup window. At this stage, a landing page containing a login box was still there, but the user could bypass it by selecting “login later”. For the last major upgrade, the landing page was removed from the logic completely and the users were able to browse books freely, starting directly from the collection main page. With the login change, the system started supporting multiple different libraries, so the system can be extended by adding authentication interfaces and establishing collections. For the collection browsing, the users can see all libraries’ content without logging in – and when logged in, the collection shows the content for the particular library the user has rights to.

As mentioned earlier, at the late stage of the pilot, the user interface was upgraded by applying additional front-end frameworks to achieve scalability for different devices and screen sizes. The update brought several enhancements for the collection browsing – the search box was placed more logically and the category search was applied next to it in order to spare space from the main layout. With this approach, it was possible to show more books on the collection page. The navigation of the collection page was applied with yellow arrow buttons working from right to left, and swiping was also enabled. When the collection is used with a smaller screen (for example a mobile phone), the navigation of the collection changes from left-to-right to up-to-down. The smaller screen size also changes the menu bar and hides it under the action button in upper right corner (see picture below).



**Figure 6. Ebib collection browsing with mobile phone layout.**

### 4.3.2 Search

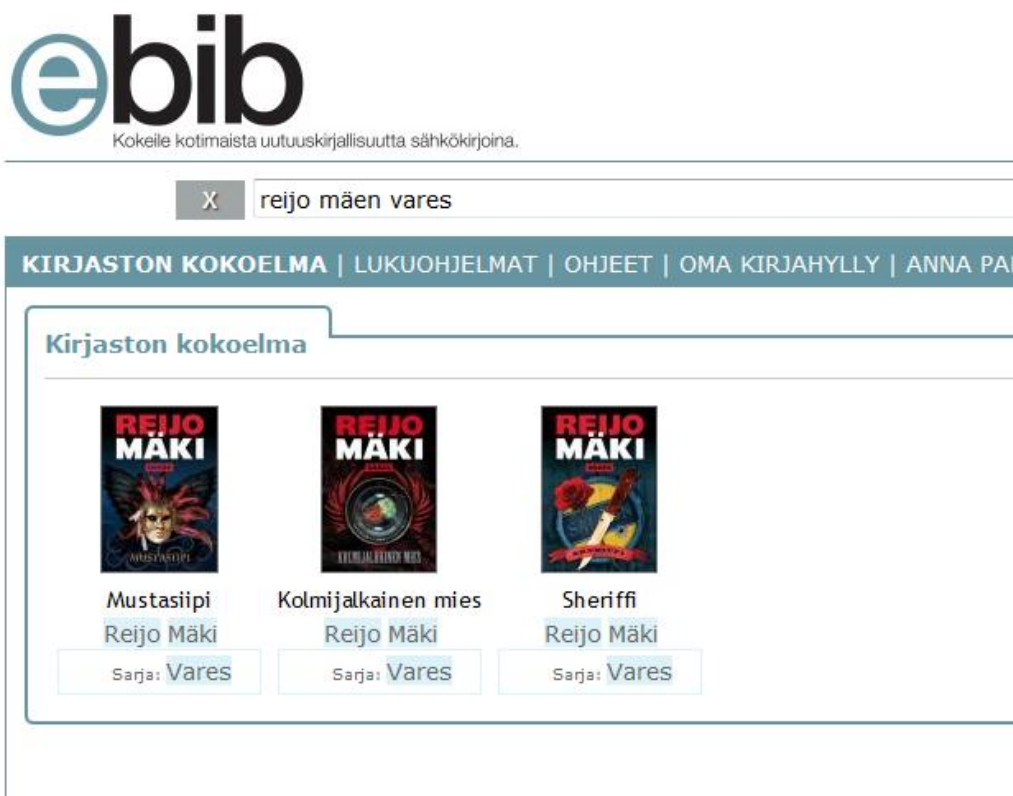
Although the interface initially had a simple search engine based on simple field matching, the increasing number of titles established a need for improved search functionalities. Consequently, an extended search capability was added to the service after the initial launch of the platform.

As mentioned above, a search expander technique was introduced with Lucene as a separate search engine. This so-called morphological analyser generates certain benefits for metadata queries. The solution identifies all forms of a given language, treating them as base forms; search results will thus hit e-book metadata fields even if:

- the search query or its parts are inflected,
- the metadata contains inflected forms of text.

This service also identifies and splits compound words, treating them as separate index items. This is extremely beneficial when working with the highly inflected languages such as Finnish. For example, the metadata word “kaupunginjohtaja” can be found with searches such as “kaupunki”, “johtaja” or “johtajien”.

The highlighting of search results was added to the collection and book information page to better inform users about the results of their queries. To avoid distraction from the main actions, the highlighting color of the book information page was selected to closely resemble the original background color. The user can remove the search results and highlighting by clicking on the remove button X near the search.



**Figure 7. Collection search with Finnish base forms and highlights of metadata fields.**

Search targets could be narrowed down by using filters; for example a user could initiate a search only from the “Romance” category. The metadata provided plays a key role when building search functions and the filters; less accurate metadata means less accurate and irrelevant search results.

#### 4.4 Interface to purchase books

Helsinki City Library purchased e-books for the Ebib library through the existing Ellibs online shop. Ellibs received information on available e-books from publishers and made them available on its online store. Helsinki City Library had its own account details for the Ellibs online store and could select and purchase e-books for the Ebib collection.

Each title was made available with all license models that were tested in the pilot. City library selected the license model at the same time when it purchased an e-book for the Ebib e-book collection. When the library confirms an order, the e-book is made active on the Ebib collection almost instantly.

Ellibs online shop for libraries as an acquisition channel was not developed in the framework of this pilot. Acquisitions channel was developed mainly as regards to license models. Suitable acquisition software/applications for the libraries’ needs should be developed without delay in order to avoid manual work. For Ellibs online shop, this means better collection management features, such as e-book collection overview with a possibility of renewing the licenses and statistics about



the book consumption rates. This work was planned and started outside of this pilot.

## 4.5 Usage

When interpreting usage statistics, one needs to remember that Ebib collection is still small, only a little more than 100 titles. Because of the restricted amount of titles available for users, all users will not find interesting titles to read. That is why one needs to be cautious when interpreting the usage patterns of Ebib users.

Monitoring the use of the service during the trial was an important way to evaluate the quality of the service as well as the necessity for any possible changes. The Ebib service's usage and lending were monitored with an integrated statistics tool created with the same technologies (PHP, jQuery) as the Ebib interface. The purpose of the statistical data was to evaluate the service's usage, and to ascertain the types and functionality of the devices used by customers to access the service. Loan statistics played a key role in the evaluation of licensing models.

For the statistical analysis, a separate section was initialised in the Ebib management interface, which includes a calendar function that facilitates the viewing of data such as the number of customers, or the number of loan reservations for a selected period. This tool also facilitated the monitoring of service traffic at a general level, for example from device to device. Because individual users such as a data from library registry are not stored in the database, the user data is presented in groups.

The following usage and loan statistics were generated from the service's trial period from 15 October 2012 to 30 September 2013. The trial was divided into two phases; 15 October 2012 to 4 June 2013, and 5 June to 31 December 2013. Comparisons were made between the two trial periods and within the context of the entire period. Although the second phase lasted from 5 June to 31 December 2013, the statistics in this report were collected until the end of September 2013.

### 4.5.1 Ebib library users

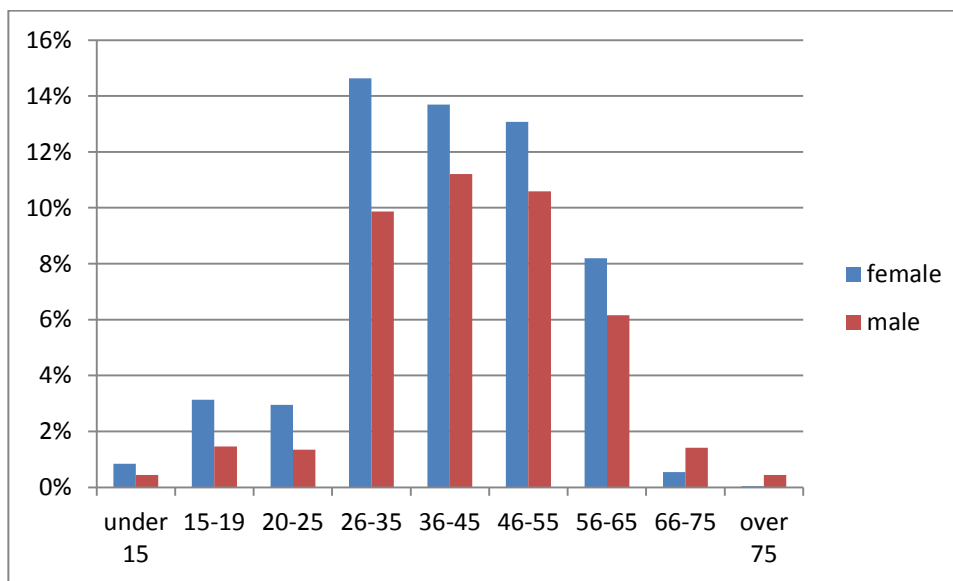
During the trial period from 15 October 2012 to 30 September, Ebib users from the Helsinki Metropolitan area borrowed e-books almost 14.000 times. There were 10.000 registered Ebib users, of which half actually borrowed books from Ebib library.

<b>Acquired e-books</b>	123	(includes new licenses)
<b>Usage rights, total</b>	938	
<b>Borrowed e-books</b>	13764	<a href="#">(Current: 388)</a>
<b>Reservations</b>	985	(Current: 13)
<b>Customers</b>	10338	
<b>Unique borrowing customers</b>	4903	(Current: 383)

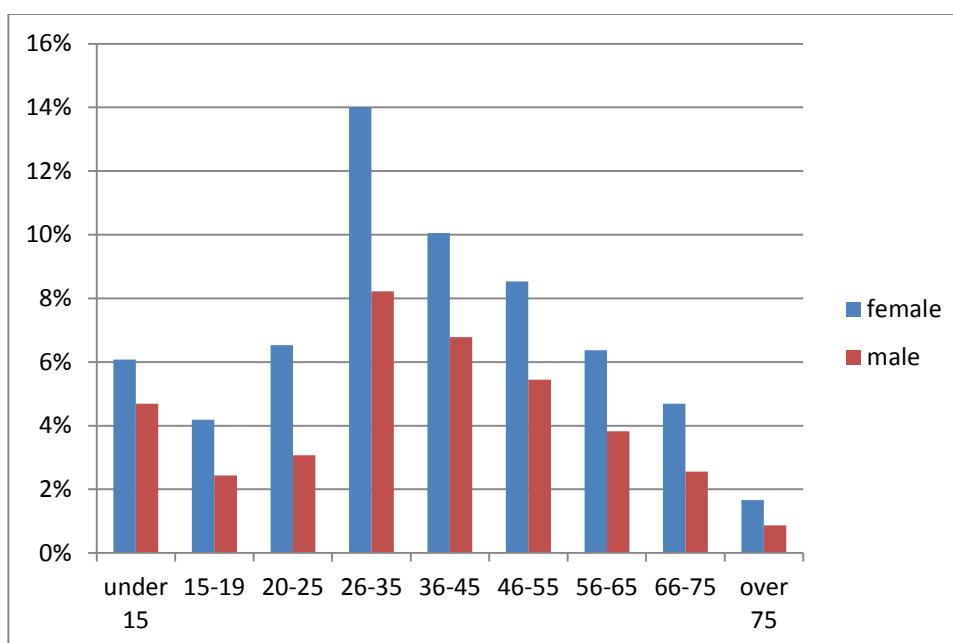
**Table 1. Overview of collection and usage 15 Oct 2012 – 30 Sept 2013**

#### 4.5.1.1 Users by age and gender

Most of the Ebib service's users are adults between the ages of 26 and 55. There were no major changes in user profiles between the first and second test periods. When Ebib user profiles were compared with those of average library customers, it was noticed that young people and children were underrepresented among the Ebib users. The Ebib library also has relatively more male users than the traditional library. In terms of traditional library materials, the proportional share of women is 62 % and 38 % for men, but 57 % of the e-books borrowers are women and 43 % are men.



**Figure 8. Ebib customer profile 15 Oct 2012 – 30 Sept 2013**



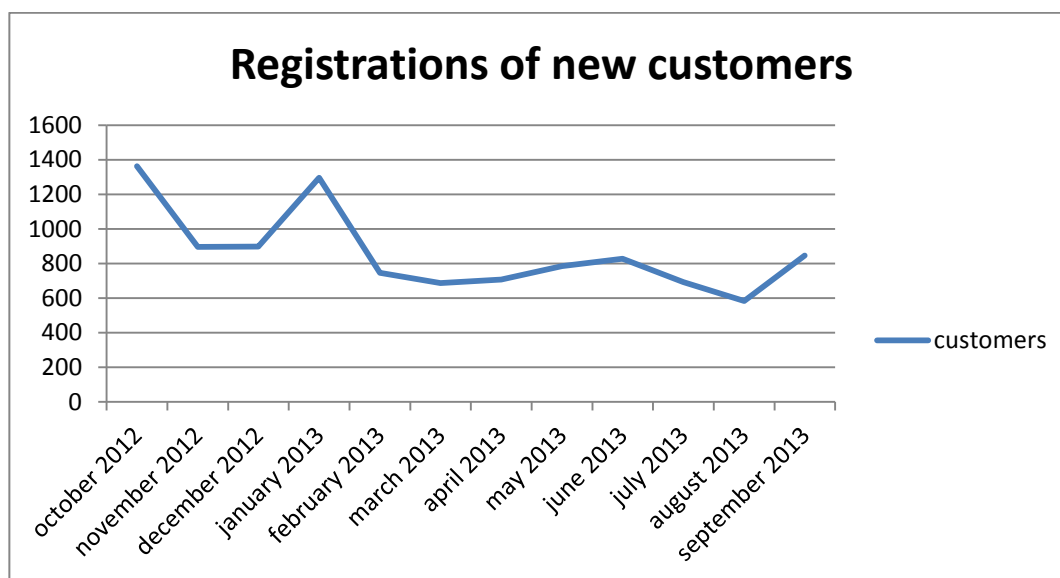
**Figure 9. Printed books, customer profile**



#### 4.5.1.2 Number of users during the test period

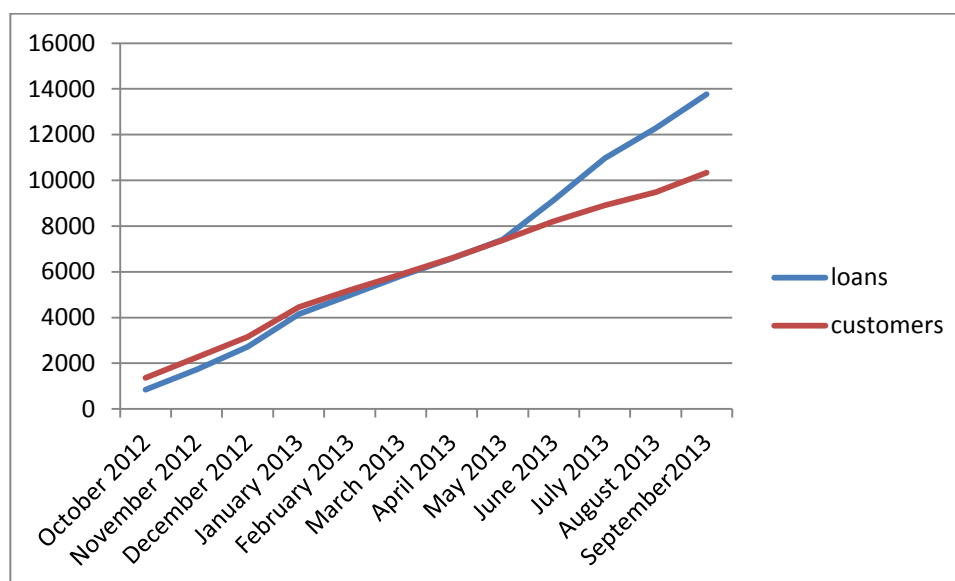
Many factors, the most important of which proved to be marketing, have affected the development in the number of customers. When the service was launched, a substantial number of customers signed up. The active marketing campaign that took place in December 2012 was based on the assumption that tablets would be a popular Christmas gift. The Library wanted to make tablet users aware as early as possible that they could also read e-books on a tablet, and a record number of customers (1,313) signed up during the year-end holiday season. Otherwise, customer quantities have remained steady. In June, a service refit that enabled customers to access the collection without logging into the service led to a slight decrease in the number of the service's registrants.

There were peaks in the number of new customers when the Ebib service was opened to the public, and in December when there was a focused marketing campaign for e-books. The average level of new customers was approximately 750 per month.



**Figure 10. New customers registered to the service**

In the first trial phase, only 44 % of the registered customers were borrowers. During the summer, when the collection was augmented and customers no longer had to login to the service, the ratio of borrowers in relation to registered customers rose to 56 %. Most registered customers also found suitable reading titles. The number of customers is responsible for developing the general theory of the diffusion of innovations. The current number of Ebib customers represents approximately 2.5 % of the HelMet library customers, but the number of customers who also borrow e-books is only 1.2 %.



**Figure 11. Cumulative number of customers and loans**

In the first trial phase total amount of borrowing customers was 3301, of which only 22 % (734) continued to borrow e-books also in the 2<sup>nd</sup> phase of the trial. 1606 borrowers in the 2<sup>nd</sup> phase were new users of Ebib library. This is almost 70 % of all borrowers (2340) in the second phase.

Customer lending behaviour varied during the first and second trial phases. The number of avid readers – customers who borrowed more than 15 books during the trial phase – doubled from the first phase to the second phase. Readers who read only one or two books registered minor fluctuations. The relative number of readers who borrowed 5-15 titles during the trial phases was slightly higher during the second trial phase; the larger collection made it easier to interest customers in the service.

	15 Oct 2012 to 30 Sep 2013	15 Oct 2012 to 4 June 2013	5 Jun to 30 Sep 2013
Over 20 books	1 %	0,33 %	0,81 %
15-19 books	1 %	0,42 %	0,60 %
10-14 books	3 %	1,45 %	1,97 %
5-9 books	10 %	9 %	11 %
2-4 books	30 %	31 %	32 %
1 book	55 %	58 %	54 %

Number of customers, who borrowed during the 1st phase, but did not borrow during the 2nd phase was 2567

Of these read in the 1st phase

over 20 books	1	0,04 %
10-19 books	20	0,78 %
5-9 books	122	5 %
2-4 books	711	28 %
1 book	1713	67 %

Number of customers, who borrowed their 1st book in the 2nd phase was 1606

Of these read in the 2nd phase

Over 20 books	7	0,4 %
10-19 books	15	0,9 %
5-9 books	114	7 %
2-4 books	484	30 %
1 book	982	61 %

Those who read only 1 book in the first phase, read in the 2nd phase

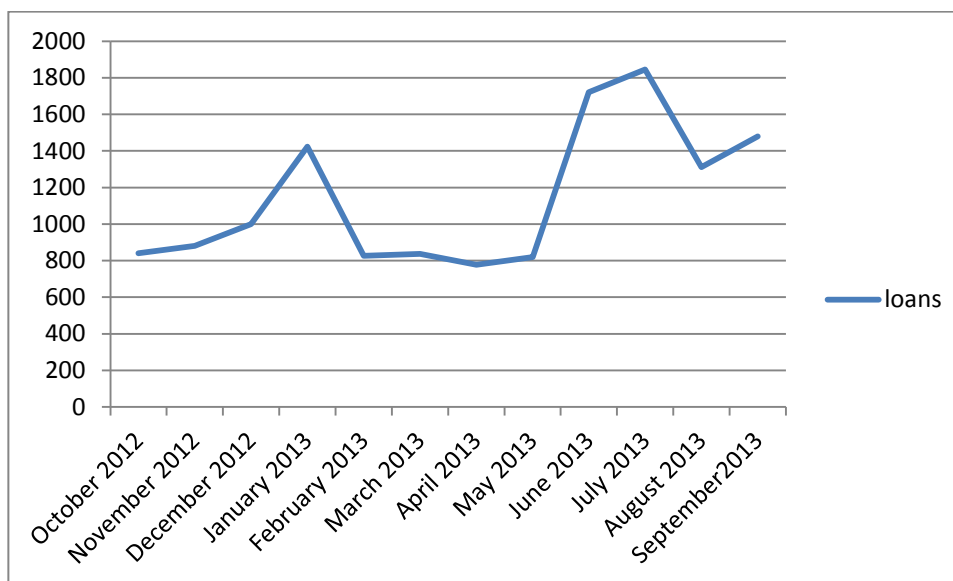
Over 10 books	8
5-9	15
2-4	67
1 book	111

**Table 2. Borrowed books per customer during test periods**

## 4.5.2 Loan statistics

### 4.5.2.1 Development of borrowing

The rise in the number of loans progressed steadily, but the effect of marketing was clear. In late December 2012 and early January 2013, the number of loans was very high with a small collection (36 titles), but subsequently lending declined rapidly. The number of loans began to rise again in the second trial period after the expansion of the collection. Loan statistics have stabilised to approximately 1,400 loans per month with the current collection.



**Figure 12. Loans per month**

The number of loans varied widely according to subject. Most borrowed books were classic literature, the second most borrowed were suspense novels and thrillers, and romances were the third most borrowed books. The most popular non-fiction books were biographies; the second most popular were books on business and administration, and the third most popular non-fiction books dealt with technology and transport. However, the number of titles in non-fiction was small.

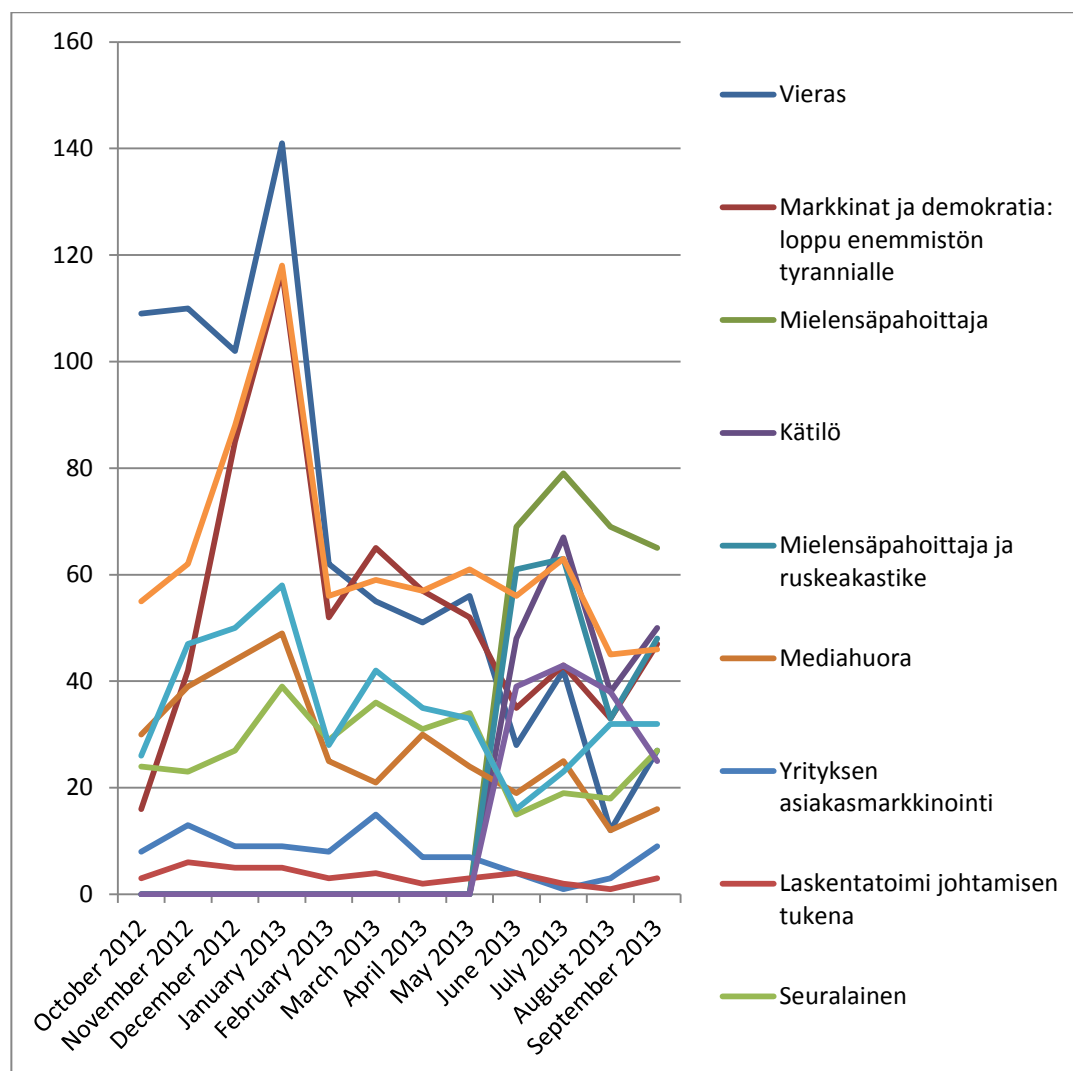
#### 4.5.2.2 Loans per title

Borrowing with respect to individual titles varied widely. Riikka Pulkkinen's book *Vieras* was the most borrowed book with 795 loans (22.7 loans/license). The number of loans was initially quite high, but the book rapidly declined in popularity and has since remained at a stable level. This book is one of the most popular books in print. The second most borrowed book was Miika Nousiainen's *Vadelmavenepakolainen* with 766 loans (38.2 loans/license). It was extremely popular at the beginning, but its status soon declined rapidly and has remained at an average level.

During the second trial phase, Tuomas Kyrö's *Mielensäpahoittaja* was the most popular book. It was an immediate success and its popularity has remained high. All in all, *Mielensäpahoittaja* was borrowed 282 times (41.1 loans/license). Katja Kettu's *Kätilö* and Tuomas Kyrö's *Mielensäpahoittaja ja ruskeakastike* were also popular, but the number of loans varied considerably. *Kätilö* was borrowed 203 times (10.2 loans/license) and *Mielensäpahoittaja ja ruskeakastike* was borrowed 205 times (10.3 loans/license).

Björn Wahlroos's *Markkinat ja demokratia* rose rapidly in popularity during the first phase, and its license quantities increased twice during the winter to a total of five times the number of the original license. During the spring, the book's popularity waned, but it again rose to the top ten during the autumn. *Markkinat ja Demokratia* was borrowed a total of 644 times (25.8 loans/license).

The number of loans for Outi Pakkanen's *Seuralainen*, Venla Hiidensalo's *Mediahuora*, and Reijo Mäki's *Kolmijalkainen mies* remained average during both trial phases. These books averaged 30 loans per month, but the number of licenses varied between 9 and 30.



**Figure 13. Loans per title**

On average, one license was on loan 15.3 times, but the number of loans varied by licenses ranged from approximately 3 to 42 loans. The maximum number of loans/license was Reijo Mäki's *Kolmijalkainen mies* with 42 loans per license. Books on business and administration had a high number of loans/licenses, all in all exceeding 30 loans per license. (See appendix 2).

#### 4.5.2.2.1 The usage patterns in e-book compared to print titles

There were 938 licenses for the titles in the Ebib collection. The quantity of printed items for the same titles in the HelMet collection was 12,346. Although the Ebib collection represented 7 % of the number of printed books, Ebib library loans (13,764) accounted for 17 % of the total loans (78,198). The higher relative share of the loans is explained by the shorter loan period; the e-book's default loan period is two weeks compared to the printed books' 4-week loan period. An e-book is also easy to return, resulting in an actual average loan period of only 8 days. Average loan periods for printed books are not studied at the Helsinki City Library, where an average loan period is 4 weeks is assumed. The convenient return function enhances an e-book's loan cycle.

The average number of e-book loans accounted for 17 % of the number of loans for the printed books, but once again there were differences regarding topics and titles. A clear difference between the number of e-book loans as compared to printed books by topic was discernible in business and administration titles. The number of loans for Ilari Salmi's *Mitä tilinpäätös kertoo* was 76 % of the total number of loans for that title and the number of e-book loans per license was as high as 39 %. The second largest relative number of loans was Suomala, Manninen et al's *Laskentatoimi johtamisen tukena* with 73 % of the overall borrowing statistics for that title, and the number of loan/licenses was 41. There were also a high relative number of loans in children's books, the highest of which was Niina Halkilahti's *Tuukka-Omar*, representing 32.5 % of the book's total number of loans.

There was a considerably high proportion of e-book loans regarding the overall loan statistics for the following titles: Petteri Tamminen's *Muita hyviä ominaisuuksia* (50%), Sari Järn's *Lupaan sulle ruusutarhan* (50%), Päivi Honkamaa's *Meren Alku* (54%), and *Taivaan Paino* (56%).

Children's books also registered a relatively high number of total loans (32 %). Business and administration non-fiction e-book loans accounted for as much as 65 % - 75 % of the total, even when the available licenses for e-books accounted for only 12 % - 13 % of these titles. When comparing the usage and loaning of e-books and printed books, it would appear that the number of loans for printed books is already declining, while e-book loans continue to remain at a relatively higher level.

During the first year, the utilisation rate of new printed books in the library is approximately 95 % compared to e-books, whose utilisation rate was approximately 45 % during the first phase and 40 % during the second phase. The e-books' lower utilisation rate is explained by the difficulty of assessing their demand. The e-books' rotation is faster than that of printed books, whose loan period is usually four weeks. Additionally, a printed book is not available between the time it has been returned, processed, and re-shelved for a new customer.

The usage by title in the Ebib service followed the pattern of sales by title. Titles that were popular in the Ebib service are also popular in print books.

### 4.5.2.3 Reservations

Only 1 out of 20 users placed a hold when the title they wanted to read was on loan. It would be interesting to know what users did when the title was not available: if they chose another title or if they decided to acquire the title from elsewhere.

Reservations for popular books varied from one trial phase to another. Most reserved books during the trial phase were books that had been added to the collection at the beginning of the pilot project. During the first phase, the most frequently reserved book was Björn Wahlroos's *Markkinat ja demokratia*, a book with 117 holds, but this book was no longer reserved during the second phase.

Based on the number of holds, the quantity of licenses was increased five-fold compared to number of original licenses during the first trial phase. The second most reserved book during the first phase was Miika Nousiainen's *Vadelmavenepakolainen* with 74 holds; this book was reserved 10 times during the second trial phase. During the second phase, the most reserved books were Tuomas Kyrö's *700 grammaa* with 58 holds, and Matti Remes's *Pako* with 49 holds.

Reservations for popular books also varied by titles. Even if a book was popular and had multiple loans, it did not necessarily have a high number of reservations. During the first trial phase, the most popular book, Riikka Pulkinen's *Vieras*, had only 46 holds, but Wahlroos's *Markkinat ja demokratia* was reserved 117 times. In the second phase, the most popular book, Kyrö's *Mielensäpahoittaja*, was also reserved (26 holds), but another popular book, Katja Kettu's *Kätilö*, only had 9 holds. Although Kyrö's *Mielensäpahoittaja ja ruskeakastike* was very popular, there were only 4 holds. This is explained by the difficulty of evaluating the number of licenses; certain popular titles had a sufficient number of licenses, while licenses were added to certain other titles based on the number of reservations.

The number of holds also varied by subject. Classical literature and novels was most reserved genre; this is also the genre where evaluating the appropriate number of licenses is the most difficult. Regarding non-fiction, the most reserved subject was Technology, energy, and transportation, primarily because these books are textbooks in secondary schools. (See holds by titles in appendix 3.)

15 Oct 2012 - 30 Sept 2013

Subjects	holds
Classic literature, novels, fiction	337
Tecnology, energy, transportation, non-fiction	170
Suspence, thriller, fiction	126
Business, finance, non-fiction	117
Sport, fiction	58
Humour, fiction	33

Natural science, non-fiction	24
Poetry, fiction	24
Nature, fiction	23
Philosophy, non-fiction	18
Romance, fiction	16
Literature, fiction	14
Fantasy, fiction	12
Military, fiction	9
Biography, non-fiction	6
Science fiction and fantasy, fiction	5
Education, non-fiction	5

**Table 3. Reservations by genre**

#### 4.5.2.4 Loan period

Customers could select the loan period in the Ebib library. During the first trial phase, customers could choose between one-day and one-week loan periods. As a result of the substantial quantity of feedback received at the beginning of the first trial phase, the week-long loan period was changed to 2 weeks in early 2013. The 14-day loan period was the most popular, and only approximately 10 % of the customers chose the one-day loan period. Approximately 60 % of the customers returned loans before the expiry of the loan period. The average loan period was slightly more than 8 days. It was ascertained that a one-week loan period is insufficient. There were only few feedback comments in the Ebib survey stating that the loan period is insufficient. The Ebib library's customers tend to return the loans immediately after reading because each lender can loan only one book at a time.

There were no significant differences in loan period selections and average loan periods with respect to subject, sex, or age. A child's average loan period was slightly over 4 hours; 62 % of these lenders returned loans before the expiration time. On average, there were no differences between females and males regarding loan periods, but male customers chose the one-day loan period more frequently than female customers. There are no differences among genres in the loan period selections.

Subject	Loans	Average loan period
Poetry, fiction	62	6 days 14:19:16
Classic literature and novels, fiction	6021	6 days 16:00:11
Nature, fiction	635	6 days 14:37:04
Fantasy, fiction	205	5 days 14:59:43



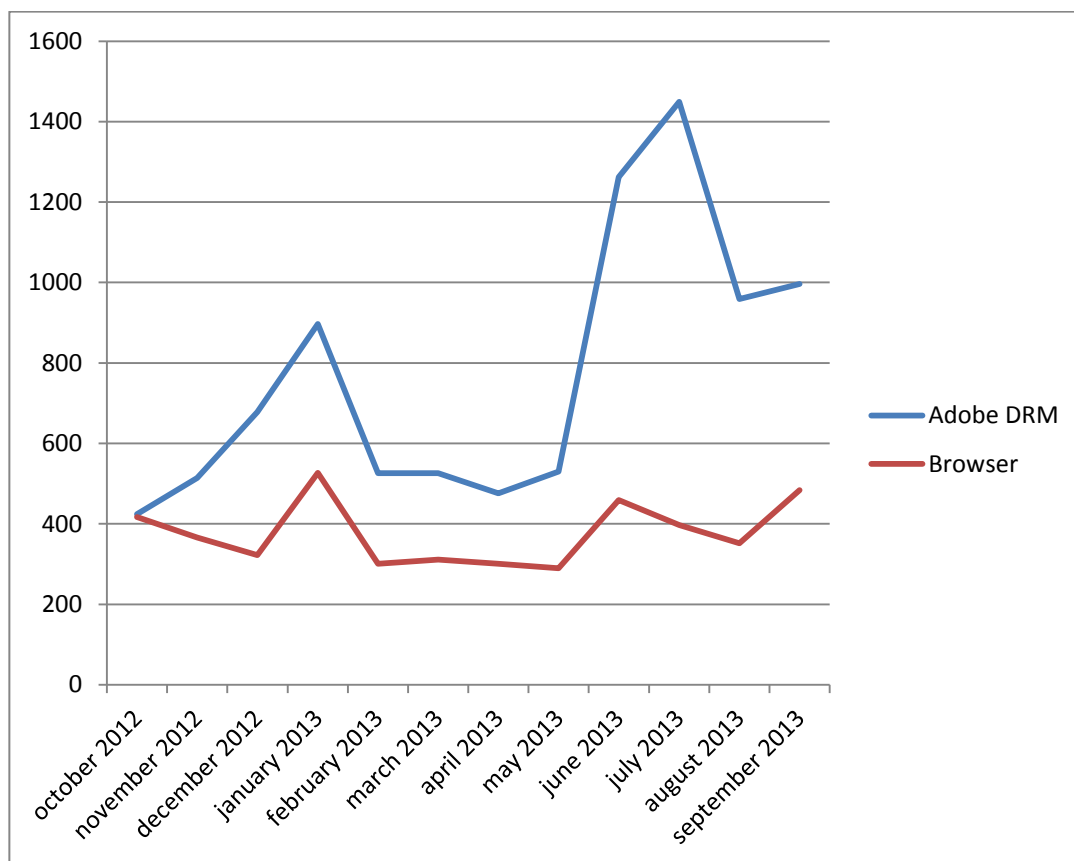
Humour, fiction	545	7 days 09:29:35
Suspence, thriller, fiction	2595	6 days 21:22:31
Romance, fiction	1045	6 days 06:58:06
Military, fiction	203	9 days 04:36:57
Science fiction and fantasy, fiction	115	5 days 11:59:28
Sport, fiction	126	9 days 23:33:28
Philosophy, non-fiction	212	7 days 03:19:44
Business and administration, non-fiction	644	8 days 16:30:38
Education, non-fiction	20	4 days 04:56:26
Natural science, non-fiction	90	8 days 05:52:35
Technology, energy and transportation, non-fiction	415	7 days 07:25:09
Art and art history, non-fiction	39	6 days 05:28:54
Literature, non-fiction	39	8 days 07:04:18
Biography, non-fiction	753	7 days 09:03:57

**Table 4. Average loan period by subject**

### 4.5.3 Selection of lending model

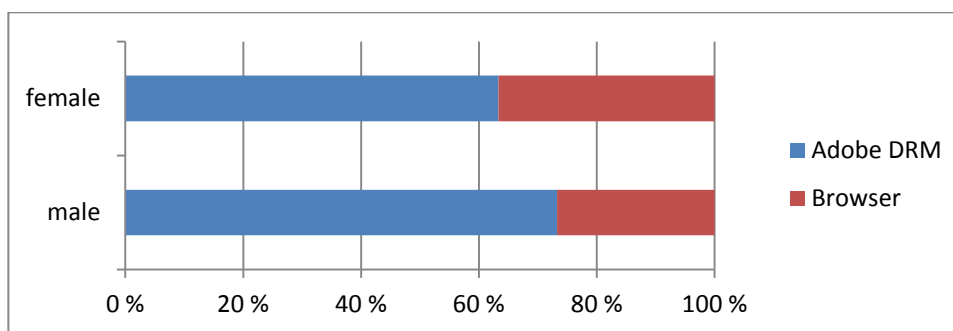
Ebib library customers can choose between two different ways of reading or borrowing e-books. The easiest way to borrow a book is to read it directly on a browser; the second option is to download the book file onto a device and read it through a reading program.

Downloading an e-book is the most popular loan method; browser reading accounts for approximately 33 % of the total. During the spring of 2013, reading on browsers increased until its relative share of the overall loan statistics approached approximately 50 %. During the summer, however, the proportion of reading on browsers fell appreciably, and by July, 78 % of customers downloaded books to a device. This supports the view that customers prefer to download books when leaving for a holiday because they cannot rely on Internet connections.



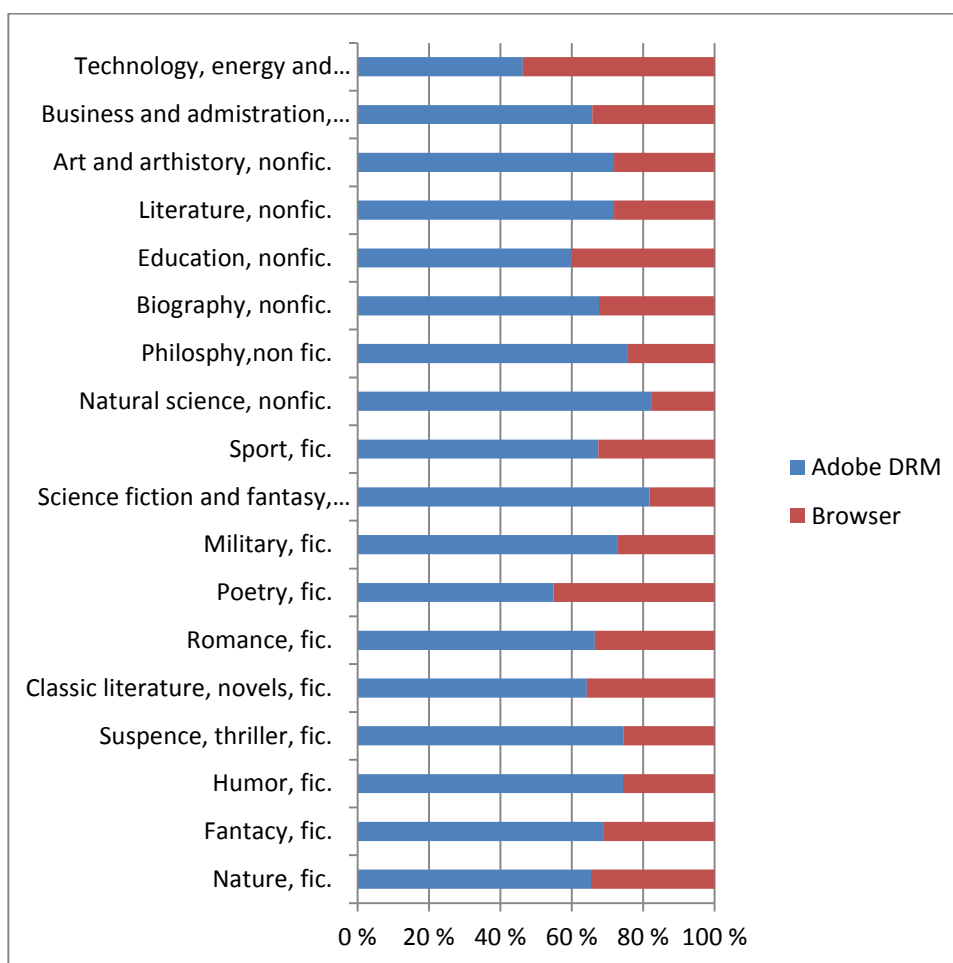
**Figure 14. Usage by lending model**

Women chose to read or borrow e-books on browsers more often than men; only a minor difference was registered between the two trial phases.



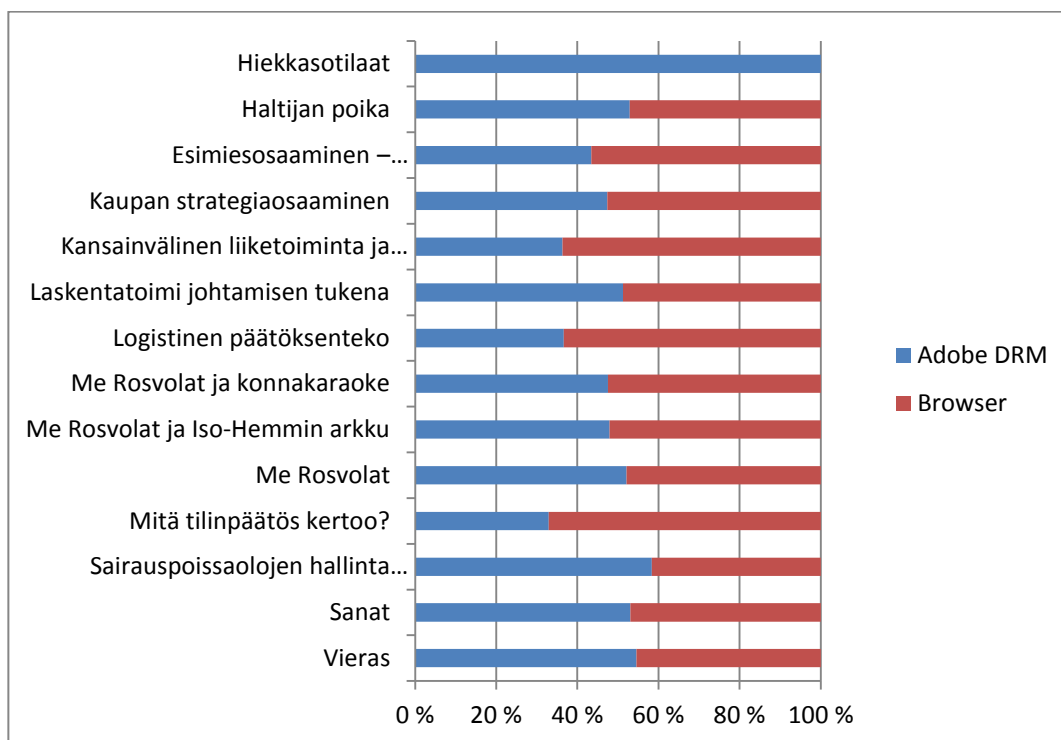
**Figure 15. Selection of lending model by sex**

The largest variations between browser reading and downloads related to titles and subjects. There were few significant deviations regarding technology, energy and transportation; these books were read more often on browsers than by device downloads. The other major difference concerned science fiction and fantasy books downloaded to devices; only 18 % of these books were read on browsers.



**Figure 16. Selection of lending model by subject**

Regarding titles, the most popular way to loan or read e-books on subjects such as business and administration was to read them on browsers; browser reading for textbooks such as *Kansainvälinen liiketoiminta* and *Mitä tilinpäätös kertoo?* was substantially higher compared to other titles. Children's books were also read on the browsers more frequently. *Hiekkasotilaat* had not been borrowed or read on browsers at all.

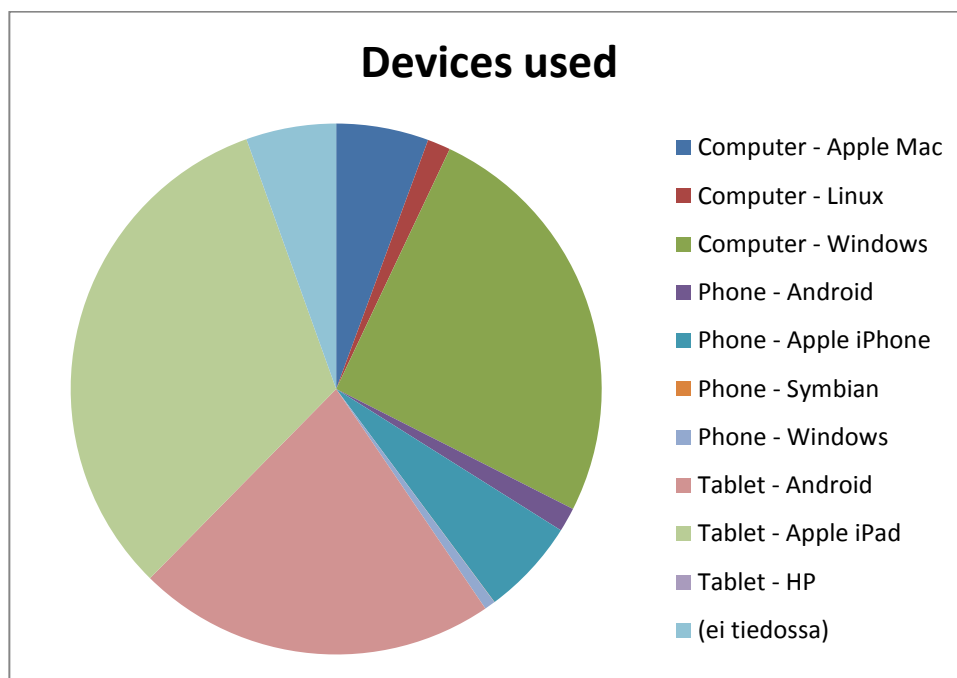


**Figure 17. Selection of lending model by title**

#### 4.5.4 Visits and devices

The Ebib library is intended to be compatible with the widest possible range of devices. The library's interface is used as an online service and can be used with a computer, mobile devices such as smart phones and tablets, and with other devices that have a browser and network connection. The only limitation is that the browser used for reading must support HTML5 technology. The program installed for reading books must be compatible with the operating systems of Windows and Apple computers, as well as mobile devices' iOS and Android operating systems.

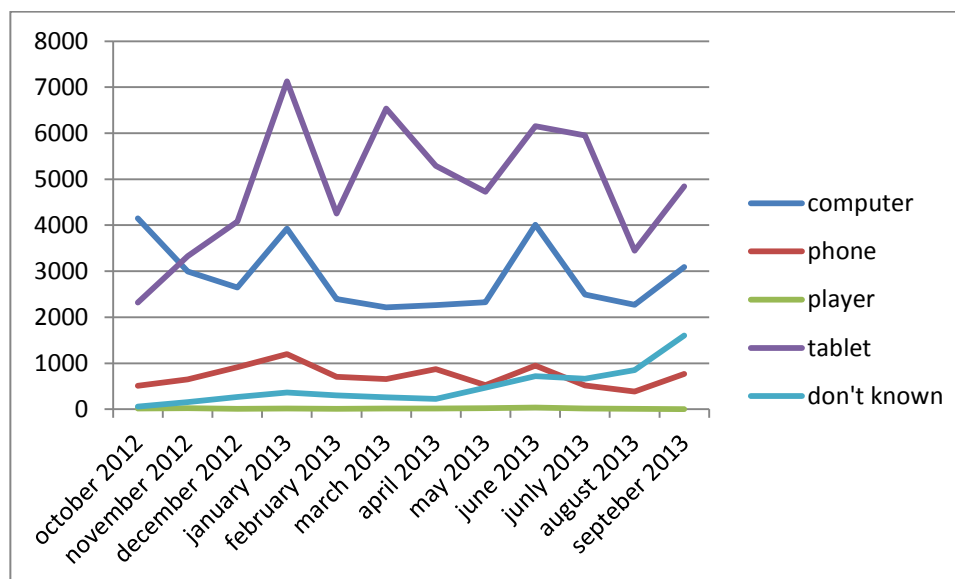
Many alternative devices were used to access the Ebib library during the trial periods. Mobile devices were most popular, with tablets accounting for approximately 50 %. The iPad was the most popular tablet, with a proportional share of approximately 30 %. Computers were the second most popular devices and their proportional share was 35 %; Windows computers proved popular with a 26 % proportional share. The Ebib library was used also by smartphones with a 9 % proportional share. Other devices used to access the service included PlayStation, iPod-type music players, Windows Zune, and iRiver.



**Figure 18. Relative proportions of devices used**

The tablet was the most popular device used for Ebib library loans, but its popularity varied widely over time. In October 2012, the device utilisation ratio was 25 % for tablets, 9 % for phones, and 65 % for computers. Subsequently the ratios for tablets and computers have changed; currently the tablets' share is approximately 55 % and the computers' approximately 30%, with phones' popularity remaining stable. The proportional share of unknown devices is increasing, although these devices are likely to be tablets whose information is easily hidden.

In March, the proportional share of tablets was as high as 75 % of the total use. Variations in the intensity of tablet use are also reflected in the choice of lending options. From February to May, when the relative proportion of the tablet use was high, the relative share of browser usage remained steady.



**Figure 19. Devices used by month**

Tablet users were the most difficultly attracted to the use of Ebib library services. Tablets are extremely versatile devices with diverse application options, an abundance of available content, and services that compete for each user's time and energy.

## 5 Survey

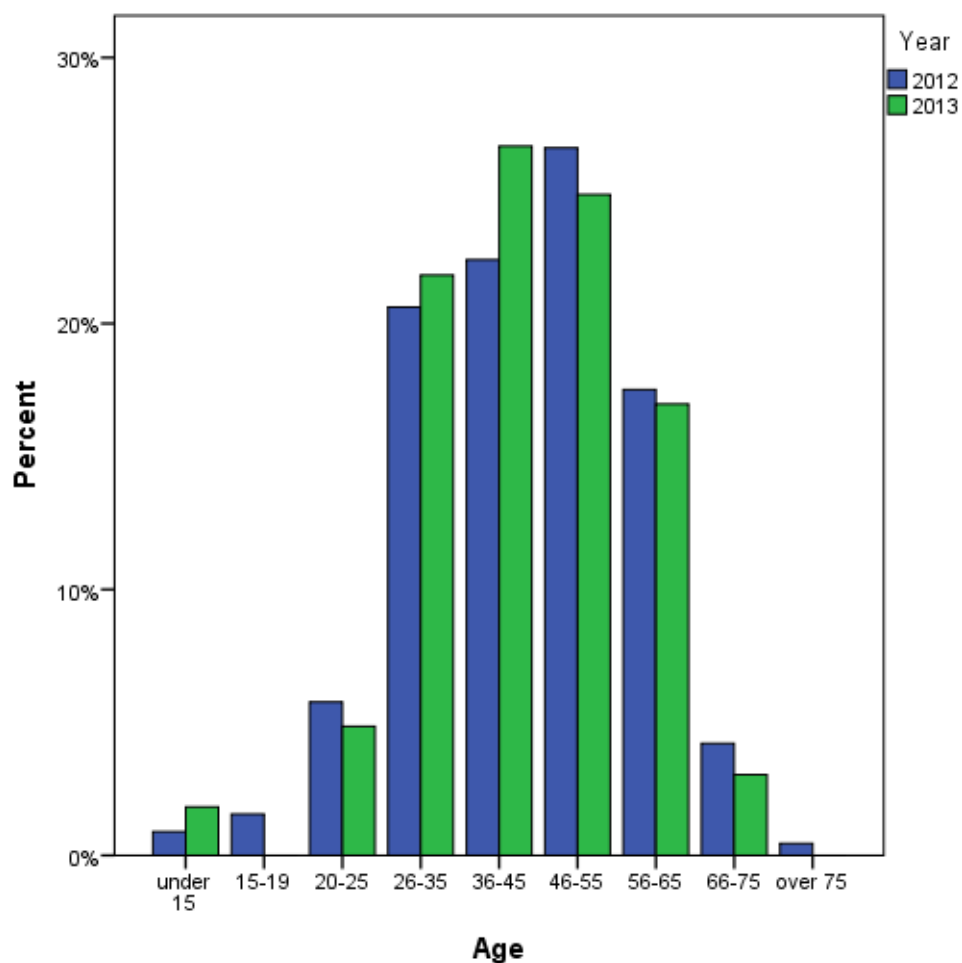
Information concerning the use of the service was collected with aonline surveys (Appendix 4) carried out twice during both trial phases in the autumn of 2012 and the summer of 2013. The online survey included questions related to visitors' background information and their opinions concerning the Ebib experiment.

During the first trial phase in the autumn of 2012, the daily number of survey responses corresponded with the number of visitors. At the beginning of the trial period, the number of respondents to the survey was high. By the end of the first trial phase the number of answers decreased to less than ten per day. Overall, the number of responses during the first phase was 569, representing approximately 18 % of the registered customers. The number of respondents to this survey can be considered as fairly typical regarding electronic surveys.

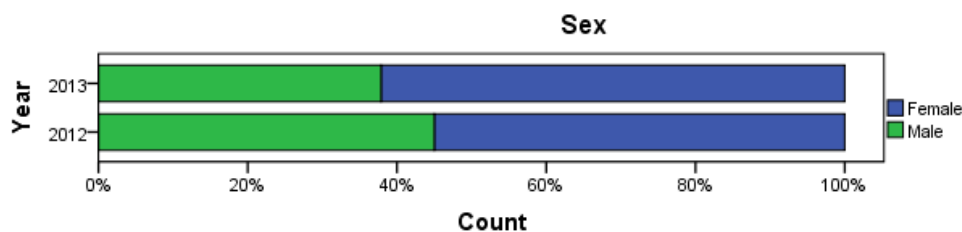
During the second trial phase, 210 people responded to the survey, representing 4 % of the total number of customers (4,903 unique user/visitors). The response rate was lower than in the first phase, most likely because those who had responded to the survey during the first trial phase did not respond during the second phase. Certain conclusions, however, can be drawn from the results.

## 5.1 Respondents

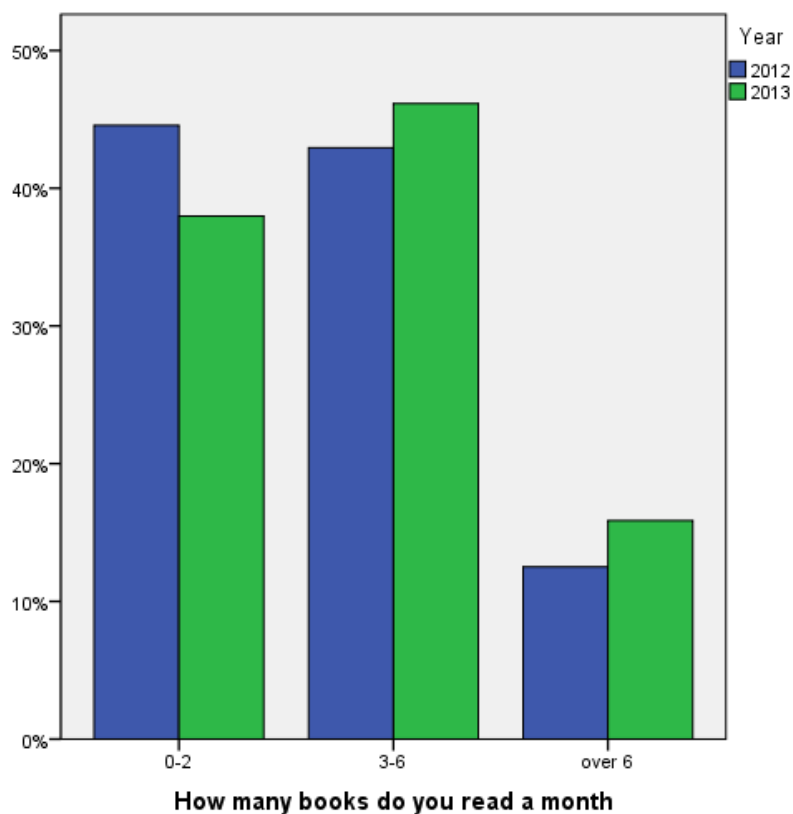
Of the respondents, the proportion of women was higher than men in both surveys. The age and gender distribution matches the distribution of the Ebib library's registered customers. The respondents can be considered fairly active readers who are fairly familiar with the use of the library's electronic services. Respondents were active readers, with women slightly more active than men. There were no changes in the respondents' profiles during the first and second trial phases.



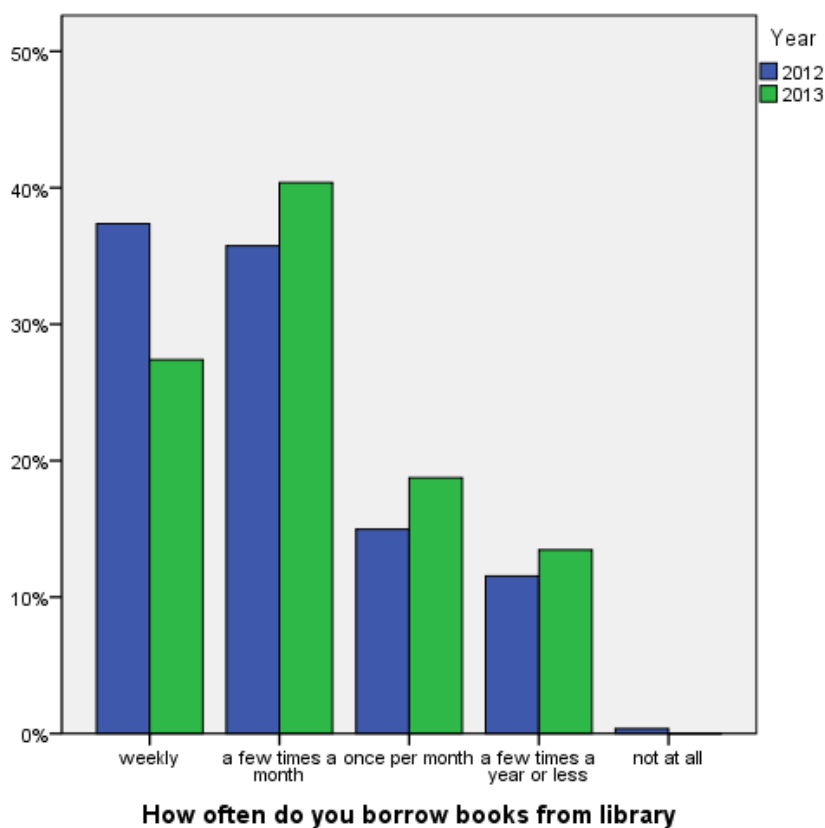
**Figure 20. Age of respondents**



**Figure 21. Gender of respondents**



**Figure 22. Respondents' reading habits**

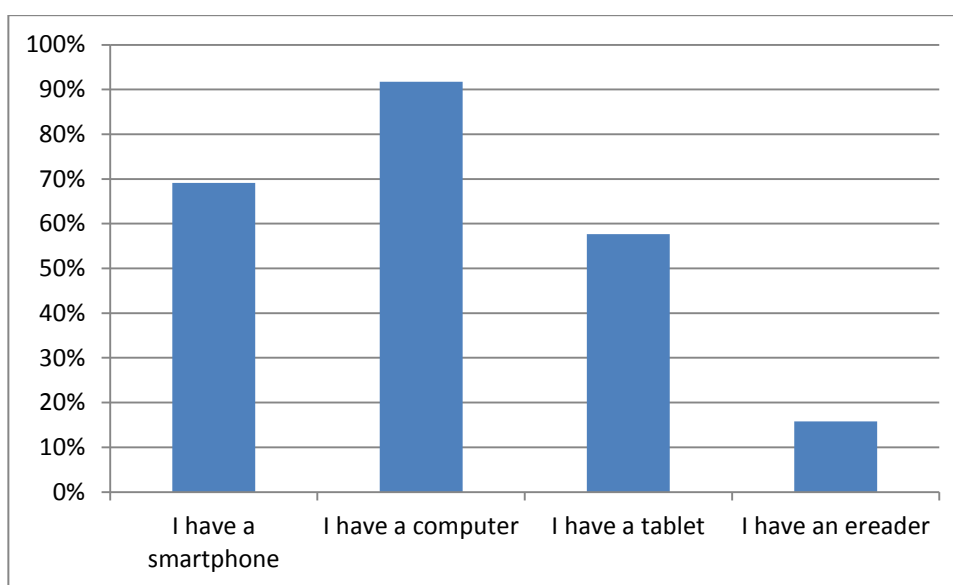


**Figure 23. Library use**

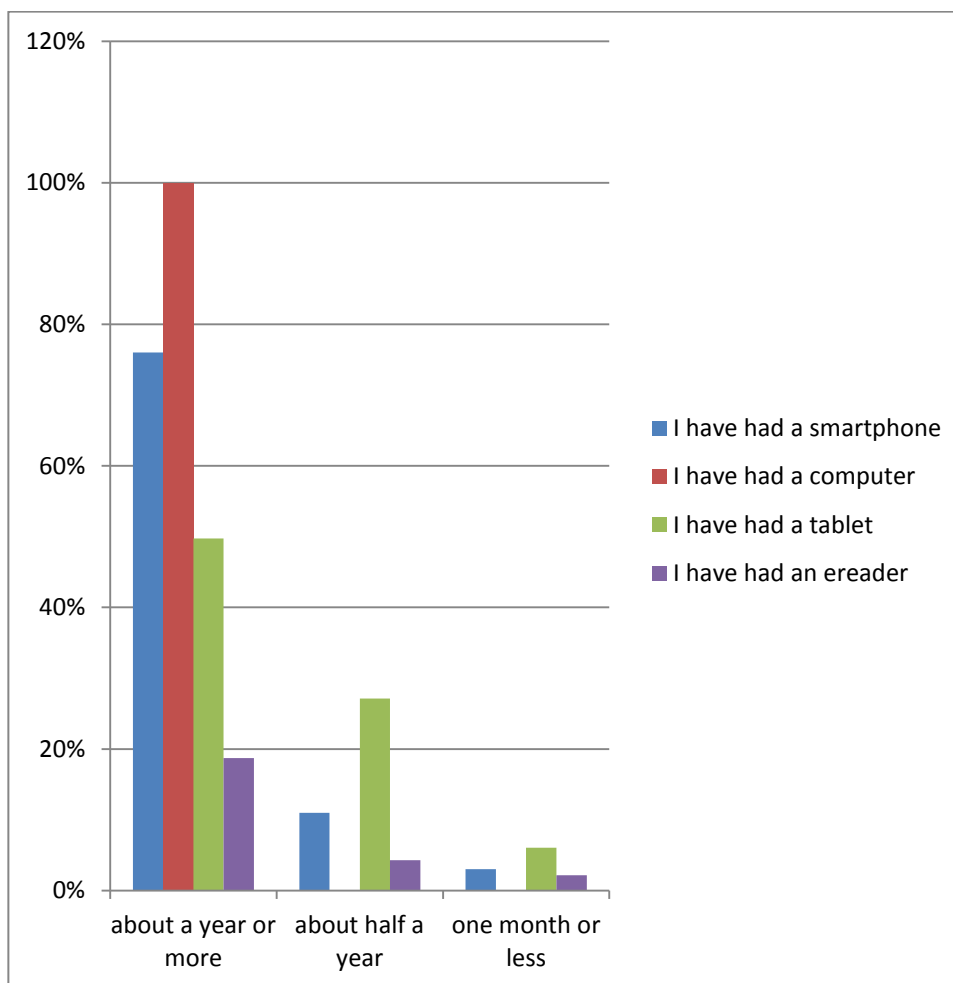


According to the 2012 survey, a large number of respondents (20-30 %) read e-books on mobile devices; the reading non-fiction on computers was also quite common.

Almost all respondents had a computer, and it had been in use for a long time, or at least for one year. 70 % of the respondents had a smart phone, and of them 75 % had owned one for over a year. 15 % of the respondents had recently acquired a smart phone or had owned one for less than a year. 60 % of the respondents had tablets and 50 % of them had owned the device for over a year. The number of tablet owners rose steeply during 2013, and 35 % of the respondents had purchased a tablet within the previous 12 months. 16 % of the respondents had an e-reader, and 18 % of them had owned the device for over a year. Only approximately 5% of the respondents had purchased an e-ink reader during 2013.



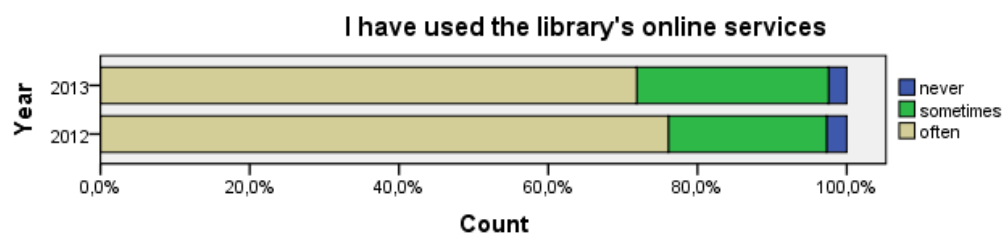
**Figure 24. Respondents' devices**



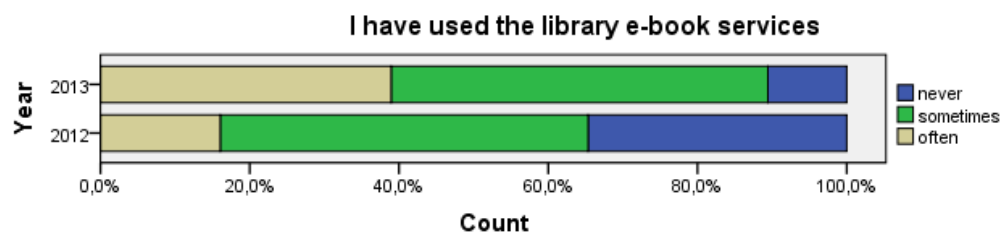
**Figure 25. Length of users' experiences with different devices.**

Based on the survey conducted in the autumn of 2012, Ebib library customers were familiar with the use of the Internet, read books and magazines, and followed the news online. Online shopping was not yet widespread in 2012. The Ebib library customers participating in the autumn 2012 survey could be considered as fairly experienced Internet users.

E-book use has changed within a year. Although there has been no change regarding the library's online services, e-book reading through the library is now more common than in the autumn of 2012. E-book reading via the library's e-book service is much more common than it was a year ago, and the proportion of those who have never used the library's e-book service is clearly lower.

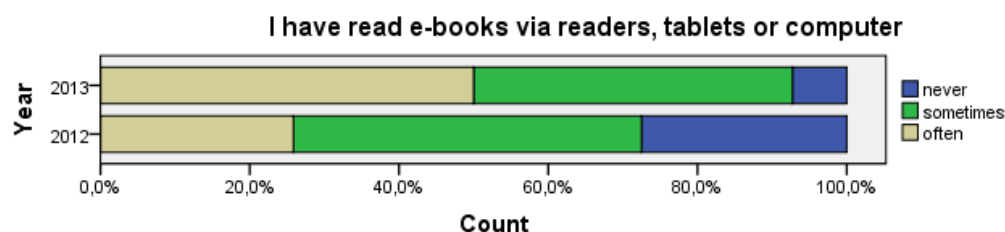


**Figure 26. Respondents' use of library online service in 2012 and 2013 surveys**

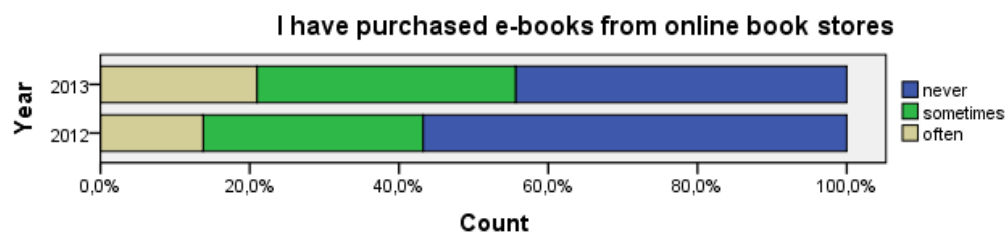


**Figure 27. Respondents' use of library's e-book services in 2012 and 2013 surveys**

The reading of e-books on e-readers, tablets, or computers has also increased significantly, borne out by the fact that the 2013 survey's respondents also bought more e-books than the autumn 2012 survey's respondents. The library's e-book service supports the use of e-book in all forms and areas.



**Figure 28. The respondents' e-book reading on devices in 2012 and 2013 surveys**

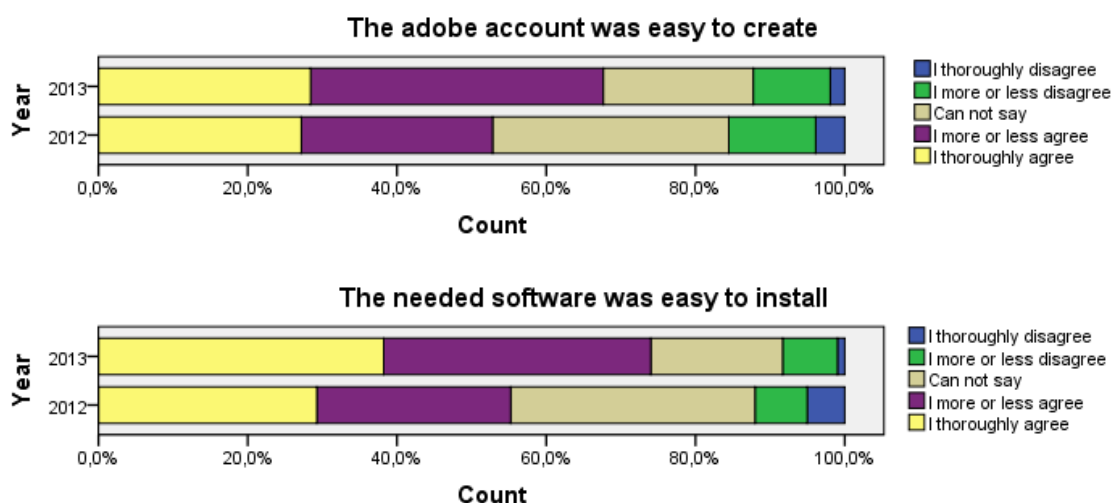


**Figure 29. Respondents' e-book purchases in 2012 and 2013 surveys**

## 5.2 Common opinion of Ebib

The general attitude towards Ebib library was favourable and its usability was praised. Based on the autumn 2012 survey, previous experiences of reading e-books on e-book readers, computers, mobile phones, and tablets positively influenced the ways in which the improved software upgrades and authorisations were received by customers. Those who had used these services the most extensively found the installations and authorisations effortless. Respondents who had never read an e-book on a device or computer could not comment on the ease of installation and authorisation. An even larger number of respondents who answered “I cannot say” had never used the library's e-book services. Of those, 52 % did not know whether an Adobe account was easy to create, and 55 % were unable to assess the convenience of installing a program. Of those who had never bought an e-book from an online store, a large part could not estimate whether it was easy to create an Adobe account (40 %) or install a reading program (45 %).

This was also shown by the difference between 2012 and 2013 surveys. According to respondents, requirements for software installation and authorisation were experienced to be easier on basis of 2013 survey. The contributing factor was customers' improved familiarity with the service.

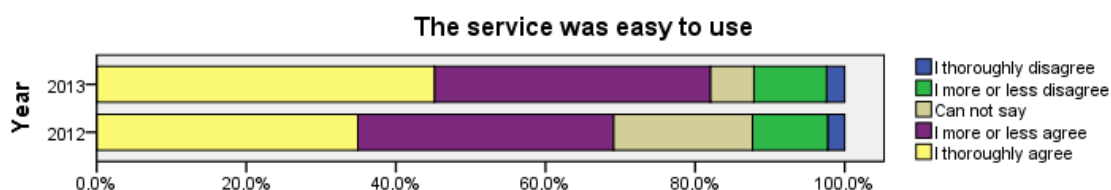


**Figure 30. Account creation and software installation experience**

Service convenience will significantly impact the use of future e-book services. The improvements made to the service based on feedback and usability testing had a tangible impact on how all aspects of the service's usability were experienced.

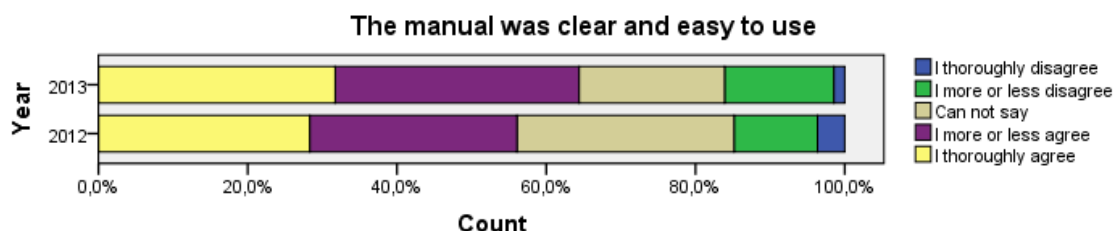
The overall satisfaction of the service improved significantly. In the autumn 2012 survey, approximately 67 % of respondents considered the service easy to use, compared to over 80 % in the summer 2013 survey. The greatest change was registered among those who could not state an opinion on the usability of the service in the autumn 2012 survey, but found the use of the service somewhat

easier in the summer of 2013. Additionally, the proportion of those who considered the service user-friendly increased significantly.



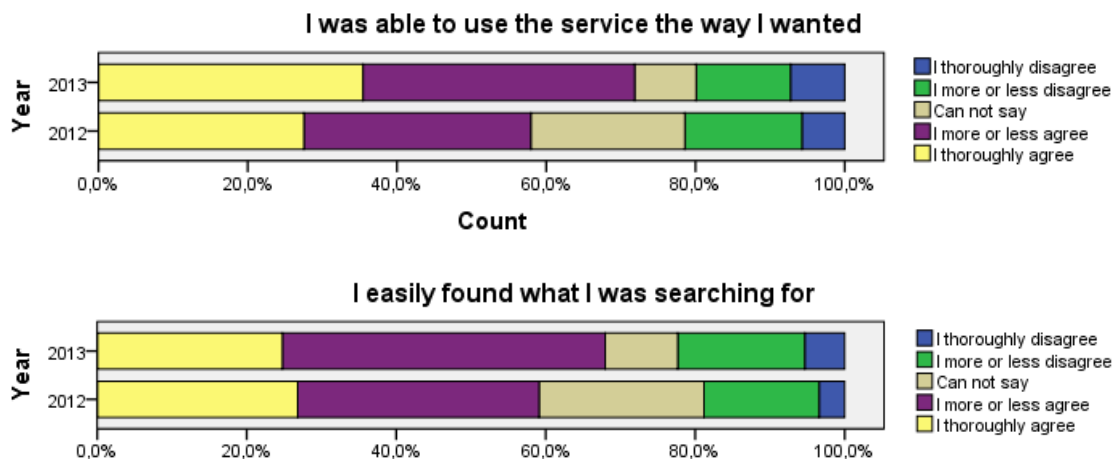
**Figure 31. Easiness to use**

During the pilot project, the regular feedback received concerning service manuals also included a substantial number of technical questions whose answers, it was hoped, might be found in the manual. Although the readability of the manual was improved, its location was repositioned within the service. Even with the addition of the so-called quick references, the survey responses indicated that the clarity of the manual had improved only slightly.



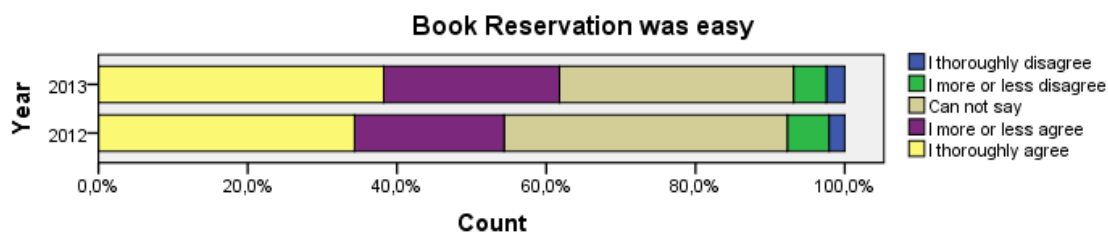
**Figure 32. Clearness of the manual**

The service's responsiveness to customers' demands continued to develop and improve. Although the autumn 2012 survey indicated that nearly 60 % of users believed that they could utilise the service as they wished, the development work continued to the point where 75 % of the respondents reported their satisfaction with the service in the summer of 2013. Although the ways in which customers found the books they were seeking remained unchanged between the surveys, the proportion of those who "more or less" found what they were looking for increased to a certain extent. This can be explained by the fact that the book collection was small during the first trial phase; the additional number of titles in the second trial phase increased the number of satisfied users.



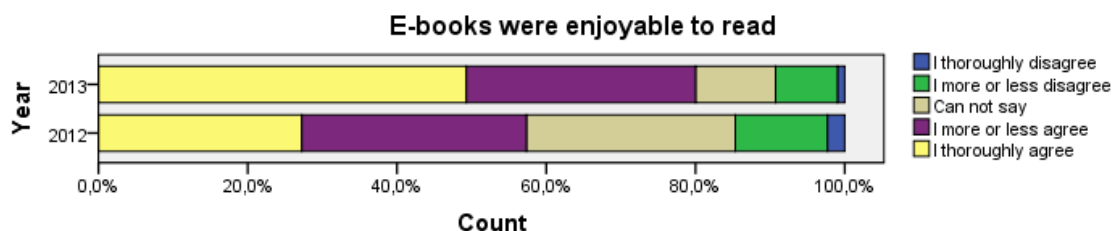
**Figure 33. Easiness to find**

The book reservations' functionalities were generally considered user-friendly, and no major changes related to the users' experiences were registered between the surveys.

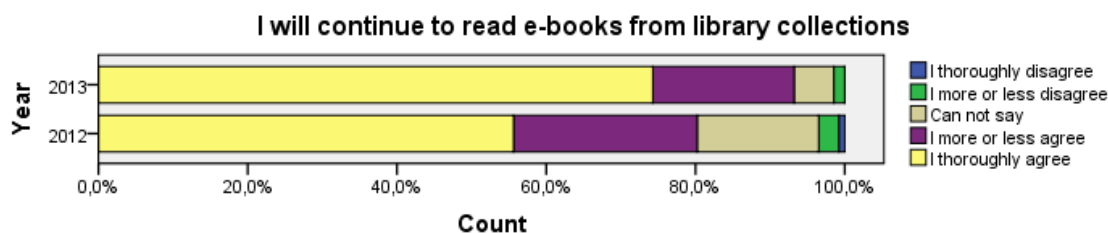


**Figure 34. Easiness of reservations**

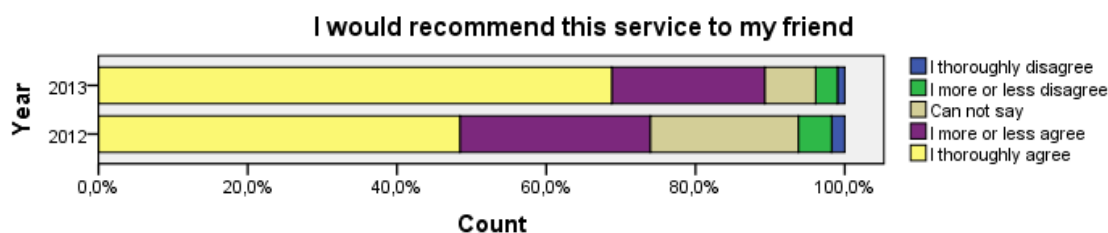
E-book reading was generally considered easy and comfortable, and reading experiences improved significantly between the queries. The reading experience will strongly influence whether or not a customer will continue reading e-books. Clear improvements in the reading experience led to a significant increase in the willingness to read e-books in the future. Additionally, the significantly enhanced ease of use and comfort in reading experiences also means that users of the service will also be recommending it to others.



**Figure 35. Pleasantness of e-book reading**

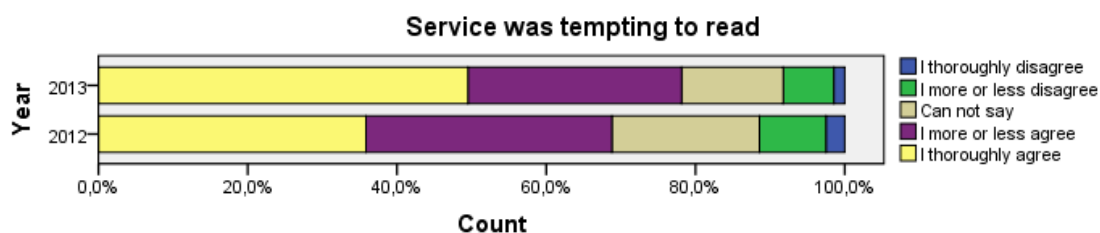


**Figure 36. Continuity of library e-book reading**

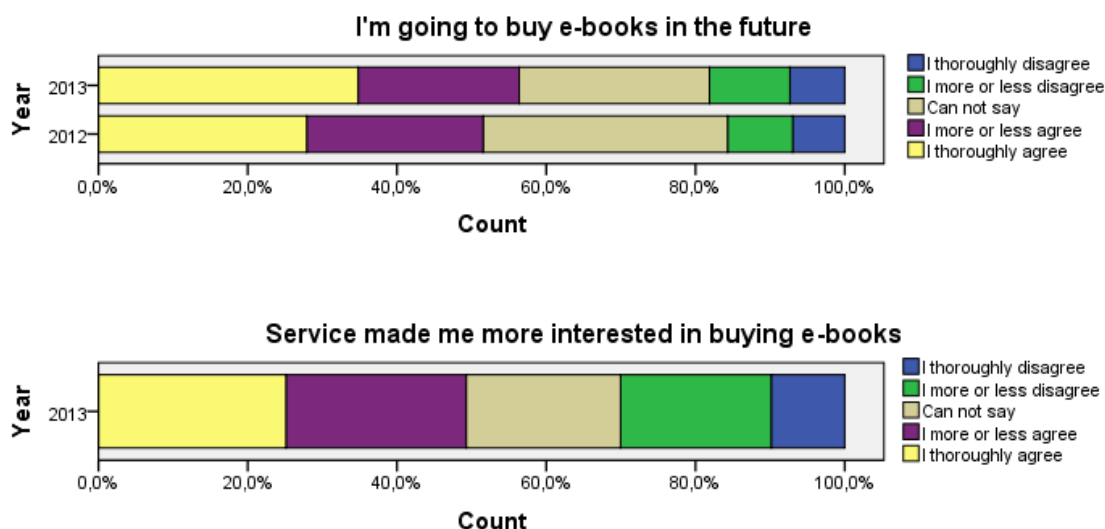


**Figure 37. Ease of use and satisfaction with the service**

The degree to which the service is capable of attracting e-book readers will be of major importance with respect to the future reading and purchasing of e-books. Based on the 2012 survey, 83 % of those attracted to the service stated that they would continue to read the library's e-books, and 37 % would purchase e-books. Of those who were not attracted to read, 11 % planned to buy e-books in the future and 22 % would continue to read the library's e-books. This was also reflected in the 2013 survey, where approximately 50 % of the respondents reported that the service encouraged them to purchase e-books. At the same time, the attractiveness of the e-book service improved significantly compared to the 2012 survey.



**Figure 38. Attractiveness of the service**

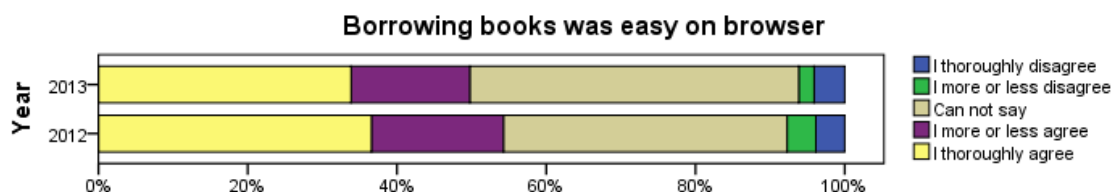


**Figure 39. Willingness to buy e-books**

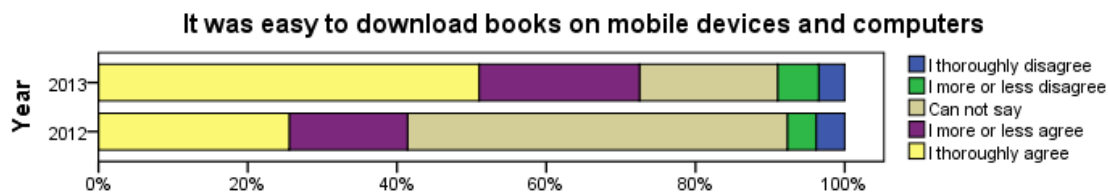
### 5.3 Comparison of different reading experiences (downloaded book vs. reading on browser)

This chapter compares book loans, reading, returns, the awareness of a reading point on a browser, as well as the reading of Bluefire Reader software on mobile devices and Adobe Digital Editions software on computers. The results revealed minor differences in the ways people read e-books.

Surprisingly enough, the borrowing of e-books on a browser did not significantly differ from books by downloaded onto devices. Borrowing books by browser was thought to be the easiest way to borrow an e-book. It is possible that respondents only evaluated the loan function and expressed their views on software installations or on account setups. Regarding the browsers' ease of reading, there was no change between the surveys, but borrowing a book by downloading onto a device was thought to be easy (70 % of respondents) according to the summer 2013 survey.

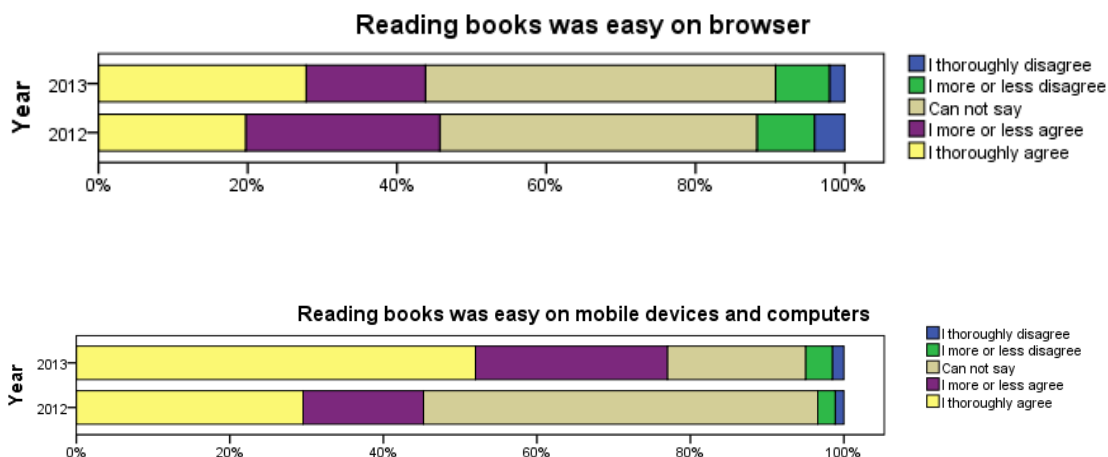






**Figure 40. Ease of loans and downloads**

Reading books on a browser was considered problematic, but not as unanimously compared to reading with other programs. This meant that browser reading had to be improved. The following issues requiring further development were identified: two-page reading view, ability to change the background colour, ability to adjust page margins. Although these features were added to the browser's reading software in 2013, reading an e-book on a mobile device or computer was considered easier than reading on a browser.

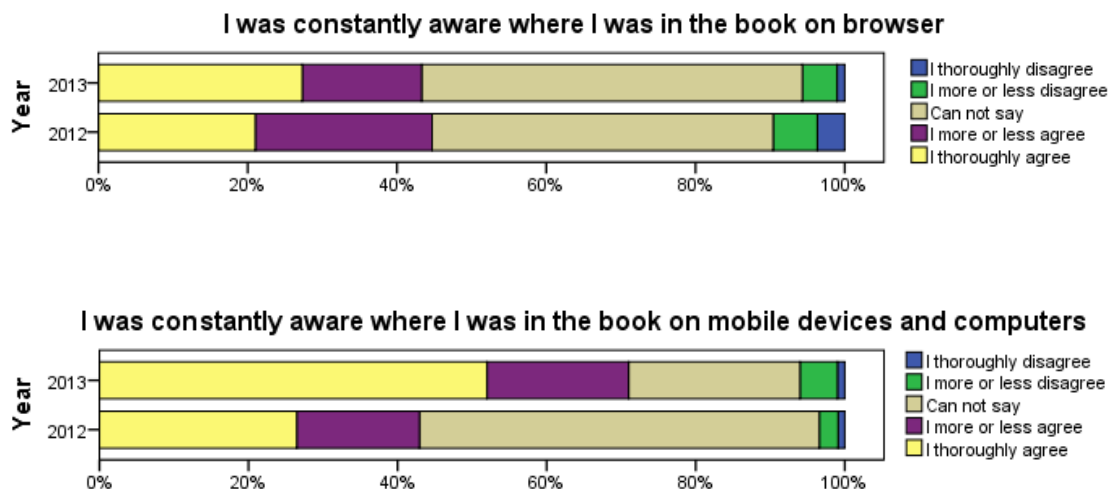


**Figure 41. Ease of reading**

The awareness of where one was on a page at any given time while reading a book on a browser was not at the same level compared to other readers. The difference can be explained by the fact that on the other programs, the reading point was shown by page numbers and a slider that helps the reader to identify the place where he or she is at any given time while reading the book. This information was not available on browsers because the number of pages depends on factors such as the screen size and the selected font. This, however, demonstrates that attention should be paid to this aspect in the future.

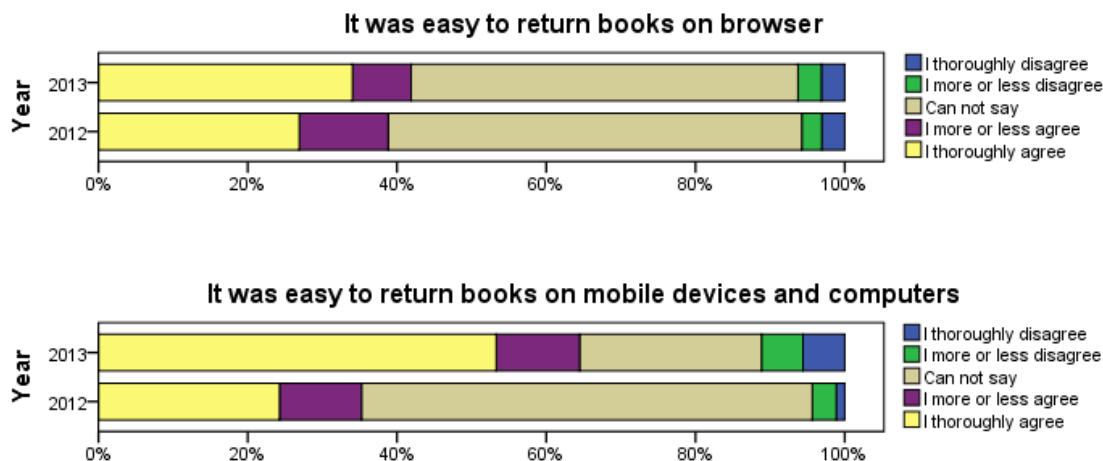
The awareness of reading point did not change between the surveys, except with respect to reading on mobile devices and computers. In the 2013 survey, 75 % of

respondents thought that it was easy to be aware of the reading point; in the 2012 survey, only 45 % were aware of the reading point.



**Figure 42. Position information satisfaction**

As a final point, users were asked to rate the ease of book returns. Although the returns were generally considered to be fairly easy on the surveys, most respondents could not assess how easily books could be returned. A major change occurred among those readers who use mobile devices and computers; those who considered the returns easy increased significantly in the 2013 survey.



**Figure 43. Ease of return**

## 5.4 Feedback

The Ebib library pilot collected feedback from customers through various channels: questionnaires' comment fields, the Ebib library's feedback channel, and Facebook; most of the feedback was received through questionnaire comment fields. The points raised were generally similar among the different feedback channels, and the feedback was for the most part positive.

### 5.4.1 Feedback through survey

A total of 165 feedback comments were received through the survey's various channels. Most feedback concerned the library's e-book collection, which was considered too small, and it was hoped that additional titles – particularly children's books, textbooks, reference books, and literature translated into Finnish – could soon be added to the collection. The second most common feedback topic concerned the browsing of the collection, which was considered difficult. The third most common feedback issue concerned the returns of e-books, considered laborious because the returns were being made through the program, and customers were searching for the return function from the Ebib library. Otherwise, the feedback dealt primarily related to technical problems with e-book downloads and reading. Only a few respondents were astonished by the fact that an e-book has a limited number of simultaneous users.

*"The service is excellent. I hope that the selection of electronic books expands."*

*"The largest possible and diversified selection and easily used search function. It's great that there are more and more electronic books in libraries' selections."*

*"The search functions could be more diversified. For example, the distribution could be according to language, non-fiction books, and so forth. It's hard to scan books on an iPad because you always have to zoom in when you want to click on a fly poop-sized arrow when you want to go to the next page."*

*"Returns with the book's loan information in connection with the 'Own bookshelf' section."*

*"I installed the program and the Adobe account, and went to the service with the Chrome browser. The book download failed and it was unclear about what to do next."*

### 5.4.2 Feedback through the Ebib library

A total of 164 feedback responses were received by the Ebib library. Although much of the feedback concerned loan periods and e-book returns, the Ebib library also received a considerable amount of praise. During the autumn of 2012, most feedback focused on the one-week loan period; customers felt that a one-week loan period long enough to read a book. Beginning in the spring of 2013, feedback related to e-book returns was received. Because the return operation is tucked

away within the reading program, customers were not able to find it with their own instructions. Based on this feedback, an instructional video clarifying return operations was made and sent to customers as an e-mail response. Other feedback topics focused on technical issues such as e-book downloads and reading programs. The Ebib library also garnered praise for providing this kind of service for customers.

*"How can I return an e-book I have read before its expiration date?"*

*"Once again, many thanks for the new superb selection! So far I've read three top-quality books this term. Always when I imagine that library services can't get any better, this kind of great thing comes along."*

*"The program's appearance and usability immediately felt pleasant and straightforward. The search function was fast, without the need for a further update."*

*"I like this ebib service; it was probably the first one where I really read an entire e-book. I used an iPad. Everything worked like I expected; once in the middle of a page turn the program announced that I had to login again. In between I had entered another iPad application, but it lasted only less than a minute, so the session had not expired. A couple of times I poked the wrong place on the screen and the browser jumped to a different page. It would be better if there were no links on the reading screen. In both cases the program remembered the pages where I had been, which is really an excellent feature. The same about changing the size of the text. Page turns sometimes seem a little jerky; maybe it requires some practice. But all in all, a well-made reader program; thanks to its creators."*

### 5.4.3 Feedback through social media

The Ebib library has its own Facebook pages, and the feedback received through FB has been extremely positive. Many of those providing feedback expressed the hope that the Ebib library would continue its services after the trial period. The discussions on the Ebib library's Facebook pages tended to focus on the resolution of customers' problems with e-book downloads and other technical issues.

*"I installed the Bluefire Reader on my iPad and successfully loaned an e-book. Can I get a book to read with an Android smartphone? I also tried a download to the Bluefire Reader, but the book I loaned isn't visible there."*

*I like it. · 24 November, 22:47 p.m. near Helsinki.*

*An Ebib book can be downloaded from the Ebib library onto another device from Own bookshelf./Marja*

*25 November, 9:16 a.m. · I like it · 1*

*...Customer: I did it! Yea! Thanks, this is great.*

*25 November, 9:24 a.m. from mobile application · I don't like it. · 2"*

## 6 Marketing

The Helsinki City Library designed and implemented the Ebib library's marketing and communications for its customers. Marketing campaigns, timed to coincide with the opening of the Ebib library and service upgrades, also utilised HelMet websites and social media. Press releases sent to the mass media gave the Ebib library TV, radio, and press exposure.

Press releases publicising the launch of the Ebib library were sent to various media in October 2012. In this case, there were a considerable number of media hits, but they for the most part occurred in print media that published a copy of the press release. In January 2013, the cultural affairs editors at YLE (Finnish Broadcasting Corporation) promoted an article describing the launch of the Ebib library and its customer acceptance. The story appeared in TV news broadcasts on 8 January 2013 and significantly increased the number of registered library customers. A press release describing the expansion of collection was sent to the media on 3 June 2013, and this announcement was also published in several newspapers.

The HelMet libraries' website [www.helmet.fi](http://www.helmet.fi) was the main information and marketing channel. During the pilot project, several bulletins concerning the Ebib library were posted on the HelMet website, to which the Ebib library's own web page was added. The Ebib pages contained instructions and tips on how to use the Ebib library. Relevant news items were also highlighted on the HelMet front page.

Two main Facebook pages – HelMet and Ebib – were also used in the marketing and provision of instructions. Troubleshooting issues requiring immediate attention, as well as notifications of new features concerning collections and changes in the Ebib library services, were posted on Facebook.

There were also marketing campaigns. The aim of the ambitious "Christmas Campaign" launched in late 2012, was to make customers aware that HelMet libraries have also e-books. The HelMet website, social media, and so-called Helsinki Screens – large touch-screen billboards located in the city centre – were utilised in the Christmas campaign. The screens, in use from 19 December 2012 until 9 January 2013, invited passers-by to explore the library's e-book collection. Touching the cover image unlocked a QR code; scanning the QR code provided additional information related to the library's e-books. The screens were used also in February 2013 to remind customers of the library's e-books.



**Figure 44. Helsinki screens**

The aim of “The Whole City Reads” campaign launched in the autumn of 2013 was to familiarize the HelMet libraries’ customers with the Ebib library, e-book reading, and social reading. One book with unlimited simultaneous user rights was added to the Ebib library collection. On Facebook, the campaign organised a social reading circuit open to all interested participants. The campaign, lasting from 25 November to 14 December 2013, was publicised on flyers, posters, and HelMet website. The campaign’s featured book was Peter Franzen’s *Tumman veden päällä*. The campaign got off to an auspicious start and has received attention in the media, including a radio interview. At the time of this writing, the campaign was still in progress.

Participation in various trade fairs and conferences has also helped promote the Ebib library and e-books. There were presentations in 2012 and 2013 at book fairs, the 2013 Travel Fair and the “Lifelong Learning” event in the autumn of 2013. Several presentations were also made at other events such as ICT Association for Seniors meetings. Overall, there were approximately 15 Ebib library presentations.

An extensive tutoring campaign in HelMet libraries provided the libraries’ employees with guidance related to the use of e-books and customer assistance. In early 2013, four lectures with the same content were delivered to more than 300 library employees. Workshops held after the lectures familiarised staff members with e-book downloading techniques and the experience of reading on different devices. A total of 15 workshops attended by over 200 employees were organised. After the training, library staffs have organised numerous orientation sessions for customers.

## Conclusions

Publishers and libraries in Finland had a common goal to find ways to promote Finnish literature among consumers. Both parties wanted to provide user friendly e-book services including Finnish literature. When the project started (at the end of 2011) there were few e-book platforms for consumers and even less for library customers.

The concept of collaboration proved to be a very fruitful and effective way to proceed and achieve common goals. In the pilot there were experts from different fields who assessed e-books from different perspectives and engaged in discussions aimed at finding practical solutions for e-book usage at libraries. In the project group there was expertise in interfaces, online services, usability testing, licensing models, library customers, e-book processes, metadata and publishing. The pilot provided trial environment where licensing policies could be tested. The results from the trial will facilitate decision-making in future.

One of the main goals for the pilot was that the e-book service should be user friendly and attract library users. The platform should not reject any new users by being too difficult or complicated to use. Therefore a strong emphasis was put on platform development. The working method where a small group of people from Helsinki City Library, Aalto ARTS (usability expertise), Ellibs (platform developer) and VTT together developed the platform proved to be a good method to work. The feedback from library customers was also taken into account during the development.

Apart from platform development, user friendliness was sought by developing a new easy way to read e-books (streaming). Streaming allowed library users to read e-books without having to install any software or acquire additional user ids. Nothing but occasional internet connection was needed. For offline-reading users could still download and read e-books with Adobe DRM –techniques. According to the feedback received from library users the service was a success. The feedback was very positive, e.g. over 80 % of respondents considered the service easy to use.

Already at the beginning of the project it was understood that launching a new service involves a lot of marketing and commitment to communicating with users. Different kinds of communication channels were offered for customers (social media, e-mail, library web sites, survey) and pilot group was engaged in rapid answers to customers questions. Marketing campaigns were launched with press releases, city screens, TV & radio interviews etc.

The pilot showed that the usage of e-books and print books differ because of different user groups and/or different collections. E-book purchases are challenging to plan because a library cannot know in advance how each title's usage will evolve. It is essential that changes in acquisitions per title can be made rapidly in both directions. When a library has purchased more usage rights than it needs, it should be possible to reduce the number of simultaneous usage rights.

Correspondingly, when usage is higher than anticipated, it should be possible to make quick and convenient additional purchases.

Because e-books can be transferred from one borrower to the next without delay, there can be more users per each title. In addition, reserved e-books need not wait on shelves for the next customer but will be transferred to the next borrower as soon as they have been returned to the e-book library. Shorter loan period makes it also possible to increase the amount of users per title.

A total of three different licensing models were tested in the pilot: 1) annual license with one simultaneous user (known as a printed book model) 2) annual license with 20 simultaneous users 3) lending pool license with X amount of loans per title and unlimited simultaneous users. On the basis of this pilot, the first two license models are suitable for the library's e-books. These models are clear to all parties concerned: libraries, publishers and authors. In these models it is easier to assess an adequate number of licenses than, for example in the pool model.

According to the 2013 survey library use will not prohibit users from buying ebooks. More than 50 % of the respondents reported that they are going to buy e-books in future. Approximately 50 % of the respondents reported that the service encouraged them to purchase e-books.

All in all the pilot proved extremely useful. Besides providing an environment for the testing of various techniques and licensing models, it generated useful information concerning e-book users' attitudes and usage patterns.



## Appendixes

### Appendix 1. Number of licenses per title

Title	Publisher	Amount	License	Start day	End day
700 grammaa	WSOY	60	loans	5.6.2013	2.7.2013
700 grammaa	WSOY	7	users	2.7.2013	31.12.2013
700 grammaa	WSOY	1	users	17.7.2013	31.12.2013
Chateau Inkeroinen: 9 kertomusta	Tammi	3	users	5.6.2013	31.12.2013
Ei kenenkään maassa: romaani	Tammi	60	loans	5.6.2013	12.7.2013
Ei kenenkään maassa: romaani	Tammi	7	users	15.7.2013	31.12.2013
Ella Aura ja kolmastoista haltia	WSOY	3	users	5.6.2013	31.12.2013
Ella Auran tuomiopäiväkirja	WSOY	3	users	5.6.2013	31.12.2013
Erottaja	WSOY	3	users	5.6.2013	31.12.2013
Esimiehen työsuhdeopas	Edita Publishing	1	users	15.10.2012	31.12.2012
Esimiesosaaminen – Liiketoiminnan menestystekijä	Edita Publishing	2	users	15.10.2012	31.12.2013
Haltijan poika	Tammi	4	users	5.6.2013	31.12.2013
Hiekkasotilaat	WSOY	3	users	5.6.2013	31.12.2013
Hietakehto	Otava	30	users	15.10.2012	31.12.2013
Hiirestä puumaksi	Tammi	3	users	5.6.2013	31.12.2013
Hiirestä puumaksi	Tammi	1	users	20.6.2013	31.12.2013
Isän kanssa kahden	WSOY	5	users	5.6.2013	31.12.2013
Jääleinikki	Otava	10	users	15.10.2012	31.12.2013
Jäljellä	Tammi	3	users	5.6.2013	31.12.2013
Käärmeenlumooja	WSOY	5	users	5.6.2013	31.12.2013
Kaikkea kaunista	Tammi	60	loans	5.6.2013	9.7.2013
Kaikkea kaunista	Tammi	7	users	15.7.2013	31.12.2013
Kansainvälinen liiketoiminta ja markkinointi	Edita Publishing	1	users	15.10.2012	31.12.2013
Kätilö	WSOY	20	users	5.6.2013	31.12.2013
Kaupan strategiaosaaminen	Edita Publishing	1	users	15.10.2012	31.12.2013
Kesytön	Tammi	5	users	5.6.2013	31.12.2013
Kolme miestä netissä	Otava	14	users	15.10.2012	31.12.2013
Kolmijalkainen mies	Otava	10	users	15.10.2012	31.12.2013
Kolmikulma	WSOY	3	users	5.6.2013	31.12.2013
Koneen ruhtinas: Pekka Herlinin elämä	Otava	20	users	15.10.2012	31.12.2013
Konejumalat	WSOY	3	users	10.9.2013	31.12.2013
Kootut runot - sekä kirjailijakehitys	WSOY	1	users	20.6.2013	31.12.2013
Kosmoksen hahmo	WSOY	3	users	5.6.2013	31.12.2013
Kuhala ja jokimurhat	Tammi	20	users	5.6.2013	31.12.2013

Title	Publisher	Amount	License	Start day	End day
Kuhala ja yöjuna	Tammi	60	loans	5.6.2013	19.7.2013
Kuhala ja yöjuna	Tammi	5	users	19.7.2013	31.12.2013
Kuulen kutsun metsänpeittoon	Tammi	1	users	24.6.2013	31.12.2013
Lapinvuokko	Otava	10	users	15.10.2012	31.12.2013
Laskentatoimi johtamisen tukena	Edita Publishing	1	users	15.10.2012	31.12.2013
Lavatähti ja kirjamies	WSOY	40	users	5.6.2013	31.12.2013
Liha tottelee kuria	WSOY	3	users	6.6.2013 13:38	31.12.2013 23:59
Logistinen päätöksenteko	Edita Publishing	1	users	15.10.2012	31.12.2013
Lupa sulle ruusutarhan: 100+ asiaa naiseudesta	Tammi	3	users	5.6.2013	31.12.2013
Mahtimiehistä maan matosiin: ihmisiä matkan varrelta	Tammi	20	users	5.6.2013	31.12.2013
Markkinat ja demokratia: loppu enemmistön tyrannialle	Otava	25	users	15.10.2012	31.12.2013
Me Rosvolat	Otava	5	users	15.10.2012	31.12.2013
Me Rosvolat ja Iso-Hemmin arkku	Otava	5	users	15.10.2012	31.12.2013
Me Rosvolat ja konnakaraoke	Otava	5	users	15.10.2012	31.12.2013
Mediahuora	Otava	9	users	15.10.2012	31.12.2013
Meren alku	WSOY	3	users	5.6.2013	31.12.2013
Metsäjätti	Otava	20	users	15.10.2012	31.12.2013
Mieleni talot: totta, tarua ja tulkintaa	WSOY	5	users	5.6.2013	31.12.2013
Mielensäpahoittaja	WSOY	20	users	5.6.2013	31.12.2013
Mielensäpahoittaja ja ruskeakastike	WSOY	20	users	5.6.2013	31.12.2013
Miksi kunta menestyy? Mistä löytyvät viisaat virkamiehet ja pätevät päättäjät?	Edita Publishing	1	users	15.10.2012	31.12.2012
Minä, vakuutusetsivä	WSOY	3	users	5.6.2013	31.12.2013
Miss Seinäruusu	Otava	34	users	15.10.2012	31.12.2013
Mitä tilinpäätös kertoo?	Edita Publishing	2	users	15.10.2012	31.12.2013
Mozartin hiukset: novelleja	WSOY	3	users	6.6.2013	31.12.2013
Muistivirhe	Otava	20	users	15.10.2012	31.12.2013
Muita hyviä ominaisuuksia	Otava	10	users	15.10.2012	31.12.2013
Murusia	Tammi	60	loans	5.6.2013	30.7.2013
Murusia	Tammi	7	users	30.7.2013	31.12.2013
Musta timantti: novelleja	WSOY	3	users	5.6.2013	31.12.2013
Mustasiipi	Otava	20	users	15.10.2012	31.12.2013
Näkijän tytär	Tammi	20	users	5.6.2013	31.12.2013
Nuku lähelläni	WSOY	60	loans	5.6.2013	8.7.2013
Nuku lähelläni	WSOY	7	users	15.7.2013	31.12.2013
Nuorgamin Alkon tuho: ja muutama erätarina	WSOY	60	loans	5.6.2013	12.9.2013

Title	Publisher	Amount	License	Start day	End day
Nuorgamin Alkon tuho: ja muutama erätarina	WSOY	3	users	13.9.2013	31.12.2013
Olemisen porteilla	WSOY	3	users	5.6.2013	31.12.2013
Olemisen porteilla	WSOY	1	users	20.6.2013	31.12.2013
Onnen tunti	Otava	30	users	15.10.2012	31.12.2013
Orvokki Leukaluun urakirja	WSOY	5	users	5.6.2013	31.12.2013
Pako	Tammi	60	loans	5.6.2013	2.7.2013
Pako	Tammi	5	users	2.7.2013	31.12.2013
Paljain jaloin	WSOY	5	users	11.6.2013	31.12.2013
Papin rouva	WSOY	1	users	5.6.2013	31.12.2013
Papin tytär	WSOY	1	users	5.6.2013	31.12.2013
Parempi maailma	Tammi	3	users	5.6.2013	31.12.2013
Piippuhylly	WSOY	20	users	5.6.2013	17.9.2013
Piippuhylly	WSOY	20	users	5.6.2013	31.12.2013
Pukin paha päivä	WSOY	3	users	5.6.2013	31.12.2013
Pukki laivalla	WSOY	3	users	5.6.2013	31.12.2013
Punainen kuin veri	Tammi	3	users	5.6.2013	31.12.2013
Railo	Otava	13	users	15.10.2012	31.12.2013
Routasisarukset	WSOY	3	users	5.6.2013	31.12.2013
Rouva S.	Tammi	3	users	5.6.2013	31.12.2013
Saarroksissa	Tammi	3	users	5.6.2013	31.12.2013
Sairauspoissaolojen hallinta esimiehen keinoin	Edita Publishing	1	users	15.10.2012	31.12.2012
Sanat	WSOY	3	users	6.6.2013	31.12.2013
Seuralainen	Otava	30	users	15.10.2012	31.12.2013
Sheriffi	Otava	20	users	15.10.2012	31.12.2013
Siipirikko	Tammi	5	users	10.9.2013	31.12.2013
Silkkipunos	Tammi	60	loans	5.6.2013	25.9.2013
Silkkipunos	Tammi	3	users	26.9.2013	31.12.2013
Surujenkerääjä	WSOY	60	loans	5.6.2013	21.9.2013
Surujenkerääjä	WSOY	3	users	23.9.2013	31.12.2013
Sydänraja	WSOY	3	users	5.6.2013	31.12.2013
Taivaan paino	WSOY	3	users	5.6.2013	31.12.2013
Tarhapäivä	Otava	30	users	15.10.2012	31.12.2013
Tarja Halonen: paremman maailman puolesta	Tammi	5	users	5.6.2013	31.12.2013
Tarkasti vartioitu	Tammi	7	users	24.6.2013	31.12.2013
Terveiset Kutturasta	WSOY	5	users	5.6.2013	31.12.2013
Toisaalla	Tammi	3	users	5.6.2013	31.12.2013
Torajyvät	Tammi	3	users	5.6.2013	31.12.2013
Totta	Otava	30	users	15.10.2012	31.12.2013
Tuomari Müller, hieno mies	WSOY	1	users	5.6.2013	31.12.2013
Tuonelan joutsen	Tammi	60	loans	5.6.2013	2.9.2013
Tuonelan joutsen	Tammi	5	users	3.9.2013	31.12.2013

<b>Title</b>	<b>Publisher</b>	<b>Amount</b>	<b>License</b>	<b>Start day</b>	<b>End day</b>
Tuukka-Omar	Tammi	3	users	24.6.2013	31.12.2013
Unikoiri	Tammi	3	users	5.6.2013	31.12.2013
Unio Mystica: Mika Waltarin elämä ja teokset	WSOY	3	users	5.6.2013	31.12.2013
Uskomaton matka uskovien maailmaan	WSOY	20	users	5.6.2013	31.12.2013
Vadelmavenepakolainen	Otava	20	users	15.10.2012	31.12.2013
Vieras	Otava	35	users	15.10.2012	31.12.2013
Viides tuuli	WSOY	5	users	5.6.2013	31.12.2013
Yksin	WSOY	1	users	5.6.2013	31.12.2013
Ylämummoon, Tuukka-Omar!	Tammi	3	users	5.6.2013	31.12.2013
Yösyöttö	Otava	20	users	15.10.2012	31.12.2013
Yrityksen asiakasmarkkinointi	Edita Publishing	3	users	15.10.2012	31.12.2013
Yrityksen sisäinen valvonta	Edita Publishing	1	users	15.10.2012	31.12.2012

**Appendix 2. Volume and loans by title (print+e)**

Title	Number of simultaneous users (e-books)	Loans of e-books	Number of printed book items	Loans of printed books	Loans of e-books/license	Loans of printed books/item
700 grammaa	8	126	167	789	15,8	4,7
Chateau Inkeroinen: 9 kertomusta	3	39	54	169	13,0	3,1
Ei kenenkään maassa: romaani	7	118	168	972	16,9	5,8
Ella Aura ja kolmastoista haltia	3	19	37	74	6,3	2,0
Ella Auran tuomiopäiväkirja	3	22	58	121	7,3	2,1
Erottaja	3	46	163	435	15,3	2,7
Esimiehen työsuhdeopas	1	12			12,0	
Esimiesosaaminen – Liiketoiminnan menestystekijä	2	76	23	66	38,0	2,9
Haltijan poika	4	34	37	35	8,5	0,9
Hiekkasotilaat	3	10	48	62	3,3	1,3
Hietakehto	30	229	286	1907	7,6	6,7
Hiirestä puumaksi	4	67	20	74	16,8	3,7
Isän kanssa kahden	5	36	48	249	7,2	5,2
Jäljellä	3	45	67	285	15,0	4,3
Jääleinikki	10	118	210	1045	11,8	5,0
Kaikkea kaunista	7	123	107	912	17,6	8,5
Kansainvälinen liiketoiminta ja markkinointi	1	33	15	43	33,0	2,9
Kaupan strategiaosaaminen	1	38	7	17	38,0	2,4
Kesytön	5	66	78	339	13,2	4,3
Kolme miestä netissä	14	374	160	709	26,7	4,4
Kolmijalkainen mies	10	422	140	516	42,2	3,7
Kolmikulma	3	40	165	737	13,3	4,5
Koneen ruhtinas: Pekka Herlinin elämä	20	479	216	507	24,0	2,3
Konejumalat	3	8			2,7	
Kootut runot - sekä kirjailijakehitys	1	13	18	36	13,0	2,0
Kosmoksen hahmo	3	39	45	99	13,0	2,2
Kuhala ja jokimurhat	20	187	107	1254	9,4	11,7
Kuhala ja yöjuna	5	93	96	820	18,6	8,5
Kuulen kutsun metsänpeittoon	1	12	44	52	12,0	1,2

<b>Title</b>	<b>Number of simultaneous users (e-books)</b>	<b>Loans of e-books</b>	<b>Number of printed book items</b>	<b>Loans of printed books</b>	<b>Loans of e-books/license</b>	<b>Loans of printed books/item</b>
Kätilö	20	203	497	3209	10,2	6,5
Käärmeenlumooja	5	22	66	234	4,4	3,5
Lapinvuokko	10	102	184	676	10,2	3,7
Laskentatoimi johtamisen tukena	1	41	4	15	41,0	3,8
Lavatähti ja kirjamies	40	164	312	2985	4,1	9,6
Liha tottelee kuria	3	40	99	249	13,3	2,5
Logistinen päätöksenteko	1	30	7	17	30,0	2,4
Lupaan sulle ruusutarhan: 100+ asiaa naiseudesta	3	44	18	44	14,7	2,4
Mahtimiehistä maan matosiin: ihmisiä matkan varrelta	20	58	45	330	2,9	7,3
Markkinat ja demokratia: loppu enemmistön tyrannialle	25	644	155	995	25,8	6,4
Me Rosvolat	5	140	193	676	28,0	3,5
Me Rosvolat ja Iso-Hemmin arkku	5	98	97	392	19,6	4,0
Me Rosvolat ja konnakaraoke	5	61	196	443	12,2	2,3
Mediahuora	9	334	119	509	37,1	4,3
Meren alkua	3	18	33	14	6,0	0,4
Metsäjätti	20	614	286	1683	30,7	5,9
Mieleni talot: totta, tarua ja tulkintaa	5	39	33	265	7,8	8,0
Mielensäpahoittaja	20	282	202	1230	14,1	6,1
Mielensäpahoittaja ja ruskeakastike	20	205	209	1880	10,3	9,0
Miksi kunta menestyy? Mistä löytyvät viisaat virkamiehet ja pätevät päättäjät?	1	8			8,0	
Minä, vakuutusetsivä	3	44	45	384	14,7	8,5
Miss Seinäruusu	34	232	170	941	6,8	5,5
Mitä tilinpäätös kertoo?	2	79	15	25	39,5	1,7
Mozartin hiukset: novelleja	3	40	49	69	13,3	1,4

<b>Title</b>	<b>Number of simultaneous users (e-books)</b>	<b>Loans of e-books</b>	<b>Number of printed book items</b>	<b>Loans of printed books</b>	<b>Loans of e-books/license</b>	<b>Loans of printed books/item</b>
Muistivirhe	20	371	219	1093	18,6	5,0
Muita hyviä ominaisuuksia	10	324	145	325	32,4	2,2
Murusia	7	122	73	485	17,4	6,6
Musta timantti: novelleja	3	38	37	140	12,7	3,8
Mustasiipi	20	325	236	1090	16,3	4,6
Nuku lähelläni	7	109	160	1455	15,6	9,1
Nuorgamin Alkon tuho: ja muutama erätarina	3	65	32	90	21,7	2,8
Näkijän tytär	20	96	100	662	4,8	6,6
Olemisen porteilla	4	51	78	158	12,8	2,0
Onnen tunti	30	357	408	1675	11,9	4,1
Orvokki Leukaluun urakirja	5	58	56	396	11,6	7,1
Pako	5	104	92	554	20,8	6,0
Paljain jaloin	5	67	115	1183	13,4	10,3
Papin rouva	1	13	28	98	13,0	3,5
Papin tytär	1	16	41	104	16,0	2,5
Parempi maailma	3	34	63	264	11,3	4,2
Piippuhylly	20	85	179	1522	4,3	8,5
Pukin paha päivä	3	36	61	68	12,0	1,1
Pukki laivalla	3	30	52	101	10,0	1,9
Punainen kuin veri	3	40	64	309	13,3	4,8
Railo	13	298	218	1000	22,9	4,6
Routasisarukset	3	23	68	103	7,7	1,5
Rouva S.	3	18	40	162	6,0	4,1
Saarroksissa	3	38	66	612	12,7	9,3
Sairauspoissaolojen hallinta esimiehen keinoin	1	12			12,0	
Sanat	3	49	47	76	16,3	1,6
Seuralainen	30	322	277	1219	10,7	4,4
Sheriffi	20	479	268	1951	24,0	7,3
Siipirikko	5	18			3,6	
Silkkipunos	3	61	131	1424	20,3	10,9
Surujenkerääjä	3	64	51	227	21,3	4,5
Sydänraja	3	13	49	64	4,3	1,3

<b>Title</b>	<b>Number of simultaneous users (e-books)</b>	<b>Loans of e-books</b>	<b>Number of printed book items</b>	<b>Loans of printed books</b>	<b>Loans of e-books/license</b>	<b>Loans of printed books/item</b>
Taivaan paino	3	12	34	9	4,0	0,3
Tarhapäivä	30	376	343	2232	12,5	6,5
Tarja Halonen: paremman maailman puolesta	5	52	112	1085	10,4	9,7
Tarkasti vartioitu	7	76	72	260	10,9	3,6
Terveiset Kutturasta	5	52	93	919	10,4	9,9
Toisaalla	3	37	55	248	12,3	4,5
Torajyvät	3	48	63	151	16,0	2,4
Totta	30	496	521	2066	16,5	4,0
Tuomari Müller, hieno mies	1	12	47	19	12,0	0,4
Tuonelan joutsen	5	84	134	741	16,8	5,5
Tuukka-Omar	3	33	86	69	11,0	0,8
Unikoira	3	47	54	322	15,7	6,0
Unio Mystica: Mika Waltarin elämä ja teokset	3	39	95	100	13,0	1,1
Uskomaton matka uskovien maailmaan	20	145	121	1096	7,3	9,1
Vadelmavenepakolainen	20	766	265	1357	38,3	5,1
Vieras	35	795	435	4674	22,7	10,7
Viides tuuli	5	25	30	33	5,0	1,1
Yksin	1	13	45	76	13,0	1,7
Ylämummoon, Tuukka-Omar!	3	19	79	88	6,3	1,1
Yrityksen asiakasmarkkinointi	3	93	35	67	31,0	1,9
Yrityksen sisäinen valvonta	1	13			13,0	
Yösyöttö	20	329	245	1343	16,5	5,5



**Appendix 3. Reservations per title 15 Oct 2012 – 30 Sept 2013**

Title	Holds
Markkinat ja demokratia: loppu enemmistön tyrannialle	117
Vadelmavenepakolainen	84
Mediahuora	64
Mitä tilinpäätös kertoo?	62
700 grammaa	58
Pako	49
Vieras	46
Esimiesosaaminen – Liiketoiminnan menestystekijä	37
Kolmijalkainen mies	36
Metsäjätti	33
Mielensäpahoittaja	26
Laskentatoimi johtamisen tukena	24
Liha tottelee kuria	20
Hiirestä puumaksi	18
Punainen kuin veri	18
Kosmoksen hahmo	17
Nuku lähelläni	16
Kansainvälinen liiketoiminta ja markkinointi	14
Paljain jaloin	14
Unio Mystica: Mika Waltarin elämä ja teokset	14
Kuhala ja yöjuna	13
Kuulen kutsun metsänpeittoon	12
Kauppan strategiaosaaminen	11
Yrityksen asiakasmarkkinointi	10
Ei kenenkään maassa: romaani	9
Kätilö	9
Muita hyviä ominaisuuksia	9
Sheriffi	9
Kaikkea kaunista	8
Kolme miestä netissä	8
Kootut runot - sekä kirjailijakehitys	8
Minä, vakuutusetsivä	8
Tuomari Müller, hieno mies	8
Logistinen päätöksenteko	7
Olemisen porteilla	7
Mozartin hiukset: novelleja	6
Chateau Inkeroinen: 9 kertomusta	5
Siipirikko	5
Kolmikulma	4

Mielensäpahoittaja ja ruskeakastike	4
Saarroksissa	4
Sairauspoissaolojen hallinta esimiehen keinoin	4
Sanat	4
Tarja Halonen: paremman maailman puolesta	4
Terveiset Kutturasta	4
Esimiehen työsuhdeopas	3
Me Rosvolat	3
Murusia	3
Orvokki Leukaluun urakirja	3
Tarkasti vartioitu	3
Jäljellä	2
Koneen ruhtinas: Pekka Herlinin elämä	2
Railo	2
Routasisarukset	2
Yrityksen sisäinen valvonta	2
Erottaja	1
Konejumalat	1
Kuhala ja jokimurhat	1
Lupaan sulle ruusutarhan: 100+ asiaa naiseudesta	1
Miksi kunta menestyy? Mistä löytyvät viisaat virkamiehet ja pätevät päättäjät?	1
Musta timantti: novelleja	1
Nuorgamin Alkon tuho: ja muutama erätarina	1
Pukin paha päivä	1
Rouva S.	1
Toisaalla	1
Torajyvät	1
Tuonelan joutsen	1
Unikoiria	1

**Appendix 4. The survey****Ebib-sähkökirjapalvelun käyttökokemus****Tervetuloa vastaamaan eBib-käyttöön liittyvään kyselyyn!**

Anna yhteystietosi, mikäli olet kiinnostunut osallistumaan arvontaan, palvelun kehittämiseen liittyvään pienryhmähaastatteluun tai sähköiseen lukemiseen liittyvään kokeeseen.

Kaikkien vastaajien kesken arvotaan sähkökirjapalkkiota. Keskustelutapahtumaan tai kokeisiin osallistuneet saavat sähkökirjan ja elokuvalipun.

**Taustatiedot****Ikä**

- ☐ Alle 15
- ☐ 15-19
- ☐ 20-25
- ☐ 26-35
- ☐ 36-45
- ☐ 46-55
- ☐ 56-65
- ☐ 66-75
- ☐ Yli 75

**Sukupuoli**

- ☐ Nainen
- ☐ Mies

**Kuinka monta kirjaa luet keskimäärin kuukaudessa?**

- ☐ 0-2
- ☐ 3-6
- ☐ yli 6

**Kuinka usein käytät kirjaston lainauspalveluita?**

- ☐ viikoittain
- ☐ muutaman kerran kuukaudessa
- ☐ kerran kuukaudessa
- ☐ muutaman kerran vuodessa tai harvemmin
- ☐ en lainkaan

**Kuinka kauan käytössäsi on ollut seuraavat laitteet?**

	Käytössäni kuukauden	noin ei ole ao. tai	noin puoli vähemmän vuotta	noin vuoden tai kauemmin
Älypuhelin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tietokone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Tablettitietokone	( )	( )	( )	( )
Lukulaite	( )	( )	( )	( )

### Olen käyttänyt seuraavia palveluja:

	Usein	Joskus	En koskaan
Kirjaston palveluita, jotka mahdollistavat kirjastossa asiointin verkon välityksellä	( )	( )	( )
Kirjastojen sähkökirjapalveluja	( )	( )	( )
Sähkökirjojen lukeminen lukulaitteilla tai tietokoneella	( )	( )	( )
Sähkökirjojen hankkiminen verkkokaupoista	( )	( )	( )

## Ebib-sähkökirjapalvelun arviointi

Alla esitetään sarja väittämiä juuri käyttämäsi sähkökirjapalvelun käyttökokemuksesta ja ominaisuuksista. Vastaa väittämiin annetulla asteikolla sen mukaan, miten tarkasti väittämät vastaavat omaa kokemustasi kyseisen palvelun käyttämisestä ja arviotasi sen ominaisuuksista.

### Arvioi sähkökirjapalvelun yleistä käyttöä.

	Täysin samaa mieltä	Hieman samaa mieltä	En osaa sanoa	Hieman eri mieltä	Täysin eri mieltä
Palvelun käyttö oli miellyttävää	( )	( )	( )	( )	( )
Palvelusta löysi vaivatta etsimänsä	( )	( )	( )	( )	( )
Pystyin käyttämään palvelua haluamallani tavalla	( )	( )	( )	( )	( )

Palvelun käyttöohje selkeä	oli	( )	( )	( )	( )	( )
Adobe-tilin perustaminen on helppoa		( )	( )	( )	( )	( )
Tarvittavien lukuohjelmien asentaminen oli vaivatonta	oli	( )	( )	( )	( )	( )
Kirjojen varaaminen oli vaivatonta	oli	( )	( )	( )	( )	( )
Palvelu houkutteli lukemaan		( )	( )	( )	( )	( )
Sähkökirjoja oli nautittavaa lukea	oli	( )	( )	( )	( )	( )
Aion jatkossakin lukea kirjaston sähkökirjoja		( )	( )	( )	( )	( )
Aion tulevaisuudessa ostaa sähkökirjoja		( )	( )	( )	( )	( )
Suosittelisin tätä palvelua ystävälleni		( )	( )	( )	( )	( )
Palvelu lisäsi kiinnostustani ostaa sähkökirjoja verkkokaupoista		( )	( )	( )	( )	( )

### Arvioi lukemista "lue selaimessa" lukutavalla.

	Täysin samaa mieltä	Hieman samaa mieltä	En osaa sanoa	Hieman eri mieltä	Täysin eri mieltä
Kirjojen lainaaminen oli vaivatonta	( )	( )	( )	( )	( )
Kirjojen lukeminen selaimessa oli vaivatonta	( )	( )	( )	( )	( )
Pysyin hyvin	( )	( )	( )	( )	( )

selvillä, missä  
kohtaa kirjaa  
olen

Kirjojen  
palauttaminen oli vaivatonta ( ) ( ) ( ) ( ) ( )

### Arvioi lukemista "lataa tietokoneelle" lukutavalla.

	Täysin samaa mieltä	Hieman samaa mieltä	En osaa sanoa	Hieman eri mieltä	Täysin eri mieltä
Kirjojen lataaminen oli vaivatonta	( )	( )	( )	( )	( )
Kirjojen lukeminen lukuohjelmalla oli vaivatonta	( )	( )	( )	( )	( )
Pysyin hyvin selvillä, missä kohtaa kirjaa olen	( )	( )	( )	( )	( )
Kirjojen palauttaminen oli vaivatonta	( )	( )	( )	( )	( )

### Kommentteja ja kehittämis ehdotuksia Ebib-palveluun yleensä.

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### Mitä ongelmia sähkökirjojen lainaamiseen liittyi?

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