Re-inventing the e-book: how tablets increased e-book take-up at Bern University

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Abstract

This paper reports how at Bern University the medical library services successfully used the tablet platform to significantly improve students' acceptance of e-books and other e-resources.

Although Bern University had closed its main medical library with the loss of its print monograph collection, students until recently rejected e-books as too inconvenient for intense revision. Only when over the last two years tablets became part of students' basic toolkit, and the library selected e-books, apps, interface and ancillary software to work with tablets, e-books became more palatable to readers.

Key words: books; computers, handheld; consumer behavior; education, medical/mt [Methods]; libraries, medical.

Medical library services at Bern University 2012/13

The situation of medical library services at Bern University was not as comfortable as I had expected when in late 2012 I left London to take up the post of medical librarian at Bern University.

The preclinical library[1] had never had a sufficient budget to maintain an up-to-date collection, let alone acquire the multiple copies other libraries nowadays feel obliged to offer since so many textbooks exceed students' budgets. The clinical library which once existed at the university hospital[2] had closed for good in 2010, with the loss not only of facilities, services and staff, but also of the monograph collection – only the journal and database subscriptions transferred to the preclinical library.

A collection survey using the "Conspectus" methodology (1) carried out between August and December 2013 confirmed that, while journal and database access for research and clinical practice matched the usual expectations, the monograph holdings in both print and e-book format did not exceed Conspectus "level 1 = minimal information level" while for the purposes of a medical school, at least "level 3 = study or instructional support level", if not "4 = research level" would be required.

How did the students cope with the lack of books? Medical students are pragmatic and very focused on getting the job done, regardless of circumstances. The "Fachbereichsbibliothek", now the only library for medical students, attracted students mainly for its learning space, rather than for its collection: students were cramming for their exams using some library books (which were mostly superseded editions), but largely relying on their personal copies, or on copies they had borrowed from libraries elsewhere.

Right after completion of the "Conspectus" analysis, the library started re-building the collection in the preclinical subjects. Approval for also building up a monograph collection in the clinical subjects, thus taking on the role of the former hospital library, was received only in early 2015, with the required additional funding and staffing not expected before 2016.

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[1] "Fachbereichsbibliothek Bühlplatz", constituted in 1981 through the merger of the libraries of the preclinical departments, as well as Biology and Geology.
[2] "Universitäts-Spital-Bibliothek"

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Format and platform issues

But should the collection now be print, electronic or a combination? Until 2013 students surveyed in ILT classes had largely rejected on-line formats[3], and usage statistics were appallingly low, with a significant proportion of licensed titles not showing any usage at all. Students' reserved attitude towards the e-book was probably the result of several factors:

- excessive DRM restrictions: part of the e-books available via the library at the time (Ebrary, EBL) allowed no meaningful off-line reading;
- Flash: a number of textbooks had been licensed from Thieme. Although a good deal of these were reading list titles, usage was poor, probably because the publisher at the time had standardised on a Flash-based format – so these books were not accessible on iOS devices;[4]
- inconvenience of screen reading: students do not like using desktop or laptop computers for textbook reading. Tablets or even smartphones, on the other hand, seem to blend in much better with print resources, and enjoy a much greater acceptance. This means e-books and other e-resources need to be accessible on tablets and, ideally, also on smartphones.

After discussion with the student council the decision was taken to focus initially on the print format and demonstrate visibly our commitment to providing a relevant textbook collection. In 2014, 80% of print holdings were withdrawn as superseded, reading-list items purchased in multiple copies, and an overhaul of the general collection started, with the emphasis on handbooks, reference works, and introductory works to complement the textbooks. Students very much appreciated this improvement and began to flock back to the library. Towards the end of 2014 the student council told us the pre-clinical collection was now "better than they had ever seen it" (most pre-clinical classes would now get a "2" on the Conspectus scale), and the next exam-preparation season (winter 2014/15) saw reader numbers in the library double compared to the same period the year before.

Building on our success with a traditional print collection, we decided the time was rife for experimenting with the on-line format. The Medical Faculty had started to encourage the use of tablets for in-house course materials which are distributed via a basic, faculty-specific VLE. Tablets had proven a much more successful platform for e-books in various studies (2, 3), and in the German-speaking countries we medical librarians had our eyes fixed on the big "Easyphysikum" pilot project that Oliver Obst ran at Münster University's "Zweigbibliothek Medizin" (4, 5). This project was as ambitious as it was successful – all core resources for an exam (1. Staatsexamen) were made available as downloads for the iPad; students who did not own one, were offered a loan one by the library, with all content readily pre-installed. As a pilot Münster had secured access to e-resources that publishers had not (yet) made generally available to libraries.

Learning from these tablet projects at other medical libraries, as well as from our library's rather unsuccessful experience with e-books so far, we decided to explore if tablets would prove a more popular reading device for our students, too. Circumstances were much in our favour, especially as the vast majority of students use the same platform, Apple's iPad: Apple products have long been the norm throughout the Bern Medical Faculty, and even across the Swiss population 2/3 of tablets are iPads (6). So, with nothing to worry about compatibility issues and availability of resources on Android or even Windows, we took a fresh look at suitable content:

- some textbooks – primarily purchased through Springer bundles – we had already in our collection in DRM-free pdf format. These allow one-click download, annotating with programmes such as Papership (7) or Goodreader (8), and sharing annotations with a revision group (our students tend to get together in small groups for their revision);
- Elsevier uses for its German-language textbooks the cross-platform iPublish Central (9) e-book

[3] I used both my Information Skills classes and meetings with the student council to get a picture of how students went about their daily work.

[4] Thieme was criticised for its reliance on Flash at the annual conference of the Arbeitsgemeinschaft Medizinischer Bibliotheken AGMB, 16-18 Sep 2013, Berlin <http://www.agmb.de/papoopro/index.php?menuid=116&reporeid=171>, so that Bernd Heß of Thieme publishers made a commitment there to have Flash removed from all Thieme e-books. Thieme has since honoured this promise.

reader which is a lot more restrictive than the plain pdf format (DRM, limited facilities for highlighting, annotating and sharing notes), but does allow the reader to store a copy locally and use it off-line;

- Thieme make their "Studium und Lehre" textbooks available in an on-line format, though individual chapters can be downloaded as pdfs, annotated and shared in the usual way. The "Thieme Campus" app used by the Münster trial is not yet generally available to libraries. It will allow off-line reading of Thieme e-books, but may be prohibitively expensive to license.

Following the Münster example, we created an easy-to-use start page for all learning resources for each year of the programme, using the Medical Faculty's VLE[5] – though we present print and e-books alongside (*Figure 1*).
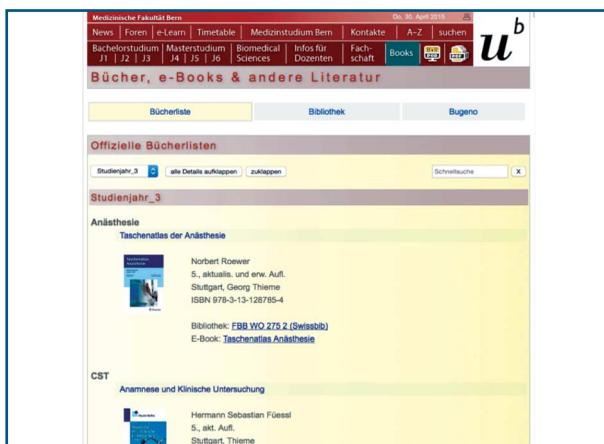
Figure 1. *University of Bern, Medical Faculty VLE page presenting print and e-books alongside.*

At least during the pre-clinical years research – and be it just a basic OPAC search – is not something students are trained to do, nor do they want to bother; they are far too busy cramming. Therefore, a plain list of learning resources for each year, with clickable links to any on-line content, was likely to increase usage of these resources.

The breakthrough: Bern's first apps

E-books may be the bread-and-butter of electronic learning resources, but the breakthrough only came with formats that offered additional value – with apps. We also hoped that students who had just installed an app provided by the library, would take a fresh look at what else the library has to offer – in other words, apps would promote the library. Our hopes have clearly been fulfilled.

Anatomy Atlas: "Sobotta"

The first app purchased (and the first app at Bern University altogether) was Sobotta's anatomy atlas from Elsevier, targeted at students in the first two years. Although Elsevier's "ordinary" e-books, as mentioned above, already come with a reader app that allows local storage of a complete textbook, the app offers a number of revision functions which the students love. Elsevier demands a substantial surcharge for the app format, and instead of the usual site license charges per individual user – so libraries need to think carefully which users should be the privileged ones. The entailing process of distributing download codes through a serial mailing tool, is not something you'd want to undertake on a regular basis. However, the Sobotta was the first really popular e-resource the library ever offered, going by the numerous emails I received.

Multiple Choice Tool: "Amboss"

Our second "big hitter" amongst e-resources, and aimed at the final two years, was Amboss (10), a multiple-choice tool that integrates the questions from Germany's medical exam database, IMPP(11), with approx. 5,000 pages of handbook content. Amboss can be used both via the browser and as an iOS or Android app. Feedback during the trial was extremely positive – I received over 100 mails, not even counting students approaching me in the library or coming to see me in the office to ask for a permanent subscription to Amboss. Never before had I seen students rally with such enthusiasm for a library resource!

[5] Unfortunately, the university library currently has no mechanism for generating and presenting reading lists, so the faculty's offer to present our resources clearly targeted at students in each year via their VLE, was very welcome. The books are exported from the library's Discovery interface into a Zotero group, imported from there into the VLE, and automatically enriched with cover images. We hope to present these VLE pages on large touch screens within the library soon, with QR codes added so students only need to read the QR code from the touch screen into their iPad to open the textbook they wish to use.

E-Journal App: "Browzine"

The third app, Browzine (12, 13), supports those in research and clinical practice, but, judging by the feedback I received, is popular with students in their clinical years, too. The app aims to present the library's e-journals on a virtual bookshelf, and allows users to select titles into a kind of personal journals rack, indicating for each title how many new papers have appeared in it since it was last accessed. The software company, Thirdiron, provides a good range of promotional materials, including pop-up banners for the library website (or, in our case, the VLE) which are only activated when the page is accessed from a device on which the app can be installed – i.e. an iOS or Android tablet or phone. As tablets are rapidly becoming the preferred e-readers across academic departments, we hope to extend Browzine coverage accordingly, thus encouraging the use of our e-journals. The license started only this year, so we have no meaningful usage statistics yet.

Where next?

In experimenting with e-resources for the preclinical years we have learnt a lot that will inform our decisions when building up a collection of clinical resources. Most important has been to us the close involvement of our students – through official channels such as the student council, but also in countless informal conversations, in mails and chats on the corridor. After all, it is their library – we just run it for them!

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