Creating an online textbook marketplace

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Abstract

This paper looks at a collaborative project – between the University of Liverpool Library and the Liverpool Guild of Students – to create an online textbook marketplace known as 'Pass the Book'. This partnership between the Guild of Students and the Library staff used new technologies to deliver a platform that benefits students and the Library, while reinforcing the good relationship we both enjoy. The aim of this service is to allow students to sell or give away their old textbooks to other students and, hopefully, to create a cyclical giving-and-receiving of core textbooks between them. The paper also looks at the formation of the project group, the construction and evolution of the service and our learning experiences, all against the background of student fees.

Introduction and context

This paper looks at a collaborative project – between the University of Liverpool Library and the Liverpool Guild of Students – to create an online textbook marketplace known as 'Pass the Book'. The aim of this service is to allow students to sell or give away their old textbooks to other students and, hopefully, to create a cyclical giving-and-receiving of core textbooks between them.

There's no escaping it: for most students, buying textbooks for university courses is a necessary but costly experience. For example, the University of Essex indicates that the cost of books and course-related materials for an undergraduate would be £605 per year (University of Essex, 2018) and an internal report at the University of Liverpool showed that, on average, students spend £276 per year on textbooks alone (Sykes, 2014). The introduction of tuition fees just served to exacerbate the problem, as students were asking why they should be paying for course books when they were already paying fees. This was demonstrated in a survey – run by the NUS and CourseSmart – which indicated that eighty-one per cent of students believed textbooks should be included as part of their fees (NUS, 2012). At the University of Liverpool, this frustration manifested itself in our National Student Survey (NSS) scores for the Library, which had previously had only minor criticism.

However, with the increase of student fees, it became clear that our students expected this rise in costs to translate to improved resources. This was indicated in the 'free text' portion of our 2013 NSS results, which showed that negative comments about book provision more than doubled from forty-seven to 100 (Sykes, 2014). More notably, students expected the Library to provide more of the core texts for circulation. Whilst the Library would like to provide individual copies of all core materials to every student, it is not in a position to do so – not just because of the financial commitment it would take, but also owing to the physical space required to house all those additional copies. The Library does have numerous policies related to book-buying, such as buying one copy of a core textbook per ten students registered on the course or buying ebooks to try to service demand. However, even if the Library were able to provide each student with the core textbooks they need, there would not be enough room to house all these books. The pressure for space is especially noticeable

during exam periods, when the library is close to capacity and students even occupy stairwells in order to find a place to study. So, how do we help our students and provide more textbooks without compromising on the number of study spaces we can offer?

Our first approach came about as a response to the 'Pound in Your Pocket' campaign that the Guild of Students at Liverpool had devised – on the back of the national 'Pound in Your Pocket' report that NUS had commissioned (Liverpool Guild of Students, 2012). It was our first attempt at seeing if the Library could help reduce the amount students spend on textbooks. As the Library has several locations, a box would be placed in each, where students could leave unwanted textbooks. Typically, the largest spikes we had in take-up of these boxes were in the weeks during and after finals. The boxes would remain out for the duration of the summer and the books stored until two weeks before the start of term. The Library then hosted a giveaway, where the books were displayed and students were able to browse the shelves, taking whatever they wanted. For the first two years that we ran this style of promotion, it was very successful, although several limitations hampered its success and usefulness:

1. Students were not able to sell their items – they could only give them away for free. As some textbooks are quite expensive to buy, students were more reluctant to donate their items and instead preferred to sell them either on Amazon or to Blackwell's.
2. Managing the actual physical giveaway was challenging. By the third year of the physical giveaways, the number of students seeking free books was larger than anticipated.
3. It was, in fact, difficult for the students to find items that they wanted or were interested in. Whilst every effort was made to place items on the shelves in such a way that students would be able to find what they were after, the shelves were soon in disorder as people browsed their contents. Also, because of the number of students looking for items, it became very difficult to navigate the shelves for an item of interest.

These issues made us reconsider the future of the service and how best we should manage it. During this time, we were approached by a student who wanted to run for election with a promise to deliver an online book marketplace, whilst – coincidentally and serendipitously – our Library Director was sketching out a rough idea of how an online platform might provide a better solution to the future of this service. The aspiration was that the service would *"…intervene in the process of student textbook buying in a way which makes it cheaper for the student. The key, here, is to intervene in the process of transmission of student-owned copies of textbooks from one cohort to the other"* (Sykes, 2014).

The move to an online platform was the next logical step, not only because of the problems identified above, but also because a large proportion of the second-hand market for textbooks had moved online, with books being bought from places such as Amazon and eBay (Tivnan, 2008). Such an online service from the Library would not be unfamiliar to students who were already buying and selling online. The similarities between the Library's solution and the Guild's vision struck us and we began to look into what would be necessary to deliver such a piece of software.

Our project approach

Traditionally, projects like this within the Library would all be handled exclusively by Library staff, with involvement by students only as part of a work package – such as testing or market research. However, given that our interests were so strongly aligned, it made sense to investigate a partnership with the Guild, especially because we recognised that, in order to deliver an effective product, we would need their involvement across the board. As the Library had (and has!) a strong desire to improve (particularly in response to our NSS scores), learning to create partnerships with our students would help to drive the Library forward. Such an approach is the hallmark of organisations that want to thrive (Giesecke, 2012).

It soon became apparent that having students involved would shape the service in ways which we had not imagined, as they were able to perform diverse market research through channels of communication that we, as staff, had no access to. In particular, two key points of this research indicated that eighty-nine per cent of respondents believed that items should be available for drop off/pick up from the Library and a further ninety-three per cent believed that items should be checked by the Library. This meant that the focus of the software would be to act as an online marketplace managed by the Library, which could offer significant benefits to students over services such as Amazon or eBay. Such benefits included the accuracy of the item information, which allowed students to buy with confidence, knowing that what they were getting was the item described. Also, given that the Library is open 24/7, having it as a point of collection and drop off was ideal. Staff would be able to make sure that the students picking up an item had paid for it, while those wanting to list their items knew they would not have to store them or arrange for their delivery when the item sold. The level of trust that the Library had built up amongst the student base was crucial to students' confidence that the Library would be able to perform this role, giving them peace of mind that the Library would be looking after their books and their interests.

It was initially decided that we would create a proof of concept to evaluate whether to allocate funds for a more professional approach. To create this proof of concept, we used a programming language called 'PHP' and a particular framework called 'Laravel'; the service was then developed along the lines of three core constraints:

1. That the library and the web application would not handle any financial transactions -- these would be managed outside the application;
2. That the library would act as the gatekeeper: it would take the books from the students, ensure quality and only release items once payment had been made;
3. That there was a commitment from both the Guild and the Library to maintain the service, so that it would have longevity.

These constraints informed the development of the platform and helped to avoid unnecessary complexities, especially when dealing with money. The University's legal team checked the proposal and agreed with our decision to run the service as a repository and provided us with the necessary legal disclaimer. The use of a framework was also deliberate, as this would provide a solid foundation for anyone coming to the codebase in the future. Making use of an organised framework means that applications are constructed in very similar ways and use a lot of shared components, rather than having to be developed from scratch. In addition, the time taken to construct the application was greatly reduced,

while the choice of Laravel meant being able to use modules for additional features such as 'Elasticsearch'. Use of this particular module meant we were able to index every item and, in turn, provide excellent search functionality. Subsequently, this also served as a way of removing the problem we had experienced in the physical giveaways – of students' being unable to find relevant items.

We also made use of an application programming interface (API) provided by our Reading Lists supplier, to show whether items were on reading lists. In addition, there is a link to our 'Reading List' platform which points back to 'Pass the Book' if items are available. This helps students find key or important texts that are free or offered cheaply by another student, which is another way in which our service to students outperforms that of online retailers.

To promote the service, we used a wide variety of strategies, ranging from traditional print – such as flyers and bookmarks – to leveraging our social media presence to build anticipation and engagement. Currently, our Library Twitter account has 11k followers and that of the Guild has 15.9k followers. Using these channels, as well as other social media, was an important part of driving successful interaction. As another way to help advertise the service, we used our Benefactors Fund to purchase key textbooks. Not only did this improve the visibility of the service, but it allowed our alumni to see that their generosity is making a positive impact on student experience. As there is evidence to suggest that those who are more engaged with their institution are more likely to become engaged alumni (Henning, 2012), it will be interesting to follow the effects of 'Pass the Book'.

The success of the proof of concept helped the project team to acquire funds to get the service redeveloped. From the new site's launch in October 2017 until February 2018, we saw a forty-one per cent increase in new user registrations (870 total users, with 361 signed up since relaunch); we had 1265 books listed and 339 items were given away or sold during this period. There is no doubt that using this service has saved students money. Based on a rough comparison with prices from Amazon UK, the total savings passed on to students is £4335.85, or £12.79 per book.

This figure was based upon the difference in price for each item, between the price it was sold for on 'Pass the Book' and the cheapest second-hand price from Amazon, including postage and packing. Without empowering our students, it would not have resulted in a usable service. This power is also key as we look to continue to improve and build upon the popular reception of the service.

Evaluation

The initial proof of concept and, latterly, the redeveloped site have been very well received by the student body. Those who use the service have done so without problem and we are glad to see that the site is being used in the way in which we intended – to promote core textbooks. It is also very rewarding to see that this facility is being employed to assist in research purposes. For example, a third-year English Literature student commented:

"I was surprised at the depth and range of books available. My dissertation is on quite a unique subject and I was pleasantly surprised to still be able to find plenty of relevant material."

Part of the truly successful element of the project has been students' actively wanting to become more involved with the platform and the Library, to help shape 'Pass the Book's' future development and growth. For instance, we have a student who, in her role as a course representative, is not only a strong advocate for the service, but has also successfully campaigned on 'Pass the Book' as part of her election manifesto:

"PTB is an amazing service, so much so that it was part of my guild election manifesto! It's been massively helpful for me, especially as a Law student our turnover of books is very high and it's been a great way to both save and make some money too!"

Conclusion

In this era of change for the Library (not only in the services that it can offer, but also in its relationship with our students), it is beneficial – and necessary – to run joint programmes and involve students in both projects and decision-making. With the introduction of fees, the way our students perceive their education has changed – and, accordingly, so too has the way we see them (Bovill *et al.*, 2015). They want to be partners in their education, for it is a part of their life here at the University – and most of them wish to help to make it a successful experience.

Our students' energy and different viewpoints as part of the project have, at various stages, been invaluable. The students involved have been able to provide alternative insights when conducting usability or analysing the workflows, but, fundamentally and more importantly, it was their empowerment which drove our innovation… and innovation needs power to operate successfully (Hardy and Dougherty, 1997); it also requires collaboration.

This joint project has provided a wealth of learning experiences for staff in the Library and for the Guild members involved. We have been able to take a software project from conception to execution and then to have it redeveloped by external contractors. The students involved have demonstrated a range of skills, including project management, organisation and user research, and been able to witness first hand some of the problems, such as time pressures and lack of resources, that face Professional Service's staff, particularly in dealings with external contractors.

The feedback we received from the Guild members at the end of this project was extremely positive: they found the Library receptive to comments and suggestions and the partnership rewarding, as both parties worked together to find solutions and overcome the challenges that the project raised. From the Library's point of view, working with the Guild was a natural fit as, much like us, it is committed to improving the student experience.

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