

Notes for collection management Group

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Royal Holloway Library has gone through significant changes in the past two years in preparation for the move and transition into a brand new library. The move took place in September 2017, and saw a complete change to the working practices of the customer services and stock management teams. In moving to a dedicated customer services teams with extended hours we saw a substantial improvement in the services offered at the desk, however the changes to the teams and the staffing patterns meant we lost over 150 stock management hours per week which needed to be addressed on our move into the new building.

Another key thing to note is that 80% of our core library collection is now stored in Rolling Stacks, which, alongside the decrease in stock management hours has significantly affected our collection management processes.

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With the move the new build and the staffing and environment changes that came with this it was essential for us to create new processes and to be able to monitor the success of these processes in relation to our new service needs. This was a real opportunity for us to review all of our data collection processes and to rethink how we made decisions on process changes and indeed all decisions involved in planning and running a service.

Since implementing a new data collection procedure and focusing on using data for service development, we have been able to use the data to innovate our collection management processes across teams. For the rest of this presentation I'll be talking you through the work in implementing data collection processes, giving practical ideas for implementing data collection for collection management based on our experiences.

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So if you're thinking about implementing data collection procedures for collection management the first thing you need to do is ensure you're collecting the right data. For Royal Holloway, the biggest issue I could see when I began this work was that we collected masses of data but without any real idea of how it would be used. Indeed, when I began exploring what we could do with the data I found that the majority of the data we collected gave no additional insights into the service, and was a serious pull on staff resources. On top of this, the spreadsheets used to store the data were the opposite of user friendly, making pulling data from it a nightmare.

Our situation before overhauling the data collection process was:

- We collected no data on the journey of the books
- No data on staff efficiency in stock management
- We collected far too much data on headcounts
- The spreadsheets to extract data were almost unusable
- While we could easily access collection usage data we'd never used it

To remodel the data collection processes and create something useful and meaningful, we found that there are four key questions that need to be addressed in the first instance...

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The first question you need to answer is 'what do you want from the data you're planning on collecting?'

One of the major downfalls in data management processes in any institution is manually collecting data for the sake of collecting data. At Royal Holloway we were collecting headcount data every two hours in two separate libraries, with each headcount taking around half hour to complete, even through the night. When I looked into it, the majority of this data had never actually been used which was a significant waste of time. Equally, data that we really could have used elsewhere, for example in collection management was not being collected.

When I overhauled the processes, the first thing I did therefore was to identify what we actually wanted from the data and the applications for each piece of data we would be collecting. As the driver for reviewing our data collection was collection management and collection process development I focused on the developments we wanted to make as a starting point and thought back to what information would support these changes.

Knowing the issues we'd faced in the past, the key areas I wanted to work on were:

- monitoring and improving staff efficiencies in stock management
- decreasing the time for books to be available again after return
- planning staffing and collection management tasks
- understanding any issues in our processes in the new building
- and understanding and reacting to library usage

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The next question you need to ask is how much data do you need to understand the situation and make changes? It is very easy to fall into the pattern of collecting any and everything, but this is not always the way! When data collection is completely automated we can afford to collect more data, which could help us later down the line, but when it comes to data collected manually, by being strategic in what you collect you can ensure that you are not using unnecessary staff resources which can be put elsewhere.

As I mentioned before Royal Holloway was extremely guilty of collecting unnecessary data, with huge amounts of staff hours going to waste on data that was never used or needed, so don't fall into this trap.

When planning how much data you will actually need, the best way is to consider what reports/developments you will be making with the data. Think about whether adding the extra data for collection will actually improve your understanding of the situation or not. Another thing to think about is your efficiency, at Royal Holloway we've found that a lot of areas that I wanted to work on could be achieved with the same data sets/ added into the same workflow, which has meant we've been able to achieve a lot with less work.

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The big thing to remember with implementing data collection procedures for collection management is that all manual data collection uses staff time. Equally, working on manual data

input means there is definite room for human error which can affect results. As such, you need to ensure your data collection methods are thoroughly thought out, working them into your other processes and ensuring that the methods are efficient and leave as little room for error as possible.

At Royal Holloway one of the things we have collected data on since the data collection overhaul is the time between returning a book and it being available on the shelves, as well as time to shelve in each collection, and the time spent waiting in the sortation room. To ensure efficiency, this data was collected in one process, which required a form to be filled in with times of each stage of the process for each trolley.

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One of our biggest barriers to using data at Royal Holloway was the terrible spreadsheets and databases we used to store data we collected. You can't get a real idea here with a screenshot, but the spreadsheets we used were definitely style over substance. Unnecessary frozen panes in strange places, colour coding which was wildly confusing, no weekly or daily totals, no summaries. It was a mess, and it made using the data a nightmare.

When planning data collection you must plan how you will present and store your data, again by thinking back to what you want the data to do. If you know you will need weekly or monthly totals then add them in to the original work. Some things to think about are what total you'll likely need, what averages, how the data can be best laid out to create graphs simply etc.

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So, we've identified our needs from the data, what we're going to collect, and we've thought about how best to collect and present that data. This is where we needed to start thinking about the nitty gritty stuff and getting creative.

When I started this project, one of the major things I wanted to improve (alongside collecting and using data) was the accessibility of the data and the ease of input and outputs. I started exploring ways we could create a database which could be easily used and understood on a daily basis by any supervisor or manager at all levels, which could be easily manipulated for reports and budgets, which could be shared and accessed by anyone in management and which would give a real time overview of the current situation for collection management. My solution to this was the Google Apps.

For anyone not familiar with the google apps, it is essentially set of applications which can be stored on a cloud called 'drive'. There are a variety of apps including its own versions of the Microsoft office programmes and a few additions which I've found extremely useful.

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One such handy programme has been Google Forms. For such a simple application it has completely revolutionised how we actually collect data in the library. The Google Forms work by storing responses directly into a spreadsheet, which can be used to feed into a database or master spreadsheet.

The benefit of google forms is it cuts down the chance for error. Originally, we had people directly updating spreadsheets, however we found data was accidentally deleted, there were inconsistencies in names or times which made using the data difficult among other problems. In using the forms we remove the majority of human error, you can choose required fields, use a variety of answer types, lock answers to just time, or text. The uses are limited by what you can imagine doing. At Royal

Holloway we have all of the forms for data collection stored as tabs on our ipads and people simply input the data from there. Previously we did everything on paper, and this has freed up the time of around 0.3 FTE which has been redistributed to collection work.

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Google sheets is essentially a not so great version of excel. However, it can still be used for all the major functions and with some creative thinking and planning can entirely innovate the way data is presented. At Royal Holloway I wanted to link up the live information from the various forms into one editable sheet which I was able to do. Now I had just one source for all of my raw data which I could then use to prepare live graphs and data visualisations.

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Google Graphs can be used to create updating and live visualisations of your data. So, you can set up a mix of graphs based on the data being collected from your forms and the specific data you need and then you can just go and pull or examine the ready made graph at your leisure.

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When I initially set up the data collection processes I made use of google fusion table to present data. The benefit of Fusion tables was that I could create multiple views for different levels of people and design an easy to use database for people of all level to use. A year down the line and as I develop our work on data collection I'm now exploring the use of Google sites to store data as a more accessible tool with the potential to make use of APIs to pull data from a variety of data sources, for example our LMS. I hope in doing this I'll be able to create a 'one stop shop' for key data with premade graphs and visualisations to significantly cut the time needed to write reports and to encourage every day usage of the data. This is extremely useful for collection management and projects undertaken out of core hours when I'm not around. From this I have been able to train other staff in how to examine and understand the data to prevent any rash decisions (for example shelving books on the floor which happened last time I was on holiday), and to plan staffing.

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This is something I have talked about a fair amount, but I cannot stress enough the value of data collection for improving efficiencies and allowing planning of a service. We are all facing closer scrutiny of our budgets, and being able to ensure we are getting the most from our staff time and proving our worth is absolutely vital. At Royal Holloway we had our weekly stock management hours halved, which could have been a real blow, but instead we've used it as a way to innovatively creating the most efficient processes possible. The first step for me was finding out the average time for shelving a trolley, our desired time for shelving, and then identifying any staff which were achieving significantly above or below this. By collecting this data through trolley sheets (GET PHOTO) we could then find out what issues cause a particularly slow shelving of a trolley and respond to these appropriately. Indeed, we found that the major issue in shelving was the rolling stacks and not training as we had initially expected, and as such we modified our staffing pattern to enable a focus of shelving in the General Collection in rolling stacks out of peak periods, with the High Use Collection (which is in static shelving) being shelved between 11 and 3 when the majority of returns were coming in.

Monitoring loan and return patterns has also played a key part in our ability to plan not just collection management activities, but customer services team staffing as a whole. We have cross referenced usage data to create a yearly forecast, which we can then use to plan basic staff hours, to identify key tasks which will need to be focused on and at what times, and to plan collection management projects. We have also modelled the stock management staffing model around this, with a mix of core staff who work early morning and late night to complete shelving in the rolling stacks and casual hours staff which are given hours each week based on the needs of the service from our predictions. TALK ABOUT GRAPHS

As such, despite significant cuts in our staffing for stock management, we have actually managed to maintain just below the level of work completed while working in the previous libraries and with double the staff hours. With continued developments to the processes based on the data I believe next year we can exceed the working levels before the new building.

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As I've just mentioned one of the beautiful things about collecting data is the ability to identify where things are less efficient and come up with solutions to fix these. This is a picture of data on the average shelving time by date for each collection. As you can see, as the year went on the High Use collection (which is fixed shelving) began taking significantly longer to complete while the general collection was becoming slightly more efficient. The reason for this was that the High Use collection was becoming so full that it was becoming almost impossible to shelve. This data helped us to identify and plan a large scale project to move 20,000 non reading list and further items from the High Use collection into the general collection and to create a formalised weeding process to ensure adequate space across both collections.

Indeed, this project led to another data collection initiative where we mapped the collection based on loans, orders, number of items and collection to designate what space what needed and in what areas to ensure the most efficient shelving and stock management processes. By cross referencing the data I was able to map what space was needed in each dewey area and in each collection depending on the nature of each area. The 300s for example have extremely high orders and loans compared to other areas and makes up a large percentage of the stock. As such we know that we need to allow space for more movement of the collection to ensure efficiency of shelving.

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By innovating the data collection processes and enabling easy access of the data we've been able to significantly improve our proposals for staffing, and projects, as well as our promotion of our work. Being able to prove increases in efficiency and the benefits of innovation to senior management team has arguably risen the profile of the customer services team and highlighted our dedication to the strategic plan.