Review of 23 Research Things Cambridge programme 2016

Background

Based on the 23 Things self-guided programme framework, first developed for librarians in Oxford, 23 Research Things Cambridge aims to introduce participants from across the University of Cambridge to a range of different research tools, ideas, and skills based around 23 themes or concepts. While many 23 Things programmes have been mostly text-based in the past, often hosted on a blog and with different activities released on a regular basis, 23 Research Things Cambridge took the blog model and enriched it by filming dedicated YouTube videos for each Thing and then embedding these videos within each blog post as part of the programme content.

This not only reduced the need for long text-heavy blog posts, as seen in other iterations of similar programmes, but also gave something new and engaging for participants to watch. In addition, the use of YouTube videos was an attempt to tap into habits of users online, especially those who seek out quick bitesize YouTube videos to understand a concept better or to supplement their studies. While these videos were created with the 23 Research Things Cambridge programme in mind, they were deliberately branded as being part of the wider 'Moore Methods' YouTube series which meant that they would also be able to act as a knowledge bank beyond the time-frame of the programme itself, thereby encouraging reuse by students, teaching staff, and librarians across the University.

The theme of reuse, as well as supporting teaching and learning for students and colleagues across the University of Cambridge, was the main driver for this entire project. While having participants engage with the programme in real time during the defined duration of the first delivery of materials, it is also hoped that individuals are able to dip in and out of the resources at a point of need for them. In fact, before the programme launched, a colleague requested permission to include some of the content within another self-directed skills programme running elsewhere in the University. This also allowed for teaching opportunities to happen at multiple times even if a physical teacher might not have been available or present at the time.

The first delivery of the 23 Research Things Cambridge programme took place in Michaelmas Term (October-December) 2016. To ensure that the programme did not run for too long and therefore becoming too much of a time commitment for participants, it was decided that three Things would be released each week with a regular schedule of new releases on Monday, Wednesday and Friday. While resulting in a more intensive programme, it was hoped that having a defined period of time to work through the various Things would be more beneficial. In addition, getting skills early on in an individual's study or research period was seen as a key motivator for this timing decision. Many projects are due in Lent Term (January-March) and exam fever hits in Easter Term (April-June), so delivering any introductory skills training during these terms may come too late or be poorly attended due to lack of time during revision periods.

Development

Planning for the 23 Research Things Cambridge programme began in April 2016 with extensive background research into previous 23 Things programmes and different potential topics that could

be covered. Previous direct experience of the 23 Things programme run in Cambridge for librarians in 2011 was beneficial, as well as reading about more recent programmes such as DH23Things, run by the Digital Humanities Network at the University of Cambridge.

These programmes (and many more) helped influence the structure and tools of the first 23 Research Things Cambridge programme. The final tools and concepts were eventually selected and then divided into weekly themes, with some subthemes, to give consistency throughout. The tools and themes were:

Week/Thing	Tools covered
Week 1 (Starting out…)	
Thing 1 - Introduction	Introduction to programme
Thing 2 – Getting started with blogging	Reflective blogging with WordPress
Thing 3 – Online identity	Searching for yourself on Google and using haveibeenpwned
Week 2 (Gathering information)	
Thing 4 – Pulling in information	RSS feeds, Feedly, Pocket, and Zetoc
Thing 5 – Communicating with others	Twitter
Thing 6 – Making new content	Storify, Paper.li, Scoop.it
Week 3 (Connecting up)	
Thing 7 – Connecting with LinkedIn	LinkedIn
Thing 8 – Other professional networks	Academia.edu and ResearchGate
Thing 9 – Alternative communities	Reddit, Wikipedia, Github
Week 4 (Communicating ideas)	
Thing 10 – Communicating complex ideas	Concept theme so no tools
Thing 11 – Sharing with YouTube and podcasting	YouTube, Google Hangouts, AudioBoom
Thing 12 – Presenting and sharing	SlideShare
Week 5 (Using free things…legally)	
Thing 13 – Exploring Creative Commons	Creative Commons
Thing 14 – Sourcing good images	Various image searching tools including Flickr and Photopin. Also Google Images and TinEye for reverse image searches
Week 6 (Collaboration in research)	
Thing 15 – Collaboration tools	Evernote, Doodle polls, Google Drive
Thing 16 – Crowdsourcing & citizen science	Zooniverse, Kickstarter, Patreon
Thing 17 – Survey tools	Qualtrics
Week 7 (Managing your data)	
Thing 18 – Research Data Management	Concept theme so no tools
Thing 19 – Text and Data Mining	Github, ContentMine
Thing 20 – Presenting your data	Canva, Easi.ly, Piktochart
Week 8 (Pulling it all together)	
Thing 21 – Managing your citations	Zotero, ORCiD, Google Scholar
Thing 22 – Tracking success	Twitter Analytics, TweetReach, Altmetrics bookmarklet
Thing 23 - Ultimate Research Tool	Spoiler alert – it's the library

Once the structure of the programme was decided, additional research was carried out as well as testing of the various tools to ensure suitability for the programme. Once completed, a script was written for each Thing, as well as an accompanying blog post with PDFs of resources and handouts where appropriate. Most additional content such as instruction handouts were written in-house with a few links directing participants to alternative external services and tools.

Each blog post had a defined set of activities and learning outcomes tailored to each Thing to guide participants through their engagement and reflection with each tool or concept.

All of the YouTube videos were filmed and edited over summer 2016 with the assistance of Ryan Cronin, who was hired specifically for the project. With his experience of creating content for outreach and engagement within the University of Cambridge, as well as his knowledge of the informal YouTube style that the videos were to be edited in, Ryan was able to work quickly on what was a considerable amount of filming. As each short video was completed, they were then uploaded onto YouTube with additional work being done to create tailored closed captions (as opposed to relying on YouTube's automatic ones) as well as including links and other resources within each video and within the video description. All videos were uploaded as unlisted so they were not discoverable until the Thing they related to was live on the blog. This saved having to upload while the programme was running but also ensured that anything that needed embedding and testing would work in real time before public launch.

As all the resources started to come together, the various Things started to be uploaded on the dedicated WordPress blog. Initially set to private so all the posts could be uploaded, tested, and proofread, each post was then scheduled to launch at 6 am on each specific day that they were due to be released. Again, this reduced the real time workload during the programme itself hugely. The only aspect that could not be automated was making the YouTube videos public, which was done manually once the corresponding blog post was live.

Promotion

The programme was promoted for several weeks leading up to its launch on 10 October 2016. This included extensive promotion on social media, the Betty & Gordon Moore website, a University-wide poster and leaflet campaign, promotion at the Cambridge Librarians Fresher's Fair stall, as well as requests for library colleagues to distribute further information to their various audiences. As a result, a lot of traffic to the programme blog came from embedded content in library websites, VLE spaces, electronic newsletters and other library blogs.

This promotional period was also useful for testing the blog's usability ahead of the programme starting. Colleagues from across the library community gave their feedback in the run up to the launch date, including some very helpful comments about the original theme of the blog which was causing some issues with discoverability which had not been noticed before. The theme was quickly changed to something more accessible in good time.

Uptake

Over the duration of the programme, 18 individuals used the 23 Research Things blog contact page to register their blog domain so as to be counted as being an active participant. Of those registered, 6 completed the blogging requirement for a certificate of achievement. Out of the finished participants, 3 were library staff, 1 was an undergraduate student, 1 was a departmental administrator and 1 was a postgraduate student. Of the remaining 12 participants, 5 were library staff, 3 were departmental staff, 1 was an alumna, 2 were postgraduate students, and 1 was external to the University.

While the active participant numbers were smaller than hoped, the blog itself had a fairly constant following with 197 individuals following the blog through WordPress' Follow option which meant that they would get notified of when new posts were uploaded. Anecdotally, many people did mention that while they might not have the time to complete the programme's blogging element they would still be following along and trying to watch the content as and when it appeared. The follower numbers and overall viewing figures of the blog support this sentiment.

Statistics

Programme blog

The 23 Research Things Cambridge programme blog was hosted on a free WordPress account at 23researchthingscam.wordpress.com.

October 2016 saw the highest views and visits with 5,008 and 1,289 respectively. Of those views, 84% came from within the UK with the remaining 16% of views spread across the globe with views coming from as far away as Japan. In fact, every continent was found to be represented in the blog stats, except for Antarctica. We're not sure if WordPress collects statistics in Antarctica.

The geographic range of the views was surprising and demonstrated the reach of the programme to other countries. Top view referrers were Facebook, Twitter, and search engines, with an additional proportion coming from University of Cambridge websites, WordPress services and other non-University websites. These referral figures reflect the social media promotion and promotion by colleagues across the University.

November 2016 started to reflect the fact that the programme had been running for some time and so the statistics had started to reduce into more steady totals after the initial excitement surrounding the start of the programme had calmed. Views during this month were 1,890 with 387 visitors. Again, many views came from a wide range of countries with the UK taking the largest share of 88%. Facebook didn't appear as a top referrer this time but Twitter, search engines, University websites and WordPress services continued to be strong.

December 2016 marked the winding down of the programme as the final Thing was uploaded on 5 December in time for the end of the academic term. Again this is reflected in the blog statistics with 865 views and 206 visitors. The UK still featured prominently in the view statistics at 74% with the rest coming from a range of countries. Twitter still dominated as a top referrer with search engines and University of Cambridge websites continuing to play a big role.

YouTube channel and videos

For the duration of the programme, 4,208 minutes of video content were watched[1] (or 2 days and 22 hours). Overall the YouTube channel's content received 1,507 views. Of those views, 86% were from the UK with the rest coming from locations within Europe and the United States. Most referred views came from what YouTube classes as 'external' which suggests that these are instances where the videos are embedded, as they were in the programme blog. This is confirmed by the figure of 86% for the playback category of 'embedded in external websites and apps'.

The top 3 viewed videos were:

- About the programme - 334 views
- Introduction to the programme -161 views
- Reflective blogging - 115 views

Programme feedback

At the end of the programme, participants were encouraged to take a Qualtrics survey to give feedback about their experience of the programme. Many participants did this with 13 complete responses received out of an overall 17 responses. This total is more than the figures for those who completed the blogging element of the programme so this would seem to indicate that while some had stopped blogging regularly, they were still engaging with the programme content as the survey link was embedded within a blog post much later on in the programme schedule.

A variety of questions were asked about the quality of the programme content and the satisfaction of the participants with the content. The survey was deliberately kept short to encourage engagement and free text options were given to get more personal responses. Some questions had complete responses, while some had around 10 responses. This response rate fluctuated throughout the survey results.

YouTube and blog content

When asked about what participants thought about the YouTube videos that were created for the programme, 45% thought they were **excellent** and 55% thought they were **good**. All respondents thought the length of the videos was '**just right**'.

Participants were also able to comment on the YouTube content via free text boxes. A lot of positive comments were made about the use of GIFs and images in the videos. This was reassuring to hear as this approach was taken to keep the videos fun, engaging, and in a similar stylistic theme to many popular educational series on YouTube. The informality of the videos were praised also, again a deliberate choice when developing the scripts. Only one person said they did not like the images as they found they appeared and disappeared too quickly and so were a distraction.

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[1] It should be noted that some participants mentioned that they used the transcripts provided with each video more than the video itself. These transcripts were offered for both accessibility purposes and to support different ways of engaging with teaching resources.

A few comments were made about the presenter volume, both in the survey and via email, which was mostly down to the acoustics of the room where the videos were filmed but will be taken into consideration in future videos. Positive comments were made about the amount of work that must have gone into developing the programme and the videos. It was a lot so the recognition was appreciated.

When asked about how participants found the blog posts for each Thing, 40% said they were **excellent**, 50% said they were **good**, and 1 person (10%) said they were **average**. When asked if they found the activities and learning outcomes that were listed in each blog post to be helpful with their own learning experiences, 50% said **definitely yes**, 40% said **probably yes**, and 1 person (10%) said **maybe**.

Blogging as a reflection tool

A key component of all 23 Things style programmes is to get participants to blog about each Thing as they progress through the programme. While this was not compulsory for 23 Research Things Cambridge, it was a requirement if the participant wanted to get a certificate of achievement. The blogging process is not only helpful for assessment as it allows programme organisers to see if the individual has engaged with the topic in question, but it is also an excellent reflection tool for the participant's own learning and development.

However, it is an extra burden for some especially if they are uncomfortable or unfamiliar with the process of blogging. This is reflected in the responses to the question which asked how participant's felt about blogging about each Thing. 50% either **loved** or **liked it**, and 50% were **ambivalent** or **didn't like it** and 1 person even **hated it**. As evidenced by these figures, the blogging element practically split participants down the middle as expected, given previous experience with teaching similar interactive/remote programmes.

One participant suggested that the blogging element be 'dropped' for future iterations of the programme as a requirement. However, without blogging as a tool, remote engagement, self-reflection and assessment would not be able to be carried out in the same way, hence why blogging is such an integral part of this particular programme structure design. If it were delivered on a VLE with forums and other alternative methods of engaging with content, this could act as an alternative means of getting the same interaction and points of assessment.

As mentioned before, the blogging element was only compulsory if a participant wanted to get recognition for taking part in the programme formally. Many engaged with the programme and benefited from its content, as was hoped, without needing to blog.

In person teaching

As well as the online content, some in-person teaching sessions were run at the Betty & Gordon Moore Library throughout Michaelmas Term 2016 to compliment the programme, as well as offer research skills for other interested user groups. How these were to be promoted to existing programme participants proved to be a challenge as posting about them on the blog would break up the overall structure of the programme which could cause issues later on for people wanting to refer back to it and finding out-of-date information. So the sessions were promoted on social media and via various email channels, often mediated by other library colleagues.

Of the 11 survey participants that responded to the question asking if they had attended any of these teaching sessions, 36% said **yes**, 36% said **no** and 25% said they **did not know there were any**. This appears to be a fairly even spread of awareness overall.

Overall the teaching sessions were attended relatively well, with the most popular session being on the topic of Research Data Management. It is expected that popularity of these sessions, all of which were delivered for the first time in 2016, will grow over time with word-of-mouth and different promotional approaches such as through induction sessions at the start of each new academic year.

77% of attendees found the sessions they attended to be **very or extremely useful**, with 92% agreeing that the session **met their expectations**. Attendees also gave a lot of positive and encouraging feedback, as well as suggestions for future teaching topics.

(A few of my) Favourite Things

Participants were asked which Thing was their favourite out of all 23. Several people could not pick just one but Creative Commons licences and other image-based and presentation-themed Things were very popular. Managing citations using tools such as Zotero and ORCiD were also popular, as was the theme of using tools to pull information together.

Not so favourite Things

LinkedIn and Twitter did not fare well with participants with several stating that they did not like them as platforms. People asked for more detail on areas such as GitHub, Text and Data Mining and collaboration tools. While the videos for these topics did skip over some detail, this was a deliberate choice as each one could easily be a whole day teaching session and so it was not appropriate to go into too much detail without alienating people due to knowledge, time, or interest constraints.

One person did not like the Communicating Complex Ideas theme as they did not see it 'as much of an issue in Cambridge'. This Thing was deliberately included precisely because it is an issue and the central External Communications team work extensively across the University to train researchers up and equip them with the skills to communicate their work effectively. In addition, this area of communication is becoming more and more pressing as issues such as impact become more essential in assessment exercises such as the next REF. So while this participant did not view it as an issue, it certainly is something that people are working on helping University of Cambridge researchers be better at overall.

Things that we missed?

Participants were then asked if there was anything that they wished that the programme had covered but did not. Many said that there was not anything we had missed or anything that they could think of, but a few has specific tools that they wanted the programme to cover. One participant asked for PubMed, a US-based search engine which allows people to explore medical resources. There was a request for F1000, a range of services for scientists including research articles and other support. These two suggestions indicate that there is scope for videos on particular resources and/or databases in the future. Google Scholar and Mendeley were also requested and while Google Scholar was covered in some capacity in the programme, Mendeley was omitted in favour of Zotero as both tools fulfil much the same remit.

A final request was made for blog recommendations. While an interesting suggestion, this would perhaps not be the best theme to include in future iterations of the programme as any recommendations could be subjective and not of use to all.

In this theme, a participant suggested that research methods in different subjects be covered. The 23 Research Things programme was deliberately designed to be as open and inclusive to different disciplines as possible. As a result, more focused research method approaches would not be appropriate to cover in the framework of this programme and instead would be more appropriate for localised library support in certain subjects, or as part of a more extensive training programme separate to 23 Research Things.

Final feedback

Participants were given a final opportunity to voice any further comments that they had not had a chance to say already. Other than comments around the blogging element being arduous, one participant did mention that doing all 23 Things in 8 weeks was a lot. While this was recognised as a potential risk when launching the programme, it was decided that leaving too much space in the programme would potentially increase drop-off of participants.

In addition, all participants were told at the start of the programme that all videos and resources would be left online indefinitely so they could go back and digest topics that they had not given their full attention to. Again, this was a deliberate choice in the planning process to ensure that everyone could be as flexible and a self-paced as possible. The only limitation was the finish date of the end of December 2016 for anyone wanting a certificate of achievement. These details were mentioned multiple times in the introductory materials and blog posts, but if the programme were to be rerun on a self-paced platform such as a VLE, this issue could be minimised.

Overall the final feedback was very positive with the enthusiasm of the videos' presenter being 'infectious', as well as recognition of the work that went into creating the programme, and the benefit of being able to learn new Things and consolidate knowledge on some of the Things participants were already familiar with. One participant even said they were looking forward to future Moore Methods videos.

One final comment summed up the intention behind the overall programme nicely:

'A useful experience overall with some things that definitely fell into the "always wanted to know that but didn't know who to ask" category, also I found the blogging surprisingly useful and by the end a little less awkward'

Conclusion

Developing and delivering 23 Research Things Cambridge took a lot of work but it was work worth doing. The programme has allowed for a period of extensive experimentation with different teaching delivery styles, not least exploring remote and embedded teaching methods. This experimentation has been especially useful as more and more students and researchers require support from their Research Support Librarians, and other librarians, but resources are as ever stretched quite thin. The drive behind this programme was to create resources for people to use, reuse and share as they see fit and at the most appropriate point in their research journey for them.

While these resources were never intended to replace in-person teaching sessions, it is hoped that they and the resources that are developed from them in the future will act as a safety net so that individuals can do some primary self-guided learning with some reliable resources and then start to develop those introductory skills further in more formal teaching environments.

A lot has been learned from running 23 Research Things, especially with regards to what works such as informal teaching styles and videos, as well as how to deliver intensive programmes those who do not have enough time to commit to them fully. Future developments and iterations of the resources and teaching approaches explored through the programme will be based around different delivery styles. For example, the potential of delivering a similar programme framework through the VLE system Moodle or integrating within existing University-wide programmes may offer some potential for a sustainable long-term resource for individuals to revisit as and when they need to develop new skills.

The Moore Methods YouTube series will continue to develop with new content added to reflect areas that were not covered by the 23 Research Things programme, as well as themes requested by users. It is expected that this series will also support various initiatives across the University such as the Data Champions project which is being developed by the Office of Scholarly Communications. It is also hoped that this series is able to evolve into other series such as Moore Mentions where researchers are given the opportunity to talk about their work, not only promoting this work to new audiences but also giving them a space to practice their outreach skills.

Overall, this programme has highlighted the many areas of support that researchers still need help in. While subjects such as research data management are becoming more commonplace as something that researchers 'need to know', other more subtle areas such as appropriate use of Creative Commons licences need more awareness and promotion within the research narrative. Librarians can have a big role to play here through delivering training on such areas as well as leading by example with best practice.

As has already been said, much has been learned from developing this programme and much will continue to be learned as the resources are developed further in the coming months.

Thank you to everyone who took part in the programme, gave their support, and helped share the programme with their various user groups.

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