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Cartooning the Cambridge University Libraries

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Abstract

Comics and cartoons are valued in twenty-first century popular culture and are increasingly used as 'Applied Comics' to help communicate key messages and information in society. However, there is less evidence of cartoons and comics being used to communicate with and engage library users in learning, information literacy (IL) and research support.

This paper explores case studies of how several different projects have utilised comics as a medium to deliver key messages about library services to support teaching and research at Cambridge University Libraries. The paper examines the use of comics and cartoons in a library context framed in a theory of comics and visual learning. The reception and output of the comics and cartoons with different audiences at Cambridge University Libraries is explored and the paper proposes that further research could be done to examine the potential of comics in communication and IL.

Keywords

comics; cartoons; communication; engagement; illustrations; information literacy; learning; library services; theory of comics; UK; visual learning theory

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1. Introduction

Over a two-year period several projects at the University of Cambridge have utilised comics as the medium to deliver key messages and to educate and engage staff and students at Cambridge in Library initiatives. Some of the projects have centred on engaging students with learning and induction, whilst others have focused on engaging wider audiences, staff and alumni, with research support such as data management and electronic theses. These projects all used cartoons and comics to improve information literacy (IL) skills, which are needed throughout the academic lifecycle, from undergraduates being inducted into how to learn at university through the various stages of students studying for higher degrees such as diplomas, masters and PhDs, with different skill sets needed as a student progresses on their learning journey. Two of the projects enabled the development of that further set of IL skills needed beyond student life for alumni, postdocs, early career researchers and even some senior academics acting as Principal Investigators; these skills are those needed for making the best use of scholarly communications for research, such as open access to research and research data management skills.

As the illustrator of these comics I have begun to reflect on the meaning behind using comics as a way of delivering a message, and this article details my utilisation of comics in IL and the process of capturing and evaluating outcomes. This article explores the definition of comics and applied comics, and analyses theories around visual learning and applied use of cartoons in the literature. The article explains the genesis of four case studies where cartooning has been used to engage staff and students visually by using applied comics for learning and outreach, examining the considerations and negotiations involved in creating each resource, the impact of this approach and the barriers to using comics for communicating messages. There is a body of literature on the collection management of comics and graphic novels in libraries and a fair

amount of literature has been written about the use of sequential diagrams and comics in Graphic Medicine. However, despite an extensive literature search, it is clear that very little has been published on the use of applied comics and IL instruction in a library setting. It is possible that other HE and Public Libraries may have used comics in promotional or IL materials but it is hard to find anything documented in the literature. Finally, I outline positive and unintended outcomes learned from the experience of using a visual approach for outreach, framed in the theory of comics and visual learning theory.

1.1 Definition of Comics and Applied Comics

According to the Concise Oxford English Dictionary, a cartoon is '1. a drawing executed in an exaggerated style for humorous or satirical effect. 2. A comic strip' (Stevenson & Waite 2011, p. 218). My comics reflect this by being both 'drawings in an exaggerated style for humorous effect' and by being presented as short comic strips. In a comic strip, frames can tell a story or narrative united by a shared theme through showing how the sequential passing of time or narrative is situated in a context. According to McCloud (2001, p. 20) cartoons may be a single image, but comics consist of 'juxtaposed pictorial and other images in deliberate sequence, intended to convey information and/or to produce an aesthetic response in a viewer.' In this article references to 'cartooning the library' are defined as the process of drawing comics or cartoons to develop a method for producing key library messages in a visual medium.

2. Connections between IL and Scholarly Communication

The link between IL and the education of researchers in the developing areas of Scholarly Communication, such as Open Access and Research Data Management, is becoming increasingly important. Managing research data effectively and communicating research outputs are crucial IL skills for both postgraduate and doctoral researchers. Even more senior faculty members are not always aware of the best way to communicate research outputs using Open Access standards. According to Buys (2015, p. 21) 'staff are interested in learning more about data management and they may not be getting the appropriate guidance and support from faculty or principal investigators.' Indeed, conversion of such researcher behaviours and habits has largely been encouraged via drivers such as research grant conditions imposed by research funders. Policy mandates for data sharing have also contributed to an increase in shared data through repositories, both institutional and disciplinary. Nevertheless there is a lack of consistency in adherence to good practice in Research Data Management and this shows that some academic IL in these areas is not as well-understood as it could be. As Christopher Eaker has pointed out, 'many people tasked with managing research data, such as graduate students have very little data management training and often employ inconsistent practices' (Eaker, 2014, p. 45). He goes on to acknowledge the role of librarians in helping to provide this education to researchers. It would seem that, as Davis-Kahl and Hensley (2013) state, 'information literate members of the academy should understand how knowledge is created, evaluated, shared and preserved within a discipline' (p. 9).

Communicating research is a form of IL and both the Cambridge Information Literacy Network (CILN) Framework and the ANCIL (A New Curriculum for Information Literacy) Framework reflect this. The ANCIL Framework was developed at Cambridge University Library as part of the Arcadia Project in 2011. The CILN Framework was based on this curriculum and other IL frameworks to underpin IL across Cambridge University Libraries since 2017. The latest version of the CILN Framework states:

> Our Information literacy competencies are not intended to be addressed in a linear manner, but be allied closely to academic subject skills and individual student development, thus supporting the collegiate education Cambridge students receive. All staff involved in teaching should be able to clearly identify how library training will

> support their students. The Framework embraces all information literacies, including digital capabilities. (CILN Framework, 2020, p.1)

Although the ANCIL Framework states that it is primarily aimed at undergraduate learners, it also points out that 'the emphasis throughout is on the student's development as a discerning scholar, beyond the academic arena, as an informed citizen and an autonomous and lifelong learner' (Coonan & Secker, 2011, p. 4).

Various scholarly communications activities, including good practice in file management, version control, sharing data according to funder requirements, abiding by corporate agreements, writing Data Management Plans, backing up files, data storage and costs etc. relate to ANCIL strand 4, mapping and evaluating the information landscape; strand 6, managing information; and strand 8, presenting and communicating new knowledge. The scenarios also relate closely to the CILN Framework competencies of Managing Information and Creating and Communicating. The CILN Framework states under Managing Information that 'understanding the scholarly practices within their discipline, learners engage with relevant information, related workflows and develop strategies for handling information of all kinds' (CILN Framework, 2020, p. 2). This section of the Framework goes on to highlight the importance of knowing the value of information and the importance of learners understanding their rights and responsibilities when using and creating information as participants in a scholarly community. The CILN Framework also includes a competency called Creating and Communicating, which states:

> Learners will understand the processes by which scholarly material in their discipline is produced, reproduced and disseminated. Learners consider how they contribute to the body of knowledge through original research work (projects and dissertations) and by joining the scholarly conversation within their discipline specific community of practice. (CILN Framework, 2020, p. 2)

3. Using Comics as a Medium for Learning

There are a number of benefits in using comics as a medium for learning, such as their ability to cross cultural barriers by using a visual medium. Comic strips make use of narrative to translate the complexities of human experience into understanding in a learning context and demonstrates the universal nature of human values and problems. Comics provide a wonderful way of creating empathy in relatable situations visually. Gerde and Spencer Foster (2007, p.247) argue that comics can 'attract and keep students' attention […as well as bridging] socio-economic, generational and cultural gaps.' There is growing support for the idea that using the medium of comics may help with engaging adults when communicating ideas, demonstrated by Matteo Farinella in his research into science communication in 2018. He argues that comics 'combine the benefits of visualization with powerful metaphors and character-driven narrative.' (Farinella, 2018, p.1).

In the twenty-first century Applied Comics emerged as a growing research area investigating the use of comics to impart abstract concepts and serious information. According to the website *Applied Comics Etc*. (2020) 'Comics are a powerful tool to engage audiences of all ages with factual information,' citing the use of aeroplane safety cards as an example where sequences of words and pictures communicate step-by-step information. This can be applied to any complex information environment, for example in medical contexts where comics convey crucial information, direction and instruction. Indeed, there is a whole section of literature devoted to Graphic Medicine as a way of communicating health related messages.

However, barriers to using comics as a medium for learning and engagement do exist, and there has long been resistance to the idea of comics as a way of communicating serious

information due to the traditional understanding of comics as part of popular culture. The idea that comics are unworthy, low-brow literature that is undesirable for children and adults to engage with is explored by Richard Hoggart in his classic 1957 work, *Uses of Literacy*, in which he describes the reading of comics as 'a passive visual taking-on of bad mass-art geared to a very low mental age.' (Hoggart, 2009, p.177). Despite the long-held idea that comics are for children, the medium has gained popularity amongst adults throughout the first two decades of the twenty-first century, with comics and a new samizdat style zine culture springing up everywhere to address all age groups. There has also been a growth in the popularity of graphic novels, as well as Japanese manga, with many of these marketed to teens and young adults. Recent trends see the appeal of comics extending to age groups beyond young adults, supported by phenomena such as blockbuster movies, television series and computer games starring comic-book heroes such as Spider-Man, Superman and Batman. While there are conferences aimed at gamers and cosplay aficionados, there are also academic conferences looking at comics and *bandes dessinées*, such as the International Conference of Graphic Novels, Bandes Dessinées and Comics. This discursive shift towards taking comics seriously is echoed in new academic journals and book series devoted to comics and their pedagogical and art-historical contexts.

According to Mayer et al. (1995) the combination of image and text in textbook illustration should be used to assist cognitive processes, as 'understanding of scientific text … can be greatly improved, especially for less-experienced learners, by annotating multi-frame illustrations that portray step-by-step changes' (p. 9). Demonstrating ideas as a comic strip is an intuitive development of this idea and helps present a new concept in a way that encourages engagement and learning in a target audience. Mayer's findings in 1995 endorse Mayer and Gallini's (1990) earlier findings, outlined in their abstract, that 'parts-and-steps (but not the other) illustrations consistently improved performance on recall of conceptual (but not non-conceptual) information and creative problem solving', and these findings are further supported by Eilam & Poyas (2010, p. 2359) who 'corroborated prior findings that learning with external visual representations resulted in better performance than learning from text alone.' These examples demonstrate that applying the use of comics to encourage engagement and learning can be successful in some contexts.

Extending these ideas of visual learning to narrative structures that appeal to our own experiences and use of emotional mechanisms, Gerrig & Prentice (1991) explored the extent to which information acquired through fictional worlds, such as novels, short stories, films and television, is incorporated as real-world knowledge. Their experiments showed that this fictional information altered readers' beliefs and allowed compartmentalising of fictional information, suggesting that 'readers bring a reasonable degree of sophistication to the representation and use of fictional information' (Gerrig & Prentice, 1991, p. 340). The use of story-telling techniques also allows for self-referencing, which enables an individual to imagine themselves in a particular situation. This conclusion is supported by Symons & Johnson (1997), who found that the self-reference effect in memory yields superior memory and organised yet elaborate processing of ideas. In other words, narrative, in this case conveyed via a comic strip, is a powerful way of introducing concepts and ideas.

Use of illustration in pictogram form and pictures without words can help a non-expert audience engage with important but unfamiliar concepts and attract the attention of otherwise busy people. These attributes are supported by the common utilisation of graphic representations in medicine to transmit patient communication. Increasingly, empirical studies are presented in the form of 'Graphic Medicine', with one of the 'implicit aims of the *Graphic Medicine Manifesto* [being] to encourage and widen the acceptance of the medium within clinical practice' (Czerwicz et al., 2015, p. 133).

We have certainly become aware of communication via infographic and symbol strip with regard to informing the public around Covid-19 safety in the last few months. Literature has demonstrated the importance of clear visuals during the pandemic, as Hamaguchi, Nematoullahi and Minter (2020, p. 483) point out: 'validated, pictorial presentations of data or infographics, situated at a unique intersection of arts and public health, can be effective tools to deliver medical information during this pandemic.' Garrison-Joyner and Caravella (2020) argue that comics may also help where there is low health literacy to 'empower adults … to make more informed decisions about their care and treatment' (p. viii). This also applies in situations where English is spoken as a second language: for example Hassanirokh (2018) explores the area of teaching English as a foreign language with comics and he has found that 'reading motivation was highly correlated with reading comics' (p. 281). In a university environment, most staff and students speak and write English well, but using a comic with an economical use of language can help get short, but nuanced, messages across with good understanding. Garrison-Joyner and Caravella point out that it is necessary to 'create culturally responsive comics as a health communication tool' (2020, p. iv) whilst at the same time acknowledging that there can be 'difficulties in producing comics for a specific adult audience' (Garrison-Joyner & Carvalla, 2020, p. iv).

4. The Myth of Visual Learning Styles

It is tempting to think initially that using cartoons or comics for learning or communicating is a practical and useful idea, as it could appeal to any member of our audience who favours a visual learning style. However, ideas around visual learning, usually explained using Neil Fleming's VARK model from the 1980s and 1990s, have now been discredited. For example, a 2019 study by Husmann & O'Loughlin found that 'while VARK categories do correlate with each other, these findings demonstrate no relationships between final grades and preferring one VARK category over another' (Husmann & O'Loughlin, 2019, p. 11).

A study by Knoll et al. (2017, p. 555) found that 'these results indicated that immediate JOL [judgement of learning] accuracy did not significantly predict VVQ [visualizer/verbalizer] scores' indicating that students who preferred learning visually thought they would remember words better, but those preferences had no correlation to what they actually remembered better later. All 'learning style' meant in this case was that the subjects had a preference for words or pictures, indicating that a section of learners prefer to use images but this does not necessarily have any positive impact on their learning gain. However, it is clear that at least a section of students do respond positively to images, such as cartoons and illustrations, showing that even though there is no material improvement in learning the use of comics to impart key library messages can be positive for student engagement regardless.

The psychologist Daniel Willingham reviewed the literature on learning styles in 2015 and came to the conclusion that ideas about learning styles were incorrect, leading to the proposition that people have different abilities rather than different styles and most tasks we encounter are only suited to one type of learning. For example, it is easier to learn how to read a map by looking at the map as a visual object. When you are trying to learn to speak French with a good accent, however, using visual learningis not helpful, indicating that the usefulness of visual aids is confined to certain circumstances of learning. Willingham concludes, 'When it comes to learning styles, however, the most we deserve is credit for effort and for persistence. Learning styles theories have not panned out, and it is our responsibility to ensure that students know that' (Willingham, 2015, p. 269).

5. Cartooning the Library Case Studies

In creating the Library comic strips over the last two years we have been using the medium of comic strips to convey IL messages about library services to new students, research data

situations to researchers, and to encourage alumni to engage with electronic theses. In recent years research has shown evidence for how comic strips, or sequential illustrations, can engage and inform different audiences, and the idea of using visual and graphic images together is already in use in the academy. This section of the project report outlines four case studies of how we have used cartoons at Cambridge University Libraries. The first case study concerns the creation of Data Champions postcards; the second case study looks at the creation of a comic strip to promote the idea of electronic theses; the third case study describes the creation of a Faculty Library using a comic to encourage engagement with key induction messages for new students about library services; and the fourth case study sets out a plan to use a cartoon postcard to inform students across Cambridge about how to recommend books for purchase.

At Cambridge University Libraries our experience, driven by the following case studies, demonstrates how powerful it can be to use narrative in the form of comics or cartoons to communicate ideas and encourage best practice in IL. For example, when trying to ask alumni to engage with the idea of electronic theses or when getting researchers from different disciplines to understand why research data management is crucial, cartoons have caught the attention of the target audience. Many of those who have engaged directly with comics at Cambridge, including students, staff, librarians and alumni, have remarked that comics are an approachable and fun medium for communication. Comics can help simplify a complex message which in turn helps experts from different disciplines and diverse backgrounds understand key IL messages, irrespective of their background. Furthermore, it also forces librarians, who are prone to using jargon and abbreviations, to communicate messages simply and clearly.

5.1 Data Champion Postcards

The Data Champions postcard case study is an example of how my cartoon drawings made use of story-telling based in relatable situations as a technique to engage researchers to improve their IL around research data management issues. Research Data Management (RDM) is the practice of organising, storing and preserving data created during a research project. This project was organized by Clair Castle, who was then Research Data Coordinator in the Office of Scholarly Communications at the University of Cambridge, based in the Cambridge University Library building. Nine Data Champion postcards were created to promote the work of the Research Data Champions at Cambridge. Data Champions (DCs) are volunteers whose role is to ‘advise members of the research community on proper handling of research data’ (Castle & Trowell, 2019). I became involved with this project as a member of the Data Champions network because Clair asked us all if any of us could draw and I was the only person in the room to put my hand up. I have an interest in art and I am an exhibiting member of local art societies the Cambridge Drawing Society and Cambridge Open Studios. My own artwork is based mainly in the medium of lino printing but I also enjoy drawing and have often created comic strips in the past. Clair and I enjoyed the experience of working together on the Data Champion postcard project and the success of this initiative with the Data Champions network led on to other requests for my artwork to be used for IL, education and promotion at Cambridge University Libraries. The Data Champion cartoons were based on eight scenarios (see appendix) that were brainstormed by the DCs as typical conversations they might have with researchers in their departments about research data issues ranging from possible objections to Research Data Management (RDM) to what responses a DC could formulate in response. The ninth cartoon was simply a promotional card to encourage new recruits to the Data Champion community. All of these conversations represent educational moments when Data Champions have an opportunity to improve the IL of researchers in their disciplines about research data management.

Figure 1: *Data Champion Wanted!* Postcard

I worked with Clair to sketch out the ideas for the drawings I created. Clair then used Canva software to convert my hand-drawn cartoon illustrations into designs to be used on promotional postcards for the Office of Scholarly Communications. The process is explained in more detail in the Unlocking Research blogpost: *Cartooning the Data Champions* (Castle & Trowell, 2019), with an emphasis on creating a set of characters that reflected the diversity and reality of the audience we were engaging with. As Garrison-Joyner and Carvalla (2020, p. iv) wrote there can be 'difficulties in producing comics for a specific adult audience' (Garrison-Joyner & Carvalla, 2020, p. iv). We understood the importance of ensuring that both the words and the images were appropriate and relevant. In addition we were concerned to ensure that the characters created for all the Cambridge comics were reflective of the diversity of our academic community. In our blog post on the project we wrote, 'Clare tried very hard to be as diverse as possible, in order to represent the Data Champions inclusively. Her inspiration for the characters has tended to come from real-life people she has encountered' (Castle & Trowell, 2019).

Figure 2: Data Champions postcard characters

We learned a lot during the process of working on this project together, not least all the aspects of cartoon creation we had to consider, including timescale, costs, licensing, workload, stakeholders and cartoon content, as well as the experience of taking part in a consultation with the DCs to try and ensure that the scenarios were understandable by our target audiences. As the comic strips were based on scenarios brainstormed by the DCs, we did find it challenging to make the speech and text concise, eventually settling on three boxes for each strip, as they needed to fit on a postcard. This also made the boxes large enough for characterisation to come through in the illustrations.

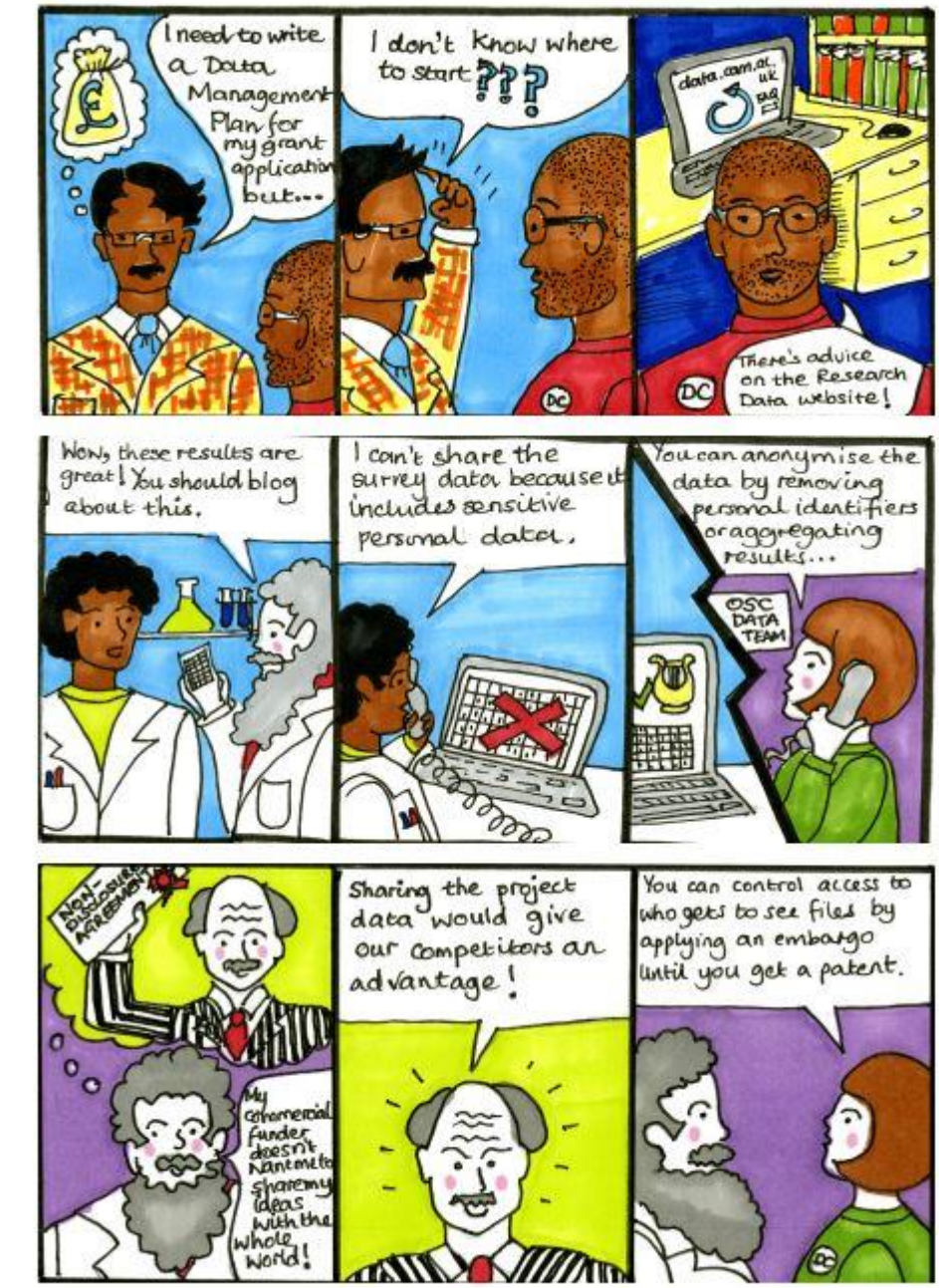

Figure 3: Data Champions postcard example

This project had a demonstrable impact, which was evident upon receiving initial positive feedback from the DCs, with the group as a whole in favour of the idea of producing cartoons. They also felt that colourful cartoons would be a more engaging way of catching their colleagues' attention, as speaking about research data management can be very dry. The scenarios were cleverly put together to be relatable short interactions for which we created a set of characters, representatively reflecting the diversity in discipline and ethnicity of our research community. These characters, PhD students, Data Champions, Principal Investigators (PIs), Research Administrators and Early Career Researchers reappeared throughout the series of postcards in various different conversations. Some of the DCs felt that, despite our careful creation of ethnically diverse characters, there were still too many male senior Research PIs, however, this does reflect our current reality quite accurately.

The cartoon designs have been shown to be popular in action with the DCs, 'The Research Data team now distributes the postcards at all RDM training sessions and, if there is a choice, they are apparently more popular with the usual, more formal research data ones,' (Castle & Trowell, 2019). Most importantly, the postcards act as a way of stimulating discussions on RDM; the fact that the designs were based on an exercise that asked DCs to think of responses to negative perceptions of RDM suggests that this is a good outcome.

Clair Castle later conducted a survey of the DCs who helped create the scenarios underpinning the postcards. The response rate to the survey was 22% and there was some very positive feedback from this group, although the DCs also expressed preferences for some of the scenarios over others: for example the scenario involving the Corporate Man character has been popular with DCs who work with industrial partners. The most used postcard has been the recruitment card: 'Become a Data Champion!' It has not been possible to assess how much influence the cartoon designs have had on decisions to become a DC, but at least one or two responses have touched upon this. One DC commented,

'I have received a couple the very first time I attended an informative talk about the DC, and I remember the impact it had on me.'

A second DC said, 'I have some of the cartoon postcards on my desk, as it looks cool ☺'

Most DCs had made use of the postcards to help them start conversations about research data issues with fellow researchers. Clair Castle's survey results contained many positive comments among the responses. For example:

'Postcards have been used as mini-posters on corridors. I also distribute them to students who attend the CRUK Managing your Research Data course.'

'I put them up on a board in our unit.'

'I have used them to engage with researchers when talking about research support the library can offer.'

'I displayed the postcards with the other library information leaflets and added them to the new grad students' information pack. I used the cartoons in a powerpoint training session.'

'The cartoons are very useful and catchy. It is a great tool to communicate about RDM in a short and crisp style.'

Clair Castle made these observations when analysing the survey comments:

> It seems that the designs are eye-catching and their message is quickly understood. Using the designs to start discussions about RDM at institutions is one good idea that has emerged, and perhaps this could be done informally (e.g. at DC activities) or informally (e.g. when someone wanders past your desk, notices a postcard or poster and asks you about it). (C. Castle, Personal communication, June 1, 2020)

We do have some feedback that indicates the colourful illustrations are memorable, and we also received feedback that the cartoons were being used more widely than just as postcards, with some DCs extending their use to slide shows, posters and digital campaigns on social media. Finally, there was also some enthusiasm for animating the cartoons in the future, if that were to become possible.

5.2 Share It, Don't Shelve It! Comic

After the successful creation of Data Champions postcards the Office of Scholarly Communications recruited me again to create a large A3 poster sized comic to encourage alumni to make non-digital theses open access via a social media campaign. Titling the comic strip: *Share It, Don't Shelve it!*, we developed a narrative of a Cambridge alumna realising how much better it is to make your thesis available electronically than just storing the print copy in the University Library. Thinking about open access to theses is important in the CILN competency Creating and Communicating, which talks about learners understanding the processes by which scholarly material in their discipline is disseminated, and in strand 8 of ANCIL, which is about presenting and communicating new knowledge.

Figure 4: *Share It, Don't Shelve It*! Comic

This cartoon was aimed at a different audience to the postcards, mainly Cambridge alumni, whom the Library wanted to encourage to have their theses digitised. In addition, the comic also needed to be suitable for external outreach consumption, as a way of promoting the sharing of Cambridge research beyond the University, potentially world-wide. The creation and drawing of this cartoon, designed by Hannah Haines, Outreach and Engagement Coordinator for the Office of Scholarly Communications, was more complex and time consuming than the small postcard cartoons. Hannah successfully manipulated the image to appear on the Library website and as part of a University website story to promote electronic theses alongside the news of the Vice Chancellor Stephen Toope's thesis being made available.

The cartoon poster, *Share It, Don't Shelve It!* was used for the social media campaign over a specific period to promote the idea of non-digital open access theses to alumni. During that promotional week several alumni contacted the University Library about making their theses available in this way. Hannah reports that many contacts got in touch on the theme of 'I saw something on Twitter and thought, 'why not?'', leading to a 40% increase in enquiries about alumni submissions in the six weeks following the launch of this campaign, which took place in Open Access Week 2018. (H. Haines, personal communication, January 11, 2019)

This does bear out the idea that a colourful and cartoon-based item, such as a comic, is engaging and catches people's attention, where text-based messages might pass them by in their busy lives.

5.3 Marshall Library Comic

After these two experiences of creating comic strips for the Office of Scholarly Communications, the team in my home library, the Marshall Library of Economics, suggested that we should do something similar for our new students' inductions in Autumn 2018. The team suggested this because they thought it would be more memorable and light-hearted than a traditional library leaflet. The purpose of this comic was to create a colourful printed artifact that first year students could keep to remind them of key library IL messages at induction, to work alongside a library guide that is given out each year but often forgotten about and discarded. The team also advocated for their own cartoon avatars in preference to photographs, with the achievement of good likenesses meaning that team members were recognizable and nameable to new students. We all thought it made us seem more approachable than a simple introduction at the IL messages designed to be easy to remember, beyond the frantic induction period, that would help students understand how to get help or access expertise to support their disciplinary studies.

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Figure 5: *Marshall LibraRay* comic – front and back pages

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Figure 6: *Marshall LibraRay* comic – internal cartoon pages

Thus, the Marshall Library comic was more than a list of services, breaking down barriers by presenting the library staff in a friendly, colourful comic strip. It is an archetypal and recognizable ‘true’ comic showing a unified situation and characters in the Marshall Library, a linked concept with a flow between the images showing our services in a created narrative world.

The comic was a big hit with the new students and the Economics student reps, who asked for it to be shared more widely, including with the Masters students. There was no formal survey to establish how successful the Marshall Library comic was with this cohort of new taught students, but the fact Masters students also requested access to what had initially been conceived of as an undergraduate induction leaflet indicates the popularity of this approach in creating a colourful, eye-catching, and therefore memorable design. The comic has been reprinted in subsequent years but if any of the short headline messages were to change significantly it could be a major task to re-create a new comic or cartoon in the future.

5.4 Purchase Request postcard

There was a request to make a promotional postcard aimed at students that could be distributed across all the Cambridge Libraries, including the colleges, with a single message. Knowing how to request books needed or not available is answering a basic IL need from University matriculation onward. This drawing is a very short comic strip but reminds all students that their Library (and librarian) should be a first port of call for resources; it demonstrates one of the most basic tenets of IL: that people, in this case library staff, can be a source of information. This cartoon was designed for one side of the postcard. This remains a prototype as the project was halted by the Covid-19 lockdown in March 2020.

Figure 6: Purchase request postcard for Cambridge University Libraries

The proposed audience was wide, to include all students across Colleges, Faculties and Departments, so we needed a simple message that any library in Cambridge could ascribe to. It

was also hoped it could be initially distributed in the new academic year by different libraries and librarians as well as at the annual Freshers' Fair. Single key messages to all students in all disciplines like this are unusual at the University of Cambridge, where much student support is distributed among different Colleges, Faculties and Departments, as the university is collegiate and decentralised.

Although this project has been delayed for a full roll-out, the general idea that I should create another cartoon-based artifact for this purpose shows that the idea of using Applied Comics in this way at Cambridge has generated some momentum, at least among the librarians. If this is launched in the future there will be an opportunity to explore the impact and reception of the postcard among a significant student population. This would then open up the possibility of researching the impact of cartooning the library in more depth.

6. Conclusion

Using cartoons and comics as a way of communicating with diverse audiences in the University does seem to be an interesting way of engaging people with key library messages. It can be difficult to deliver a complex message using cartoons and comics, but it is possible and McCloud's commentary in *Understanding Comics* analyses the relationship between form and content to explain how this is the case:

> Comics offers tremendous resources to all writers and artists: faithfulness, control, a chance to be heard far and wide without fear of compromise. It offers range and versatility with all the potential imagery of film and painting plus the intimacy of the written word. (McCloud,1993 p. 212)

Farinella (2018) endorses the potential of comics in science communication, but as he points out in the abstract it is true that 'while many authors have experimented with this medium, empirical research on the effects of visual narratives in science communication remains scarce' (p. 1). This project has shown there is potential to explore the possibilities of using comics to improve library and information science promotion and engagement activities, as well as to explore what impact comics and cartoons might have on learning from an IL perspective. The Data Champions have embraced the postcards and found them to enhance their conversations about research data issues, invigorating a traditionally anodyne subject and process. As indicated by the initial surge in digital engagement, there was a significant response to the *Share It, Don't Shelve It* comic after it was published. Finally, the students embraced the Marshall Library comic and the University Library staff believe that a cartoon postcard will encourage engagement with an initiative to create a centralised book recommendation form. The potential for using cartoons and comics for learning about libraries and what support they can offer is there, and it is evident that comics have developed from being a medium largely for young people and children into something that appeals to all ages including adults in the academy in the twenty-first century.

The value of creating a set of postcards to inform diverse audiences is evident from our 'Cartooning the Library' projects, where using comic strip postcards, an online comic strip and a mini comic leaflet has facilitated outreach to alumni, staff, researchers from early career to PI stage and, of course, our students. The feedback I have received, as the artist, has been positive, which is encouraging on a number of levels, including giving me assurance and confidence in producing a public-facing artwork. The use of colour is incredibly well received when, conversely, the message to be delivered would normally be particularly dry.

My work signals the potential of comics and shows that more research would be welcomed to explore how Applied Comics can be used as a way of engaging staff and students going forward. By sharing the feedback and strengths of my projects, I envisage a fresh, creative

approach to getting users to engage in IL, using cartoons and comic strips to explain a concept which often seems arcane to new students. It is evident to me that there is the potential to harness the process which I explored with various Cambridge library colleagues and to develop a serious research project or survey to measure reception and impact.

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Appendix

This is the Research Data Management scenario document created by Clair Castle as Data Coordinator in the Office of Scholarly Communications. These scenarios were based on real experiences and examples brainstormed by the Data Champions. The scenarios were used to develop the cartoons that appeared on the Data Champion Postcards. Clair Castle and Dr. Sacha Jones, Research Data Manager, have given me permission to reproduce the document in this appendix.

Table 1: Research data management scenario document

Scenario 1			
Stakeholder	**Objection**	**Response**	**Response**
Postgraduate student - STEM	I know my own data and can navigate it without any problems. [piles of paper on desk or bad file structure/version control on a screen]	You may know your data now but what about in two years' time? What if someone else wants to use your data? [DC imagining stakeholder	Data Champions can advise you on effective file naming and organisation strategies so that your research is accessible to everyone. [DC

		frantically trying to find something]	imagining tidy desk/file structure]
Scenario 2			
Stakeholder	**Objection**	**Objection**	**Response**
Junior academic (Post-doc/ECR) – STEM/HASS	My funder expects me to upload the data supporting my paper to the repository. [funder mandate in writing on paper/screen]	I'm employed to do research, not manage data! This extra work is a waste of my valuable time. [close-up of face of stakeholder]	Sharing research data increases reproducibility for others and visibility for you! [DC]
Scenario 3			
Stakeholder	**Objection**	**Objection**	**Response**
Senior academic (PI/Professor) – STEM/HASS	I need to write a Data Management Plan as part of my grant application but … [bags of money/bank note in thought bubble]	… I don't know where to start. [question marks/researcher looking worried/scratching head]	There's lots of advice on the Research Data website. The team will even check it over for you! [DC with website name on screen]
Scenario 4			
Stakeholder		**Objection**	**Response**
Junior academic (Post-doc/ECR) – HASS/STEM	Wow, these results are great! You should blog about this. [colleague or boss of stakeholder talking to them]	I can't share the survey data because it includes sensitive and personal information. [big red cross through spreadsheet/Apollo]	You can anonymise the data by removing personal identifiers or aggregating results for example. [DC, big green tick on spreadsheet/Apollo]
Scenario 5			
Stakeholder	**Objection**	**Objection**	**Response**
Senior academic (Professor/PI) STEM	My commercial funder doesn't want me to share my ideas with the whole wide world. [stakeholder clutching copy of Non Disclosure Agreement/Funder agreement]	Sharing the data would give our competitors an advantage. [quote from funder with angry face]	You can control access to who gets to see the files by applying an embargo until you get a patent. [DC]
Scenario 6			
Stakeholder	**Objection**	**Objection**	**Response**
Research support staff	'How much does data storage cost?' 'How do I back up my data?' [emails/phone calls from researchers in speech bubbles]	The researchers I support need answers but it will take me too long to learn research data management principles.	Have a look at the FAQs on the Research Data Management website for quick answers. [DC,

		[stakeholder looking despondent]	screen showing name of website]
Scenario 7			
Stakeholder	**Objection**	**Response**	**Response**
VC	Managing research data costs too much money and involves too much red tape. [VC in ceremonial dress in a function room, with food/drink in hand]	Good research data management means ensuring that data is handled ethically and stored securely. [DC with food/drink in hand]	The university's reputation could be damaged by a significant loss or breach of sensitive data. [DC imagining bad newspaper headlines]
Scenario 8			
Stakeholder	**Objection**	**Response**	**Response**
Postgraduate student - HASS	Check out this course on research data management! [DC shows colleague the email/poster/flyer advert]	I don't have data! [stakeholder shrugging]	You probably do – data can mean anything you produce. Even if you have no data you still need to manage your files. [DC]
Become a Data Champion!			
	DC	**Stakeholders**	**DC**
	Are you interested in looking after & sharing data properly?	[Two stakeholders talking to each other] Do you want to be the local expert in research data management in the department?	Become a Data Champion!