PEOPLE GET READY

Building Sustainability into Digital Preservation Workforce Development

Sharon McMeekin

Digital Preservation Coalition, Scotland sharon.mcmeekin@dpconline.org https://orcid.org/0000-0002-1842-611X

Abstract - Sustainability has been a key focus for the digital preservation community in recent years, but we have mostly focused on issues such as the sustainability of systems and funding. We cannot, however, be successful as a community without also developing a robust and skilled workforce. This paper will examine trends in workforce development in digital preservation and suggest steps forward we should take as a community.

Keywords - workforce development, training, education, skills, collaboration

Conference Topics - Building Capacity, Capability and Community; Designing and Delivering Sustainable Digital Preservation.

I. Introduction

Those working in digital preservation are well aware of the need for constant advocacy for what we do, in particular having to repeat the familiar refrain of 'digital preservation is not just storage'. We spend time explaining the importance of policy, documentation, robust systems, and sustainable funding, but do we spend enough time advocating for ourselves? A skilled workforce is essential to digital preservation and should be at the forefront of any advocacy effort as well as included as a key part of strategies for development.

Anecdotal evidence suggests that one of the barriers to this is that we have yet to define ourselves as a cohesive profession, despite attempts by projects such as DigCurV¹ to document a competency framework for a digital preservation professional.

Instead we identify as subsets of other groups such as librarians, archivists, IT professionals and more. While this is indicative of the broad range of skills required to successfully undertake digital preservation, it also makes it more difficult to define and advocate for digital preservation roles. In turn, it also causes problems for structuring professional development and identifying and delivering training.

This paper will describe some trends in digital preservation workforce development identified by past projects, provide a brief overview of current issues as seen through the lens of the Digital Preservation Coalition² (DPC) membership, highlight work in this area that the DPC is undertaking, and suggest how the digital preservation community could work together to develop a robust approach to workforce development.

II. SOME PAST WORK

One of the largest and most successful projects focused on the topic of digital preservation workforce development to date was DigCurV, completed in 2013. DigCurV surveyed training needs and provision, producing amongst its resources a competency framework for digital preservation practitioners working at three levels defined as "Practitioner", "Manager" and "Executive". The competency framework has proved to be a useful resource used by numerous training providers and University Masters courses to help frame and assess their digital preservation offerings, as well as by projects such as

[1] https://www.digcurv.gla.ac.uk/

[2] https://www.dpconline.org/



The UK National Archives' Bridging the Digital Gap¹ to help structure a training curriculum for trainees.

The training survey undertaken as part of the project [1] also produced a rich offering of information about training course provision for digital preservation. Some of the headline figures include:

- All of the courses detailed by responses received were offered in (mostly Western) Europe or the USA
- Training was twice as likely to be provided by subject specialists rather than those with experience in training provision
- Participants required no or only a basic understanding of digital preservation to undertake almost all of the courses (93%)
- The majority of courses (69%) were offered in a large group format
- Most courses did not incorporate any form of assessment (79%) and or offer certification upon completion of the course (60%)

From this it is possible to infer that the majority of digital preservation training, at the time of this survey, privileged those in the West and was at a beginner level. It was also likely to fail to meet a tighter definition of what might be considered training, lacking the high level of interactivity, practical emphasis, and consideration for different types of learners that those skilled in delivering training would consider best practice.

A further analysis of the same survey data by the APARSEN project [2] also raised concerns over the sustainability and suitability of training provision. It identified that only around a quarter (26%) of training courses could be described as being offered on a regular basis, with most (64%) being "one-offs". The report also identified key recommendations for improving digital preservation training:

- Less theory and more practice-based content with hands-on tasks
- More targeted courses (by audience and topic)
- More advanced courses for experienced professionals
- Establish a professional development framework

[1] http://www.nationalarchives.gov.uk/archives-sector/projects-and-programmes/bridging-digital-gap-technical-trainee-ships-archives/

III. CURRENT TRENDS

There have been a number of positive steps taken in support of workforce development for digital preservation in the close to six years since the DigCurV and APARSEN reports. For those looking to enter the profession there has been a steady increase in its representation amongst higher education courses, both as stronger elements in existing Master's programs as well as new, dedicated degree programs.

Likewise, there are many exemplars of good practice in training for existing professionals. Leren Preserveren² is providing Digital Preservation Award-nominated³ introductory level training in the Netherlands. The POWRR⁴ project and Aus Preserves⁵ are making great strides in practical training in their institutes and carpentry sessions, respectively. The Digital Preservation Training Programme⁶ has been leading in the provision of online training. The Institute of Sound and Vision⁷ offers much in demand training on audio-visual archiving. And the IIPC⁸ is developing, in partnership with the DPC, a suite of training resources on web archiving.

While these endeavours and other similar activities are having a real impact for those who attend, their reach in terms of numbers and geography is necessarily limited. This means there is likely still a significant shortfall in the provision of and access to digital preservation training and workforce development opportunities. Evidence of these issues

- [2] https://lerenpreserveren.nl/
- [3] https://www.dpconline.org/events/digital-preservation-awards/the-finalists
- [4] https://digitalpowrr.niu.edu/
- [5] https://blogs.unimelb.edu.au/digital-preservation-project/2019/01/15/digital-preservation-carpentry-workshop-at-id-cc-2019/
- [6] https://dptp.london.ac.uk/
- [7] https://www.beeldengeluid.nl/en/visit/events/winter-school-audiovisual-archiving-2019
- [8] http://netpreserve.org/about-us/working-groups/training-working-group/



was born-out in a survey the DPC carried out with members in the spring of 2018.

Gaining practical skills was highlighted as the key benefit sought from digital preservation training, with more than two thirds of respondents looking for intermediate or advanced-level training on all topics listed in the survey except "Emulation" (53% requested training at these levels for this topic). When asked for their priorities with regards to topics, practical options gained the most support with "Tools" being the clear leader, followed by "Metadata", "Planning", "Web Archiving" and "AV Preservation". They also overwhelmingly asked for sessions that included learning tools such as demonstrations, hands-on tasks, case studies and discussion exercises. Finally, many respondents noted multiple barriers to attending training: these included a lack of managerial support, no funding to meet costs, no suitable courses available, and an inability to take time away.

Without a larger international survey of training provision, it is hard to compare current digital preservation training with that described by the DigCurV and APARSEN reports, but available evidence suggests that provision does still lag behind demand. This introduces a risk that without action digital preservation skills might stagnate.

IV. WHAT THE DPC IS DOING

At the DPC, Workforce Development has long been a core part of what we do, and it is one of the six objectives within our strategic plan [3]. We undertake a wide variety of different activities to support Workforce Development with our main outputs being the "Digital Preservation Handbook" (the Handbook)¹, scholarships offered through our Career Development Fund² (previously the Leadership Programme), and our training courses "Getting Started with Digital Preservation" and "Making Progress with Digital Preservation"³. In recent years we have made a concerted effort to

fold the findings of projects such as DigCurV and APARSEN and the needs of the digital preservation community into these activities..

The Handbook underwent a major review and update that was completed in 2015. This resource is freely available via the DPC website and any content can be reused under an Open Government licence. We want to make sure the Handbook does not languish, and that it remains current and authoritative. With this in mind small corrections and updates are made as identified, and work has recently begun on a complete review that will lead to version three. Link integrity checking has been completed and new and updated content will be added, as well as more video content, including tool demos.

Our Career Development Fund undergoes constant review and has been significantly expanded in recent years. The program previously only offered scholarships to events that could be clearly defined as training on digital preservation, but, as described above, much training is introductory and the demand for training currently outstrips what is available. With this in mind we have made two significant updates to the program, guided by the member representatives who make up our Workforce Development Sub-Committee. Firstly, we have expanded the scholarships to cover any kind of professional development activity rather than just training. As an example, in the last three years we have provided ten scholarships for staff from member organizations to attend iPRES. The second expansion now allows members to bring specific scholarship requests to us. These requests do not need to be for development opportunities that are digital preservation specific, as long as they can demonstrate how the knowledge/skills gained will support their organization's digital preservation activities. This approach acknowledges that not all skills required for digital preservation are specific to the domain.

The final major update in recent years has been the reworking of our training outputs "Getting Started in Digital Preservation" and "Making Progress in Digital Preservation". Both courses have been redesigned to more closely align with the content of the Handbook as well as including more interaction through discussion and practical exercises. The



^[1] https://dpconline.org/handbook

^[2] https://www.dpconline.org/about/cdfund/

^[3] https://www.dpconline.org/knowledge-base/training/training-resources

key aim was to make sure participants were gaining knowledge and practical skills that would have real impact at their home organizations. Feedback on the changes has been extremely positive and we have maintained a policy of offering these courses to non-members at cost, so they remain accessible. Unfortunately, venue and technology constraints mean that the courses still lack hands-on training in the use of tools. Capacity has also meant that they have been primarily restricted to the UK and Ireland and we are only able to regularly deliver three of each course in a calendar year. In an attempt to address both of these issues, the DPC will be investigating online training provision in the next six months and are hoping to run a pilot by Spring 2020. This will hopefully allow for greater geographical coverage and provide the capability to offer new opportunities for learners to work with tools. We are also open to sharing our training materials for those around the world who would like to deliver training locally but may not have the time to develop content.

While this work has all been positive, the DPC continues to seek opportunities further improve and expand our efforts to support the workforce development of our members and the wider digital preservation community. Particular motivation also comes from our commitment to inclusion and diversity in digital preservation as laid out in our 2018 policy, presented during the iPRES 2018 lightning talks. We want to make sure digital preservation training and development opportunities are accessible for all who seek them. With this in mind, there are a number of areas of work we would like to undertake and collaborate on to help promote and improve workforce development for our community.

V. A CALL TO ARMS

Brainstorming and creating a workplan for the DPC's Workforce Development activities generated several suggestions that could help pave the way for a more sustainable and inclusive environment for DP workforce development. They are as follows:

A. Refresh of the DigCurV Competency Framework

The DigCurV competency framework has proven to be an invaluable resource to many since its publication, but as the profession matures there is increasing scope for expanding on the original three lenses described above. This is particularly in response to the depth and breadth of knowledge and skills included even at the most junior level of "Practitioner". It is suggested that the number of lenses is increased, an initial proposal is shown in figure 1. This splits "Practitioner" into junior and senior lenses as well as adding descriptions for "Trainee" and "Graduate". Updates could support development of curricula for education and training, as well as offering a building block mentoring and professional development frameworks. All of these activities could potentially be investigated within a single project. The DPC is working to develop a potential project plan with original DigCurV partners and will be seeking funding. Input from the community will be very much welcomed if funding bids are successful.

B. Skills Audit Framework

Excellent work was undertaken by the Digital Preservation at Oxford and Cambridge (DPOC) Outreach and Training Fellows translating the DigCurV competency framework into a process to audit skills for digital preservation with their organizations [4]. This work would provide an excellent foundation to develop a more generic skills audit framework for the community. Such a framework would be a useful tool for advocacy, planning and development, and ongoing workforce development. This work may be folded into plans for DigCurV but may also become a separate project. Whichever route is chosen, volunteers for a set of international test cases are welcome.



Figure 1 Initial proposal for new structure of lenses for an updated DigCurV Competency Framework.



C. Recruitment Resources

The DPC receives many requests to help its member organizations with recruitment for digital preservation roles, where they are unsure where to start with defining what they need. A generic collection of supporting resources, including role descriptions, salary figures and a guide on where to advertise could aid with this process.

D. Training for New Audiences

There is a demand for the development of training resources for audiences beyond the world of information management, and this might also double as an important advocacy tool. Groups for whom an appetite for training content has been expressed include Information Technology professionals, those in management roles, and researchers.

E. Sharing of Knowledge and Resources

An essential step towards sustainability, and greater inclusion, in digital preservation workforce development is establishing pathways for sharing knowledge and resources. Like digital preservation itself, collaboration is key! As a first step a DP Training Slack Workspace¹ has been created to facilitate collaboration. This will hopefully provide a central place to share where training resources are available online, as well as for sharing experience and knowledge, and brainstorming new ideas. It is hoped this will in time lead to collaboration and activities such as "train the trainer" events.

VI. Some iPRES 2019 Insights

At iPRES 2019, while this paper was presented, conference attendees were asked to provide answers to three questions on the topic of Digital Preservation Workforce Development using the polling tool Mentimeter. Firstly, they were asked "Are you able to meet your organizations' DP training needs?" (Figure 2) Of 103 responses, 80 (78%) said they were only partially able or unable to fulfil their training needs. This echoes the findings of the projects mentioned earlier, with the trend perhaps even worsening.

The second question asked, "What are your biggest barriers to accessing training?" (Figure 3)

Here lack of suitable training was voted the biggest issue, closely followed by difficulties in making time to undertake courses. Again, we see the need for more training, and also training that will fit into increasingly busy work schedules.

Finally, the attendees were asked what topics they would like training to cover (Figure 4). Topics mentioned covered the full range of digital preservation issues, from starting out to 'business as usual' and from organizational issues to those of a more technological/process focus. Overall, training on formats, metadata, tools, and workflows/processes were the most popular. The answers to these questions clearly show the appetite for more and diverse training opportunities in digital preservation.

VII. CONCLUSION

While there has been much good work in the area of digital preservation workforce development and training, there is still a lot for us to do as a community if we are to establish sustainable, robust and accessible opportunities. We must build on existing resources so that we can clearly define what we need as a profession and give ourselves the tools to get there. The DPC will continue to make workforce development a key strategic priority and will be open to acting as a host, facilitator, supporter, and partner in taking efforts forward.

REFERENCES

- [1] V. Karvelyte, N. Klingaite, J. Kupriene, L. Molloy, K. Snow, and A. Gow, D2.1 Report on baseline survey and evaluation framework. https://doi.org/10.5281/zenodo.438636
- [2] C. Cirinnà, S. McMeekin, W. Kilbride, Report on Survey of Training Material/ Assessment of Digital Curation Requirements.
- [3] https://www.dpconline.org/docs/knowledge-base/1817-2012-02-21-aparsen-d43-1/ file
- [4] Digital Preservation Coalition, *Strategic Plan for 2018 to 2022*.
 - https://www.dpconline.org/docs/miscellaneous/about/1755-dpc-strategic-plan-2018-22/file
- [5] S. Mason, and L. Pretlove, *Digital Preservation Training Needs Assessment Toolkit*.
- [6] https://doi.org/10.5287/bodleian:pz64RQmGE

^{[1] &}lt;a href="https://dpconline.org/news/dp-training-slack">https://dpconline.org/news/dp-training-slack

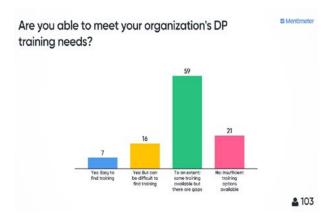


Figure 2 Graph showing responses to question on the ability to meet training needs

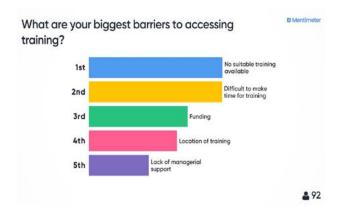


Figure 3 Graph showing responses to question on barriers to accessing training



Figure 4 Word cloud of digital preservation training topics of interest to iPRES 2019 attendees

