

# Digital Preservation at Oxford and Cambridge

A collaborative research project to evaluate and provide sustainable recommendations for our digital preservation programmes

## How do we solve the developer gap? The ever-present question for libraries and archives.

Posted on [7 November, 2016](#) by [Sarah](#)

[PASIG 2016](#) was held at MoMA in NYC on 26-28 October 2016. And like many digital preservation conferences, Twitter was ablaze with ideas and discussions—both those in attendance and those watching from twitter feeds at their desks.

During Karen Cariani's (Director WGBH Media Library and Archives) presentation, '[The Complexity of Preserving Digital Media Files](#),' there was a tweet highlighting a point from Cariani regarding the lack of developers in the library and archives sector:



**Sheila Morrissey**  
[@sheilaMorr](#)

Not a lot of developers in the library archives space - a challenge for staffing projects [#pasignyc](#)

2 18:46 - 27 Oct 2016 · Manhattan, NY

[See Sheila Morrissey's other Tweets](#)

This was something I have been pondering on for some time; it led me to retweet with this question:



**Sarah Mason**  
@DigitallySarah

Do we need to encourage librarian/archivists to learn to develop code or developers to love libraries/archives? [#DP0C](#) [#pasignyc](#)

**Sheila Morrissey** @sheilaMorr

Not a lot of developers in the library archives space - a challenge for staffing projects [#pasignyc](#)

14 18:49 - 27 Oct 2016

[20 people are talking about this](#)

And then I went back to the conference only to realise I had unleashed quite a strong debate among developers, IT staff, librarians and archivists working in a diverse range of institutions. Turns out, this is a question many people are asking as well. And the answer is probably not straightforward, or at least not answerable in 140 characters.

However, I was inundated with plenty of good ideas. Here are a few of the highlights:



**Erin**  
@barkivist

Or to pay developers who want to work in libraries competitively? If not on par w/corporate world, at least on par with IT unit on campus.

**Sarah Mason** @DigitallySarah

Do we need to encourage librarian/archivists to learn to develop code or developers to love libraries/archives? [#DP0C](#) [#pasignyc](#)  
[twitter.com/sheilaMorr/sta...](https://twitter.com/sheilaMorr/status/781111111111111111)

14 13:59 - 28 Oct 2016

[See Erin's other Tweets](#)



**Kathryn Gronsbell** @k\_grons · 27 Oct 2016

Replying to @DigitallySarah @Spunkybrite

@sheilaMorr tough sell for devs when they could make way more \$\$ in other fields



**Spellbound Blog**

@spellboundblog

Need to find those who are burnt out and want to do something they can care about.

18:55 - 27 Oct 2016

[See Spellbound Blog's other Tweets](#)



**Tim Gollins**

@timgollins

Yes [#archives](#) courses teach palaeography, should also teach basic computing science (binary representations, computer architecture etc.) Too

**Sarah Mason** @DigitallySarah

Replying to @timgollins

I agree! I'd also like formal education teach librarians/archivist more tech. Still doing 'intro to digital environ.' courses.

4 13:59 - 28 Oct 2016 · Falkirk, Scotland

[See Tim Gollins's other Tweets](#)



**Sarah Mason** @DigitallySarah · 27 Oct 2016

Replying to @euanc and 2 others

would be nice, but I imagine a hard thing for them to keep up with. Often lower pay across all staff.



**Euan Cochrane**

@euanc

For sure but perhaps instead of paying low they shouldn't do/preserve as much. But that's very contentious

3 19:03 - 27 Oct 2016

[See Euan Cochrane's other Tweets](#)



**Sarah Mason** @DigitallySarah · 27 Oct 2016

Do we need to encourage librarian/archivists to learn to develop code or developers to love libraries/archives? #DP0C #pasignyc



**Dr Anthea Seles**

@archivista13

@sheilaMorr Both. We need to build our capacity but bring in the experts

05:34 - 28 Oct 2016

[See Dr Anthea Seles's other Tweets](#)

And this only a selection of the conversations from the Twitterverse. It shows that there are many ideas for potential solutions to the 'developer gap' in libraries and archives. However, there's no one-size-fits all solution for every institution. These ideas sound great, but do they work in practice?

#### **Pay developers market rates. Or at least on par with IT staff.**

This would ideally make our developer roles competitive, but as budgets continue shrink in our sector this proposal can be hard for some institutions to get the support from senior management to pay market rates. Paying on par with other IT staff seems a given and I would be interested to see where this is not put into practice and why not.

#### **Find burnt out IT staff and lure them over.**

If we can sell a work-life balance and other benefits in our organisations, perhaps that would make up for different rates. Remuneration is not all about the salary, but about the overall benefits. And if your institution can offer them, should this be highlighted in job advertisements up front better? After all, it's not always all about the money...we also have interesting puzzles to solve!

#### **Improving higher education curriculums for library and archives programmes.**

Should understanding the digital environment (such as Web 2.0 and the Internet) still be taught in 2016 or can we all agree that students should have these prerequisite skills? Can we include basic computing science and basic programming skills? These skills are reaching into broader fields than just computer science, so why have library and archives courses not bothered to catch up? Even if

it doesn't give a librarian/archivist all the skills to be a developer, it will help to bridge the communication gap between IT and librarians/archivists.

### **Preserve less?**

Likely a very contentious solution, for a number of reasons. Having strong and clear collections development policies will outline the scope of collection, but sometimes institutions cannot simply say 'no'. However, whenever we acquire a collection, considerations must be made. It's not just about the cost of storage that matters in digital preservation, but the cost of care and management over time.

There is likely no one easy solution. It is likely a combination of many things and shifts that will take place over years—probably at a glacial pace. These questions and potential solutions should be considered, because our development needs aren't going anywhere. I think it's safe to say that digital is here to stay...

*Have an idea how to fill the developer gap? Share below:*

**Name** (required)

**Email** (required)

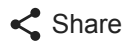
**Website**

**Comment** (required)

Submit »

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This entry was posted in [conference](#), [skills & competencies](#), [technology](#) by [Sarah](#). Bookmark the [permalink](#) [<http://www.dpoc.ac.uk/2016/11/07/how-do-we-solve-the-developer-gap/>].

### About Sarah

Digital Preservation Specialist - Outreach and Training:  
Bodleian Libraries, Oxford University

[View all posts by Sarah](#) →

2 THOUGHTS ON “HOW DO WE SOLVE THE DEVELOPER GAP? THE EVER-  
PRESENT QUESTION FOR LIBRARIES AND ARCHIVES.”

Sarah

on [24 July, 2017 at 10:51](#) said:

Thanks for your comment, Andy! You’ve made a lot of really good points and I agree that this issue isn’t just found in libraries, but the wider GLAM sector. I’ve worked in several museums and galleries in a previous life and it was hard to have money for much of anything, much less developers. My museum IT colleagues moved around quite a bit and many have now left the sector, though some of the dedicated ones hang on.

I come at it from a digital preservation point of view, because to me if digital collections are involved, so is digital preservation. From the very beginning. And the choices we make and the technical staff we recruit should reflect that. I know that is a bit of a thinking shift in some places, where digital preservation is considered a completely separate activity. But, where digital collections and access to them are involved, digital preservation will always be a part of it. And that needs to inform our thinking and development of services.

I’ve had many people comment on the language barrier between librarians and developers and a lack of “translation” mechanism or staff member. This is definitely the biggest

issue that many of us trainers in the field are trying to tackle. I hear it said a lot, but I am rarely given concrete examples; there are few tools out there to help to create a language to bridge this barrier. Short from sitting down with some of the developers (who happen to be librarians and historians) to get real examples of how we can create either a shared language or a way to translate, this problem will likely persist. If you have any other ideas on how we could tackle this, I would love to hear it! Especially if there are particular barriers you encounter that are frustrating.

One way would be to put computer science and librarian students together. To put librarians in introductory computer science courses to ensure they have a better grasp on the technology. I full agree with that and I see good examples of it happening in the US, but not in the UK or elsewhere in the world. I think that would go a long way to bridging the gap. I would take it one step further and like to see some course material include digital preservation for computer science students as well. So much of what they will do will have an impact on digital preservation in many sectors, including outside of GLAM. Businesses need to keep their digital files in perpetuity as well. We often face some of the similar problems.

And I agree that better financial investment in developers is needed outside of project funding. It's the same problem for many digital preservation specialists. Both our roles and the work we do is often tied to project funding, even though digital preservation requires continuity, not just bursts of activity. But again, that comes down to a cultural shift that needs to happen so that developers and digital preservation are seen as a priority. We value our digital collections and we pride ourselves on providing access to them, but the way we fund the preservation and development says that we actually care very little. Especially when compared to our physical collections.

It is annoying to have a turnover in knowledge every 6 months! It takes that long for someone to understand the systems and the organisation. That has to change if we want to retain knowledge and build an office culture that makes people want to stay. I really value the developers I work with, as people just as much as the development work they do. Building that rapport took time, but it's been

valuable because there is no question too stupid, no acronym that I can force them to break down, no concept off limits. We can each bring something to the table. If I had to rebuild that every 6 months, it would be impossible to make any changes.

Sarah  
on [20 July, 2017 at 08:40](#) said:

From: Andy

This is not just a problem in digital preservation, nor libraries in general either, but the whole GLAM sector. I left working in archaeology and moved into the libraries because the pay was significantly more, so can understand why developers leave libraries. Archaeology really is on the cliff face of this problem as they are expected to use the most modern technologies in their work, but have very little strong IT behind them, often relying on the haphazard skills of existing staff, or those savvy enough to up-skill themselves (not necessarily to a level up to date/scratch!).

I've known several developers, some of whom were extremely dedicated to the digital humanities, leave libraries because they can earn more, and easier, money – I think there's also a problem with librarians understanding the methods and language of developers and they therefore find it a frustrating, very often unrewarding area to work in. There is also a lack of staff/mechanism in between to "translate" what the librarian wants to the developer and vice-versa.

That said, there is also an older generation of librarians who do have a better understanding of computer science methods than the younger generation because they had to be aware of them in order to even use a computer decades ago.

There must be a balancing act somewhere along the line. Getting computer science and librarian students to interact more at the learning stage would perhaps draw out more interest and skill in both, and perhaps increase the ability to talk to each other without a "translator". More library



internships for computer scientists with solid senior developers to ensure they receive a positive rewarding experience is also worth considering, but essentially it will probably all come back down to money.

The wider institutions will need to recognise that libraries need more funding for developers (solid, not just project by project) in order to create services and infrastructure that can and will stand the test of time and continue to be permanently developed in sync with technological changes is probably the only way to ensure any level of digital preservation. Staff retention in the long term should be the goal, think how much more work would be done if we could all stop explaining all of our specific issues to a new developer every 6 months!