Single Sign On Pilot

Evaluation

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The Society of Chief Librarians (SCL) has developed six Universal Offers which set out minimum national standards for the services all libraries should provide. They outline what all customers should be able to expect from their local library service – wherever they happen to live. The Universal Offers also look to the future, setting out additional services and ambitions all library services should work towards. Technology drives the 21st century library service, so in many ways the Digital Offer underpins the other five: Reading, Information, Learning, Health and Culture.

SCL knew that most library services offered their customers free access to a range of paid-for online subscription services but that, generally, they were under-used. The problem was simply stated: irritatingly, customers had to keep re-entering their log-in details every time they moved from one resource to another.

However, fixing the problem was a complex challenge – not least because library services use different systems and software, from various suppliers, to manage their operations. As ever, Jisc was up for the challenge and together, through perseverance and pilot projects, we have found a solution. It must be said that this would not have been possible without the co-operation of the library management system suppliers who supported the Single Sign On project.

Jisc is developing a safe and secure Single Sign On product, with different tariffs, that library services can sign up to – and we are confident many will. Single Sign On not only benefits customers, it gives library authorities important information about the services people use the most so they can target their spending wisely.

The success of the project will ultimately depend on persuading publishers of paid-for content to come onboard – but we are up for the challenge, too.

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Introduction

The Society of Chief Librarians (SCL) has partnered with Jisc to develop a single sign on service for public libraries. It is intended that this service will allow registered members of public library services to sign into the online library (including catalogue, returns and renewals, e-Resources and e-book lending) once rather than having to sign in separately to use different aspects of the public library's online offer.

Jisc, together with five of the library management service (LMS) providers, has developed the technical infrastructure for 12 library partners who participated in the pilot. The pilot single sign on service went live in April 2017 and concluded in March 2018 with the launch of a paid-for service for libraries. The participating library services and their Library Management Service (LMS) providers were:

- Bournemouth, North Yorkshire and Solihull (Capita)
- Nottinghamshire, Nottingham City, Derby City and Rutland (Sirsi Dynix)
- Greater Manchester Consortium and Southampton (Civica)
- Tower Hamlets and Doncaster (Axiell)

MetaValue were contracted in November 2017 to carry out an evaluation of the Single Sign On pilot to qualitatively assess the pilot from the user's perspective and to gain the views of library staff on the difference that the pilot has made to their online services.

Methodology

MetaValue completed the evaluation by carrying out four research action visits in December 2017 to the three live Capita pilots and one of the pilots where Single Sign On was in development (Southampton City, Civica). The research visits consisted of: observation of the technology and setup, interviews with librarians, and conversations and surveys with users where possible. In total:

- 7 interviews with library staff;
- 8 conversations with users (4 in North Yorkshire; 4 in Bournemouth). We explain below some of the challenges in attributing this data specifically to Single Sign On;
- 1 recruited user from Solihull; and
- 1 case study of a reader development group in Bournemouth.

In addition, an online survey was circulated to the heads of services of all 12 of the participating libraries which resulted in additional qualitative responses from the Civica and Axiell pilot libraries. To supplement the evaluation telephone conversations were held with project partners including Jisc and SCL, Bournemouth libraries, Katie Peckacar who acted as the project manager for the Single Sign on Pilot, Ben Taplin, Licensing Specialist, Jisc Collection, offering a publishers and licensing perspective, and Katie Lusty offering a perspective from Arts Council England.

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Summary

The pilot has produced a proof of concept for the Single Sign On (hereafter SSO) at Bournemouth libraries. Here the SSO is working well in practice and staff have been engaged in promoting and publicising the e-Resources which has resulted in an improved online offer and user experience. Bournemouth also benefits from a greater variety of e-Resources which are SSO compatible; it has 18 SSO e-Resources listed on its website, and this has been a key success factor.

We observed at the other Capita pilot libraries, Solihull and North Yorkshire, that the SSO technology once implemented, is working well and as intended, and there appears to be a positive user experience of this, with a limited range of e-Resources. Further user testing under more controlled circumstances may be required to validate this.

The Solihull and North Yorkshire staff members reported that because they have only a small handful of SSO compatible resources (6 in Solihull and 6 in North Yorkshire), they are not seeing a significant benefit and are less likely to recommend or continue with a paid-for SSO, even though the user experience appears to be positive. This emphasises the importance of publisher variety for the SSO to be an attractive proposition to public libraries.

In the Civica and Axiell pilot libraries there was a higher level of dissatisfaction and frustration with the SSO technology, the way project had been delivered (implementation delays and infrequent communication updates) and with the way partners have worked together (information not being passed between Jisc and the LMS and dropped actions).

There have been significant implementation delays to the delivery of the SSO pilot. The Capita library pilots experienced a 12-month delay and the Civica library pilots experienced a 21-month delay. The delays have been caused by: a delay in Jisc securing funding from developers in setup, but primarily technical difficulties and slow progress in getting the authentication system reliably connected to LMS systems, which has now been achieved.

These challenges have led to some attrition from the pilots. Essex, Surrey, Cambridgeshire, Doncaster withdrew in 2017. Derbyshire and Leicestershire, which are Sirsi Dynix authorities, withdrew from the pilot in August 2017. However, Doncaster has re-joined the pilot and is taking up the conversation with Axiell.

SCL and Jisc acknowledge that it has taken time to develop a shared understanding and ways of working with Jisc. Jisc underestimated the level of IT expertise and capacity in the libraries sector, while libraries underestimated the amount of support available and the publisher variety that would come with SSO. There was a lack of a clear offer at the beginning of the project.

Initial interest meant a large and unmanageable pilot sample, across a number of LMSs, which proved difficult to manage without project management and a relationships or brokerage role. The introduction of a project manager role and technical support to pilot libraries from Katie Peckacar and John Garland was key to the successful implementation of SSO in the Capita library sites from April 2017. Their support has been widely acknowledged by those involved in the pilot. For example, one of the e-librarians we spoke to fed back that technical implementation of the SSO (requesting, inserting and testing of URLs) was 'a bit fiddly' and that John's support was invaluable in getting the technology working in practice.

The SCL project manager reported that it has proven difficult to engage publishers who are not members of the UK Access Management Federation (UKAMF) in the framework, although there has been some progress with two BIC engagement events held in 2017.

Despite the challenges of the SSO pilot, there is recognition across the pilot sites of the benefits of users being able to sign on once and an appetite for SSO if greater publisher variety can be achieved. A gold standard package would include e-books, e-audio and e-magazine, and ancestry services.

SCL and Jisc should work together to engage publishers and look at options to increase the number and variety of SSO compatible e-Resources. SCL and Jisc should work together to engage LMSs and secure sign-up to the Library Communications Framework (LCF), to make it easier and quicker to implement the SSO. Support and guidance should be offered to target audiences who take up the SSO service and a practitioners network/forum could be created to provide a space for brainstorming and 'green shoots' ideas to enhance the SSO in libraries.

It should also be better communicated to libraries that the main benefit of the SSO is for users accessing e-Resources remotely rather than within the library itself, as most libraries will have an IP authentication model that will create the effect of a single sign on at workstations, albeit less securely than the Single Sign On itself.

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User perspective

The evaluation currently includes two controlled pieces of user insight where user feedback can be directly attributed to the Single Sign on technology.

Gary Archer, E-services and Information Librarian at the Core Library in Solihull recruited one remote user who is a regular user of the online resources that are SSO compatible. The user visited SSO e-Resources and then completed the online survey reporting that he was 'very satisfied' with both the experience of accessing online resources and the process of signing on once to access online resources. He strongly agreed with all of the statements relating to the ease of signing on once:

- I found it easy to sign onto online resources
- Remembering individual passwords was not a problem
- I found it easy to navigate through to more than one online resource
- I found it easy to cross-reference online resources
- Finding what I was looking for was not a problem

In Bournemouth we spoke to Nicola Barringer, Senior Library Assistant, who relayed to us the experience of two adult learners in her reader group who had used Single Sign On resources. She reported that these users found the login process 'easy to use' and that SSO removed a barrier to accessing multiple news sources. This is captured in the short case study below.

> **Case Study: Single Sign On is supporting reader literacy in Bournemouth.**
>
> Bournemouth skills and learning service ran dedicated reader sessions in the library as part of the Read Ahead challenge. 6 adults were supported to develop their literacy and reading skills. Two readers were supported by their tutor to access single sign on news resources, to look up articles as part of their read ahead challenge.
>
> The users reported that they found it easy to access and navigate between resources and less intimidating not being asked for multiple sign-ons and passwords. "It's easy to use." said one reader.

This case study gives a glimpse into the potential impact of Single Sign On to support literacy outcomes in libraries, enhance the user experience, and increase usage.

The spot conversations with users in North Yorkshire and Bournemouth identified high levels of satisfaction with the library online resources and no problems with logging on. However, the users were often interacting with non-SSO e-Resources, or had come into access a specific e-Resource, and as such it is difficult to attribute the positive user experience with a high degree of confidence to the presence of SSO.

Nonetheless, some insights can be drawn, and the findings are useful in their own right for individual library services. We held one conversation with a user in North Yorkshire who had come into the library to access Find my Past, a non-SSO e-Resource. She shared with us her frustrations of being asked to log-in multiple times, which reinforces the case for SSO.

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"I remember login in at the start of the session but it's a real nuisance if you get asked again." **~ User, North Yorkshire (F)**

Staff perspective

The results of our staff survey provide an initial overview of the staff perspective of the SSO pilot; 8 library services were represented through 11 staff member responses. We asked how satisfied staff members were on a Likert scale of 1 to 5 with a) the way the technology is working in their library service; b) the way Single Sign on has been project managed, and c) the way key partners have worked together to deliver the SSO. The mean scores overall were 3.16, 3 and 2.6 respectively. Figure 1 below shows the mean scores by LMS. (Nb. A mean calculation although not statistically ideal for ordinal data is a useful reference point given the small but important sample).
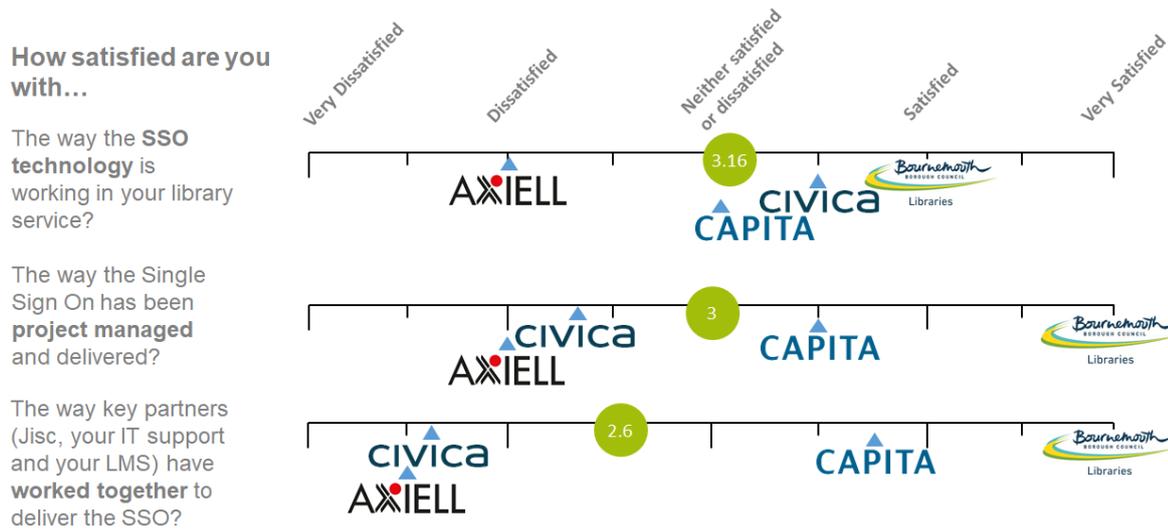

Figure 1 Staff survey (Base = 8 library services)

Table 1 below shows the frequency of responses which re-iterates the picture of higher levels of satisfaction amongst the Capita libraries than the Civica and Axiell libraries.

How satisfied are you with …	Library Type	Dissatisfied or very dissatisfied	Neither Satisfied or Dissatisfied	Satisfied or very satisfied
The way the SSO technology is working in your library service?	**Total**	**2 (33%)**	**2 (33%)**	**2 (33%)**
	Capita		2	1
	Civica	1		1
	Axiell	1		
The way the Single Sign On has been project managed and delivered?	**Total**	**3 (42.8%)**	**1 (14.3%)**	**3 (42.8%)**
	Capita		1	2
	Civica	2		1
	Axiell	1		
The way key partners (Jisc, your IT support and your LMS) have worked together to deliver the SSO?	**Total**	**4 (50%)**	**2 (25%)**	**2 (25%)**
	Capita		1	2
	Civica	2	1	
	Axiell	2		

At the end of the survey, respondents were asked 'How likely are you to recommend Single Sign on to a friend of colleague?' to gauge customer loyalty and potential appetite for SSO. With the exception of Bournemouth, all the pilot libraries fell into the 'detractor' category in net promoter terms (a score of 0 – 6). However, it is interesting to note that despite a level of dissatisfaction from the Axiell pilot libraries, as expressed above, in with the way the pilot is currently working, their averaged net promoter score of 6 shows that there remains a degree of commitment and appetite for making the Single Sign On work. Doncaster, for example, has re-joined the pilot and is taking up the conversation with Axiell.

Figure 2 Staff survey (Base = 8 library services)

The following sections explain the narrative behind these responses.

Bournemouth

At Bournemouth staff have been engaged in the implementation and publicising of the SSO resources and expressed a high level of satisfaction with the technology, project delivery and partnership working. Bournemouth have a better variety of resources that are SSO compatible and they have put time into packaging these up and publicising through its website and through activities with specific reader groups.

*"It's brilliant! If all publishers signed up it would be amazing being able to go to key resources multiple times. I like it. It works." ~ **Nicola Barringer, Senior Library Assistant.***

*"It's another way of taking down the barrier that gets in the way of people accessing authoritative and trusted resources." ~ **Darren Edwards, Senior Library Assistant***

North Yorkshire and Solihull

In the other two live Capita pilots there is a greater sense of indifference towards Single Sign On. Both Solihull and North Yorkshire do not currently see a real benefit as they have a smaller set of SSO compatible resources.

In Solihull libraries, users log in at workstations or through the wifi using ICAM (Insight Media) which controls access through the use of IP addresses. This creates the effect of Single Sign On

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to online resources, even if the SSO technology is not present. There is a need to better communicate to libraries that the main benefit of SSO is for remote users.

> *"It hasn't really made much difference to us. SSO can link everything in on place. SSO should be part of the offer, but libraries should have a more consistent range of resources, perhaps in consortia. Will really work for those with lots of resources. […] Advice to other libraries: do it if there is a benefit, i.e. you have a good range of resources in the research/academic field and cross-referencing would give a better experience for customers.*
> *~ Gary Archer, E-services and Information Librarian*

North Yorkshire expressed some dissatisfaction around the time delay, and lack of communication keeping them updated on how the project was going in other libraries. Solihull would also like to have received better benchmarking information.

> *It took some time to setup and only benefits some users. SSO was not obvious to staff. It took a long time to see benefits. John pushed it through. Apart from John in Bournemouth we didn't know how others were getting along. […] With more resources users can benefit and it's easier and quicker to access.*
> *~ Judith Walsh, Library Manager Service Delivery, North Yorkshire*

The head of service at North Yorkshire was satisfied with the way partners worked together stating that "once the solution was in place we needed very minor technical help." The e-librarian reported two specific issues: new pin requests not being issued as a result of information not shared between Capita and Jisc, and the process to request, insert and test the URLs. She stated that "the pin issue went on for some time. Capita and Jisc were talking to each other but when customers changed pins – the info was not getting through."

Civica and Axiell library pilots

In the Civica and Axiell library pilots there was a higher level of dissatisfaction with the SSO technology, the way project had been delivered (implementation delays and infrequent communication updates) and with the way partners have worked together (information not being passed between Jisc and the LMS and dropped actions).

Southampton, with only two SSO compatible resources have persevered with the pilot despite a lack of buy-in and dropped actions from their LMS. This has made it difficult to promote to current and new users.

LMS - did not make SSO a priority. Have not carried out key data uploads (PINs, pin changes, patrons). Project scope not clearly communicated at the start (we thought we would get access to a wider variety of resources from Jisc)

Difficult to sell to new users and difficult to sell to current users. We just can't see the benefit with the number of resources SSO compatible.

~ Liz Whale, Information, Skills and Area Manager Libraries, Southampton City Council

The Greater Manchester Consortium pilots echoed similar levels of dissatisfaction with their LMS engagement. Comments from other pilots reflect this with the implementation delays and lack of communication updates.

- There has been slow progress due to technical issues. *"This is a complex project that has taken a while to get off the ground. The LMS supplier has been slower than I would have liked to engage with Jisc."*
- *"We seem to have fallen out of the loop, communications broke down somewhere."*
- *"We are still waiting for the LMS to provide the required information to Jisc."*

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Through qualitative interviewing, observation, and analysis of the pilot's project management reports we have assessed the pilot as having the following strengths:

- Proof of concept established with Bournemouth libraries as a model of what's possible.
- The SSO technology once implemented, is working well, and there is a positive user experience of this. There is a positive staff experience where there is greater variety of SSO resources. *"The technology works and we have promoted the facility on our Libraries webpages with the Cyberlibrary resources."*
- Generated enthusiasm and interest for SSO at the start, which was also a challenge as the pilot sample size became too large and unwieldy.
- Acknowledgement of John's role and the need for a project management and relationships role: *"He has worked intensively on the project locally and nationally." "He has been very helpful and provided guidance. When we escalated issues, we did get support." "John pushed it through."*
- Acknowledgement of the support from Jisc in the Jisc-Capita setups: *"Jisc team were very helpful and the meetings very useful."*
- Capita have been proactive in implementing SSO. *"They have been engaged in the project and demonstrated interest from early stage."*
- Some evidence of increased usage of online resources.
- Dedicated project manager.

There have been a number of challenges which has led to some attrition from the pilot, including the withdrawal of Essex, Surrey, Cambridgeshire, Doncaster Derbyshire and Leicestershire in 2017. Weaknesses of the pilot include:

- Jisc, with its academic footing and frame of reference, underestimated the level of IT expertise and capacity in the libraries sector, while libraries underestimated the amount of publisher variety that would come with Single Sign On. There was a lack of a clear offer at the beginning of the project.
- Initial interest meant a large and unmanageable pilot sample, across a number of LMSs, which proved difficult to manage without project management and a relationships and brokerage role.
- Developing a technical infrastructure that was workable for all LMS and which all LMSs signed up took time to achieve.
- Significant implementation delays as highlighted earlier in this report.
- Higher level of dissatisfaction and frustration with Civica-Jisc implementation
- Infrequent communication updates to participating libraries. *"I would like a more structured communication regarding SSO. I feel messages are infrequent. I hope 2018 will bring a renewed purpose to launch the project."*

Despite these challenges, there remains a level of recognition across the pilot libraries of the benefits and potential for SSO including enhanced user experience, increased usage and uptake and increased engagement in online resources.

- *"Easier access to multiple resources. Better user experience."*
- *"Creates a log-in process users are increasingly familiar with (i.e. Google); using the same log in for multiple things. Libraries should be no different."*

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- ◎ *"Single Sign On encourages users to explore and discover resources "*
- ◎ *"SSO offers us a means to market and promote our online resources to all library members."*
- ◎ *"Helps to support learners. Useful to group and clump resources within (e.g. Oxford family) and sell as a trusted, authoritative resource family with one sign on."*

And there is an appetite for greater publisher variety which would make SSO a more attractive offer.

*"One frustration is that we know people want to use music, ancestry and e-books, yet these aren't single sign on compatible." ~ **Darren Edwards, Senior Library Assistant, Bournemouth Libraries***

Usage data

We received some limited usage data from Solihull and North Yorkshire, and some baseline data from Jisc, but not a sufficient evidence base to draw firm conclusions on uptake. North Yorkshire have seen steady increases in OED and Britannica usage, although the head of service feels that a publicity drive in August was behind this.

Baseline data provided by Jisc:

	Dec-17 Logins	Jan-18 Logins	Dec-17 Unique Users	Jan-18 Unique Users
Bournemouth	435	497	74	78
North Yorkshire	834	1056	255	291
Solihull	238	319	42	49
Southampton	14		4	

Solihull library provided data that enabled a comparison of usage of two Single Sign On resources, OED and UK Press Online, comparing Quarter 2, 2017 when Single Sign On was live, and the same quarter in 2016, before the pilot project started. The library saw a 24 per cent increase in the number of OED sessions, up from 213 in Q2 2016, to 264 in Q2 2017, and a 150 per cent increase in UK Press Online sessions, up from 74 sessions in Q2 2016 to 184 sessions in Q2 2017. As with North Yorkshire, other factors, such as publicity and promotion may have been at play.

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Publishers perspective

We spoke to Ben Taplin, Licensing Specialist, Jisc Collections to get a perspective on publisher engagement. Many publishers will have existing experience of supplying to the academic sector and are likely to be more receptive to making their services Single Sign On compatible. An area of focus for future delivery will be supporting publishers who don't have this same level of experience, where factors such as development costs could be a barrier.

Renewing with public libraries the framework agreement for publishers and online content offers an opportunity to identify Single Sign On compatibility as desirable criteria, setting a direction of travel for publishers to implement this over a two to three-year period, without disqualifying those that are not compatible. At a time when achieving value for money is an important priority for public libraries, and as the sector promotes its remote and digital offer, suppliers of e-Resources and online content will be encouraged to offer added value beyond quality content, including supporting increasing usage, ease of access and authentication, and discoverability, to support the public libraries digital offer.

Arts Council England perspective

Katie Lusty, relationship manager for libraries at Arts Council England, welcomed the pilot project.

"It's fantastic that SCL and Jisc have worked together to test the Single Sign On approach and that they have proved that it can work in the public libraries sector. One of the essential ingredients that defines the 21st century public library is an excellent range of books and e-Resources. Public libraries have a huge reach across communities as well as the flexibility to respond to local needs and interests and so the Single Sign On will help more people to access and use a wide variety of e-resources."

~ Katie Lusty, Relationship Manager, Libraries, Arts Council England

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Recommendations

The following recommendations were developed with the Project Steering Group:

1. **Publisher engagement.** SCL and Jisc should work together to engage publishers and look at options to increase the number and variety of SSO compatible e-resources. Jisc should lever its academic footing to help get more publishers on board. A gold standard package would include e-books, e-audio and e-magazine, and ancestry services.

2. **Shared standards across LMS.** SCL and Jisc should work together to engage LMSs and secure sign-up to the Library Communications Framework (LCF), to make it easier and quicker to implement the Single Sign On. The development of the public libraries core specification offers a potential engagement opportunity to achieve this.

3. **Marketing and publicity of the Single Sign On and e-resources.** SCL and Jisc should engage with key stakeholders, including the DCMS, British Library, and BIC to promote the Single Sign On and e-resources as part of the Single Digital Presence programme. The SCL regional structure could be used to promote e-resources, for example through road-shows or through join up with the universal offers. It should also be better communicated to libraries that the main benefit of the Single Sign On is for users accessing e-resources remotely.

4. **Implementation guidance and support for targeted audiences**, including a forum for sharing best practice. Support and guidance should be offered to libraries who take up the SSO service, including the roll-out of the 'how to' step by step guide. A practitioners network/forum or pilots network could be created to provide a space for brainstorming and 'green shoots' ideas to enhance the SSO in libraries. Examples include exploring the use of EduRoam and GovRoam to help add local resources, or to help support libraries in university towns provide students access to their university e-resources.