Access to Research

A report to the Publishers Licensing Society and the Society of Chief Librarians

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1 Executive summary

- Satisfaction with Access to Research is high and users are finding what they need
- It is being used for a wide range of purposes, and users are searching a great many topics
- Most research is for personal or academic interest rather than for professional interest
- Usage varies greatly among participating library services and more could be done to increase use, including enabling library staff to tell more people about it

1.1 Access to Research (A2R) is an innovative service jointly developed between public libraries and academic publishers. It allows public library users to access licensed (i.e. charged-for) academic journal articles from leading publishers for free, via public-access computers in local public libraries. The pilot stage ends in December 2015 and this study was designed to inform the future development of the initiative.

Stakeholder views

1.2 National level stakeholders we spoke with were very positive about the way A2R has developed, and its future potential, although many were anxious to see take-up increase. Some also saw potential to link A2R with the public library national Learning Offer, due to launch in late 2015.

How much is it used and by whom?

1.3 Between January 2014 and July 2015, there were 87,313 visits to the main A2R website. The Summon database (through which searches are conducted) recorded 34,276 visits and 170,771 individual searches in that period. Typical users are those who already use public libraries. Users come from all age groups and all educational levels but are more often older and degree educated. Many are from the most affluent postcodes.

What is it used for?

1.4 Our user survey found the most common reason given for using A2R was for “academic interest/research” (55%) followed by “personal interest” (53%). People are motivated to use A2R for a host of reasons. We heard examples of people seeking information to help them set up a social enterprise, to help with their volunteering, as part of researching creative works, and we also heard from independent inventors. Search term data shows users are searching for articles on a vast range of subjects. But the most frequent subjects researched relate to medicine, health, and history. Social sciences, law, politics, philosophy and religion are also frequently searched subjects.
User satisfaction

1.5 Users are very satisfied with the service with 90% indicating the information they found through A2R was useful and 77% saying they found what they were looking for (Figure 2). Survey comments also indicate that A2R often surprises users with the sheer quantity of content, and wider potential.

“I was quite surprised how much material was made available.” [Service user]

“It makes the public library look a more happening place.” [Service User]

Awareness and use

1.6 Some library services have made significant efforts to promote A2R proactively, but many users are discovering and learning to use A2R by themselves. There is a very wide variation in levels of use across participating library services. Web analytics data shows that in some library services up to 5,000 searches have been made by A2R users to date, but in many others it is under 1,000. This indicates significant potential to increase use overall. A2R training for library staff is continuing but 72% of staff we surveyed have yet to receive training.

Recommendations

1.7 Our findings fully support the continuation and development of A2R and indicate wide and varied use. Our report also suggests the following actions to develop and enhance the service, in order that it can maximise its impact:

- Finding out from those library services with the highest levels of use, about the approaches they have taken in order to assist those with lower use
- Providing public library services with more detailed monthly data on A2R use including national breakdowns showing patterns and trends by service and over time
- Greater and targeted marketing aimed at increasing use to ensure all stakeholders remain confident about growth of the service
- Providing additional training for library staff so that more staff can explain the service clearly to the public and encourage people to try it
- Reviewing and fixing minor issues with the service platform which could be hampering both accurate monitoring of use and user experience
- Harnessing the expertise of those library staff who are already championing the service to support future development
- Harnessing the expertise of highly-engaged ‘super users’ to help develop and promote the service
- Looking at the potential for out-of-library use (in which features are limited) to be used to drive full-featured in-library use.
2 Introduction

2.1 Access to Research (A2R) was launched as a two-year trial in January 2014 in response to recommendations from a committee convened by the UK Government to explore how access to publicly funded research could be expanded. One of the main recommendations of this committee (The Finch Group) was that the major academic publishers should devise a scheme under which public libraries could provide free access to licensed journal content.

2.2 A2R is a unique collaboration between public libraries and the Publishers Licensing Society. It means publishers now provide access, via computers in libraries, to over 8,000 journals and 10 million articles across a wide range of subject areas.

2.3 National stakeholders from publishing and from public libraries have welcomed A2R. In terms of use by the public, this is building steadily but not as quickly as some had hoped or expected. In part this is due to the fact that A2R was simply not available in all library services on the day of launch in 2014, and the process of getting library services signed up has been gradual. But even now with the vast majority of library services signed up, there are challenges in terms of marketing the service.

2.4 With the end of the trial period approaching PLS along with the Society of Chief Librarians and Arts Council England jointly commissioned this study to understand the extent A2R has added value for the public – including looking at who has been using the service, for what purposes, their experience of using it, and what difference it has made for them.

2.5 In particular this study set out to understand:

- How many and what kinds of people are using the service
- What A2R is being used for and why
- If and how A2R is providing benefit and value to users or more widely

2.6 In the course of undertaking this study we have also looked at A2R from the perspective of public library users who are not using the service in order to understand the extent of wider demand for A2R.

2.7 In order to answer these questions we have undertaken a number of different research activities:

- A survey of A2R users which achieved 455 responses
- Ten in-depth interviews with users of A2R
- A survey of non-users which achieved 99 responses
- A survey of public library staff which achieved 612 responses
- Conversations with 10 individuals from stakeholder organisations
- Analysis of the web analytics of the A2R homepage and the A2R version of the Proquest Summon discovery service via which journal articles are searched and served-up
This report sets out the findings from the different research strands and provides our conclusions and recommendations including how the service might be developed beyond the trial period.

- **Chapter 3** presents the findings from our stakeholder conversations
- **Chapter 4** discusses the user journey
- **Chapter 5** presents the evidence we have analysed on usage, the user profile and what people are using the service for
- **Chapter 6** presents evidence from the staff and public surveys
- **Chapter 7** presents our conclusions and recommendations
3 Stakeholder Perceptions

3.1 Early on in our fieldwork we carried out 10 interviews with stakeholders. Stakeholders were selected from a range of organisations, mainly on the advice of the PLS and SCL. Many had been involved with A2R since the very beginning. The stakeholders were senior employees or officers of:

- Publishers Licencing Society (PLS)
- Elsevier
- Wiley
- Society for Chief Librarians (SCL)
- The British Library
- Research Information Network
- Department for Business, Innovation & Skills (BIS)
- Department for Culture, Media & Sport (DCMS)

3.2 The main lines of enquiry were:

- Awareness of/interaction with A2R
- Expectations of A2R
- Perceptions of A2R
- Questions for this evaluation

3.3 The findings of the stakeholder interviews are summarised in the next section. In order to preserve anonymity we have not attributed quotes to individuals.

Awareness of and interaction with Access to Research

3.4 There was a high level of awareness of the scheme among interviewees, many of whom had been directly involved either with the A2R Steering Group or with the BIS-funded Working Group on Expanding Access to Published Research Findings (commonly known as the ‘Finch group’) from which the idea of A2R originated. Some stakeholders, specifically those from government departments, had had less direct involvement and as a result were less aware of the detail.

3.5 In recalling the original Finch group discussions stakeholders made reference where A2R sat in relation to the wider context of open access, with which much of the Finch group discussions had been concerned. In this context a few stakeholders referred to initial debates over whether A2R might be a “distraction” from “more radical discussion of open access [to academic articles]”. One stakeholder, described the inclusion of the A2R concept in the Finch group’s report as something which was pragmatic, and achievable; it was seen as “low key and publishers thought it would be seen as a real step forward”.

Some stakeholders were keen to ensure A2R was not conflated with open access per se, describing A2R as “public access to licensed content” with restrictions on what content you can access and where it can be accessed from (i.e. only from within public libraries). Nonetheless, the benefit of a service based on in-library access was that it was acceptable to all parties (including publishers), whereas other routes to opening up content would be seen as more controversial. As one stakeholder from a publisher added:

“I know that one of the criticisms is the lack of remote access [from outside a library] – but this would be too far for some of our societies.”

As such a number of stakeholders identified A2R (i.e. access to already published content) as a step in the direction of open access: as supportive of the overall open access movement, although not open access per se. However, the benefit, as a number of stakeholders reflected, is that it widened content access overnight “at a stroke”.

Moreover, there was a sense from the public library perspective that although “at first this didn’t look like a big deal”, “it became clear fairly early on that what was on offer was actually very interesting” due to the breadth of content on offer and it being made available specifically through public libraries.

Thinking about the period after the idea had been taken on board, and work had begun towards implementation, stakeholders reflected positively on the partnership working that enabled it to be quickly developed as a functioning service. Indeed, active collaboration between organisations was seen as an important enabling factor in the development of A2R, as is reflected in the quotes below from members of the steering group:

“I think it was a terrific achievement that it got off the ground. It worked from very good chemistry SCL and PLS that were involved in the steering group.”

“Then the steering group was set-up...Really positive even though there could have been tensions, between publishers and librarians, maybe even between the publishers”

Expectations of Access to Research and how it would be used

In terms of expectations for A2R, stakeholders thought the main purpose of A2R is that it should make available to public library users or to their communities “material they would either find hard or impossible to access otherwise”. This can help bridge an “access gap for members of the public that want access to journal literature” which was felt to exist currently.

Stakeholders clearly felt A2R offered value to the public in so far as there is a “tremendous amount of content on offer”.

However, stakeholders had mixed views and expressed a high degree of uncertainty over expected usage and use cases. For instance, while some stakeholders suggested there may be significant untapped demand, it was also suggested by some of the same stakeholders that there is “probably
There were a range of views on the types of information likely to be of greatest interest or most easily consumed by the public through A2R. Generally, social science or history articles were considered likely to be more accessible than subjects such as engineering and physics, which were thought likely to require greater technical knowledge to understand.

In terms of how or why information obtained via A2R might be used, stakeholders suggested the scheme may be of interest to “people who are researching courses or career options or have a business idea” or someone with a medical condition who wants to find out more. More in-depth use may be seen coming from “citizen scholars”, that is people “who can potentially move science forward, but are not affiliated to universities”. However, it was felt that people who were currently students would likely have access to academic journals via subscriptions provided by their further education institutions and were therefore unlikely to need A2R.

That said, stakeholders remained open-minded (or indeed unsure) about what types of use would prove popular or compelling among users, and several asked us what insights this research had generated so far about use-cases and the apparent motivations of users.

In addition to benefits for the public and library users, stakeholders also reflected on benefits to publishers and public library services. From the publisher perspective the incentives were not seen as directly commercial – nor were there any significant risks for publishers. Instead for publishers the most significant benefits, and incentives for supporting A2R come in terms of reputation and being able to demonstrate in a practical way their commitment to expanding access and unlocking wider social benefits:

“...there are reputational benefits. There is also the awareness of bringing benefits to wider society – so ordinary people can access research as well as academics and students.”

For public library services, library stakeholders saw A2R as providing “another selling point for libraries”, one that might also potentially help broaden the range of funders at the local and national level:

“...broadening out and not just having DCMS on the side of libraries, but having BIS on the side of public libraries as well”

Stakeholders from government reported that A2R, in view of the government’s support for greater access to publicly funded research, contributes to a national objective to “facilitate sharing of knowledge and through that to realise social and economic benefits”.

“Publishers don’t feel an overwhelming pull from members of the public to get access. But that doesn’t mean there aren’t members of the public that couldn’t benefit.”
Perceptions of Access to Research

3.19 In terms of how A2R is working now, as the end of the trial approaches, stakeholders were pleased that there had been a number of successes. Among these are getting most local authorities signed up and having all the major publishers on board.

“I think now that numbers have got to most authorities, that critical mass is important.”

3.20 In addition, the A2R Summon discovery service (a variant of the widely used ProQuest Summon service) that has been developed for A2R was considered significant in terms of making the scheme accessible and usable.

“One of the things that made it work well, is having the summon interface... it wouldn’t have been workable without that interface.”

3.21 However, there was disappointment that low take-up had emerged as the main challenge.

3.22 Views of stakeholders differed about the scale of use A2R had potential to achieve. Some felt that the material being made available had potential to attract very widespread use. Others felt academic journal material was by nature difficult and that A2R would never appeal beyond a specialist audience.

3.23 But despite these different views, stakeholders overall felt that current use was well below what they had expected and hoped for. In terms of attracting more users (or unlocking more of the latent demand) the challenge was viewed by stakeholders as primarily one of awareness raising and promotion via public library services.

3.24 A number of stakeholders clearly felt the service had fallen short in terms of marketing. There was a strong sense that A2R had not been as well promoted in public libraries as it could have been, and that promotional activity should have reached many more people who would potentially be interested:

“It’s the local libraries where the challenge is – the marketing. Not as well promoted as it could have been.”

3.25 A number of stakeholders felt that taking the lead in marketing and promotion was public libraries’ side of the deal. PLS and their publishers on the other hand (in consultation with the Publishers Association and the Association of Learned and Professional Society Publishers) had taken the lead role in facilitating implementation of A2R by ensuring the service was developed collaboratively, agreeing conditions of use with publishers, working with ProQuest to implement the Summon service, and persuading the vast majority of publishers and local authorities to participate.

3.26 Furthermore, PLS has continued to shoulder managerial and financial responsibility for hosting the service and providing day-to-day technical support.
Marketing might be quite general, such as promoting the service within public libraries, or it could be more targeted e.g. seeking to tie-up with groups such as local history societies or with Higher Education institutions. However, the sense from many stakeholders was that far more could be done of either.

“\textit{In the very early days we had much more active communications – social media for instance. We saw spikes in usage following twitter chat because it raised awareness among local communities about what is available.}”

Linked to this, a second identified issue was that public library staff may not have had sufficient training on the service in order to feel confident promoting it. To promote it effectively public library staff need to be confident themselves in making searches and accessing documents, and confident about the intended purpose of the service and the conditions of use. A few stakeholders noted that the material in question is often complicated and public library staff may need support to help the public understand the difference in how to use information from journals compared to other form of written information:

“A lot of people in libraries wouldn’t have used these kinds of resources since University.”

One interviewee suggested there should be a “training pack” for staff (n.b. PLS have in fact provided training packs).

Role of this study

Reflecting on what this research project could deliver itself, the main sense from stakeholders was that it could provide a much better understanding of use of A2R. It was also suggested that positive practical examples of how A2R was being used would help build enthusiasm around this project – and help motivate more effort around active promotion.

This was considered important in terms of demonstrating the value of A2R generally, but also to maintain the enthusiasm behind the project, both from the perspective of existing stakeholders and in order to attract more publishers. Again it is evidenced that the service is valued that was considered most important.

“\textit{... if it isn't valued then we need to think. But if it is worthwhile and useful, then that will inform how the publishers look at the future.}”
4 A2R user journey

4.1 Figure 1 below attempts to describe in a simplified fashion the intended journey of users of the A2R service. It assumes the goal of the service is to enable users to access journal articles (from a public library computer) for free – something they could not do without the A2R service.

Start of the user journey - hearing about the service

4.2 This is what we believe to be the journey as intended by those who set up the service. In reality however, as we describe in more detail in the following sections of this report, there are several points where it appears A2R ‘loses’ many potential users for a variety of reasons.

The first step in the user journey is when someone finds out about A2R. But this is also one of the biggest challenges. As our non-A2R-user survey found (completed by 99 public library users), two-thirds of public library users surveyed were unaware of A2R. Of these, 18% said they would be keen to find out more and perhaps use it. If this percentage were applied across England it would be equivalent to 5.3 million of England’s 8 million active public library borrowers having yet to
encounter A2R, of whom 1.4 million might perhaps try using it. Even as a very broad indication, this suggests significant potential to find a bigger audience for the service.

Find an access point

4.4 Once users know the service is available and decide to access it, they next need to discover how exactly to access it from within their local public library. Arrangements differ for each library service. Typically access will be through specific public access computers (sometimes referred to as ‘People’s Network’ machines) which have full access to the service i.e. the ability to download journal articles for free. These will be computers of which the IP addresses have been added to the database of IPs authorised to use A2R, which is a fundamental element of the A2R system. Some library services have set up IP authorisation so that any public-access library computer can be used. In some cases public library services have authorised IP addresses which relate to Wi-Fi access points to which public library users can connect their own devices.

4.5 Ideally access to A2R via computers or Wi-Fi access points will be easy for the public to identify, with help from staff or signage.

4.6 Without clear help or signage however, we would imagine some library users might set about trying to access A2R from a computer which does not provide full access. We raise this because our survey results (reported in Section 4) found that 38% of public library staff who responded to the survey indicated their knowledge of A2R was limited or that they would not feel confident explaining it to a public library user. While some of these answers may have come from staff who do not deal routinely with the public, it raises the challenge of ensuring staff understand how to explain the mechanics of accessing the service, not just the general thrust of its purpose.

Find the right website

4.7 Many public libraries have posters on walls, or hyperlinks on PC desktops providing the URL of the landing page for A2R. However, it is likely some users will remember part of the URL and simply search for it using Google or another search engine. If they do, they are likely to see two A2R websites listed:

- (1) http://accesstoresearch.pls.org.uk/ - search activated site intended as landing page for in-library users
- (2) http://www.accesstoresearch.org.uk/ - a promotional microsite

4.8 The two websites are similar, but a crucial difference is that (1) has a prominent search bar which instigates searches via the A2R Summon discovery service (i.e. the underlying search directory for journals and articles) whereas (2) does not have a search box. In fact, (2) is designed primarily to promote and explain A2R and not to enable searches. It has also been optimised for search engine results as part of ensuring the service has good online visibility, consequently it tends to show as the first result on Google, Bing, and Yahoo. Users of (2) can still reach the A2R Summon service via a link on the FAQ page which reads ‘how can I use the service’ which takes them to (1), but this convoluted route does not seem intended as a main route of use. The FAQ list on website (2) also includes an index of hyperlinks to the journals available through the A2R service, but not the ability to search
those journals. The existence of the non-searchable website may cause confusion for some would-be users and may be another point where A2R loses potential users.

**Use the Summon discovery service**

4.9 Submitting a search term via the A2R landing page (1) takes the user away from the landing page to the A2R Summon search platform - [http://pls.summon.serialssolutions.com/](http://pls.summon.serialssolutions.com/). Version of Summon are used worldwide. It is a powerful discovery and search system optimised for searching academic journals. Besides basic searches, Summon also supports advanced searches (e.g. narrowing by date range, publication title, ISBN), and results filtering by publication date, language, and more detailed search terms.

4.10 The A2R Summon service presents a search results list consisting of links to the journal articles which meet the search criteria. At this point what users see is similar to other ProQuest Summon-powered discovery services provided to staff and students at many universities and other institutions. But in this case rather than seeing the name of a university, users see the A2R logo at the top of the page.

4.11 A common issue raised by A2R users and public library staff is that items in the search results can include articles which turn out not to be available to download for free. However we understand that successive improvements to A2R Summon search results means users should now find less than 5% of articles in results pages are outside A2R and not available for free. It is also possible that some reports of being unable to download full articles are due to A2R users attempting to use the service from a computer which for one or other reason does not have an authorised IP address.

**Use the Publisher’s Website**

4.12 A2R Summon results pages consist of links directly to the relevant article on a publisher’s website. Clicking a link takes the user away from A2R Summon to a page on a publisher website which will usually display the abstract for the article, and somewhere on the page a link to download or view the full article. As long as the user clicks through to an article directly from an A2R Summon search results list, the publisher website will recognise A2R Summon as the referring website (or more accurately it will recognise the A2R Summon proxy server) and allow access to the article. This final step can be considered the practical end-goal of the A2R project; to enable a user to download and read a full journal article for free, which would otherwise have required a journal subscription.

**Conclusions**

4.13 We should also explain at this point that both A2R portal websites (1) and (2) are accessible from any computer with internet access, not just computers in participating public libraries. Outside of a participating library it is still possible to enter search terms on the search activated landing page and be served an A2R Summon search results list. But when a user clicks through to a publisher website and attempts to download a full article, they will usually be asked for a subscription login, or payment. The exceptions are where publishers have already decided to make an article available for free to everyone, irrespective of the A2R service.
4.14 In many ways the A2R user journey and the systems which enable it to work, represents an ingenious solution to a daunting task. It uses a version of the tried and tested ProQuest Summon system used by millions of users and the world’s leading publishers. In this case PLS, rather than say a university, provides its own Summon service through which its users can access licensed publisher content. However, instead of relying on personal user accounts, login credentials, or student IDs to enable the A2R Summon service to know which users have the right to access content, the Summon service relies instead on a list of authorised IPs provided in advance by public library services and added to a database by PLS. The result is that any member of the public can sit down at a public library computer and within seconds be accessing journal articles with no need to register for the A2R. All it requires is that their library service has signed up to the service, and provided IP addresses of some or all of their computers or Wi-Fi access points to PLS.

4.15 But this system also presents some challenges, which in turn may be holding back use.

4.16 To start with it means the A2R user journey is a potentially confusing experience for users with less knowledge of internet technology generally, or less confidence with web-based discovery tools. There are points where first-time users might be discouraged from proceeding further or simply lose their way. Whilst there are some elements outside the control of PLS and SCL (notably the publisher websites), more could be done to explain the user journey on the A2R landing page and provide some simple ‘how-tos’ on accessing articles or basic explanations of ‘how A2R works’. Simply merging the non-searchable promotional microsite (1) with the search enabled A2R landing page (2) could also simplify the user experience.

4.17 Secondly, whilst there are obvious benefits in users being able to go through the A2R user journey and get search results or view abstracts without needing to go to a public library, it is also potentially a point of confusion if users do not understand ‘up-front’ that they need to be in a public library to access the full service, or that the main method of authentication is IP address. This does not mean we are suggesting there should be measures to deter out-of-library access. Our view is quite the opposite, we anticipate significant potential for out-of-library access to be a route for drawing in new users to the full service; e.g. by highlighting the benefits of coming to a public library to complete research begun remotely. If there were some way to save searches or articles which could be instantly retrieved once a user reached their public library (similar to click and collect in retail) then this might create real added-value – especially given the time limits in place on computer use in many public libraries.
5 Users and usage – web analytics

5.1 In this section we discuss our analysis of web analytics data bring to look at levels of usage based on evidence of user behaviour; who might be using the service and where, and what they are using the service for.

5.2 Unless we indicate otherwise, the reference period being discussed in this section is 28 January 2014, the date the service was first used, to 19 July 2015, the date we extracted analytics data for this project, a period of around 19 months.

5.3 One of the key aims of our work on the analytics was to explore observational data on usage of the service (i.e. objective records about user behaviour) to compare with user-reported data (i.e. the user survey responses). A range of data has been collected throughout the pilot using Google Analytics data (i.e. data collected by Google on usage by web page) from the two A2R landing pages (which we referred to as (1) and (2) in the previous section) and from the A2R Summon service.

5.4 In analysing the Google Analytics and Summon data we asked three main questions:

- What does the data say about the user journey?
- How many sessions are really occurring each month?
- What do users appear to be searching for?

5.5 Inevitably this is an iterative process. There will always be further questions we could ask, some of these are highlighted in the text below.

5.6 The key source used for this analysis was usage data accessed via the administrative panel of the Summon database which includes the external IP addresses of computers or Wi-Fi routers through which A2R has been accessed. We also had access to data collected by Google Analytics for two sites; the A2R landing page containing the search box (and identified by Google analytics as UA-47180925-2), and the A2R microsite (lacking a search box) with background information about the pilot (and identifies by Google Analytics as UA-47180925-1). This did not include IP addresses.

5.7 This data is valuable because it provides the best view of the numbers of people using the service, though it is not without challenges. The IP data we analysed did not enable us to identify unique users of A2R nor did it allow us to ascertain the identity of individual users. Detailed notes on the analytics data are provided as an annex to this report.

Understanding the user journey

5.8 One of the first pieces of analysis we undertook was to consider the levels of use and flow of users across different stages of the typical user journey. To help us understand this we mapped key data from the web analytics onto the user journey as we understood it. This produced the diagram shown as figure 2 below, the ‘Annotated user journey’.
5.9 This shows that during our reference period there were 87,313 sessions recorded on the A2R landing page. In the same period we also see 34,276 visits (or sessions) recorded on the A2R Summon search service, which are associated with 170,771 individual Summon searches (or hits).

5.10 One striking feature of the data in terms of user journey is an apparent drop-out from 87,313 sessions recorded (by Google Analytics) on the A2R landing page and 34,276 sessions recorded by A2R Summon. One interpretation of this is that many people who visit the A2R landing page do not go on to enter a search term and hit ‘search’. Given that the page is geared very strongly towards that one course of action – i.e. typing a search term and hitting ‘search’ – the drop-off is interesting.

**IP addresses of computers logged as having accessed A2R Summon**

5.11 Turning to the IP addresses recorded as having accessed Summon we found the majority of visits appear to have been from ‘library IPs’, i.e. library-based computers (or in some cases WiFi routers) using an IP which appears on the authorised list provided by participating public library services to PLS. There were 327 of these ‘library IPs’ i.e. IPs we were able to match to the PLS record of IPs from participating public library services. We could also see that these 327 public library IPs were associated with 139 participating public library services.

5.12 However, although ‘library IPs’ generated the majority of visits there is a very long tail of ‘other IPs’ logged as having searched on the A2R Summon service but which are not on the IP list provided by participating library services.

5.13 In fact during the reference period Summon recorded 10,308 ‘other IPs’ addresses making searches on A2R Summon in addition to the ‘library IPs’. Most of these ‘other IPs’ register low use, but a few of these ‘other IPs’ register high usage and this might warrant further investigation. Might they be public libraries not currently involved in the pilot, or other organisations using A2R Summon as a research tool?

5.14 So while only 3.1% of the IP addresses accessing A2R Summon in the reference period belong to participating public library services these ‘library IPs’ generated just over 94,000 searches, or 55.1% of total searches in the reference period.

5.15 We should also add that we have assumed users accessing the Summon service from any ‘other IPs’ were able to view lists of search results, and see abstracts on publishers’ websites. However we have assumed these out-of-library users would have been unable to download full journal articles (unless they had a subscription or paid for access by some other means).

5.16 We were able to conduct some basic investigation of some of the high-use ‘other IPs’ using an IP look-up service. We found one high-use ‘other IP’ which appeared to be from a participating public library service (perhaps a simple administrative error in notifying PLS?). Other prominent IPs appeared to belong to institutions which could have some link to public libraries. We also used IP look-up services to check for evidence among these IPs that they might be automated ‘ghost hits’ but found nothing to suggest this, e.g. none of these IPs were based in non-English speaking countries. What we did discover was that many of these IPs were in use by UK-based institutions,

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1 As noted in section 6, 11 of the library/library services involved in the national pilot have yet to register any usage. This adds up to the total 150 public library services involved in the pilot.
for example, IP: 91.235.65.22 and IP: 85.12.68.100 were prominent ‘other IPs’ and using the WHOIS look-up tool, we found the first belonged to Manchester City Council, with a similar IP address to the one being used for their A2R pilot. The second belonged to “Bedford Schools NATs Broadband Network”. Another IP, 85.12.76.65, points to “Suffolk School NATs”. It could be worth exploring how and why they are using A2R. Do they provide Internet connectivity for their local libraries or is it an indication that local schools are using the service independently - have some teachers become enthusiasts?
Annotated user journey

- Search landing page
- Conditions of use
- Summon results page

- A2R microsite
- Journey in a library
- Journey not in a library

- Publishers
- Limited access

87,313 sessions (26 Jan 14 – 16 Jul 15)
34,276 sessions (25 Jan 14 – 16 Jul 15)
170,775 searches, about 55% of them from participating library IP addresses

Notice that content not available unless in participating library

Figure 2
Usage of access to research – when and where

5.17 Throughout the pilot, PLS has been providing participating public libraries with monthly spreadsheets of the number of searches recorded on A2R Summon. PLS provided us with this data for 15 complete months from April 2014 to June 2015 inclusive. From this we produced a ‘heat map’ of month-by-month usage for all participating library services as an Excel spreadsheet – an image of which is included in the annex to this report.

5.18 Our heat map shows (with dark-red colour-coding) which libraries generated the highest levels of monthly usage and which (with pale-blue colour-coding) generated the lowest levels of use. An image of the spreadsheet has also been included in the annex dealing with the web analytics.

5.19 During this period we see 89,869 Summon hits recorded in the PLS monthly spreadsheets from participating public library services. In the same period, taking data directly from Summon we see a total of 155,616 hits. We assume therefore that the remaining 65,747 hits (42% of the total) were from ‘other IPs’, which is validated by our own analysis described above of the split between ‘library IPs’ versus ‘other IPs’.

5.20 So just dealing with the 89,869 PLS-recorded hits over 15 months, we see that eleven of the 150 participating public library services in the pilot did not record any hits on Summon at all. Of the remainder, 30 registered less than 100 hits, whilst 34 achieved over 750 hits. Twenty-six library services recorded use of between 1,000 and 4,800 Summon searches in the period. One conclusion we draw from this very wide range of use levels is that in broad terms, there is significant potential to increase use of A2R. The reasons for this wide variation from zero to 4,800 need to be properly understood, as do the approaches taken by the 26 library services which achieved those very high levels of usage. Nonetheless, could we suppose that usage of at least 2,000 hits per year for an average-sized public library service is achievable? Indeed if all 150 participating public library services achieved that level of use then annual hits from ‘library IPs’ would be running at around 300,000 – triple the 89,869 seen over 15 months.

5.21 In addition, the monthly totals show the number of monthly searches from ‘library IPs’ built up from launch to a peak in October 2014 and have been lower since.

5.22 At the level of individual public library services, there are some patterns which could be worth exploring:

- High users overall (twenty six, headed by Birmingham, West Sussex, Hampshire, Derbyshire, Brighton and Hove): What are these library services doing, what could others learn from their approaches, and have their approaches differed according to factors such as size, rural/urban etc?

- Consistent high users (e.g. Birmingham, West Sussex): What did they do to encourage users? What have they done to maintain levels of usage?

---

2 This period is obviously shorter than the reference period used in the previous section, but is based on the data provided to us by PLS.
- Sudden starts (e.g. Norfolk, Blackburn with Darwen): Were there technical problems at the start? Did someone on the library staff do training and/or take a particular interest?

- Sudden peaks (e.g. Derbyshire, Brighton & Hove): Was there a particular event initiative, national or local, that prompted increased use?

- Seasonal patterns (e.g. Oxfordshire, Carillion Services in W London): What might be the local reasons for a peak or trough during August?

- Non-users (e.g. Merton, Wakefield): Are there particular reasons why A2R hasn’t taken off?

- Outsourced providers of services to multiple boroughs (e.g. Carillion Services): What data do they keep on levels of usage across the public library services they manage?
What are users searching for?

5.23 Search terms are a difficult area to explore because so many unique search terms have been entered by users. For the analysis that follows, we return to the original 19 month reference period. We have adopted a similar approach to that outlined in Sarah Faulder and Shinwha Cha’s article documenting the initial stages of the pilot. The main difference is that we have focused on the top 500 search terms from 28 January 2014 – 19 July 2015. The analysis has been carried out in three stages:

- Manual categorising of search terms (broadly to into the categories used for title searches, with a few additional categories added)
- Word count of search terms (as suggested by Faulder and Cha)
- Search for use of Boolean terms in searches (again, as suggested by Faulder and Cha).

5.24 We have manually categorised the top 500 search terms in the table below. The vast majority of search terms in the top 500 were single words or pairs of words: 347 of the search terms, 14,972 of the searches. The longest search term was 23 words long.

5.25 Very few Boolean search terms were found (e.g. ‘Or’, ‘And’ and ‘Not’). Most of those that were found were ‘And’ and formed part of a sentence, rather than a search string. The most obvious search string use was probably by a librarian – current or past: ‘game OR gaming AND Library OR Libraries’. It is probably not unsurprising that few Boolean searches were found in the top 500 as they are likely to be more specific. Perhaps more likely to appear lower down in the rankings.

Figure 3: Frequency of search terms.

<table>
<thead>
<tr>
<th>Category</th>
<th>Searches</th>
<th>% of total 28/1/14 – 19/7/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blank</td>
<td>2,632</td>
<td>1.54%</td>
</tr>
<tr>
<td>Default search text</td>
<td>791</td>
<td>0.46%</td>
</tr>
<tr>
<td>Medical</td>
<td>3478</td>
<td>2.04%</td>
</tr>
<tr>
<td>History</td>
<td>2479</td>
<td>1.45%</td>
</tr>
<tr>
<td>Health &amp; Biological Sciences</td>
<td>1,229</td>
<td>0.72%</td>
</tr>
<tr>
<td>Other</td>
<td>1,157</td>
<td>0.68%</td>
</tr>
<tr>
<td>Place</td>
<td>1,066</td>
<td>0.62%</td>
</tr>
<tr>
<td>Person</td>
<td>1,021</td>
<td>0.60%</td>
</tr>
<tr>
<td>Magazine or Book</td>
<td>900</td>
<td>0.53%</td>
</tr>
<tr>
<td>Art, Architecture &amp; Applied Arts</td>
<td>816</td>
<td>0.48%</td>
</tr>
</tbody>
</table>

3 Sarah Faulder and Shinwha Cha, Access to Research: the experience of implementing a pilot in public libraries, Learned Publishing Vol.27 No.2, April 2014

4 Allocation to categories is not exact. Some could have been allocated to more than one. Some were so vague that could be have been allocated to any, or required some guesswork. Table intended more as a prompt for discussion.
The headline message we take from this is that people are using A2R for a massive range of subjects. Even grouping the top 500 search terms into these 30 broad categories only accounts for 13.6% of all searches. We also see that searches relating to medical subjects, history and general health are the top categories – although these still only account for a very small proportion of all searches.

The results also give the impression that some people using A2R may not fully understand what they have encountered with the service; what it is for or how to use it. For instance a large number of searches were performed with the text box left blank, or using the default text which reads “search author name, title, or subject”. Some may not have realised they were searching a database of articles rather than a more general internet search engine or indeed a social media website.

We explore user searches in more detail in the next section by drawing on survey results.

<table>
<thead>
<tr>
<th>Category</th>
<th>Searches</th>
<th>% of total 28/1/14 – 19/7/15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earth &amp; Environmental Sciences</td>
<td>743</td>
<td>0.44%</td>
</tr>
<tr>
<td>Social Media (e.g. Hotmail; Facebook)</td>
<td>703</td>
<td>0.41%</td>
</tr>
<tr>
<td>Business &amp; Economics</td>
<td>666</td>
<td>0.39%</td>
</tr>
<tr>
<td>Libraries</td>
<td>621</td>
<td>0.36%</td>
</tr>
<tr>
<td>Law, Politics &amp; Government</td>
<td>572</td>
<td>0.33%</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>555</td>
<td>0.32%</td>
</tr>
<tr>
<td>Food &amp; Cooking</td>
<td>540</td>
<td>0.32%</td>
</tr>
<tr>
<td>Engineering &amp; Applied Sciences</td>
<td>501</td>
<td>0.29%</td>
</tr>
<tr>
<td>Family History</td>
<td>433</td>
<td>0.29%</td>
</tr>
<tr>
<td>Child Development</td>
<td>430</td>
<td>0.25%</td>
</tr>
<tr>
<td>Philosophy &amp; Religion</td>
<td>339</td>
<td>0.20%</td>
</tr>
<tr>
<td>Languages and Literatures</td>
<td>281</td>
<td>0.16%</td>
</tr>
<tr>
<td>Music, Dance, Drama &amp; Film</td>
<td>260</td>
<td>0.15%</td>
</tr>
<tr>
<td>IT and Computing</td>
<td>242</td>
<td>0.14%</td>
</tr>
<tr>
<td>Careers</td>
<td>217</td>
<td>0.13%</td>
</tr>
<tr>
<td>Physical Sciences &amp; Mathematics</td>
<td>159</td>
<td>0.09%</td>
</tr>
<tr>
<td>International Affairs</td>
<td>130</td>
<td>0.08%</td>
</tr>
<tr>
<td>Education</td>
<td>98</td>
<td>0.05%</td>
</tr>
<tr>
<td>Research</td>
<td>90</td>
<td>0.05%</td>
</tr>
<tr>
<td>Reference</td>
<td>31</td>
<td>0.02%</td>
</tr>
<tr>
<td><strong>Total searches (using top 500 terms)</strong></td>
<td><strong>23,130</strong></td>
<td><strong>13.60%</strong></td>
</tr>
</tbody>
</table>
6 Users and usage – staff and public surveys

Users of Access to Research

6.1 This section draws heavily on the Service User survey, which had a total of 385 responses at the time we extracted response data. The survey appeared on the A2R homepage as a ‘pop-up’; one implication of this is that the survey features a mix of those arriving at the website for the first time (those who are ‘about to use Access to Research’), as well as experienced users returning to the site.

6.2 Among the survey respondents, a majority were first time users (280 respondents, 73%); conversely, a minority (105 respondents, 27%) had used the service previously. The survey was routed differently for these two groups.

Access to Research User Profile compared to typical public library users

6.3 National data from the DCMS Taking Part survey provides useful demographics on those who say they have used a public library in the past year. This data can be manipulated to produce a profile of public library users.

6.4 By asking comparable questions in our own A2R user survey we were able to compare the demographic of respondents with that of public library users generally. What this shows is that respondents to the user survey came from all age ranges, economic backgrounds, and included roughly equal proportions of men and women. However, they tended to be older than ‘typical’ library users, and less likely to be working. In terms of ethnicity, there was little difference with typical library users. In terms of gender however, they were more likely to be men.

Figure 4: Comparing the age range of public library users nationally, with that of A2R users

Demographics

6.5 Survey respondents are notably those who use the library frequently, with the single biggest group being the 134 respondents (41%) who reported using the library at least once a week, followed by the 94 respondents (29%) that reported using it at least once a month.

6.6 Survey respondents are from a range of age cohorts, with the single biggest group those aged 45-64 (113 respondents, 41%).

6.7 Respondents were split evenly by gender: 47% male, and 51% female (a further 2% preferred not to say).

6.8 In terms of ethnicity, the single biggest group is those who reported being ‘White/White British’ (261 respondents, 80%). This was followed by ‘Asian/Asian British’ (16 respondents, 5%) and ‘Black/African/Caribbean/Black British’ (13 respondents, 4%).

6.9 A notable characteristic of A2R user-survey respondents was their reported level of educational attainment. Over three quarters reported their highest level of attainment as degree level or more (249 respondents, 77%); representing a far larger proportion of degree holders than in the general population.
Most respondents were in employment (including self-employment). A total of 193 respondents reported this being the case (60%), compared to 112 respondents (35%) who said they were not – the rest (19 respondents, 6%) preferred not to say.

We also asked for respondents postcodes to enable analysis by area of deprivation. Analysis of this data shows that while a third of respondents live in the 20% least deprived neighbourhoods, there is a relatively even split between respondents who live in other areas including the 20% most deprived neighbourhoods.

Valid English home postcodes could be gathered from 169 respondents and these have been matched to Index of Multiple Deprivation (IMD) quintiles (where the first quintile represents the least deprived English neighbourhoods).
Reasons for using Access to Research

6.12 The main reason for using A2R as reported by service users was for academic interest / research (204 respondents, 55%) followed by personal interest (197 respondents, 53%). However, 26% (95 respondents) mentioned professional/business/occupational interest.

Figure 8: What are you using Access to Research for? (Tick all that apply)

- Academic interest/research: 55%
- Personal interest: 53%
- Professional/business/occupational interest: 26%
- Other: 5%

N=372

6.13 Among those who had used the service before, asked which topics they had searched, the most popular reported included ‘History & Archaeology’, ‘Health and Biological Sciences’, ‘Social Sciences’, ‘Law, Politics & Government’, and ‘Philosophy and Religion’.

Figure 9: Top 5 areas of interest (What areas or topics have you searched on Access to Research?)

- History & Archaeology: 34%
- Health & Biological Sciences (including medicine): 31%
- Social Sciences: 28%
- Law, Politics & Government: 21%
- Philosophy & Religion: 19%

N=88/105
Among those about to use A2R, the main topics people intended to search are broadly similar to the user group above, for instance the top five main topics similarly includes ‘History & Archaeology’, ‘Social Sciences’, Health and ‘Biological Sciences’.

**User experience**

This section similarly draws heavily on the service user survey. It covers: awareness of the service and how people found out about it; whether users received any support or guidance; and, for those who has used it prior to the survey, their reflections on their experience of using the service.

**Awareness of Access to Research**

Among the 385 users who responded, a majority had heard of A2R via the library services home page (198 respondents, 53%).

This was followed by 75 respondents (20%) who said they had heard about it from a member of library staff. Other methods, such as posters or leaflets in libraries, were reported by fewer respondents (for posters/leaflets: 21 respondents, 6%).

**Figure 10: How did you hear about Access to Research?**

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>From library services home page</td>
<td>53%</td>
</tr>
<tr>
<td>From members of library staff</td>
<td>20%</td>
</tr>
<tr>
<td>Other</td>
<td>16%</td>
</tr>
<tr>
<td>Poster/leaflet in library</td>
<td>6%</td>
</tr>
<tr>
<td>Recommendation/word of mouth</td>
<td>5%</td>
</tr>
<tr>
<td>College/University/Education Institution</td>
<td>5%</td>
</tr>
</tbody>
</table>

*N*=374

**Support and guidance**

When asked if they had received any guidance or support in using A2R, a clear majority said they had not (250 respondents, 68%)
Figure 11: Have you received any guidance or support from library staff for using Access to Research?

<table>
<thead>
<tr>
<th>Support Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No – I have not received any guidance or support</td>
<td>68%</td>
</tr>
<tr>
<td>Yes, help accessing Access to Research home page</td>
<td>14%</td>
</tr>
<tr>
<td>Yes, information about it (e.g. a leaflet about Access to...)</td>
<td>14%</td>
</tr>
<tr>
<td>Yes, help searching or finding articles</td>
<td>8%</td>
</tr>
<tr>
<td>Yes, other (please specify)</td>
<td>1%</td>
</tr>
</tbody>
</table>

N=366

6.19 A total of 51 respondents (14%) reported that they had received help accessing the home page and with information about A2R. A total of 30 respondents (8%) had received help searching or finding articles on A2R.

Experience using Access to Research

6.20 Among those who had used the service before, the main place service users reported having used the website was from a public library (84%), although a further 35% reported using it at home and 12% reported using it at work. From comments given in the survey, it is known that some people use A2R in other locations (outside of their public library) to identify papers before accessing them in the library.

6.21 Some users had used the service intensively, with 27% responding that they had used A2R more than ten times, a further 30% said they had used it up to ten times, with the same figure (30%) saying they had used it a few times.

6.22 There is some evidence from the survey, however, that some users had not used the service to its full extent. Asked which ‘features’ they had used, 93% (82 respondents) reported searching for articles, but just 73% (64 respondents) reported reading or printing a full article.

6.23 Asked a series of questions about A2R, respondents most frequently agreed or strongly agreed that it was easy to use (75%); that they were able to find the information they were looking for (77%); and that the information had been helpful (90%). This implies a very positive experience of the service. Only the 105 respondents who had used A2R on a previous occasion were shown this question.

---

7 This section draws on the 105 survey respondents who had previously used the service before completing the service user survey.
Figure 12: On a scale of 1-5, to what extent would you agree with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>1 - Strongly disagree</th>
<th>2 - Disagree</th>
<th>3 - Neither</th>
<th>4 - Agree</th>
<th>5 - Strongly agree</th>
<th>Not sure / Don’t know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Research was easy to use</td>
<td>5%</td>
<td>10%</td>
<td>11%</td>
<td>45%</td>
<td>30%</td>
<td>0%</td>
</tr>
<tr>
<td>I was able to find the information I was looking for</td>
<td>5%</td>
<td>7%</td>
<td>11%</td>
<td>60%</td>
<td>17%</td>
<td>0%</td>
</tr>
<tr>
<td>The information I found has been useful/helpful</td>
<td>5%</td>
<td>1%</td>
<td>2%</td>
<td>56%</td>
<td>34%</td>
<td>2%</td>
</tr>
</tbody>
</table>

N=90/105

6.24 It is worth noting a possible bias in responses here; namely that those users who return to use the service again may be more likely to have enjoyed a more favourable experience first time round.

6.25 Respondents were also asked whether they had found any aspects of the service difficult. The main difficulty identified by the 69 respondents who found at least one aspect of A2R difficult was ‘accessing the articles I found’. This may relate to issues discussed elsewhere in this report relating to users being unable to download articles in full. There are various possible explanations for this, some of which could be about user understanding of the service, and some about Summon displaying search results which include material from publishers who have not signed up to A2R (an issue PLS have subsequently addressed).

6.26 The next most cited issue was ‘finding articles I wanted’ (21 mentions).

Figure 13: What aspect(s) of the service, if any, did you find difficult? (Tick all that apply)

<table>
<thead>
<tr>
<th>Issue</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessing the articles I found</td>
<td>31</td>
</tr>
<tr>
<td>Finding articles I wanted</td>
<td>21</td>
</tr>
<tr>
<td>Downloading/printing articles</td>
<td>15</td>
</tr>
<tr>
<td>Browsing journals</td>
<td>13</td>
</tr>
<tr>
<td>Finding the webpage</td>
<td>8</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
</tr>
<tr>
<td>Navigating home page</td>
<td>3</td>
</tr>
</tbody>
</table>

N=69/105
Staff views and experience

6.27 The staff survey was in the field from 17 July to 17 August 2015. In total there were 612 responses from library staff. Over 70% of those who responded said dealing directly with the public was their main role, or that they dealt directly with the public every day.

Awareness of Access to Research

6.28 Among the 612 respondents, 73.5% (450 library staff respondents) answered that they had heard of A2R and 26.5% (162 library staff respondents) said they had not heard of it.

6.29 Respondents were routed differently through the survey depending on whether they responded ‘yes’ or ‘no’ to this initial question.

6.30 The 73.5% who were already aware of Access to Research were asked to clarify the extent of their awareness and the answers they gave indicate a wide range of awareness:

6.31 42% (175 respondents) from the ‘aware’ group said they ‘know what it is and would feel confident recommending to library users’ and another 19% (80 respondents) from the ‘aware’ group said they were ‘very aware’ and promoting or supporting use of A2R is part of their role.

6.32 27% (100 respondents) of the ‘aware’ group said they ‘know what it is, but would not feel confident recommending the service’ and 13% (53 respondents) responded ‘heard of it, but not sure what it is’.

Figure 14: Which of the following best describes your level of awareness of Access to Research?

<table>
<thead>
<tr>
<th>Awareness Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Know what it is and would feel confident recommending it to library users</td>
<td>42%</td>
</tr>
<tr>
<td>Know what it is, but would not feel confident recommending it to library users</td>
<td>24%</td>
</tr>
<tr>
<td>Very aware, part of my role is promoting/supporting its use</td>
<td>19%</td>
</tr>
<tr>
<td>Heard of it, but not sure what it is</td>
<td>13%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
</tr>
</tbody>
</table>

0% 10% 20% 30% 40% 50%
An inability or lack of confidence in promoting the service is at least partly reflected in the numbers who had received training in A2R.

**Figure 15: Have you received any training around Access to Research? [Tick any that apply]**

- Nothing at all: 37%
- No, but have researched or taught it to myself: 35%
- Yes, local training: 18%
- Yes, national training: 5%
- Yes, other: 3%
- Not yet, but have arranged/booked to go on training: 3%
- Yes, webinar: 1%

In total just 27% (110 respondents) reported having received local, national, webinar or other training, meaning the clear majority (73%, 322 respondents) had not received any training. However, 35% (140 respondents) said that while they had received no training, they had taught themselves how to use A2R.

Asked how helpful the training was on a scale of 1-5 (not at all helpful – very helpful), ‘national training’ was seen as the most helpful, with 47% of respondents who had taken part in this form of training describing it as ‘very helpful’, compared to 19% of those who had taken part in local training.

**Views on level of use and user experience**

Asked their views on the level of use in their public library, the single biggest response from staff was that A2R is being used ‘rarely / a few people’ (39%, 145 respondents).
Figure 16: To what extent, as far as you are aware, would you say Access to Research is being used by the public in your library?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not sure / Don't know</td>
<td>24%</td>
</tr>
<tr>
<td>Often / a lot of people</td>
<td>2%</td>
</tr>
<tr>
<td>Some people</td>
<td>23%</td>
</tr>
<tr>
<td>Rarely / a few people</td>
<td>39%</td>
</tr>
<tr>
<td>Never</td>
<td>12%</td>
</tr>
</tbody>
</table>

N=372

6.37 This was followed, first by those that weren’t sure, then by those who said it was used by ‘Some people’ (23%, 85 respondents) and ‘Never’ (12%, 44 respondents). Just 2% said it was used ‘often / a lot of people’.

6.38 Asked if they had helped anyone use A2R, most (52%, 194 respondents) said they had not. Furthermore, among those who said they had helped, the biggest group was those who ‘told people the service was available’ (32%, 120 respondents) as opposed to those offering more intensive support.

Figure 17: Have you ever helped anyone to use Access to Research? [Tick all that apply]

<table>
<thead>
<tr>
<th>Support received</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, I have not supported anyone using Access to Research</td>
<td>52%</td>
</tr>
<tr>
<td>Yes, other</td>
<td>4%</td>
</tr>
<tr>
<td>Yes, responded to questions</td>
<td>16%</td>
</tr>
<tr>
<td>Yes, helped people get started</td>
<td>22%</td>
</tr>
<tr>
<td>Yes, told people that the service is available</td>
<td>32%</td>
</tr>
</tbody>
</table>

N=375

6.39 Asked to give their views on the user experience of A2R, most respondents said they were unable to give an answer (‘Not sure / Too few to say’: 52%). Excluding those responses, overall respondents
were more positive that users ‘had been able to find what they are looking for’ than that they ‘found A2R easy to use’, although the general pattern of responses is similar.

Figure 18: Now we want to ask you about the reactions to Access to Research that you have encountered. On a scale of 1-5, to what extent would you agree with the following statements?

Promoting Access to Research and finding out more

6.40 Staff suggested a number of ways to promote A2R (196 responses in total). More training was clearly desired, with ‘training’ mentioned in 42% of responses (83 occurrences). Other often cited responses included more ‘promotion’ (34 occurrences, 17% of responses) and ‘publicity’ (30 occurrences, 15% of responses).

6.41 Bringing together responses from survey questions indicates that Investment in training staff would probably be effective as, among respondents, those in receipt of training are more likely to say that they feel confident enough to recommend the service (or that supporting/promoting use is part of their role).

6.42 Staff were asked to give any other thoughts on the service that they wanted to share. In total 85 staff responded. One of the most frequently alluded to issues is that some articles are not actually available, as may have been understood. For example staff said:

“Many articles that come up on results list are not actually available to view which can be rather frustrating and put me off using it, never mind general public.” [Public library staff]
“Some article titles are displayed but the text is not available for public to read. This can lead to disappointment as results of a search look impressive.”
[Public library staff]

6.43 This was a clear source of frustration and risked discouraging use. Staff were also clear that the service needed to be promoted more vigorously:

“We should promote it on our website in a bold and prominent spot!...and encourage all library staff to promote it.”
[Public library staff]

6.44 Those respondents that responded in the negative to the first question and who were unaware of A2R, were asked to suggest ways to raise their level of awareness. In total there were 110 responses. The most commonly cited method of raising awareness was ‘email’, mentioned 45 times (41% of responses). This was followed by ‘training’ (19 occurrences, 17% of responses) and posters (15 occurrences, 14% of responses).

User case studies

6.45 As part of the user survey we also asked respondents whether they would be willing to be interviewed so that we could explore their use of A2R in more depth. We had a number of positive responses and were able to conduct detailed interviews with eight users of A2R whose experiences we have documented in the following case studies. These reinforce the general impression of the public finding a very wide range of uses for A2R, driven by an equally wide range of motivations.

**Tom is hoping to set up a social enterprise.** He is using A2R to conduct market research that can inform the business case for this.

Tom is interested in addressing skills gaps around digital skills, particularly among harder to reach groups, and is using A2R to find out more about how this is measured at present and what is currently being done. He also thinks there is scope to develop solutions for older people that are infirm and need support around their health that prevent them moving into care homes.

He wouldn’t have had to use A2R until recently, but feels now that in order to develop a business plan “you have to get your hard-core research in there”. Tom was really impressed to find this service available in his local library. He feels this is another important part of what libraries have to offer and should be marketed more.

“I think for libraries it is really my finding out what they have to offer, I’m not sure many people know just how much they have to offer.”

**Melanie graduated in July with a PhD in Archaeology** and has now gone into commercial archaeology. As she has finished her studies, her university credentials that granted access to academic journals expired. However, she has been able to continue using academic journals through A2R.
Melanie is excited to be able to continue her research and welcomes the freedom that A2R affords. She feels that because those undertaking research in academic institutions have to attract funding, this may skew the types of research which get approved, whereas A2R is a great way, she argues, to let “less fundable topics be explored”.

“I wasn’t expecting to have the same level of access as university, but considering it is a free and public resource it has been very helpful.”

Gideon is studying for his MBA at an English university, but travels there from his home town in Wales. When he is home he likes to use the library as a place to study and found out about A2R from his local library staff.

“It hasn’t been long since I realised that I could get access to this kind of academic journals. I thought I could only get access from universities.”

A2R is complementing the journals he can access via his university and is helping him to properly reference and back-up his assignment. The kinds of topics he is searching are service marketing, marketing, and accounting.

Gideon thinks A2R has a wealth of interesting material that could be useful to businesses if they knew more about it.

Simon is using Access to Research to research his book on ‘comedy and caricature’ in English and Greek literature. He had previously been a university professor, but not now being affiliated with a university welcomes the access that the scheme gives him.

“You do start to feel a more of an insider again [being able to access academic journals], you can feel marginalised and as though you are an outsider.”

He found A2R very easy to use and in particular appreciated the convenience and the breadth of content. He reflected that in the past he would have had to travel to the British Library or Boston Spa for the depth and quality of content that is now available through his local library. Moreover, Simon noted that paying for journal access would otherwise be prohibitively expensive.

“I was quite surprised how much material was made available, some subscription services exclude some journals. I was surprised to find some that I wasn’t expecting to find.”

Brian, a retired factory health and safety inspector, uses A2R primarily to learn about subjects which are of interest to him. He is a member of an Industrial Archaeological Society, and uses A2R to do background reading in advance of any talks put on by the society.

He has also recently taken an interest in photography, and has used A2R to look into the history of various terms and theories of photography.
“I use Access to Research to help me understand the jargon and the origins of different terms and techniques ... I’ve been looking for instance at Retinex Theory.”

Brian is a member of various library support groups, and has used A2R to help him prepare arguments for the advocacy of public libraries and to understand the historical opposition to them. He shares his learning with other members of the support groups and has been encouraging them to do their own research using A2R.

Brian sees value in A2R, and is particularly keen for others to benefit from it. He often shares his experience with others and helps them to gain access to material which is of interest to them, particularly those who feel that they would be unable to engage with academic material.

“I’ve met a lot of people who think ‘academic literature is not for me’. I helped one chap use it who had an interest in cricket. I helped him find a paper on the history of cricket and he found it very interesting and easily accessible, even though he’d never read an academic journal before.”

**Martin volunteers at a stately home** run by the National Trust.

He is currently doing some research around the reign of Mary I and Phillip of Spain in England, with particular reference to aspects of Tudor government and portrayals of the Monarchy at the time.

Martin has primary access to original documents from the period, and was inspired to research the subject further after seeing the letters patent to the property, which were granted by Mary and Philip at the time. He plans to write a report which will be shared via an electronic journal published by the National Trust. He hopes that his work will encourage further discussion and research in the area.

As a new user, Martin has found A2R easy to use, and notes that without access to such a tool, he would have had to visit many different libraries and other places housing relevant research, but with A2R he can access it in one location.

He already has plans for a future project looking into what has been written on the naval history of the stately home, and building further on that.

“Without Access to Research I would have had to go to various libraries with collections as opposed to doing it online. Having it available locally is very important.”

**Viktor is a professional composer, session and live musician.**

Viktor developed an interest in the compositions of Dutilleux and wanted to learn more about his composition process. His membership at the University of Bristol library had expired so he went to his local library, after finding out about A2R online. He used the articles he found on A2R to inform his own writing process.
“I wanted to find out the nuts and bolts of how he writes music – I wanted to know about the exact processes involved ... you could say it was professional development. Turns out that a lot of doctoral papers been written about this guy.”

The articles would have cost him around £100 if bought privately, but through A2R, Viktor was able to access these for free. Viktor hadn’t visited the library for several years, and had a negative perception of them, but visiting a library to use A2R gave him a fresh perspective.

“It makes the public library look a more happening place. I hadn’t been for years but it was now full of students and felt lively. There’s always a perception that libraries can be depressing but it was nice to see that there is something going on there.”

Fred, is retired and used to work as a scientist for the Natural Environment Research Council.

He has a wide range of hobbies which include mathematics and science, and is an amateur pilot who flies a Cessna and a Gyrocopter. He also runs a website where he publishes his own research.

“I’ve been using Access to Research to study things and to inform my own research which I publish on my website – it’s quite heavy mathematical and scientific stuff.”

Fred uses A2R for a number of purposes. For instance, he has recently used it to research an article he is writing about changes in the jet stream. Fred has also been trying to come up with a design for a new type of Gyrocopter, and has used A2R to find articles to help him with his designs.

In the past, Fred would have asked at his local library or paid for access to journals. Now he gains access at his local library as part of his daily trip into town. Fred points out that using A2R is easy enough to use and is similar to using any other search engine.

Views of non-users of A2R

6.46 Our non-user survey was completed by library users who had not yet used A2R. Members of the public were encouraged to complete the survey on paper or online by staff in those library services who had agreed to assist with our research. Ninety-nine individuals completed the survey. Over 90% of them described themselves as regular library users tending to cite as their main reasons for library use (they could choose more than one) as; use of IT facilities (67%), book-borrowing (55%), study or work (35%), and reference and newspapers (22%).

6.47 The first thing we see in the survey of non-users of A2R is that just under half were aware of A2R even though they had never used it.

6.48 We also introduced a screening question to ask if respondents had used A2R previously, and those who said they had were directed to the user survey and no further questions were asked of them. These results therefore only consider responses from actual non-users.
Figure 19: If you have not used Access to Research, which of the following best describes why you have not used it?

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Not aware of it</td>
<td>48%</td>
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<tr>
<td>Aware of it and interested, but haven’t had a reason to use it</td>
<td>25%</td>
</tr>
<tr>
<td>Not aware of it previously – but I would be keen to find out more / use it</td>
<td>18%</td>
</tr>
<tr>
<td>Aware of it and interested, but haven’t had the time to use it</td>
<td>10%</td>
</tr>
<tr>
<td>Aware of it but not interested</td>
<td>6%</td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
</tr>
</tbody>
</table>

N=68

6.49 Although 48% of respondents were simply not aware of it, 45.5% showed some degree of interest in A2R. This included around 18% who had not been aware of it but would be keen to find out more, alongside 19% who were aware and interested, but without the time to use it.

Figure 20: How often do you use the library?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>At least once a week</td>
<td>58%</td>
</tr>
<tr>
<td>At least once a month</td>
<td>25%</td>
</tr>
<tr>
<td>3-4 times a year</td>
<td>10%</td>
</tr>
<tr>
<td>Prefer not to say</td>
<td>3%</td>
</tr>
<tr>
<td>Have not visited in the past year</td>
<td>5%</td>
</tr>
<tr>
<td>1-2 times a year</td>
<td>1%</td>
</tr>
</tbody>
</table>

N=88

6.50 As we would expect, many of the respondents were frequent users of a public library, with 61.4% visiting at least once a week, most commonly to use IT and computer facilities, but also to borrow books or study. This broadly matches the type of public library user who has tried A2R, i.e. regular users, who come to the library to use computers and other IT.
Figure 21: What are the main reasons you use the library? (Tick all that apply).

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT facilities (computers, WiFi, internet)</td>
<td>50%</td>
</tr>
<tr>
<td>Borrowing books</td>
<td>40%</td>
</tr>
<tr>
<td>For study or work</td>
<td>25%</td>
</tr>
<tr>
<td>Reference section or newspapers</td>
<td>20%</td>
</tr>
<tr>
<td>Borrowing CDs or DVDs</td>
<td>15%</td>
</tr>
<tr>
<td>Other</td>
<td>10%</td>
</tr>
<tr>
<td>Activities held at the library (e.g. rhyme times, classes)</td>
<td>5%</td>
</tr>
</tbody>
</table>

N=88

6.51 These figures confirm our other findings that promotion by public libraries has been very variable and a large number of public library users still do not know about A2R; yet many would potentially be interested. To put this in the context of public library use overall, out of England’s 8 million active library borrowers this suggests up to 5.3 million may not know A2R exists, and 1.4 million might be interested in finding out more.
7 Conclusions and Recommendations

7.1 A2R is a genuinely innovative and exciting concept, with significant potential for attracting public use, but it is still in its infancy. As a technical solution to a complicated problem it is clever, ingenious even. But it is also a system which needs constant monitoring to ensure it is delivering the intended service consistently across 150 public library services. There also needs to be good accurate promotion so the public find out about it, and understand the basics of using it.

Learning from libraries’ intelligence

7.2 Since the launch of A2R in January 2014 use had grown and participation by public libraries and publishers has grown. Our survey of existing A2R users indicates high satisfaction rates; 75% saying it is easy to use, 77% saying they found what they were looking for, and 90% saying the information they had obtained was helpful.

7.3 But there are significant expectations upon it from those who generated the original idea, worked it up as a service, and played a part in implementing it. In particular usage levels during the first 19 months have been lower than many stakeholders had hoped. Yet if all participating library services were achieving usage levels of the kind being seen in Birmingham, West Sussex, Hampshire, Derbyshire, or Brighton and Hove – then usage would be running at over 300,000 searches per year; some might still expect more, but it would be a leap forward. A key question we would want to ask next is, what can we learn from these public library services in particular? The next question would be to find out which other library services want to achieve similar results.

Recommendation: SCL and PLS should ask those library services with the highest use what they have done which others might emulate in order to increase use of A2R.

Recommendation: SCL and PLS should seek out those library services who want to set themselves a goal of increasing A2R usage (say to 3,000 searches pa) and offer some form of additional support to them (e.g. training resources, recognition scheme).

7.4 Even though some of the raw data presents challenges for interpretation (e.g. matching IPs with participating public library services) a large amount of data is already being collected which could provide a great deal of usable insight. It could be used far more intensively by participating public library services to guide action and monitor the effects of action. Our ‘heat map’ shows how simple manipulation of the date can provide actionable insights.

Recommendation: SCL and PLS should amend the format of the monthly usage reports to follow the ‘heat map’ format used in this report.

7.5 There are some aspects of how the service is being used in real life by real users which would benefit from deeper understanding. Better understanding of the ‘other IPs’ for instance; what kinds of users do these represent, and could this significant mode of use could drive use within libraries? The same goes for the apparent drop-off between those accessing the A2R landing page and those performing an A2R Summon search. There are also some elements of the current user journey which may
confuse or lose potential users. We suggest the development and improvement of A2R will be helped by gaining a deeper understanding of user journeys and by smoothing out obvious issues.

**Recommendation:** SCL and PLS should improve the accuracy or IP records including investigating the circumstances around high use ‘other IPs’.

**Recommendation:** SCL and PLS should investigate further the possible reason for the large difference in visits to the landing page compared to the A2R Summon page.

**Recommendation:** SCL and PLS should combine the two A2R websites in order to drive all traffic to the search enabled website http://accesstoresearch.pls.org.uk/

### Who What and Why?

#### 7.6 A2R is being used by all kinds of people, although they tend to be existing public library users. It is being used by people of all ages, from different ethnic backgrounds, with different levels of educational attainment, and by people from wealthy and from poor neighbourhoods. That said, while current users are diverse they are somewhat skewed towards over 45s, and people with a degree education; the typical A2R user is educated and digitally savvy. A2R is also being used more by those who have prior experience (often recent) of using journal literature than those with no prior experience of journal research.

#### 7.7 The range of subjects being searched for is incredibly broad, indicating a wide range of motivations for use. This is confirmed by the user survey and the in-depth interviews with seven individual users featured in the previous section. The most common types of information being sought relate to medicine, history, and general health but these only account for a tiny proportion of all searches.

#### 7.8 Users report many reasons for wanting to use A2R spanning work and professional interests, study, and personal or leisure interests. Some A2R users may be visiting the library specifically to use A2R, but it appears the majority of users are regular public library visitors already and many of these are individuals are also regular users of public access computers in libraries.

#### 7.9 In terms of motivations and ‘use cases’ a number of interesting examples have emerged including social activism and supporting one’s own community, research by a privateer inventor, and enabling self-directed professional learning and development.

#### 7.10 This wide range of uses, and motivations for use, shows that demand so far for A2R is not from an esoteric niche but is very broad – in fact it mirrors the way the public use public libraries generally. That said, while some public library services have made significant efforts to promote A2R, many users are discovering A2R themselves, and learning how to use it themselves – around half the public library staff responding to our survey did not feel confident explaining A2R to the public.

#### 7.11 While some respondents to the user survey made clear they did not need or want help to use A2R, this needs to be seen in the context of users tending to be older, degree educated, library regulars. It could be worth testing whether younger people including those without degree educations, would be attracted to A2R if they were introduced to it with more proactive advice and support. There also seem to be a number of inconsistencies with user experience which may be discouraging or preventing users from getting beyond the landing page and initial search results pages. This may be
exacerbated by the low-key way staff in many public library services signpost A2R. Presumably this will be more of a disincentive for people with lower levels of digital confidence.

**Recommendation: SCL and PLS should actively test interest in A2R among library users who are not currently using A2R, especially demographics groups using it least for instance those under 45 years and not degree educated.**

### Wider social value

7.12 For those who have been part of creating A2R the initiative serves a number of purposes and adds value in several ways. For PLS and the publishers it enables them to take a very tangible step which supports the principles of open access; something which they, and Government want to build. For BIS it has potential (especially if usage were higher) to contribute to increasing higher level skills and knowledge in the general population, as well as supporting innovation and business creation.

7.13 Some types of usage (the interest in medicine and general health) also point to potential for A2R to support health literacy and health activation in the general public, although levels of use and the examples of use so far would need to increase. There might be overlaps here with activities libraries are leading or hosting, e.g. groups interested in improving their health and well-being, craft or hobby groups, history or heritage societies.

**Recommendation: SCL and PLS should test levels of interest and promote A2R to library-hosted groups and clubs e.g. relating to health, hobbies, of local history groups.**

7.14 For public library services there is clear value in A2R, and some public library services appear to have recognised this and acted upon it. The initiative expands their information offer in an innovative but low-cost way. It is certainly enabling them to offer more to existing users, and may in some cases be attracting new users who visit specifically to use A2R. It is also clear from public library sector stakeholders that A2R is seen as a starting point for public libraries acting jointly to undertake further strategic endeavours with publishers.

**What next for the A2R service?**

7.16 Broadly speaking A2R is working the way it was designed, and the public are using it for a wide range of reasons, although not as many as hoped. Stakeholders are happy with it too, and will continue to support it provided usage can be increased. There is therefore nothing fundamental we have encountered in our research to suggest anything in the core concept needs to change dramatically.

7.17 But in our view the next steps must be about growing use – this is urgent. The overt message from stakeholders and project sponsors is that A2R is heading in the right direction but absolutely must attract more users. The less overt message, is that many stakeholders believe the onus is now on public libraries to capitalise on the opportunity A2R presents, in particular by stepping up proactive marketing, increasing staff awareness, checking functionality more routinely from a range of public library locations, and ensuring staff skills are in place to help drive up use of A2R.

7.18 It barely needs saying however, that this is an extremely difficult period for England’s public library services who are struggling with declining budgets, and declining use. To invest leadership energy,
let alone time and money in A2R may seem too far beyond the absolute necessities for some heads of service. Yet frustratingly, A2R has potential to help re-build public library use and visit levels, and also to make a stronger case to funders about the impact libraries make for the money they cost to run. The key will be to take an iterative and evidence based approach to promotion, by planning actions which are based on clear logic models and hypotheses, then watching the data for impacts, and then improving and repeating over time.

Recommendation: SCL and PLS should create a short, focused national A2R awareness campaign, with some easy to copy materials sent to participating libraries – the impacts of which would then be monitored via Summon and Google analytics.

7.19 Awareness and publicity for the 15,000 or so people who work in public libraries should continue to be a priority. This may not be as hard as it seems. Staff clearly want to know more as evidenced by the survey responses, and we have seen frequently how other messages about digital services have been promulgated throughout the sector quickly and easily. We also suspect from the informal conversations we had to administer the surveys, that there may be a number of digitally-literate public library staff who could act as a dispersed A2R expert network – checking functionality, and helping suggest improvements to the service.

Recommendation: SCL and PLS should ensure all frontline public library staff understand the basics of how A2R operates including the fact it can only be accessed via specific IPs and that they know how to direct the public to these – this could be achieved via the existing training programme.

Recommendation: SCL and PLS should seek a network of frontline public library staff to actively monitoring how user experience in participating libraries matches the intended experience. This could be done with a common set of checks issued by PLS and carried out by local library staff.

Potential longer term developments

7.20 The success of using a pop-up prompt on the landing page to gather responses for the user survey, suggests there may be ways to drive engagement using the design of the landing page itself. This could be linked to efforts to understand whether use of A2R from outside public libraries can be used to drive use inside libraries – e.g. through a click and collect or click and retrieve type model.

Recommendation: SCL and PLS should investigate the relationship between out-of-library use and in-library use, in particular whether the former can help drive the latter and the potential for functionality which could enable browsing of search results and abstracts at home or while mobile, and then simple retrieval of saved articles once arrived at a participating library.

7.21 The user survey response also suggest there is a small but growing community of highly engaged users who are happy to answer detailed questions, publicise their use of A2R via Twitter or via other social media – SCL could reach out to this community both to help promote A2R, and also to discover how the system can be improved.

Recommendation: SCL and PLS should investigate functionality which might enable highly engaged users (inventors, citizen scientists, expert patients) to contribute to the growth and development of A2R in a structured way – e.g. through user forums, expert user groups, or social platforms.
Annex – notes on web analytics

In order to make the most of the IP data, PLS also provided a list of the IP addresses submitted to them by participating public libraries to become the authorised access points for A2R. This list included IP addresses submitted by 150 public library services in England, Scotland and Wales. These IP addresses has been supplied as a mix of individual IP addresses (e.g. Derby 85.8.202.81) and IP addresses with a subnet range (e.g. Devon 159.15.129.64/28 – which represents a range of individual IP addresses in use by Devon libraries). As the data exported from Summon included individual IP addresses, all the subnet ranges were converted to individual IP addresses to enable us to match use indicated by the Summon data with those library services participating in A2R (conversion was carried out with the help of a web-based subnet calculator\(^8\)).

Whether or not a library service has submitted one or multiple IP addresses, it was assumed that in many cases individual IP addresses could in practice be assigned to different physical machines on a library network. So usage attributed to an individual IP address might not necessarily describe use via the same computer every time. We also noted the possibility that some library services might have included both internal and external IP addresses in the details provided to PLS.

In interpreting the data, particular reference has been made to both the analysis undertaken by CIBER Research Ltd for PLS in May 2014\(^9\) and the article about the pilot phase of A2R in Learned Publishing written by Sarah Faulder and Shinwha Cha\(^10\).

One issue we encountered in relation to IPs is that some IP addresses on the authorised list we received do not include the name of the library service to which they relate. For example an IP on the ‘authorised’ list with one of the highest use levels is labelled “Unknown04” another is labelled “Fujitsu”. No doubt these are genuine authorised IPs, but it would be helpful to fill these gaps.

Notes on data terminology

Google Analytics and Summon use slightly different terms when quantifying use: users, visitors, visits, sessions, hits and searches. For the purpose of this analysis a number of assumptions have been made about these terms and the relationships between them:

- User (Google Analytics): Google Analytics puts a cookie on a web browser which stays active for two years. For computers used by just one person this is a good way of understanding how many individuals are visiting repeatedly. However, for shared or public-access computers it simply means the same computer was used. This is further obscured by the fact some public library computers are set-up to clear cookies and other user data from the browser every time someone new books a computer.

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9 CIBER Research Ltd, Access to Research Web Metrics, May 2014
10 Sarah Faulder and Shinwha Cha, Access to Research: the experience of implementing a pilot in public libraries, Learned Publishing Vol.27 No.2, April 2014
- **Session (Google Analytics):** A ‘session’ for Google Analytics is ‘a group of interactions that take place on your website within a given time frame’. A session comes to an end after inactivity of 30 minutes. This means that on a public access computer a single session could potentially include searches made by more than one person.

- **Pageview (Google Analytics):** A ‘pageview’ is recorded every time a page is loaded by a user, including hitting ‘back’ or ‘refresh’. In the context of A2R a pageview could be recorded as a user arrives on the A2R website, as they navigate around different FAQ pages, or when they hit ‘back’ to get back to the search box.

- **Visitor ID (Summon):** This appears to be the same as ‘user’ in Google Analytics.

- **Visit (Summon):** This appears to be the same as ‘session’ in Google Analytics.

- **Search (Summon):** Through some purposeful sampling, it appears that a ‘search’ is recorded when a user loads a page of search results. Loading a second page of search results counts as a second search, etc.

- **Hit (Summon):** ‘Hits’ in Summon appear to be generated by the same actions as ‘searches’ and therefore appear interchangeable.

The relationship suggested above between Summon terminology and Google is supported by the fact that logging in Summon derives from Urchin, which was acquired by Google when it created Google Analytics. So, the approaches can be expected to share common concepts and methodologies.

Whilst the original intention may have been that users would only carry out searches and download articles in public libraries, we have seen that in practice it is only access to full articles that requires the user to be in a participating public library and using an authorised IP. Furthermore, it seems that all searches and subsequent requests to publisher websites for full article downloads are channelled through a PLS Proxy Server (which we understand is the way Summon is provided by other organisations). Presumably the alternative would have required each publisher to set up their server to manage requests from each participating public library and maintain a database of eligible IP addresses. Instead all the publishers need to do is configure their own systems to accept requests from the PLS Proxy Server, and it is the Proxy server which has checked whether the requests came from an IP address which is on the PLS authorised list.

**Heat map of A2R usage based on PLS monthly reports**

We were able to create a ‘heat map’ using the PLS monthly usage reports which were produced for participating libraries. This was created as an Excel spreadsheet which has been shared with PLS for them to continue using with subsequent usage data. Dark-red colour-coding denotes libraries which generated the highest levels of monthly usage and pale-blue denotes the lowest levels of use. Below is an image of the spreadsheet (i.e. a screenshot of the spreadsheet with no functionality).

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11 CIBER Research Ltd report for PLS - Access to Research Web Metrics, May 2014
<table>
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<tbody>
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