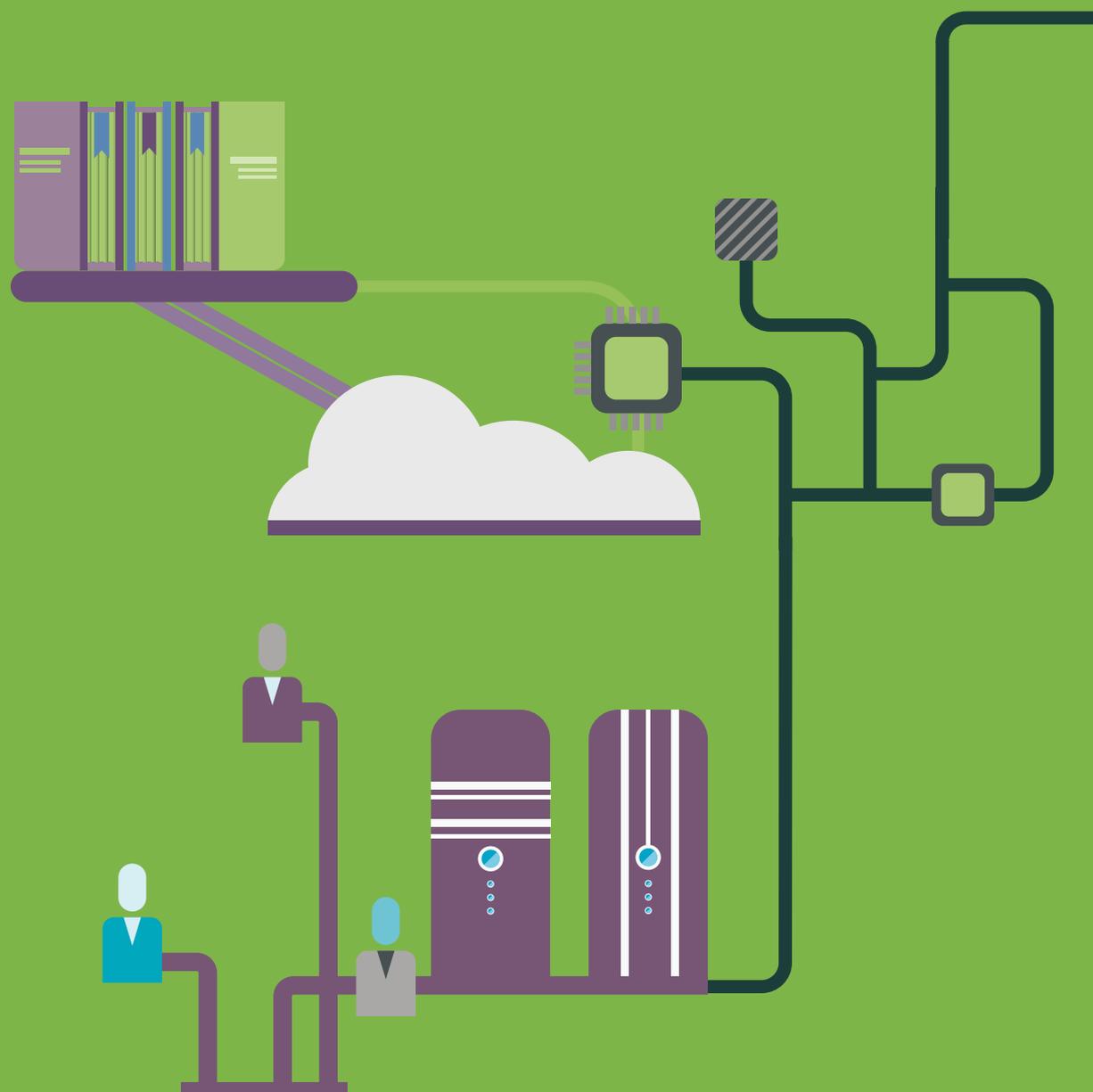


Librarians' experiences and perceptions of Identity and Access Management

2015



Key findings of research sponsored by

OpenAthens 

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Like the perfect score to a film, a good user experience is unobtrusive and transparent to the consumer because “it just works”.

Jeffrey Olson, User Experience Expert



Introduction

Identity and access management plays a critical role in user experience. Like many core technologies, success can be defined by how well it keeps out of the user’s way.

This is increasingly hard to do; user expectations and behavior are rapidly evolving, necessitating integration with a growing range of related technologies, which themselves are undergoing constant change.

The workflows and requirements of different sectors represent further challenges, from data security in healthcare, to licensing limitations in higher education, or cross-institution collaboration in academic research. The landscape in which identity and access management software must “just work” is therefore complex, and shifting – not least, as more and more usage of institutionally licensed resources takes place outside the networks of the licensing institution.

What are the implications of this for librarians, for the organizations in which they work, and for the users they work with? What opportunities emerge from new modes of access? How confident do librarians feel about solving the challenges in this area? What hopes do they have for the future?

In December 2014, OpenAthens sponsored a survey of librarians’ experiences and perceptions of identity and access management. This paper presents the key findings, from which it is evident that librarians are taking new use cases as a trigger for rethinking the library’s role, while retaining a focus on keeping the user experience as simple and unobtrusive as possible.

Key takeaways

- Although **access management is critical to meeting users' needs** and maximizing investment in resources (98.3% agreed), a **high proportion of respondents feel they are behind the curve** in terms of the access management they currently offer users (42.5% agreed or strongly agreed).
- **Demand for off-site access is growing** (97.6% agreed), and presenting **opportunities to increase usage** (86.0% agreed) and to **redefine the role of the library**; however, demand for off-site access also adds complexities that increase staff workloads and require librarians to have **more technical skills and knowledge** (80.3% of respondents).
- **Access management is a source of friction** for 61.8% of respondents, primarily because of the limitations of current systems (66.5%), and the tension between the library's desire to provide access and the IT department's desire to secure systems (57.4%).
- **A solution that doesn't require IT knowledge** was preferred by most respondents (64.4%); typically, they do not wish to resolve such frictions by increasing their own IT skills, or those of their users, with only 33.5% and 28.5% respectively opting for these proposed solutions.
- There is **a lack of confidence around the technical language** often used in relation to identity and access management; for example, only 5.9% of respondents felt confidently able to define the term "SAML".
- Respondents' **clear priority is a seamless user journey**, with 66.5% choosing this as their top priority. Easy off-network access and more granular usage statistics were also popular choices.

Join the debate

OpenAthens will be presenting the results of the survey in more detail at the following events:

- **Jisc Digifest** – Birmingham, UK
March 9-10, 2015
www.jisc.ac.uk/events/digital-festival-2015
- **Special Libraries Association Annual Meeting** – Boston, MA, USA
June 14-16, 2015
www.sla.org/attend/2015-annual-conference
- **CILIP Conference** – Liverpool, UK
July 2-3, 2015
www.cilipconference2015.org.uk

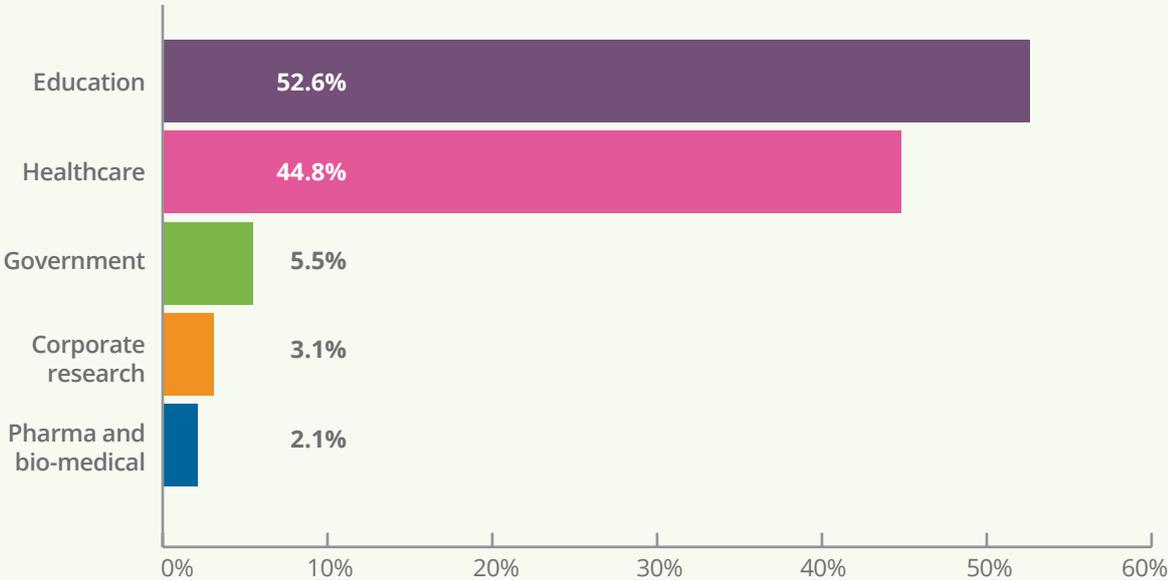
If you have any questions about the survey and its findings, please contact Michelle Silvestre, michelle.silvestre@eduserv.org.uk.

Respondent profile

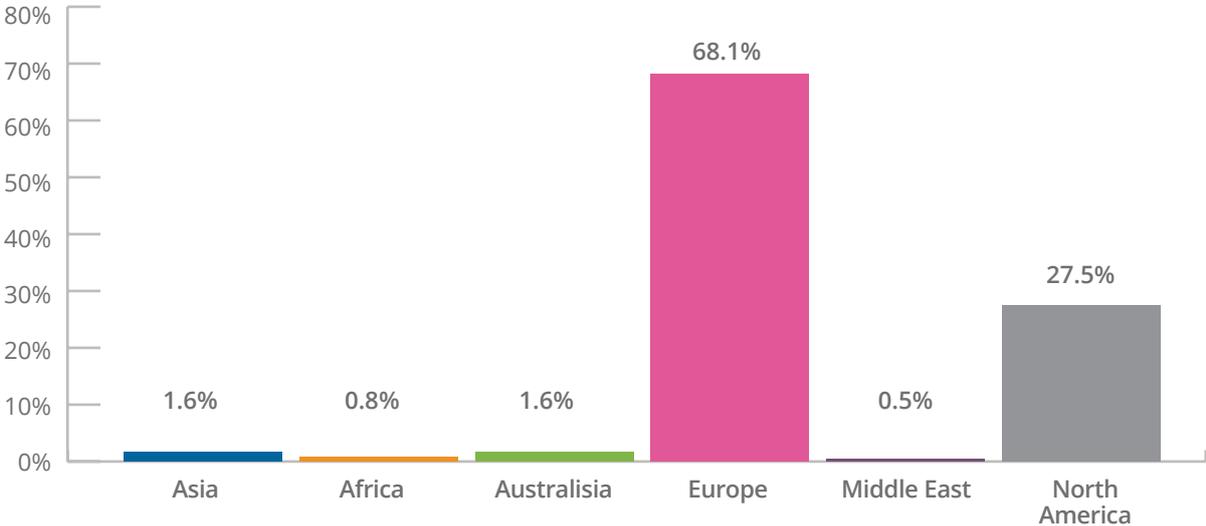
The survey received 545 responses, with the following demographics; one set of responses was discarded as the respondent did not meet the survey criteria.

Some organizations can be classified in multiple sectors so respondents were able to select more than one option.

Please give us a broad sense of the type of organization in which you work:



I am primarily based in:



Respondent profile

Access is currently managed in my institution by:

- Pingidentity
- Infotrieve
- Portal
- Remote desktop
- VPN
- Shibboleth
- EZproxy
- OpenAthens
- Username and password
- IP address

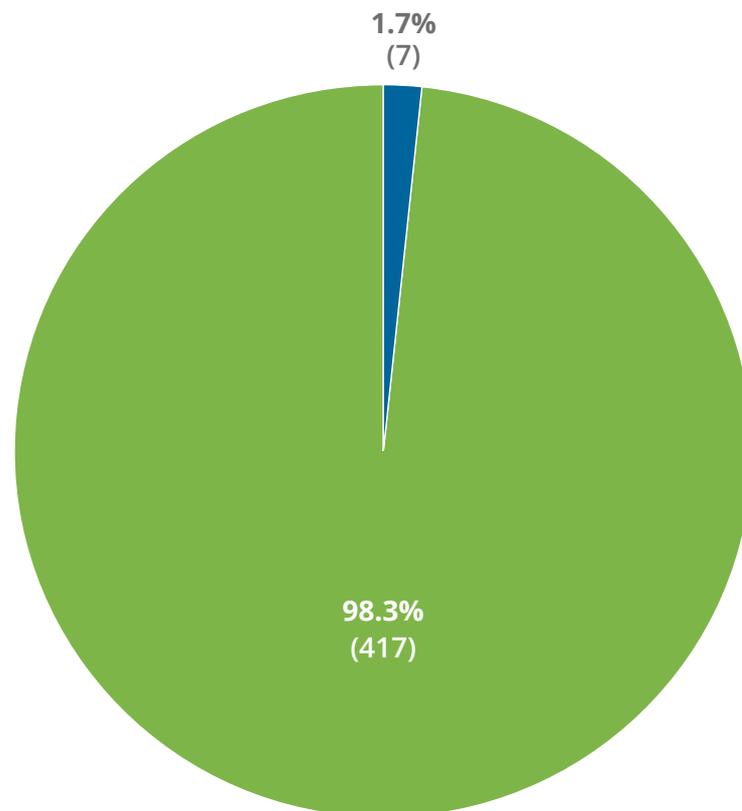


Access management is critical

The vast majority (98.3%, n = 424) of respondents agreed that access management is critical to meeting users' needs and maximizing investment in resources.

Do you agree?

Yes No



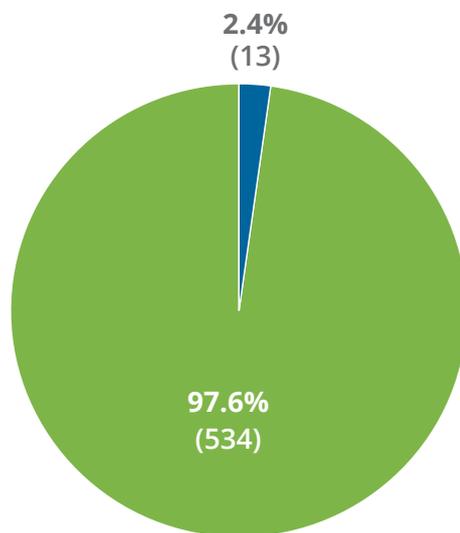
Demand for off-site access is growing

Almost all (97.6%, n = 545) respondents agreed that demand for off-site access is growing. It was considered that the most likely reason for this is that research is increasingly taking place on mobile devices (84.3% of 459 respondents considered this a likely reason).

The fact that research is increasingly taking place at home was also considered by many to be a factor, with 76.5% of 459 respondents choosing this option.

Do you agree?

Yes No



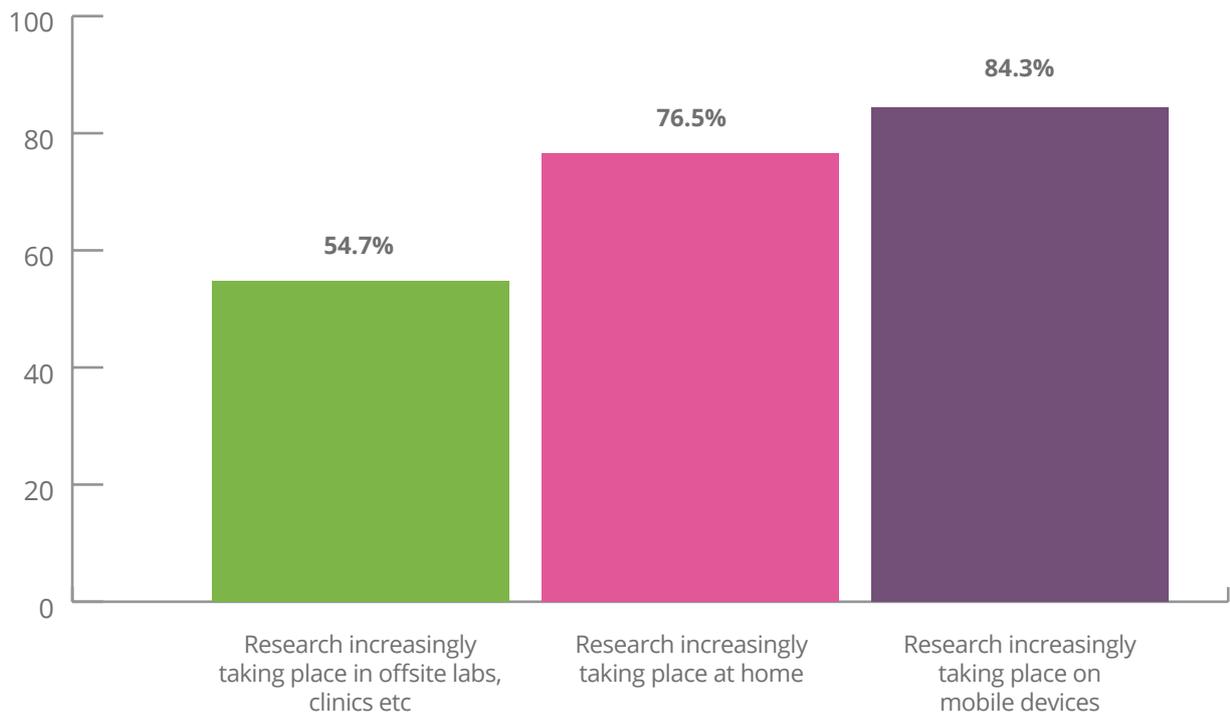
Comments to this question focused on:

- Overall changes in user demographics
 - Users are increasingly comfortable with digital formats and their expectations are shaped by 24/7 digital availability.
 - Users increasingly work or study in multiple locations, often without a central “on-site” base; being “on-site” is not necessarily the norm, and can be an inconvenience.
 - Research and learning are increasingly taking place at home, or “interstitially” – in the gaps between other activities, and often in public places such as on trains or in cafés.
- Poor on-site technology – examples given included outdated browsers, slow connections and blocks on social media sites.
- Multi-site institutions and cross-site collaborations, such as international research partnerships.

Those that did not agree that demand for off-site access is growing typically felt that demand had stabilized after a previous period of growth, or that they did not have a means of determining growth.

Demand for off-site access is growing

In your view, why is this the case?



Research at my institution is collaborative with partners in many countries and researchers carry out a lot of travel.

*Julia Martin, Head of Information Services,
Liverpool School of Tropical Medicine*

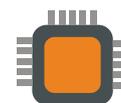
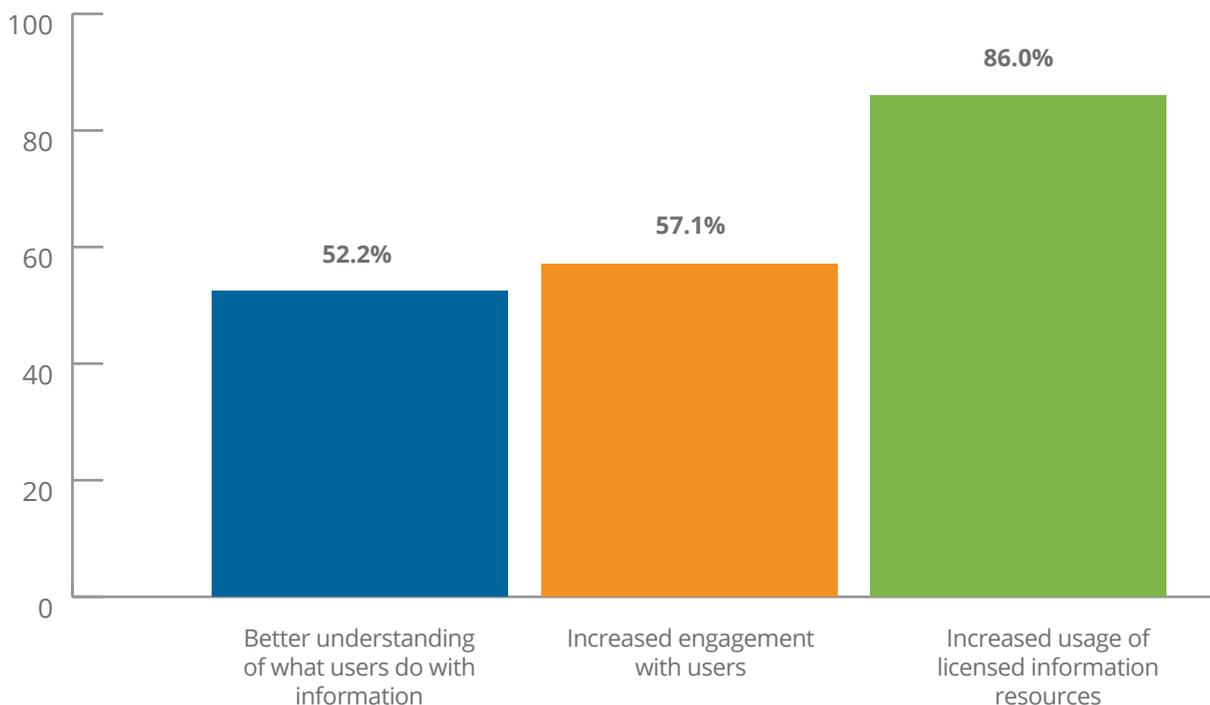


Opportunities created by growing off-site access

The majority (86.0%, n = 464) of respondents considered that off-site access can help to increase usage of licensed information resources.

A distinctly lower proportion of respondents considered that off-site access can help to increase engagement with users (57.1%) because of the additional “touch points” created during the provision of support and training for off-site users.

In your view, what opportunities does this create for libraries (or other information centers) and their users?



Opportunities created by growing off-site access

Comments flagged up wider service improvements that off-site access can drive, such as:

- Better digital and mobile services for all users, whether on- or off-site.
- Increased incentive to negotiate for more flexible licenses, for example, in relation to simultaneous use.
- Rethinking the library's mission, purpose and use of space.



Redefine the library mission and purpose away from physical storage to supporting learning and research in different ways.

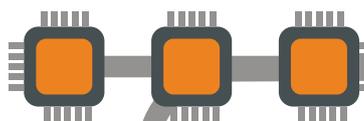


*Valerie Stevenson,
Head of Academic Services,
Library Services, Liverpool John Moores University*



Increased demand for remote users has caused libraries to rethink how they present and interact with customers, which has also had knock on benefits for improving the customer experience for onsite customers, e.g. a customer may be onsite but no longer needs to leave his office.

*Anne Knight, Head of Content,
Digital and Client Services, Cranfield University*



Challenges created by growing off-site access

80.3% of respondents (n = 467) indicated that off-site access requires their staff to have more technical skills and knowledge; this was echoed in several comments, which indicated that off-site access adds technical complexity and creates more work for already busy staff.

The limitations of current access management options was identified as a challenge by 71.7% of respondents; the extent to which some common systems are fit for purpose was further questioned in the comments. Libraries struggle to afford the infrastructure required to implement some tools; for others, librarians can ensure their own team have the necessary skills and knowledge for implementation, but are less able to address the knowledge / skills gaps of supply chain providers and partners.

66.6% of respondents considered that off-site access requires users to have more technical skills and knowledge; the highest proportion of comments on this question also picked up on the frustrations faced by users.

An important point also raised in respondents' comments is that the landscape of off-site access (and of course, access management more generally) is still unstable; librarians remain uncertain about which technologies to trust (for present day performance and future availability), and resources are changing too rapidly for users – particularly those whose usage is infrequent – to achieve competence and confidence in using them.

One organization's opportunity can be another's challenge; while 57.1% indicated that off-site access can increase engagement with users, comments about challenges gave the opposing viewpoint.



If the access management is too complicated the library will be seen as an obstruction, rather than an enabler.



*Martin Wolf, Research Support Lead,
University of Liverpool Library*

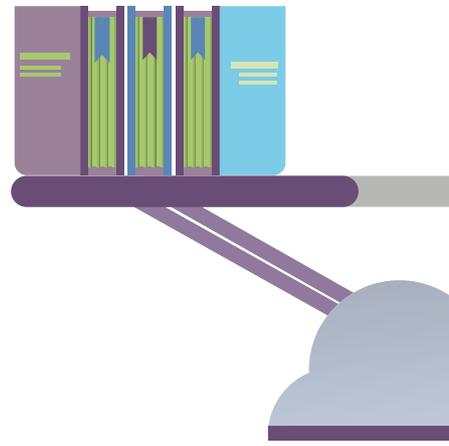


The danger is people will not use the bought resources through frustration or lack of knowledge.



*Andrew Simpson,
Associate University Librarian,
University of Portsmouth*

Challenges created by growing off-site access



Patrons are coming to me more these days for help in learning how to do this [digital / off-network access]. It gives me a new 'in' to the kinds of information they use, and how they use it.

*Keydi Boss O'Hagan, Librarian,
Holy Name Medical Center*

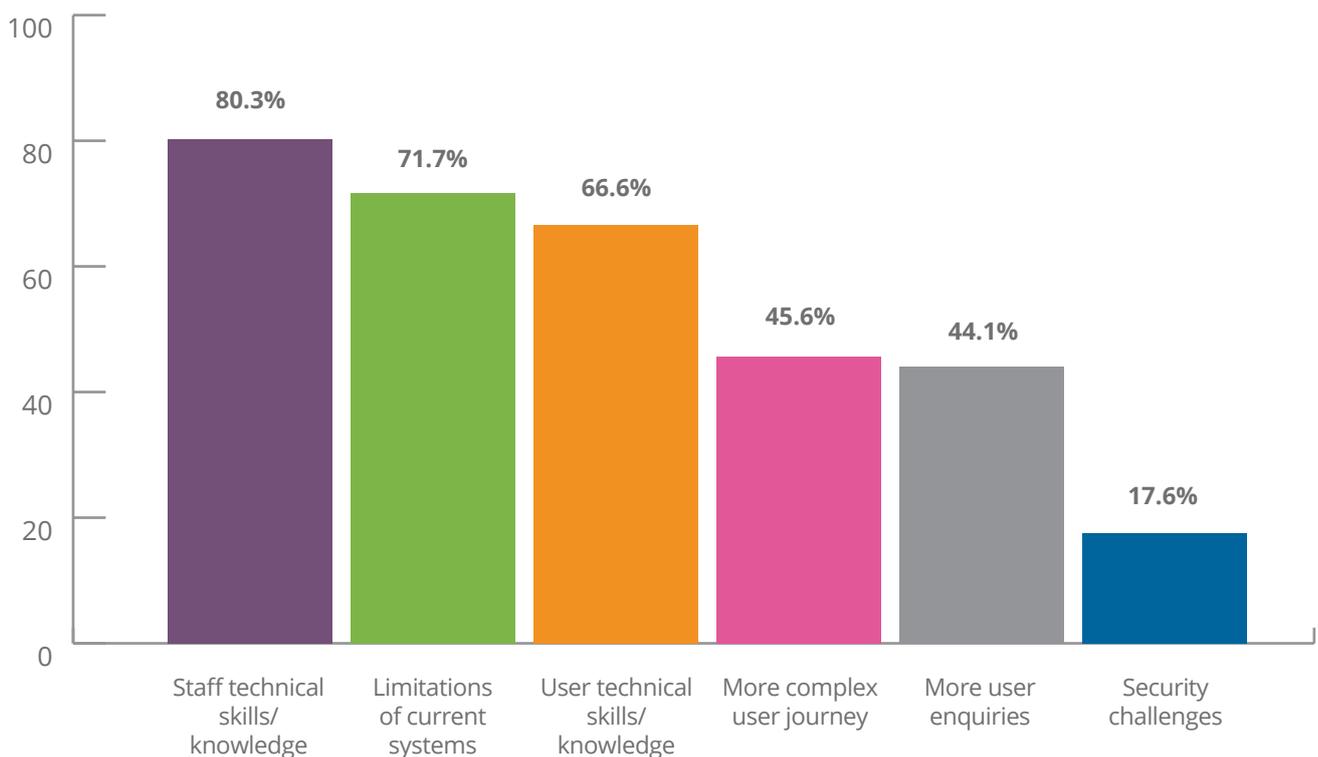


[Off-network access] makes it difficult to be engaged with users – less contact time may mean we are out of touch with what they want.

*Ellie Hunt, Information Advisor,
Kingston University*



In your experience, what challenges does this create for libraries (or other information centers) and their users?



How access management is perceived

On a positive note, respondents mostly felt that:

- Ownership of access management is clear, and decisions about access management are given the necessary priority within their own team.

At the other end of the spectrum, however:

- Respondents feel they are behind the curve in terms of what they offer to users, and that current systems aren't sufficiently granular / flexible to support users' evolving needs.
- There is insufficient IT support for access management – it's hard to keep up with maintenance and library teams are having to take on IT responsibilities.

Comments on this question coalesced around three common themes:

Ownership

- Where this is unclear, it can be either in the sense of whether access management is a library or IT responsibility, or in the sense of which team in the library should own access management (e.g. e-resources or acquisitions).
- "Generalist" IT teams struggle to understand the environment of library services (e.g. much of the language of provider contracts is impenetrable to non-informationists), and precedents don't always exist (e.g. for sharing access credentials with third parties to aid trouble-shooting).

Decision-makers' knowledge gaps

- The technical implications of strategic licensing decisions are not always sufficiently understood to shape those decisions – for example, licenses may require granular tracking or management of users in a way that may not be supported by the systems licensed in that institution.
- The skills implications of the changing access management landscape are not always recognized by those in charge of hiring and training new staff.

Environmental instability

- The growth of the market, and subsequent switching between providers, has caused headaches.
- There is a sense that many solutions are not keeping pace with either market needs or technological advances, though respondents seemed to recognize the difficulties inherent in keeping up in a swiftly evolving landscape.

How access management is perceived

To what extent would you agree with the following statements about how access management is perceived or managed in your organization?

Strongly agree Agree Neither agree nor disagree Disagree Strongly disagree

Decisions about access management are given the necessary priority within my team



Access management is requiring my team to take on IT responsibilities



It is difficult to keep up with the maintenance of our access management solution



We are behind the curve in terms of what we offer our users



It's clear where ownership of access management sits across my organization / system



Those who need to, understand the technologies and terminology associated with access management



Our current access management solution gives us good insight into the usage of the resources we invest in



We have sufficient IT support for access management



There is sufficient investment in access management software



Decisions about access management are given the necessary priority by other stakeholders in the organization / system



Our current access management solution is sufficiently granular / flexible to support our users' evolving needs



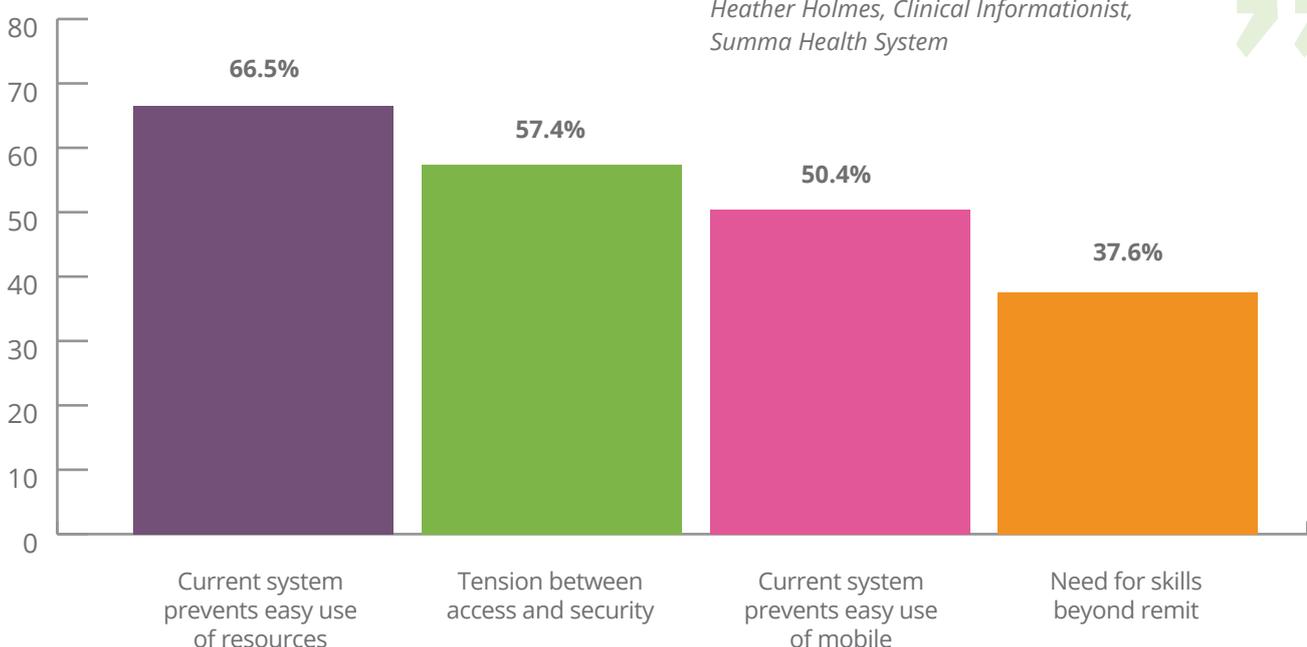
0 20% 40% 60% 80% 100%

Access management is a source of friction

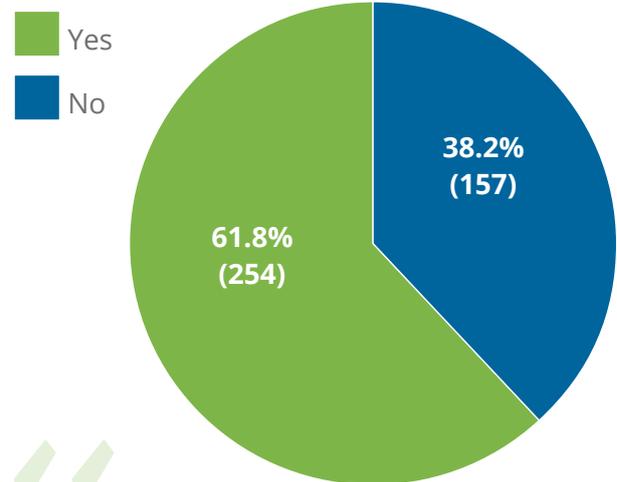
A majority of respondents (61.8%, n = 411) agreed that access management is a source of friction, primarily because of the limitations of current systems (66.5%, n = 242), and the tension between the library's desire to provide access and the IT department's desire to secure systems (57.4%, n = 242).

The most desirable solution to these frictions was felt to be those that don't require IT knowledge (64.4%, n = 239), with more IT resource considered the second most desirable solution (49.0%). It is clear that librarians do not wish to resolve such frictions by increasing their own IT skills, or those of their users, with only 33.5% and 28.5% respectively opting for these proposed solutions.

Why is this the case?



Do you agree?



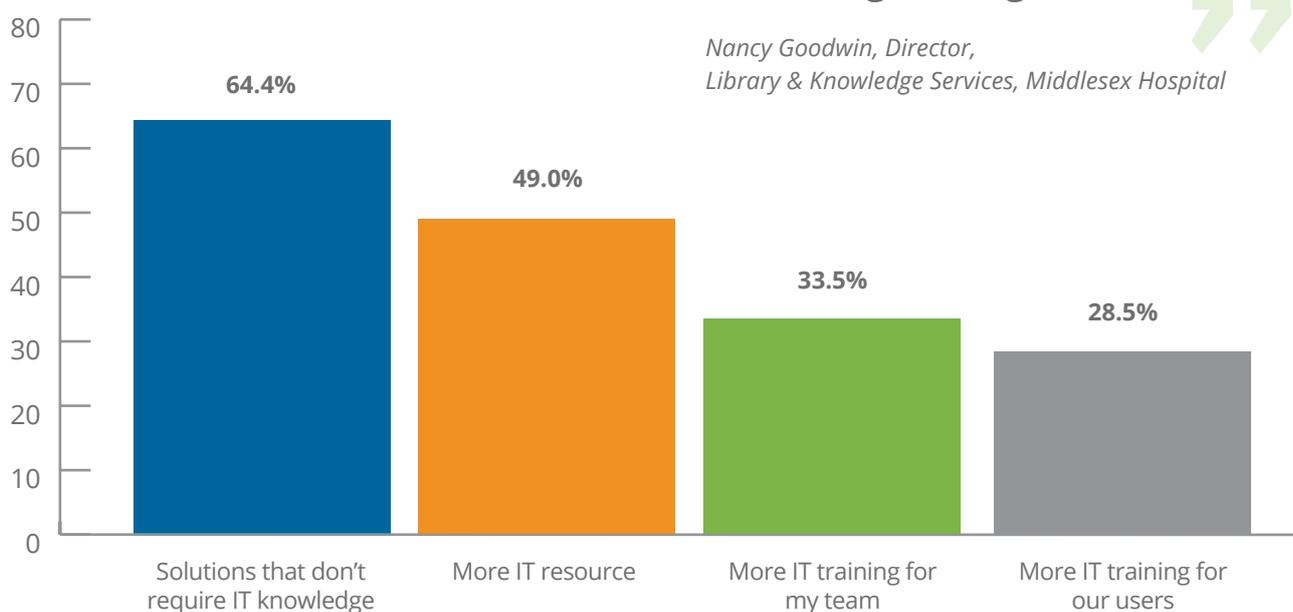
We often have different ideas on things; [the IT department's] main focus is keeping things protected, whereas the library's job is to make everything open to everyone! So there is discord, but we can usually work things out.

*Heather Holmes, Clinical Informationist,
Summa Health System*



Access management is a source of friction

What do you feel is the most desirable solution to these frictions?



I'd like there to be a lot less training required, because any kind of barrier discourages usage.



*Nancy Goodwin, Director,
Library & Knowledge Services, Middlesex Hospital*

Other solutions suggested included:

- Development of existing products to better serve users' evolving needs, for example, users with multiple affiliations, or the ability to re-purpose existing user passwords rather than requiring new ones.
- More flexibility on the part of content providers, for example, to simplify or remove licensing restrictions.
- Better training of, and relationships between, institutional teams with shared responsibility for access management, and more granular clarity of ownership.
- Better standards, and more strategic direction within institutions, to set expectations across the board.

A substantial minority (38.2%) disagreed that access management is a source of friction, indicating via comments that in their organization:

- Access is managed sufficiently well that it does not cause friction.
- Good relationships and shared goals help to diffuse any possibility of friction.
- The issue of access management is not sufficiently visible or considered to be of such priority that it causes friction.
- The term "friction" would not be appropriate; these respondents suggested access management can be a source of debate or discussion, frustration or annoyance, tension or concern.

Confidence with key terms

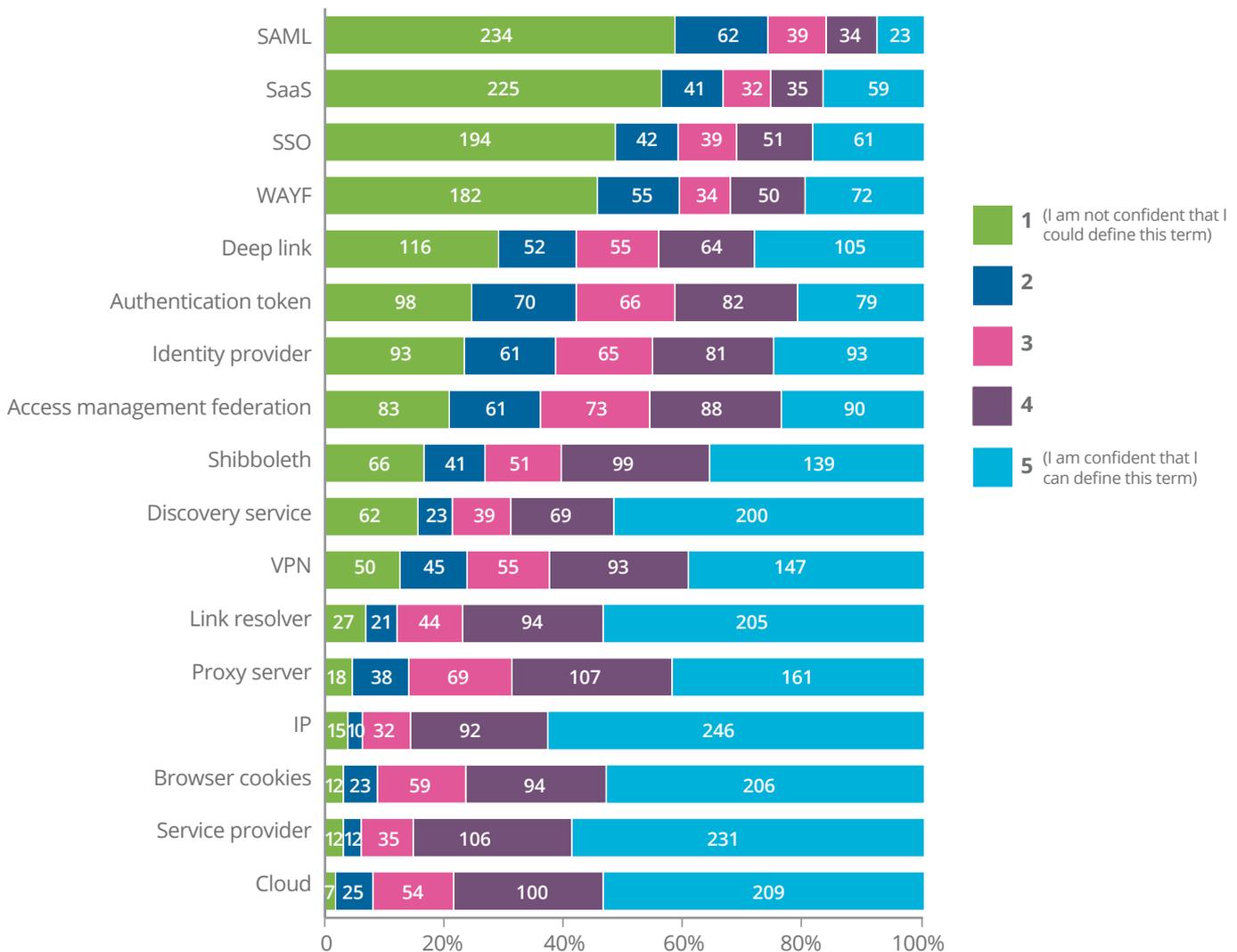
As might be expected, respondents were not confident in their understanding of the more technical language often used in relation to identity and access management.

For example, only 5.9% (n=392) of respondents felt confidently able to define the term “SAML” (Security Assertion Mark-up Language). Even more generic terms such as “SaaS” (Software as a Service) were confidently understood by only 15.1% of respondents, though in that example, a

much higher proportion (52.9%) felt confidently able to define the hypernym “Cloud”. There is a lack of confidence around Shibboleth, with 46.3% not feeling confidently able to define the term “WAYF” (Where Are You From, the first step in many Shibboleth log-in processes).



How would you rate your understanding of the following technologies and terms?

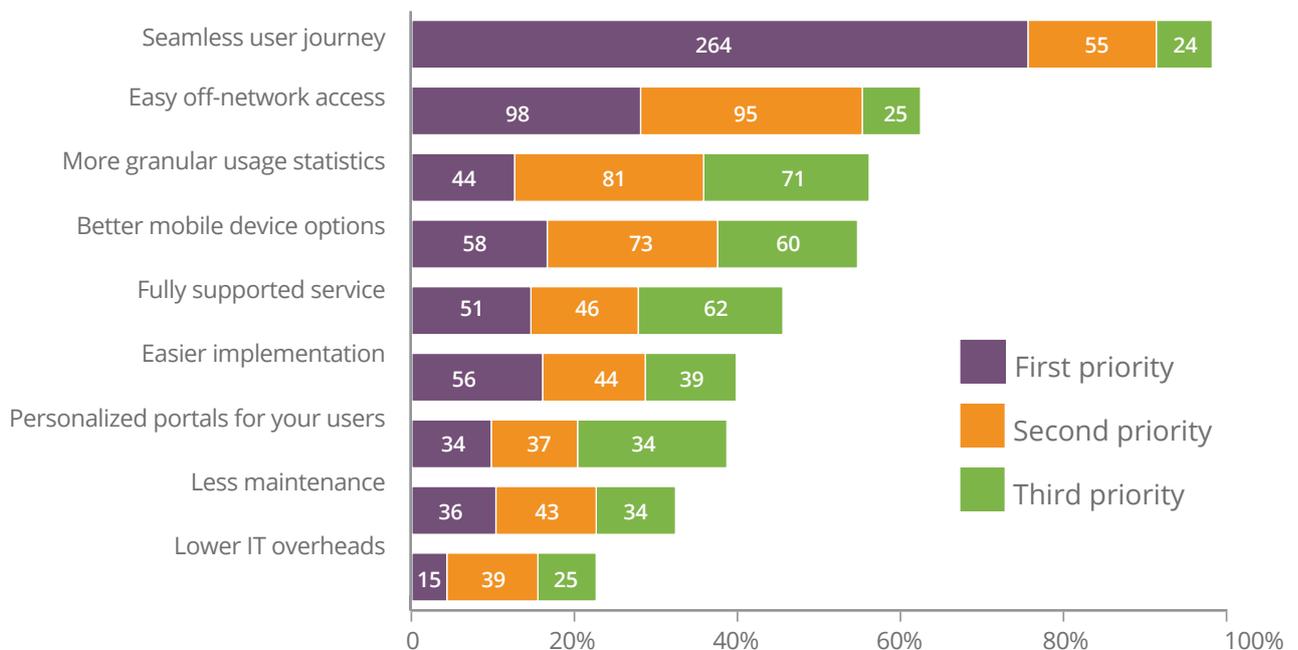


Priorities for the future



Most respondents' clear priority is a seamless user journey, with 66.5% (n=343) choosing this as their top priority. Easy off-network access and more granular usage statistics were also popular choices. Better mobile device options was a high priority for respondents in healthcare and education, but less so for those in other groups.

What 3 things would you most like to achieve with your access management system in future?



Seamless means they can get from one place to another without multiple steps. There is a concern that patrons would think 'we don't need the librarian' if it's too easy!

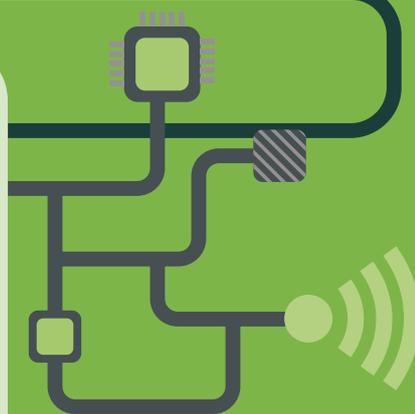
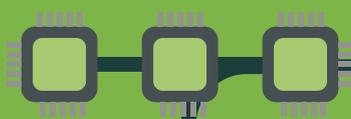
Keydi Boss O'Hagan, Librarian,
Holy Name Medical Center



Seamlessness means the user doesn't see the effort we're putting into this, and they don't have to put in much effort. We need to get our branding in there.

Nancy Goodwin, Director,
Library & Knowledge Services,
Middlesex Hospital





About this survey

OpenAthens worked with a third party, TBI Communications, to design a discussion guide for teleinterviews and a survey instrument for online distribution. Survey participants were offered the chance to opt in to a draw to win an iPad Mini; the winner was Michelle Kraft, Senior Medical Librarian, Cleveland Clinic Alumni Library.

For more information about OpenAthens visit www.eduserv.org.uk/openathens

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