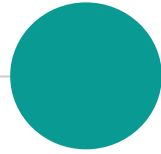**Medical Library Association**

InSight Initiative
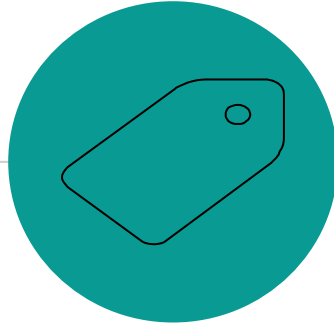
End User Pain Points, Potential Solutions, and Level of Impact

MLA

What are pain points?

A specific problem that limits a user's ability to access information

Pain points were defined by user challenges presented in the literature and conversations with end users.

We asked a group of end users, "if a pain point was resolved, how much would it impact your work?"

We scanned the literature and the current landscape to see what potential solutions are in the works.

① Time

Time to get access, search, find, and receive help

Research shows that clinicians lack the time needed to answer clinical questions and read up on useful and of-interest topics. Clinicians are asked to see many patients a day and asked to spend a lot of time on documentation and reporting.

Potential Solutions

- Integrating information resources into clinician workflow or EHR
- Improved, easy, and timely access to librarians/informationists (potentially library consult services)
- Institutions could provide scribe services.
- Improving issues around access to less the time spent on accessing information resources.

Feedback from End Users

Time is the biggest pain point.

Everything would be impacted if the time pain point was alleviated.

High impact for staff nurses

Number one barrier is time

There is a delay between time of need and time of arrival

Environmental Scan

- Aakre CA, Maggio LA, Fiol GD, Cook DA. Barriers and facilitators to clinical information seeking: a systematic review. *J Am Med Inform Assoc*. 2019;26:1129–1140.

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2 Awareness

Awareness of resources provided by an institution

Users don't know which resources they have access to or how to access them.

Potential Solutions

- Expanding and improving on current methods of advertising and instruction by librarians.
- Publishers can offer a wider variety of advertising assistance and allow libraries to brand resources and materials.
- Collaboration between librarians and publishers on end-user marketing and training.

Feedback from End Users

Bigger problem in residency and medical school

Colleagues are not aware of services that a librarian could provide

Librarians that sit in on meetings and have consultations are useful

Good relationships are key

Environmental Scan

- Daei A, Reza Soleymani M, Ashrafi-rizi H, Zargham-Boroujeni A, Kelishadi R. Clinical information seeking behavior of clinicians: a systematic review. *Int J Med Inform*. 2020;139:104144.

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Examples of publisher-specific websites that support library services:
- https://www.elsevier.com/librarians
- https://www.springernature.com/gp/librarians
- https://journals.bmj.com/content/librarians
- https://libraryhub.neim.org/librarian-resources/

3 Access

Repeated login requests, too many passwords, and complex firewalls that block sites

Users are frustrated with multiple layers of authentication and personalization features that require an individualized login and password. Hospitals impose stricter internet access, limiting the ability to access information resources or search for needed information

Potential Solutions

- Publishers have to buy-in to federated authentication, such as RA21.
- Institutions need to adopt a streamlined Single Sign On (SSO) mechanism.
- Libraries should work with hospitals and IT departments to limit blocked sites or multiple login demands when browsing the internet.
- Users could pay for password managers or use software to save passwords

Feedback from End Users

Frustrating trying to remember passwords for different platforms.

Worried about privacy with password saving

Access is less of a concern, low impact issue

Access is particularly tricky with ebooks.

Environmental Scan

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Acknowledged Ongoing Solutions

Single Sign On Mechanism Resources:
- Shibboleth
- OpenAthens
- Ovid Linksolver
- TDNet Discovery
- LibLynx

Password Managers:
- 1Password
- Dashlane
- Keeper
- LastPass

RA21: Resource Access for the 21st Century – https://ra21.org/

SeamlessAccess – https://seamlessaccess.org/

More Acknowledged Ongoing Solutions

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4 Paywalls

Hitting a paywall limits access to full text literature

Even with effective SSO, users will still encounter paywalled content. Paywalls also hinder the ability to share content on a larger scale.

Potential Solutions

- Use a tool like Unpaywall
- Improving verification of library resources via IP authentication beyond Google Scholar
- Publishers could add an "Easy Button" or "Get It" button to get full text via InterLibrary Loan
- Librarians need to educate end users about alternative ways of accessing full text

Feedback from End Users

Paywalls stop all investigations

Nurses often find illegal copies of needed resources

Immediate access could impact patient care

The ability to share content with colleagues in different environments can be a problem.

They're a pain

Environmental Scan

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Acknowledged Ongoing Solutions

Tools for finding free full text:
- https://unpaywall.org/
- https://openaccessbutton.org/
- https://www.getfulltextresearch.com/
- https://www.springernature.com/gp/researchers/sharedit

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5 **Resource Platforms**

Too many platforms and no standardization across platforms

Each publisher platform can have different search functions, rules of access, and accessibility. Users may not search full breadth of content they have access to because they have to search across multiple platforms. Frustration occurs when features are not uniform across different producers or even within producers.

Potential Solutions

- Standardization among publishers to build similar user experiences
- Publishers can work to ensure that their content is maximized for discoverability (Google/Google Scholar, etc.) and make text and data mining a feature of their platforms.
- Institutions and librarians can implement data and text mining initiatives that allows them to search for information across multiple platforms in the way that is most useful to them.

Feedback from End Users

Is standardization even possible?

People are used to many platforms

The platform isn't the issue; which resource to use and why?

Navigating databases quickly is difficult

Environmental Scan

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6 Resource Scope

Understanding which tool use and the scope of that resource

Users are overwhelmed with the amount of resources that are provided. Many resources are similar and users do not have time to discern if a resource meets their needs. One of the reasons why Google is so successful is that is simple to use and only a few features.

Potential Solutions

- Better education and better promotion all around
- Publishers can create videos which give a product tour or share editorial purpose and highlights.
- Publishers can be strategic with making sure the tools that are included are helpful to the user's experience.
- Librarians can share only a few resources and their features for users per instruction session
- Librarians should tailor instruction to user groups

Feedback from End Users

Video tutorials might be useful

This is not a big pain point

Anything to get to the issue or the use of the tool would be helpful

Environmental Scan

- Cook DA, Sorensen KJ, Wilkinson JM, Berger RA. Barriers and decisions when answering clinical questions at the point of care: a grounded theory study. *JAMA Intern Med*. 2013;173:1962-1969.

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More Acknowledged Ongoing Solutions

Publisher-provided information resource instruction:

- [ClinicalKey](#)
- [EBSCO Tutorials](#)
- [Mendeley](#)
- [NLM Training and Outreach](#)
- [Ovid](#)

Examples of librarian toolkits:

- [BMJ Resource Centre](#)
- [Clarivate Analytics](#)
- [Emerald Publishing](#)
- [NEJM LibraryHub](#)
- [New PubMed Trainer's Toolkit](#)

7 **Integration**

Integrating information resources into clinicians' workflow

Information resources are not easily accessible in and around the patient encounter.

Potential Solutions

- Find an understanding of where users begin the search: if the search begins in EHR, make resource integration and access easier, visible, and more efficient
- Improved/easier access via phones/tablets
- Institutions should encourage integration of clinician information resources in EHR
- Librarians can advocate for the integration of the highest priority or most heavily used resources
- Publishers can work on improving remote access for offsite and after hours use of information resources

Environmental Scan

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Environmental Scan, Continued

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More Acknowledged Ongoing Solutions

Information Resources Capable of EHR Integration:

- ClinicalKey

- DynaMed

- EBSCO Medical Products

- Lexicomp

- Lippincott Advisor

- Medline Plus Connect

- UpToDate

OpenInfobutton:

http://www.openinfobutton.org/

Meeting the Electronic Health Record "Meaningful Use" Criterion for the HL7 Infobutton Standard Using OpenInfobutton and the Librarian Infobutton Tailoring Environment (LITE)

Disseminating Context-Specific Access to Online Knowledge Resources within Electronic Health Record Systems

8 Financial Limitations

Institution financial issues = limited access

The cost of resources influences access, and decisions regarding resource purchasing or subscriptions greatly impact the availability of specific resources for end users. The financial burden of acquiring information products/tools causes unequal access for clinical providers.

Potential Solutions

- Finding free (reliable) resources
- A more nuanced approach to pricing of information tools/resources for end users (needs–based for example).
- A deeper look into pricing models for financially constrained institutions to increase flexibility in access
- Analysis of users that are excluded in current pricing models
- Changes within accrediting bodies about the kind and amount of resources required

Feedback from End Users

Access to more information is better

Publishers have priced themselves out of the market

A bigger problem in non-academic institutions

There is a need for free, reliable resources

Environmental Scan

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More Acknowledged Ongoing Solutions

Free and reliable resources:
- [Free Clinical Tools for Health Professionals](#)
- [Free Nursing Resources](#)
- [Open Educational Resources for the Health Professions](#)

Plan S: making full and immediate Open Access a reality:
- https://www.coalition-s.org/
- [Plan S: The options publishers are considering](#)
- [The Plan S footprint: implications for the scholarly publishing landscape](#)

Medical Library Association InSight Initiative Pain Points Workgroup

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- John Gallagher, Yale University
- Karen Gutzman – Northwestern University
- Susan Haering – New England Journal of Medicine
- Alisha Khan – Wolters Kluwer

- Elizabeth Laera (Co-Leader) – Brookwood Baptist Health
- David Nygren (Co-Leader) – American Psychological Association
- Sean Pidgeon (Co-Leader) – Oxford University Press
- Ryan Rodriguez – British Medical Journal
- Jean Song – University of Michigan
- Angela Spencer – St. Louis University