STM The global voice of scholarly publishing

NISO How the information world CONNECTS

RA 21

SIMPLE, TRUSTED ACCESS - ANYWHERE, ANYTIME, ON ANY DEVICE

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6 February 2019

Background

- RA21 has roots back to 2015 with a movement from corporate librarians as represented by the Pharma Documentation Ring (P-D-R).
  - Indicated that IP address recognition as a means of providing services to corporate researchers was no longer meeting their needs.

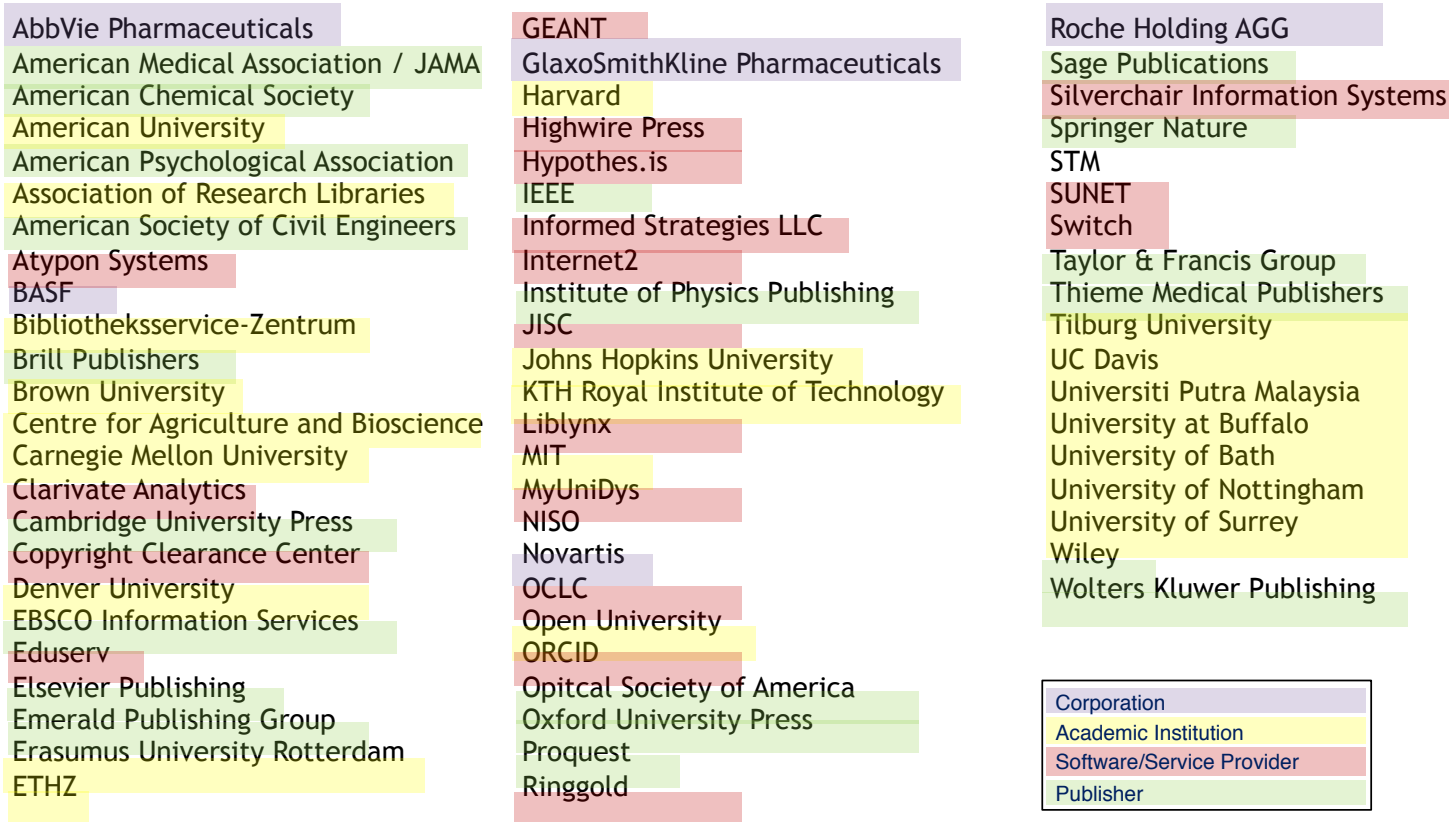# What we decided we would need...

1. SOLUTION

➢ Single Sign On (SSO)
➢ Open Standards (e.g., SAML)
➢ Inside/Outside Network

2. PUBLISHER SUPPORT

➢ Standard Adopted by All STM Publishers
➢ Granular Usage Stats
➢ Privacy & Security

RA21 Participation

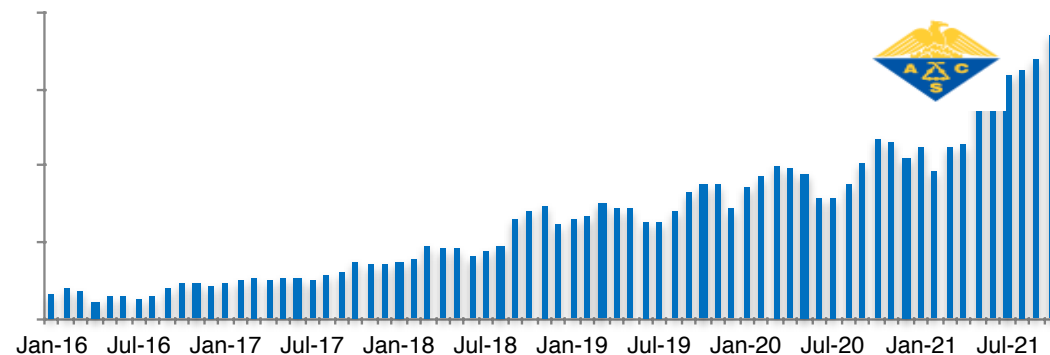- Individuals from more than 60 different organizations have been involved in RA21 since its inception in late 2016.

AbbVie Pharmaceuticals
American Medical Association / JAMA
American Chemical Society
American University
American Psychological Association
Association of Research Libraries
American Society of Civil Engineers
Atypon Systems
BASF
Bibliotheksservice-Zentrum
Brill Publishers
Brown University
Centre for Agriculture and Bioscience
Carnegie Mellon University
Clarivate Analytics
Cambridge University Press
Copyright Clearance Center
Denver University
EBSCO Information Services
Eduserv
Elsevier Publishing
Emerald Publishing Group
Erasumus University Rotterdam
ETHZ

GEANT
GlaxoSmithKline Pharmaceuticals
Harvard
Highwire Press
Hypothes.is
IEEE
Informed Strategies LLC
Internet2
Institute of Physics Publishing
JISC
Johns Hopkins University
KTH Royal Institute of Technology
Liblynx
MIT
MyUniDys
NISO
Novartis
OCLC
Open University
ORCID
Opitcal Society of America
Oxford University Press
Proquest
Ringgold

Roche Holding AGG
Sage Publications
Silverchair Information Systems
Springer Nature
STM
SUNET
Switch
Taylor & Francis Group
Thieme Medical Publishers
Tilburg University
UC Davis
Universiti Putra Malaysia
University at Buffalo
University of Bath
University of Nottingham
University of Surrey
Wiley
Wolters Kluwer Publishing

Corporation
Academic Institution
Software/Service Provider
Publisher

The need for RA21

Mobile Traffic in Visits

**Simple access to content
needs to be fixed,
especially for off campus use:**

- Scholarly content & services are increasingly being accessed from outside of corporate/campus networks
- Publisher pathways for providing off-network access have not kept pace with our experience on the consumer web (e.g., Google, Facebook, LinkedIn logins across multiple sites).
- When accessing publisher platforms off-network, fully entitled end users are turning to alternative resources (e.g., SciHub, etc.) because of ease of access.
- RA21 has been established as the first step in the journey towards replacing the now outdated IP based access & authentication model.

Surely there is a better way...

Access to scholarly content, especially off-network, needs to be fixed

- Federated authentication using SAML ("Shibboleth") solves most of the problem
  - Multilateral trust
  - Mature technology
  - Widely deployed and supported by scholarly information providers
  - Widely adopted and deployed by academic institutions
  - Increasingly deployed by corporate customers given the rise of SaaS platforms (if you've signed into Slack recently, you've used SAML!)

So why RA21?

The current institutional discovery workflow is very difficult for users to navigate
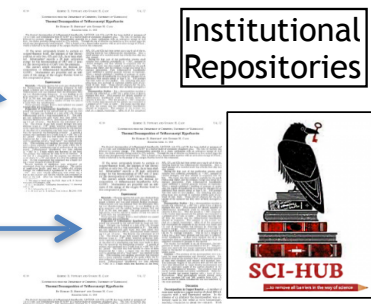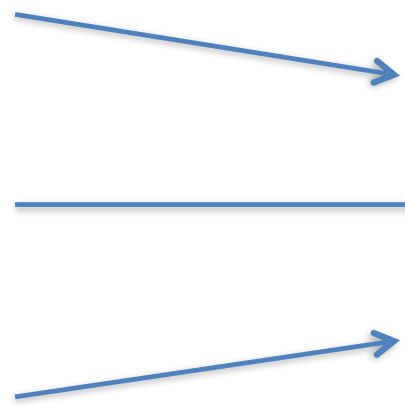
RA21 UX Challenge

- Seeks to implement seamless, convenient access to scholarly content while still preserving user privacy.

Typical Research Discovery Workflow

On Network ✔

RA21 UX Challenge

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Typical Research Discovery Workflow

Off Network ✗

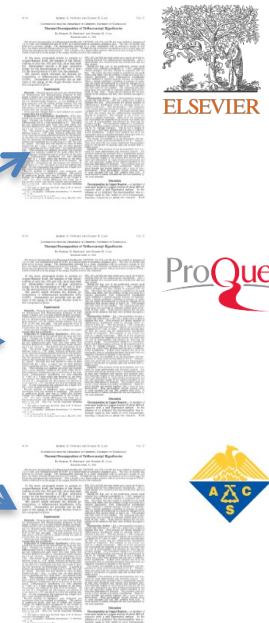Institutional Repositories

SCI-HUB

Email the Author

RA21 UX Challenge

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Typical Research Discovery Workflow

Off Network

Protecting User Privacy

- What attributes about the user are transmitted in an RA21 authentication flow?
  - Recommendation for accessing library resources:
    - Entitlement attribute (e.g., eduPersonEntitlement)
    - Optional pseudononymous attribute (e.g., eduPersonTargetedID)
- Leveraging RA21 authentication for access to other services (e.g. research collaboration sites, peer review submission systems, etc.) would require additional user attributes.

RA21 Goals

Recommend new solutions for access strategies beyond IP recognition in joint collaboration with software vendors, libraries, federation operators, publishers and service providers

- Test and improve solutions by organizing pilots in a variety of environments

- Establish best practices and publish via the *NISO Recommended Practice* process – *in process*

- Prepare for post-project phase by identifying potential parties to operate any necessary centralized infrastructure – *in process*

RA 21

Pilot Status

RA21 Current Status

User Experience
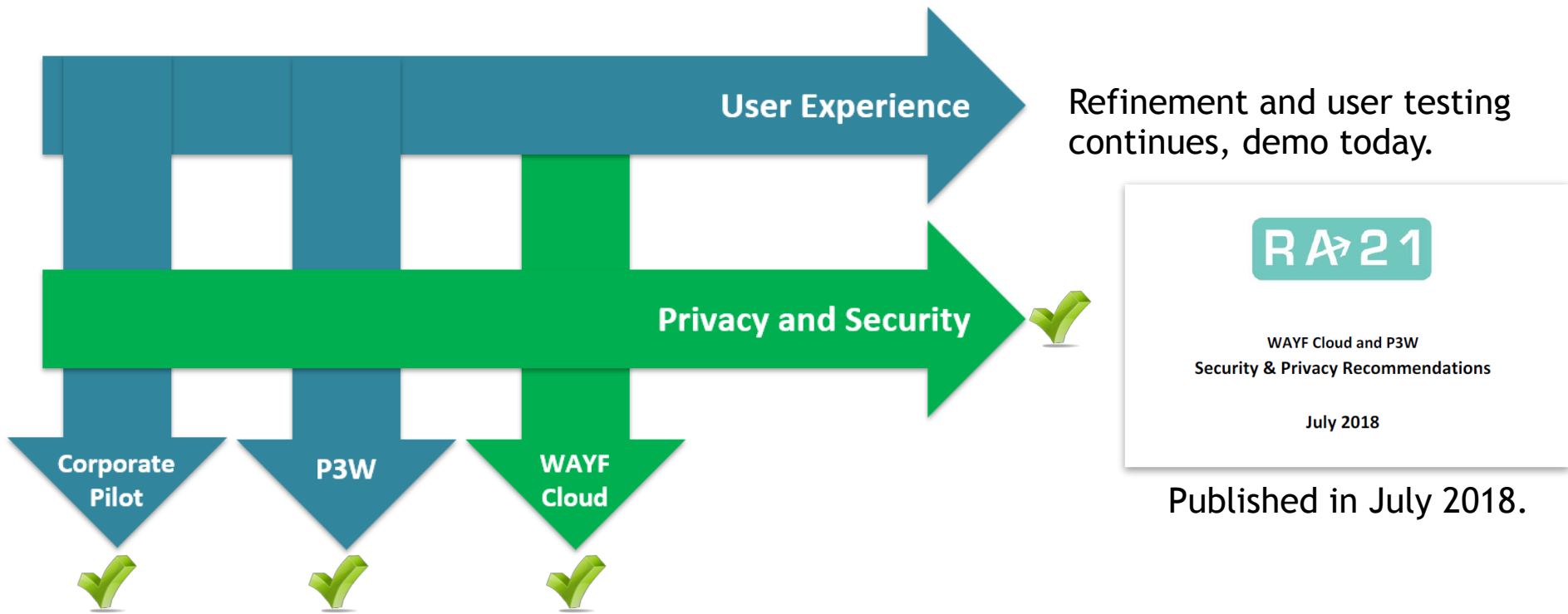
Refinement and user testing continues, demo today.

Privacy and Security

RA21

WAYF Cloud and P3W
Security & Privacy Recommendations

July 2018

Published in July 2018.

Corporate Pilot

P3W

WAYF Cloud

Resource Access for the 21st Century (RA21)
Corporate Pilot Report
September 2018

Final

RA21 Academic Pilot Technical Evaluation

Editor: H. Flanagan, Academic Pilot Coordinator

Executive Summary	1
Background	2
What is RA21?	2
Who will use the service?	2
Academic Pilot Descriptions	3
Privacy Preserving Persistent WAYF (P3W)	3
WAYF Cloud	4
Evaluation Process	5

<u>Work on pilots has concluded.</u>
Corporate Pilot report was published in September 2018.
Academic Pilot report was published in July 2018.
   - P3W architecture was selected.

Corporate Pilot Findings

- Three key goals of the corporate pilot:
  - Improved user login experience at the publisher sites
  - Provision for granular usage statistics reporting
  - Ability to easily set up and maintain Single Sign On with multiple publishers

- Key findings:
  - Equal support for the use of institutional name and personal email address for identification at the publisher site
    - Privacy concerns raised around use of email address in the IdP discovery process
    - Confusion identified around variety of names for an institution
  - Individual user registration seen as being more valuable for frequent users but could be a privacy issue for some

Academic Pilot Findings

- Academic pilots = more focused on testing ideas through different technologies
- Both pilots demonstrated the need for a central service component; functionality of that component varied (though the Security and Privacy evaluation saw them in par)
- End result: P3W pilot (stores ONLY the IdP choice in the user's browser) was selected to move forward
  - Full focus of UX testing
  - Technical details in the NISO Recommended Practice document (still in draft)

RA21 Security / Privacy Conclusion

- There are no significant risks which prevent RA21 from moving forward
- Residual risks from both security and privacy perspectives are LOW
- The nature of the data involved is low value, i.e., not directly or easily attributable to any natural person
- Appropriate safeguards are in place to mitigate confidentiality concerns

- *Working group recently met and endorsed the [REFEDS Data Protection Code of Conduct v1](), with the caveat that the endorsement within the NISO RP document include specifics on what "minimal data" means in at least some sample contexts (e.g., library resource access)*

RA21

User Experience

UX Building Blocks

1 Consistent visual cue and call to action signals institutional access

2 Flexible and smart search
- Search by institution name, abbreviation or email
- Typeahead matching and URL

3 Remembered institution on next access

Access Through Your Institution

To get document (PDF, etc.)

1. Find your institution
2. Log in at your institution site
3. Get this document

Find Your Institution
Your university, organization or company

minne

Examples: Science Institute, xxx@YourInstitution.edu, UCLA

We found these institutions

University of Minnesota   umn.edu
University of Minnesota, All Campuses
Search matched *University of Minnesota*

Choose Your Institution
Institutions you used previously

University of Minnesota

⊕ Choose another

RA21 UX Goals

1 A user only encounters a discovery process once (per browser).

2 The user's institution is persisted in browser local storage and subsequently rendered in the RA21 button across all participating publishers.

Operations and Future Governance

Operation of an IdP Persistence Service

- RA21 as a service consists of two **discrete and separable** components
  - Discovery of the IdP
  - Persisting the choice of IdP (enabled through a centrally hosted JavaScript)
- Different organizations will absolutely want their own customized discovery service
  - VOs, SPs, Federations all have different requirements for a discovery service
- Persistence, however, needs to be common and standard across **ALL** participating organizations

Questions?

Visit: https://www.RA21.org
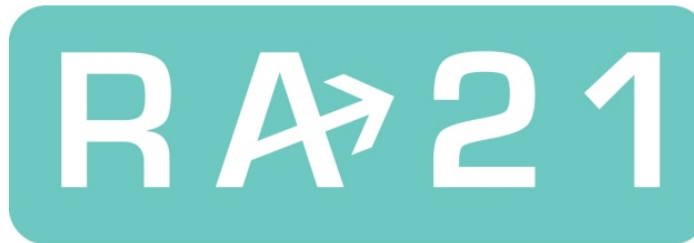
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