THE FUTURE OF ACCESS, PART 2
RA21: IMPROVING ACCESS TO SCHOLARLY RESOURCES, FROM ANYWHERE, ON ANY DEVICE

SPEAKERS

**RA21 CO-CHAIRS:**
- MELTEM DINCER, VP PLATFORM CAPABILITIES, JOHN WILEY AND SONS
- CHRIS SHILLUM, VP IDENTITY AND PLATFORM STRATEGY, ELSEVIER
- RALPH YOUNGEN, DIRECTOR OF PUBLISHING SYSTEMS INTEGRATION, ACS

April 26th, 2018
What is RA21?

• RA21: Resource Access for the 21st Century
• Joint initiative of the International Association of STM Publishers (STM) and the National Information Standards Organization (NISO)
• Aimed at optimizing access protocols across key stakeholder groups
  • Corporate and university subscribers, libraries, software vendors, publishers, identity federation operators, etc.
• Purpose: To facilitate seamless user experience beyond IP address recognition, supporting network security and user privacy
Why RA21?

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- RA21 has been established as the first step in the journey towards replacing the now outdated IP based access & authentication model.
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
- **New:** Prepare for post-project phase by identifying potential parties to operate any necessary centralized infrastructure
RA21 Workstreams

User Experience

Privacy and Security

Corporate Pilot
P3W
WAYF Cloud

Two cross-cutting workstreams exploring topics common to both approaches

Pilot exploring needs of corporate segment
Two technical pilots exploring different implementation approaches
User Experience Development

Ralph Youngen, ACS, Co-Chair RA21
RA21 User Experience Team

• Active team of volunteers from multiple organizations:
  – ProQuest (facilitating)
  – Elsevier
  – ACS
  – GÉANT
  – OpenAthens
  – CANARIE
  – Ebsco
  – MyUniDays
Current Situation

Currently off campus access is complex and cumbersome

• Off-network access to scholarly content and services is managed via a confusing mix of VPN servers, Proxy servers, Shibboleth, library portals, etc.
  – Inconsistent user experience across publisher platforms
  – Cumbersome: multiple steps required (with hundreds of options offered at various points)
  – Complex: pathways are not clear
Off-Campus Solutions

- VPN/Proxy Servers

How to access library resources from off campus:

1. Attempting to access an OSU Library resource through the OSU Library catalog from off campus should result in a prompt for your name # and password, which in turn will permit off-campus access. Alternatively, users can use the Off-Campus Sign In from the OSU Library homepage and then navigate within the OSU catalog in the same manner as one would while on campus. OR

2. Many publishers/vendors permit access directly from their site with OSU authentication. If OSU holds a subscription to a resource and if the publisher/vendor provides direct access, proxy authentication can be achieved by either:
   a. Applying an OSU Libraries’ Bookmarklet within your browser, which you can selectively use when you wish to authenticate while visiting a publisher/vendor’s site.
   b. Placing the following string at the beginning of the vendor’s URL:

   \[http://proxy.lib.osu.edu/login?w=\[enter vendor's URL here]\]

For both a and b, above, users will be prompted for their OSU username and password before being sent to the publisher/vendor’s site. This prompt will allow users to have authenticated off-campus access through the vendor/publisher’s site.

A note to VPN users: VPN authentication will not provide authentication for most library resources (unless used in combination with the Library Off-campus Sign In, Bookmarklet, or if the user is working remotely through an OSU desktop).
Off-Campus Solutions

- VPN/Proxy
- Device Pairing
Off-Campus Solutions

- VPN/Proxy
- Device Pairing
- Google’s Campus-Activated Subscriber Access (CASA)

HighWire Press adds CASA to eliminate barriers to off-campus and mobile access to subscriptions

Subject: Discovery and analytics, Technological innovation, User experience

CASA final, 16 September.pdf
HighWire Press, Inc., the strategic partner and platform provider for world-leading scholarly publishers and societies, announces the platform-wide rollout of Campus-Activated Subscriber Access (CASA) on its Intelligent Platform, in cooperation with Google Scholar. CASA enables seamless off-campus and mobile access to subscribed scholarly content. With CASA, off-campus and mobile users may access their library’s subscriptions just as easily as when they are on campus.

Anurag Acharya, co-creator of Google Scholar, said, “CASA builds on Google Scholar’s Subscriber Links program which provides direct links in the search interface to subscribed collections for on-campus users. With CASA, a researcher can start a literature survey on campus and resume where she left off once she is home, or travelling, with no hoops to jump.”
Off-Campus Solutions

- VPN/Proxy
- Device Pairing
- CASA (Google)

All Leverage Institutional IP Address Recognition

All Require User Setup In Advance
RA21 User Experience

“You have to start with the customer experience and work your way back to technology.”

— Steve Jobs
RA21 User Experience

• RA21 seeks to follow the pattern emerging on consumer websites:
Consumer Web – First Time User Experience

Doodle

Choose an account
to continue to Doodle

Welcome to Doodle, Ralph Youngen.

Here are a few things to get you started with Doodle.
Consumer Web – Subsequent Visits

Doodle dashboard

Welcome to Doodle, Ralph Youngen. Click here to get started with Doodle

Create new poll

Schedule an event  Make a choice
Doodle now knows some highly personal information about me:

- my name
- my picture,
- my email address
Pattern Emerging on B2B SAAS Platforms
RA21 UX Development

• Seeks to implement the same ease of use as found in consumer web examples, while still preserving user privacy.
RA21 UX Development

- Seeks to implement the same ease of use as found in consumer web examples, while still preserving user privacy.

Typical Research Discovery Workflow

Off Campus

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Biodegradable composites based on lignocellulosic fibers—An overview
K.G. Sathyarayana, GGC Arizona, E. Wypych - Progress in polymer science, 2009 - Elsevier
The development of commercially viable “green products” based on natural resources for both matrices and reinforcements for a wide range of applications is.

Biodegradable Flame Retardant Wood-Plastic Composite
L. Zhang - 2013 - search.proquest.com
... As sustainability has become one of the most desirable features of novel ... V. Biodegradable aliphatic-aromatic copolyesters: evaluation of the final biodegradability and ecotoxicologic Biociding Wang, Mechanical properties and morphology of biodegradable poly(lactic ...
RA21 UX Development

• Seeks to implement the same ease of use as found in consumer web examples, while still preserving user privacy.

Typical Research Discovery Workflow
Preserving Privacy

Publishers receive attributes about the user, not the user’s identity.

OSU.EDU
Login Required
A login is required to access the requested service.

Ohio State Username
Password
Is this a private computer/device?

Forgot username? Forgot password?

Login

eduPersonAffiliation
library-walk-in
alum
affiliate
member
student
employee
faculty
staff

Reporting: ChemStudent

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RA21’s User Experience Challenge

• **Today:**
  – Awesome user experience on campus
  – Awful user experience off campus

• **RA21:**
  – Consistent user experience anywhere on any device

• **Challenge:**
  – On campus user experience will become slightly less seamless

*How Many Clicks?*
How Many Clicks?

Two UX patterns under development:

**Level 1:** Publisher site links to central RA21 discovery service.
- Least technically complex solution, but requires additional clicks.
- Working prototype now available.

**Level 2:** Publisher site integrates with central RA21 discovery service via API.
- Will be prototyping soon.
RA21 UX Development

- Level 1: Least technically complex implementation (today’s prototype)

All subsequent visits to a publisher site provide seamless access to content for some period of time (e.g. hours, days, weeks, or months, depending on publisher policy).
RA21 UX Development

• Level 2: Requires API development on publisher site (coming soon)

All subsequent visits to a publisher site provide seamless access to content for some period of time (e.g. hours, days, weeks, or months, depending on publisher policy).
RA21 UX Development

• Level 1

Get access to ProQuest

Choose Your Institution
Institutions you used previously

GlaxoSmithKline LLC

Choose another

HOW IT WORKS
1. Find your institution
Search by institution name, email to find your institution.

2. Log-in
Use your institutional credentials to log in as you normally do.

3. Enjoy
Access the content and features provided by your institution.

4. Explore
Continue to work seamlessly with your institutional access.
RA21 UX Development

• Level 2

Engineering Biodegradable Flame Retardant Wood-Plastic Composites

RA21 UX Demo

Warning: Work in Progress!
Security Privacy

Meltem Dincer, Wiley, Co-Chair RA21
RA21 Security / Privacy Team

• Active team of volunteers from multiple organizations:
  – Wiley (CISO, facilitating)
  – ACS (CISO)
  – ProQuest (CISO)
  – IEEE (Digital License and Compliance)
  – University of Illinois at Urbana-Champaign (Coordinator for Information Literacy Services and Instruction)
  – And others, Taylor & Francis, ORCID, ...
RA21 Security / Privacy Analysis

Objective:
– Assess security and privacy risks associated with the two pilots
– Provide recommendations tailored to mitigate risks identified for each

Methodologies used:

STRIDE Threat Model for security
- Spoofing Identity
- Tampering with Data
- Repudiation
- Information Disclosure
- Denial of Service
- Elevation of Privilege

DPIA for privacy
- Data Protection Impact Analysis
- Performed in compliance with GDPR
RA21 Security / Privacy Conclusion

• There are no significant risks which prevent the WAYF Cloud and P3W pilots 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
Concluding Remarks

Chris Shillum, Elsevier, Co-Chair RA21
Specific Challenges for Scholarly Information Resource Access

1. Unlike in B2C, we have a proliferation of Identity Providers. It’s not just Google and Facebook – we have literally thousands of universities and corporations managing the identities of our users.

2. Need a solution that works at point of access (e.g. Google search results page) without configuration ahead of time.

3. Requirement for strong privacy protection and support for anonymous access.

4. Need for consistent UX across multiple resource providers.
I'm starting to see the end of the STM/NISO RA21: Resource Access for the 21st Century project. And, dear reader, I'm a little unsettled by it.

RA21 has scoped its problem the wrong way. Simply put: It's not about security. It's about identity.

Myth Busting: Five Commonly Held Misconceptions About RA21 (and One Rumor Confirmed)

By TODD A CARPENTER | FEB 7, 2018 | 3 COMMENTS

https://scholarlykitchen.sspnet.org/2018/02/07/myth-busting-five-commonly-held-misconceptions-ra21/
Takeaways: RA21 vs. IP-based RA Solutions

1) No prior setup required (e.g. to configure a proxy/vpn server, pair a device, etc.). No disruption to the research discovery workflow.

2) Ability for publishers to offer differentiated user experience or differentiated services based upon user attributes (not identity).

3) Ability to block a single user account instead of an IP address, and offer more targeted information to campus security to investigate potentially compromised credentials.

4) Ability to offer more granular usage reporting back to subscribers.
RA21 Roadmap

**Throughout 2018 and onwards**
Ongoing outreach engagement across key stakeholder communities

- **Q1 2018**
  Early outputs
  Position papers

- **Q1/Q2 2018**
  Mid-term outputs
  Task Forces: UX; Security / privacy
  Pilots: Options for discovery; technology platforms

- **Q2/Q3 2018**
  Draft recommendations and open consultation (via NISO process)

- **Q4 2018 and onwards**
  Final recommendations published
  Recommendation for infrastructure operator

- **Beyond 2018**
  STM hands over the lead of the project to NISO for adoption and implementation
  Creation of and involvement in Operational User Communities
Outreach Activities

**RA21 in the News**

**Myth Busting: Five Commonly Held Misconceptions About RA21 (and One Rumor Confirmed)**

https://scholarlykitchen.sspnet.org/2018/02/07/myth-busting-five-commonly-held-misconceptions-ra21/

UKSG Insight – Opinion Pieces: “Easy access to the version of record (VoR) could help combat piracy: views from a publishing technologist” Author: Tasha Mellins-Cohen. 10 July 2017.


Index Data: “RA21 Project aims to ease remote access to licensed content” Author: Peter Murray. 19 December 2016.

STM – April 24-26, 2018 Philadelphia

MLA - May 18-23, 2018, Atlanta

SLA – June 9-13, 2018 Baltimore

**CNI** - December 2016, April 2017

**STM** - December 2016, July 2017, December 2017

**SSP** - May 2017

**JISC** - July 2017

**AGLIN Forum** - August 2017

**SURF** - September 2017 Utrecht

**Internet2** - October 2017 San Francisco

**Charleston Conference** - November 10, 2017

**UKSG** - November 16, 2017

**CCC** - hosted webinar November 16, 2017

**ALA Midwinter** - January 20-24, 2018 Denver

**PSP** - February 7-9, 2018 DC

**ER&L** – March 6-8, 2018 Austin

**MLA Insights** – March 6, 2018 Chicago

**ACS** – March 18-22, 2018 New Orleans

**STM** – April 24-26, 2018 Philadelphia

**MLA - May 18-23, 2018, Atlanta**

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Questions?

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