



The global voice of  
scholarly publishing



## 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

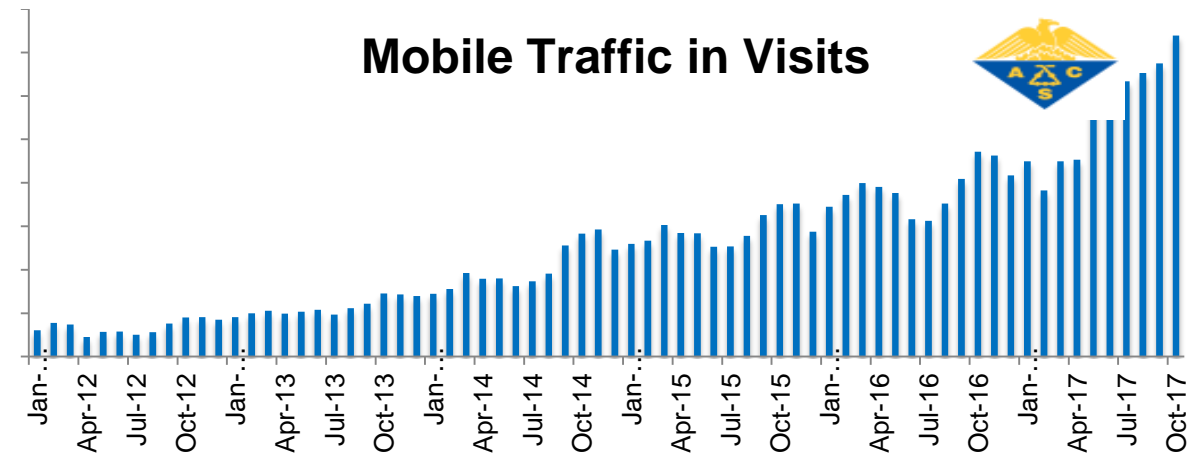
April 26th, 2018

# What is RA21?

- RA21: Resource Access for the 21<sup>st</sup> 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:



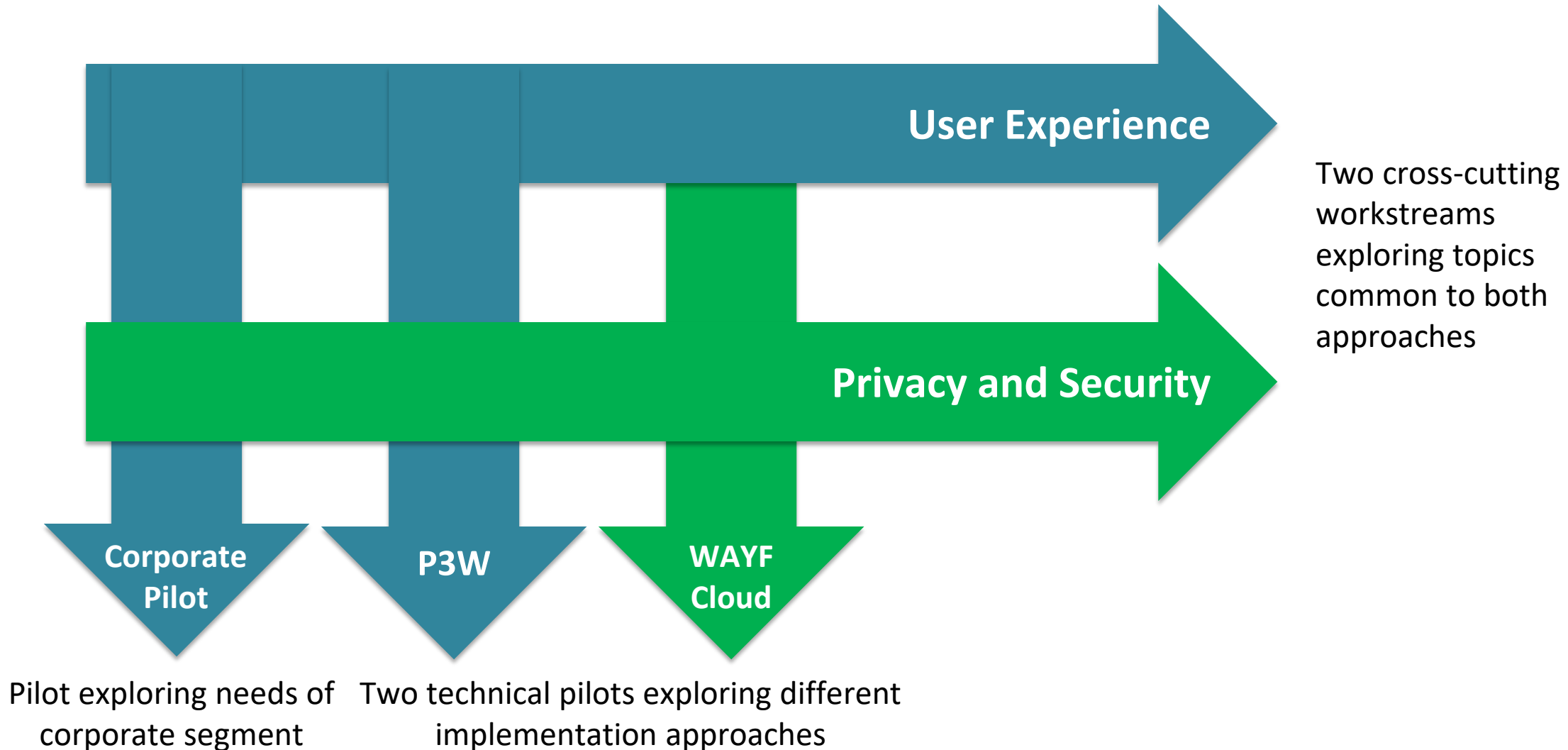
- Scholarly content & services are increasingly being accessed from outside of corporate/campus networks
- Publisher pathways for providing off-network access have not kept pace with our experience on the consumer web (e.g. Google, Facebook, LinkedIn logins across multiple sites).
- When accessing publisher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- RA21 has been established as the first step in the journey towards replacing the now outdated IP based access & authentication model.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



**RA➔21**

# 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




**THE OHIO STATE UNIVERSITY**  
UNIVERSITY LIBRARIES

[Ohio State University Libraries](#) / [Research Guides](#) / [Chemistry and Biochemistry](#) / [Off Campus Access](#)

## Chemistry and Biochemistry

- Chemistry & Biochemistry
- Article or Book Requests
- Research Databases
- Off Campus Access**
- Standards
- e-Journal Access
- Using Endnote
- OhioLINK, Partner Libraries
- SciFinder Registration and Use
- US Gov and Misc Public Resources
- [Why isn't this Working / Fix It](#)

### How to access library resources from off campus

 **Off-campus** access to most OSU Library resources may be obtained through these routes:

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. [Information on using a Bookmarklet](#)
  - b. Placing the following string at the beginning of the vendor's URL:  
`http://proxy.lib.ohio-state.edu/login?url=http://[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



The image shows a smartphone and a tablet displaying the ACS2GO mobile application interface. The tablet screen shows a large blue arrow icon with 'ACS2GO' text below it, and the ACS Publications logo at the bottom. The smartphone screen shows a smaller version of the same interface. The background is a blue gradient with white text.

**AUTOMATICALLY PAIRED  
TO AN ORGANIZATION**

**ACCESS FULL  
TEXT ARTICLES**

# Off-Campus Solutions

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



HighWire



Home › Thought leadership ›

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

**Author info:** HighWire Press   **Post date:** 13.09.2017   **Post type:** News  
**Subject:** Discovery and analytics, Technological innovation, User experience

### CASA final, 15 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.”*

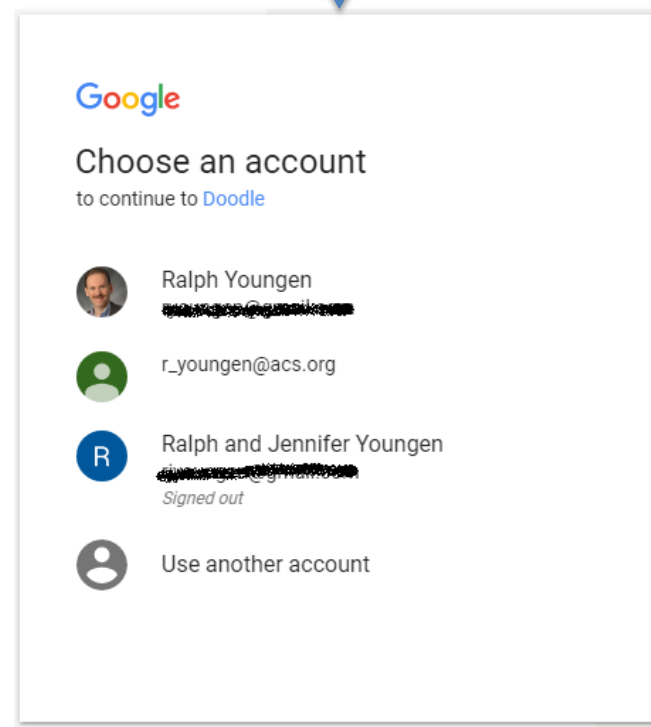
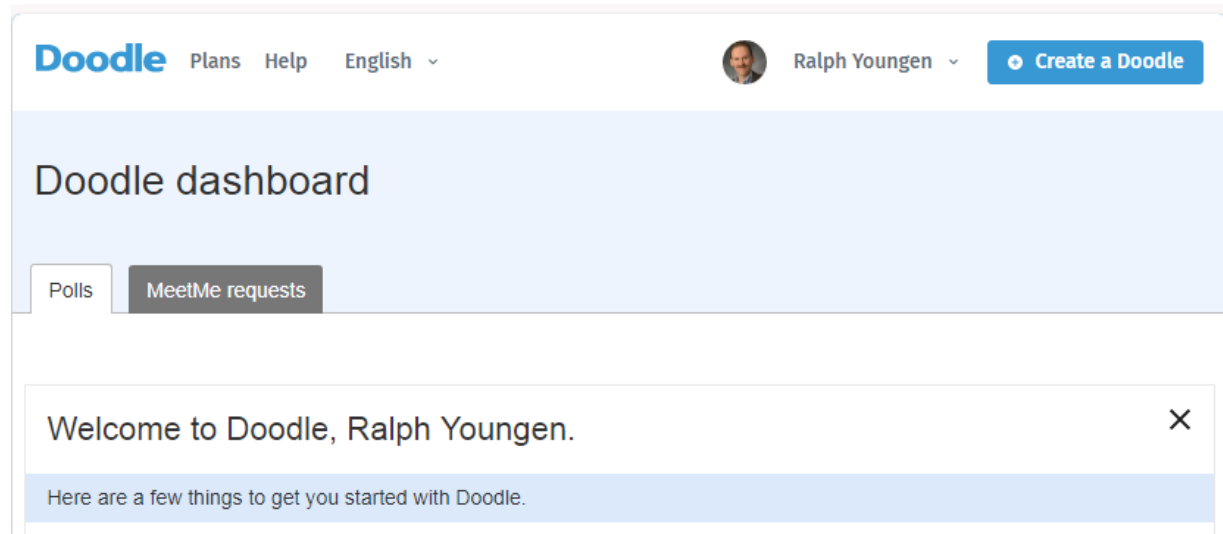
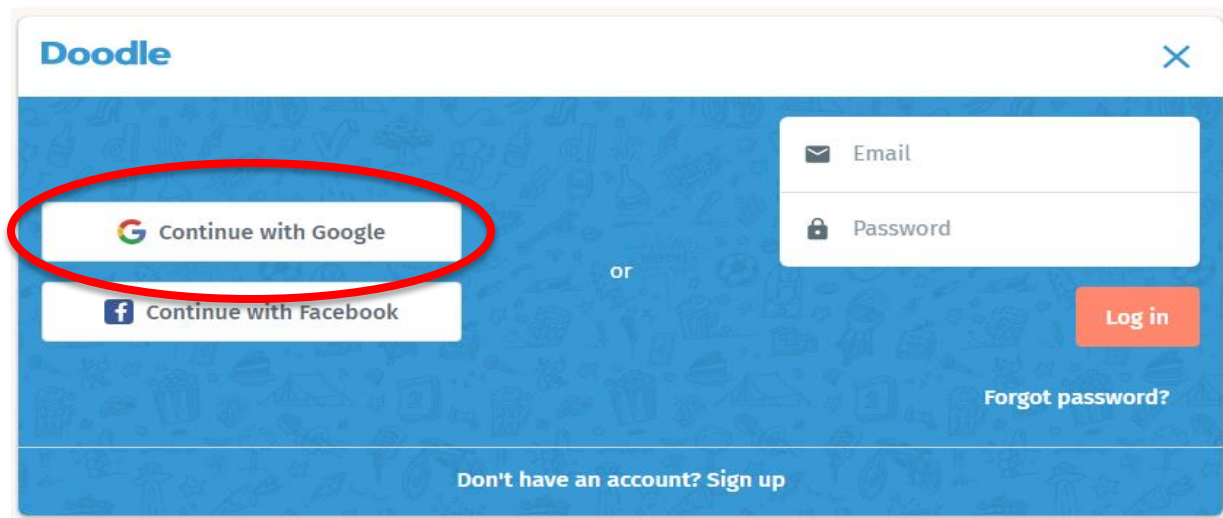
*— Steve Jobs*

# RA21 User Experience

- RA21 seeks to follow the pattern emerging on consumer websites:



## Consumer Web – First Time User Experience



## Consumer Web – Subsequent Visits

The screenshot shows the Doodle dashboard for user Ralph Youngen. At the top left is the Doodle logo, followed by links for Plans, Help, and English. On the top right, there is a user profile for Ralph Youngen and a blue button labeled "Create a Doodle". Below the navigation bar is a light blue header area with the text "Doodle dashboard". Underneath this are two tabs: "Polls" and "MeetMe requests", with "MeetMe requests" being the active tab. A white box contains a welcome message: "Welcome to Doodle, Ralph Youngen. Click here to get started with Doodle" and a plus sign icon. Below this is the section "Create new poll", which features two options: "Schedule an event" (with a calendar icon) and "Make a choice" (with a checklist icon).



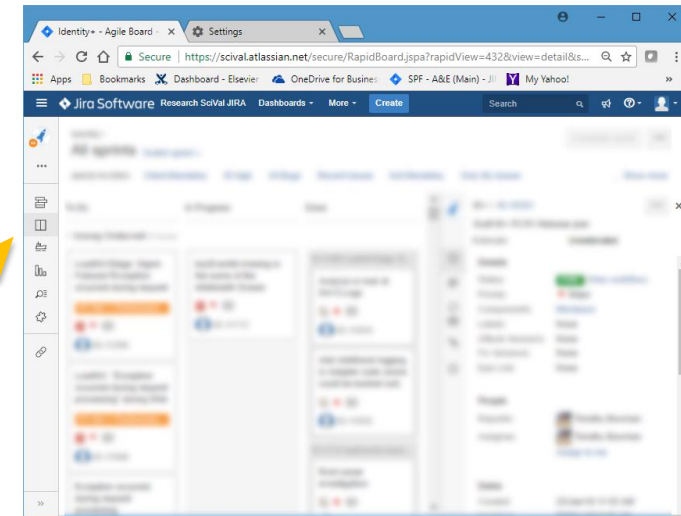
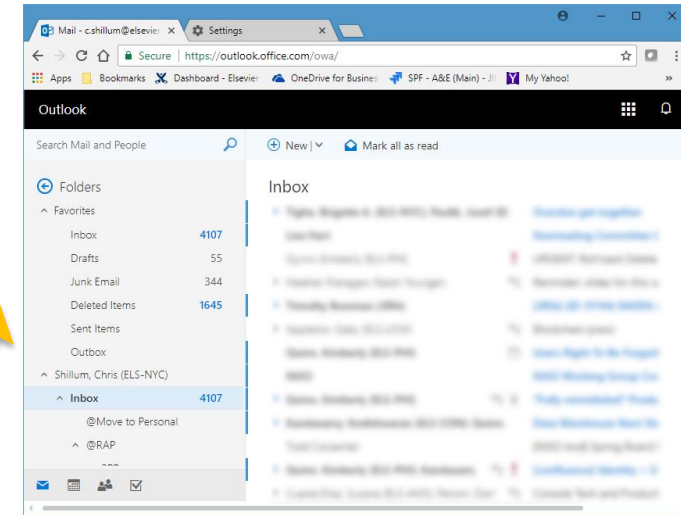
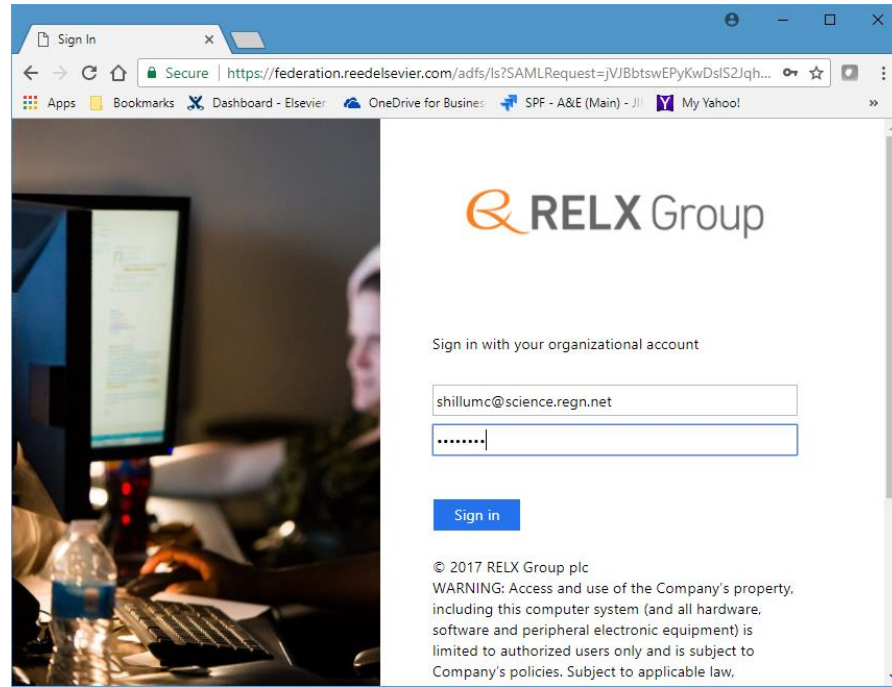
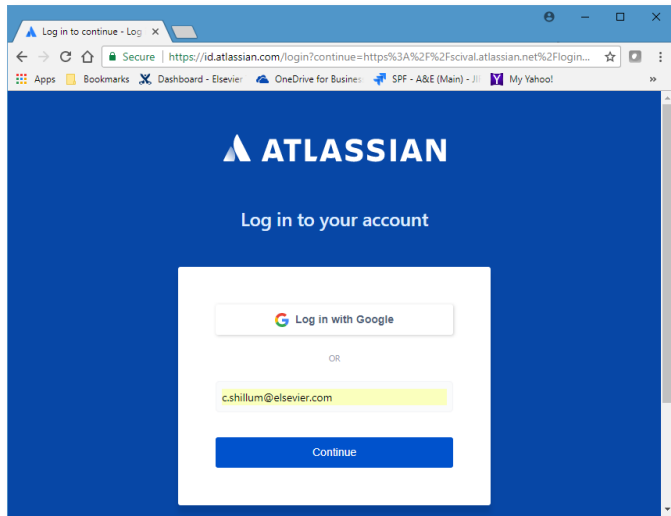
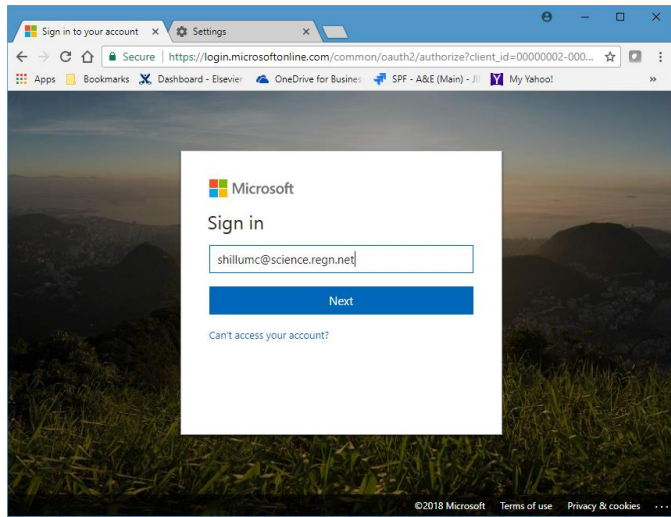
## Consumer Web – Privacy Concerns??

The screenshot shows the 'Manage Account' page for a Doodle user named Ralph Youngen. The page includes a navigation menu on the left with options like 'Doodle account', 'Profile settings', 'MeetMe page', 'Calendars', 'Address books', 'Apps', and 'Premium Doodle'. The main content area is titled 'Doodle account' and contains fields for 'E-mail address' (redacted), 'Password' (with a 'change' button), and 'Premium Doodle' status. A section for 'Attached third-party accounts' shows a Google account. Blue arrows point from the text on the right to the user's profile picture, name, and email address field.

Doodle now knows some highly personal information about me:

- my name
- my picture,
- my email address

# Pattern Emerging on B2B SAAS Platforms

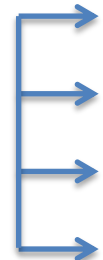


# RA21 UX Development

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

## Typical Research Discovery Workflow

On Campus 



Elsevier	<p><b>Biodegradable</b> composites based on lignocellulosic <b>fibers</b>—An overview                  KG Satyanarayana, GGC Arizaga, F 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.</p> <p>☆ 🔍 Cited by 719 Related articles All 5 versions 🔗</p>
Proquest	<p>Engineering <b>Biodegradable</b> Flame Retardant Wood-Plastic Composites                  L Zhang - 2013 - search.proquest.com                  ... As <b>sustainability</b> has become one of the most desirable features of novel ... V. Biodegradable aliphatic-aromatic copolyesters: evaluation of the final <b>biodegradability</b> and ecotoxicological properties                  Biaobing Wang, Mechanical properties and morphology of <b>biodegradable</b> poly(lactic acid) composites</p> <p>☆ 🔍 Related articles All 3 versions 🔗</p>
ACS	<p>Active release of nitric oxide-releasing dendrimers from electrospun polyurethane <b>fibers</b>                  BV Worley, RJ Soto, PC Kinsley... - ACS Biomaterials Science &amp; Engineering, 2016 - ACS Publications                  ... <b>ACS</b> Biomaterials ... were doped into polyurethane solutions prior to electrospinning of the polyurethane to yield well-defined dendrimer-doped composite polyurethane <b>fibers</b>. The <b>fiber</b> mats were semiporous (≥30% porosity) and exhibited high water uptake (&gt;100% relative to <b>fiber</b> mass)</p> <p>☆ 🔍 Cited by 5 Related articles All 2 versions 🔗</p>

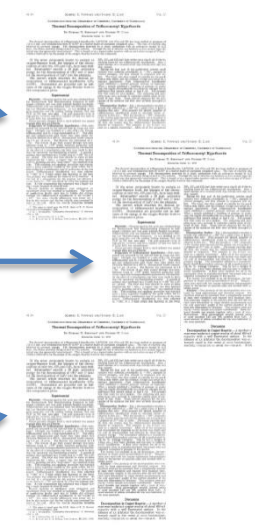
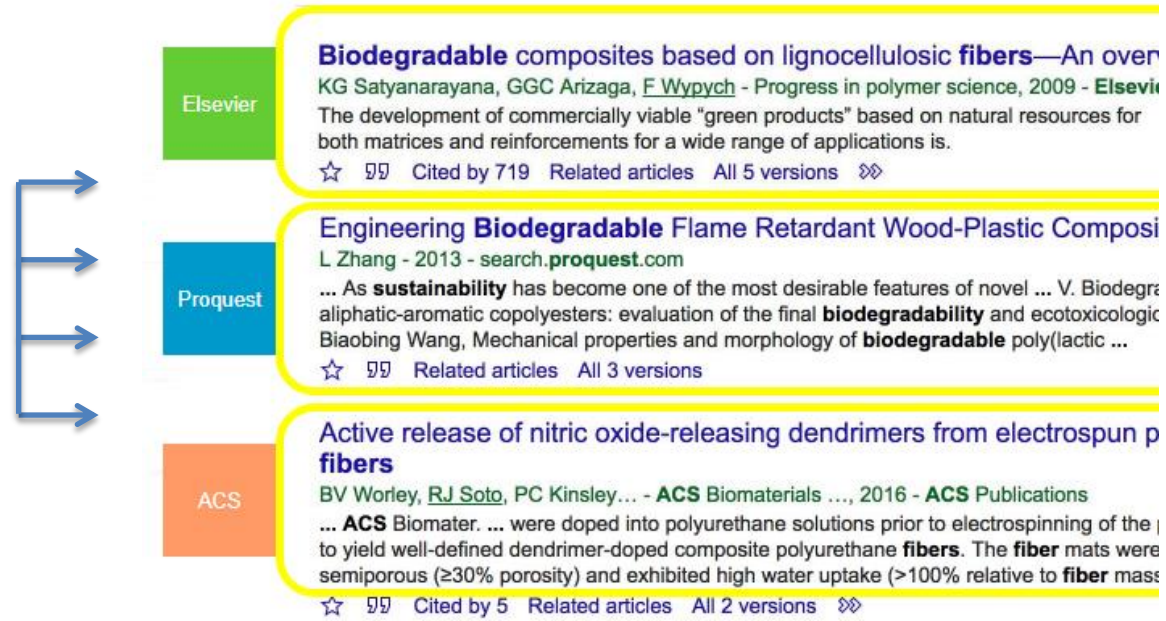


# RA21 UX Development

- 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 

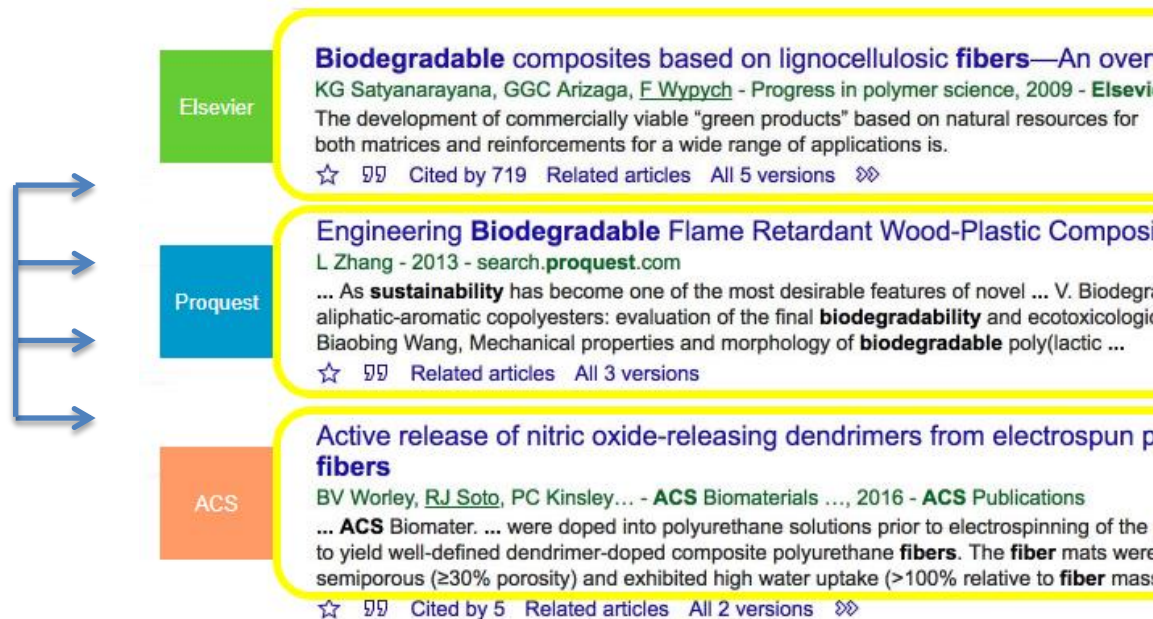




# RA21 UX Development

- 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



# Preserving Privacy

OSU.EDU Help BuckeyeLink

## Login Required

A login is required to access the requested service.

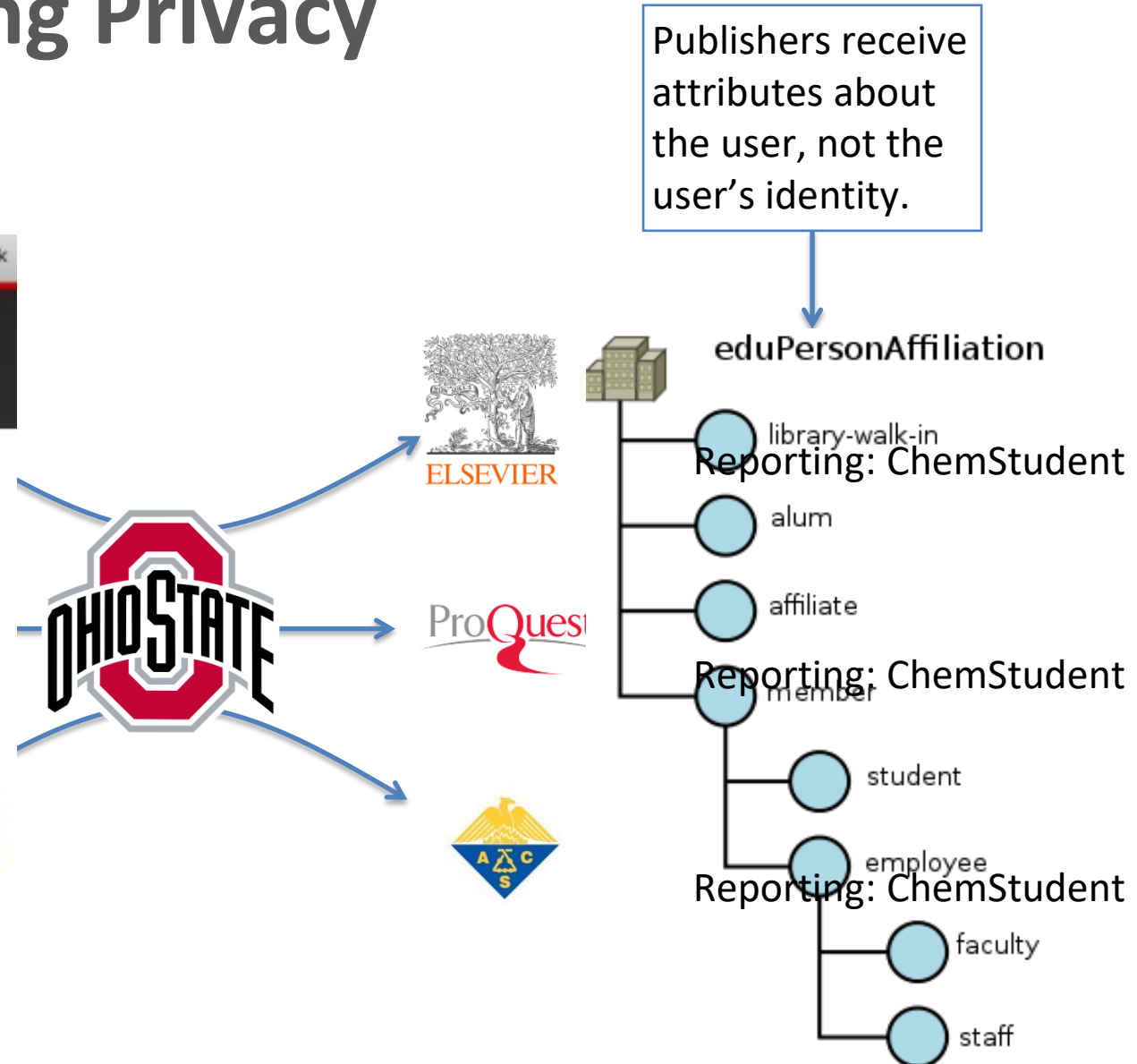
Ohio State Username: lastname.#

Password: [ ]

Is this a private computer/device?  Yes  No

Forgot username? Forgot password?

**Login**



# 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.

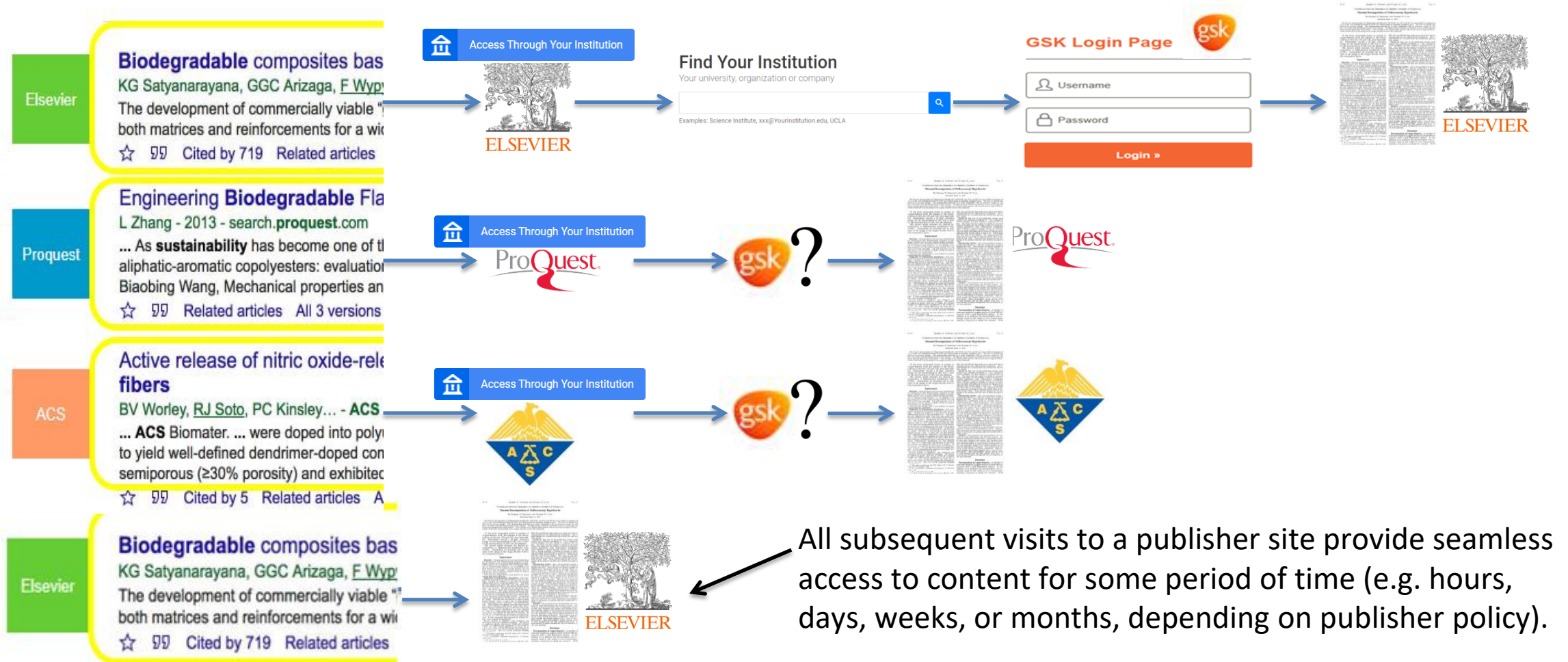
**Level 2:** Publisher site integrates with central RA21 discovery service via API.

- Will be prototyping soon.



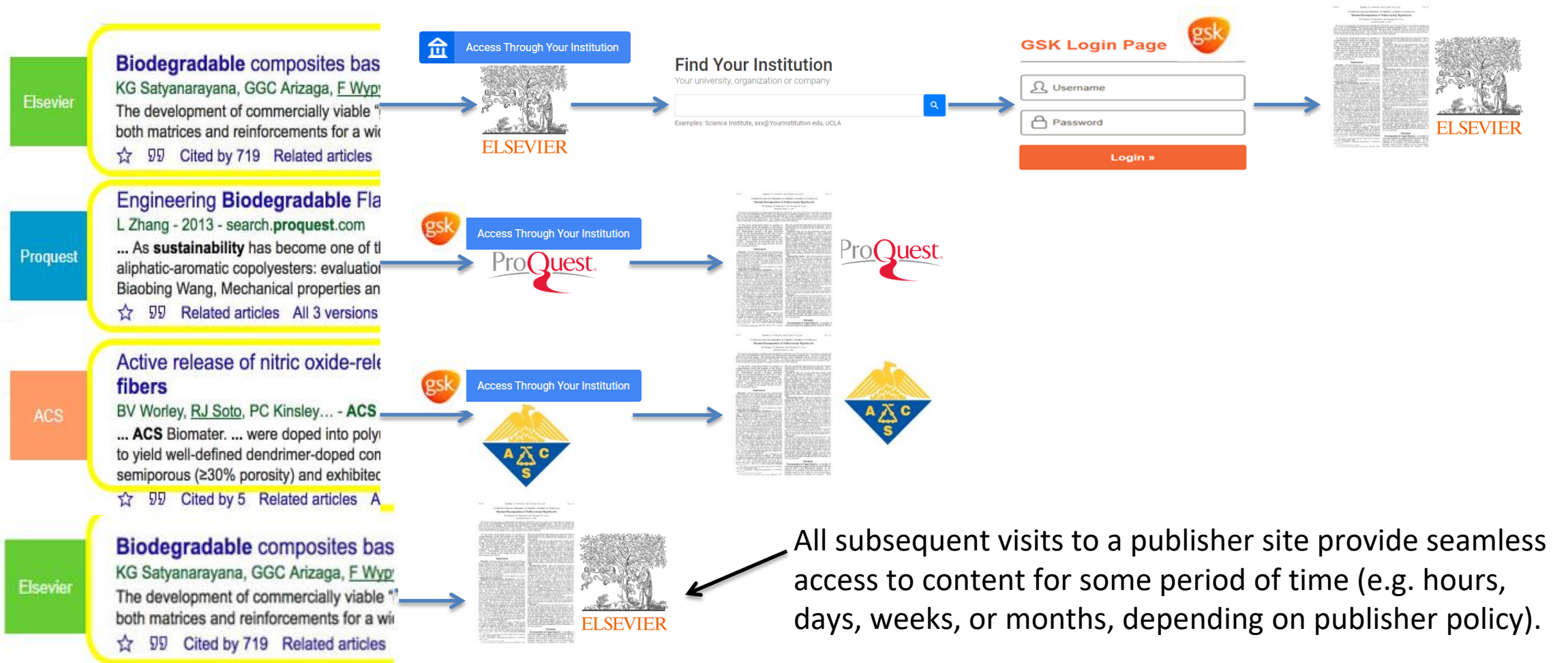
# RA21 UX Development

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



# RA21 UX Development

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



# RA21 UX Development

- Level 1

Get access to **ProQuest**

## Choose Your Institution

Institutions you used previously



[+ 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

## ProQuest

### Document Preview

## Engineering Biodegradable Flame Retardant Wood-Plastic Composites

Zhang, Linxi. State University of New York at Stony Brook, ProQuest Dissertations Publishing, 2013. 1540254.

**Engineering Biodegradable Flame Retardant Wood-Plastic Composites**

A Thesis Presented

by

**Linxi Zhang**

### Access this article



Access Through GlaxoSmithKline LLC

[Use another institution](#)

### Other Options

[Log in with ProQuest account](#)

[Purchase PDF](#)

# RA21 UX Demo

***Warning: Work in Progress!***

**RA → 21**

## **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

**RA➔21**

## **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

# RA21 Misperceptions

THE SCHOLARLY  
**kitchen**

*What's Hot and Cooking In Scholarly Publishing*

ABOUT

ARCHIVES

COLLECTIONS ▾

CHEFS

PODCAST

FOLLOW

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

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

# 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

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

**SLA** – June 9-13, 2018 Baltimore

## 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.

Society for Scholarly Publishing – Scholarly Kitchen: “Failure to Deliver: Reaching Users in an Increasingly Mobile World” Author: Todd Carpenter. 15 June 2017.

Library Learning Space: “RA21 and libraries” 16 May 2017.

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

# Questions?



Visit: <https://www.RA21.org>

## Contact:



Julia Wallace

- Program Director
- [Julia@RA21.org](mailto:Julia@RA21.org)



Heather Flanagan

- Pilot Coordinator
- [Heather@RA21.org](mailto:Heather@RA21.org)

Meltem Dincer [mdincer@wiley.com](mailto:mdincer@wiley.com)

Chris Shillum [c.shillum@elsevier.com](mailto:c.shillum@elsevier.com)

Ralph Youngen [ryoungen@acs.org](mailto:ryoungen@acs.org)