

INTERNET2

2022  
TECHNOLOGY  
exchange

Conan the Librarian

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## A tough balancing act for Conan



Providing digital resources is a tough balancing act for our librarians

- Seamless Access\*
- Value for money

But Conan has friends in the community...





## Conan's Friends...



CAUL is the peak leadership organisation for university libraries in Australia and New Zealand. CAUL Members are the University Librarians or equivalent of the 39 institutions that have representation on Universities Australia (UA) and the 8 University Librarians of the institutions that have representation on Universities New Zealand (UNZ) and who form the Council of New Zealand University Librarians (CONZUL), a committee of UNZ.

# CONZUL

The Council of New Zealand University Librarians (CONZUL) is a committee of Universities New Zealand – Te Pōkai Tara and as the collective leadership of New Zealand's academic libraries provides a national perspective and expertise related to academic libraries.

**Provide a national perspective and expertise related to academic libraries.**

# The role of AU and NZ university libraries



***is to enhance the learning  
experience***

- Seamless access\* for staff and students
- Value for money for their university



Empowering Australian students, researchers and educators

**THROUGH SEAMLESS ACCESS**

# Conan wants a Catalogue



Purpose built catalogues to support librarians:

- See what's on offer
  - Basic information
  - How it's accessed - federated or proxy
  - And a more detailed view



Pick and choose what makes sense and is of high value

- Select the publishers they have subscribers to
- Unselect the publishers they don't have a subscription for

Not all publishers will be available to students and staff

- Expectation that the university will be hidden from discovery for unselected publishers



# What's available



OpenAthens kathryn Advanced Swinburne University of Technology (Library)

Dashboard > Resource catalogue

Allocated 100 Custom 6 Available 192

Search... << First < Previous Next > +100 >>

<b>A+T Architecture Publishers</b> Allocated...	<b>AAAS</b> AAAS, an international nonprofit scientific association established in 1848, publishes... Allocate...	<b>AAAS Journals</b> The AAAS seeks to "advance science, engineering, and innovation throughout... Allocated...	<b>ABC-CLIO</b> Publisher of reference books, CD-ROM products, and research publications. Allocated...	<b>Acland's Video Atlas Of Human Anatomy</b> Acland's Video Atlas of Human Anatomy... Allocate...	<b>ACM Digital Library (ACM DL)</b> The ACM Digital Library is a research, discovery and networking platform... Allocated...
<b>ACM Digital Library (DLNEXT)</b> The ACM Digital Library (DL, NEXT) is a research, discovery and networking... Allocate...	<b>ACS Publications</b> Publishes books and services for the practice and advancement of the chemical... Allocate...	<b>Acumen Practice Notes (Australian Institute of Architects)</b> Allocated...	<b>Adam Matthew Digital</b> Themed collections of manuscripts and rare printed material relating to literature and... Allocate...	<b>AdvancedIntros</b> these titles are stimulating and thoughtful introductions to major fields in Law... Allocate...	<b>Aerospace Research Central</b> AIAA is the premier provider of information on aerospace technology, engineering... Allocate...
<b>AIS eLibrary</b> With more than 30,000 articles, the AIS eLibrary is one of the most comprehensive... Allocated...	<b>Al Manhal Platform</b> Al Manhal is the leading Arabic electronic information provider of full-text... Allocate...	<b>Alexander Street Press</b> Alexander Street is an electronic publisher of award-winning online collections in th... Allocated...	<b>Alpha test</b> For testing only Allocate...	<b>American Academy of Pediatrics</b> Pediatric Care Online, Red Book Online, Pediatric Patient Education, AAP Toolbits... Allocate...	<b>American Economic Association</b> The American Economic Association Allocate...
<b>American Heart Association Journals</b> The American Heart Association is the... Allocate...	<b>American Medical Association Staging</b> American Medical Association Staging... Allocate...	<b>American Pharmacists Association PharmacyLibrary</b> PharmacyLibrary is the best of pharmacy... Allocate...	<b>American Physical Society</b> Allocated...	<b>American Physiological Society</b> The American Physiological Society publishes highly regarded, peer-reviewed... Allocated...	<b>American Psychological Association</b> The search platform designed to deliver... Allocated...
<b>American Society of Civil Engineers</b> The American Society of Civil Engineers... Allocated...	<b>American Society of Clinical Oncology</b> Established in 1927 by the American College of Physicians, the Annals of... Allocate...	<b>American Society of Hematology</b> ASH publications include both clinical and... Allocate...	<b>American Standards for Testing and Materials (ASTM)</b> Authentication must take place at... Allocated...	<b>Amsterdam University Press</b> Amsterdam University Press (AUP) make current research available to scholars... Allocate...	<b>Anatomia (McGraw-Hill)</b> A New Approach TO Medical Education: Developments in Anatomy Allocated...
<b>Anatomy.tv powered by Primal Pictures</b> The most comprehensive, accurate and... Allocate...	<b>Annals of Internal Medicine</b> Established in 1927 by the American College of Physicians, the Annals of... Allocate...	<b>Annual Reviews</b> Annual Reviews publications are among the most highly cited in the scientific... Allocate...	<b>APS Journals</b> The American Psychopathological Society journals consistently rank at the top of... Allocate...	<b>APS Journals</b> The American Physical Society (APS) is a nonprofit membership organization... Allocate...	<b>Arc Advisory</b> The ARC Advisory Group is the leading technology research and advisory firm for... Allocate...

Pick and choose the services they want to connect to.

Non-Allocated

- no login option.
- Appear in the WAYF.

# Concierge and tools



## Ensuring access works

- Attribute release is one of the biggest blockers for access
- Improving the user journey

## Entity categories are helping, but federation uptake is slow

- Looking for a manned support desk with answers
- Up to date knowledge base
- Connecting with their own community



The virtual concierge helping conan provide the seamless access experience



# Tools - Link generators



## Link generators

- Links that can be embedded into the libraries online catalogue system
- Specific to each university library
- Avoids WAYFs
- Goes directly to the Universities IdP (where SSO is deployed)
- Works for both SAML and Proxied services



Providing both an API and loadable spreadsheet open allows for bulk creation

- Links to thousands of articles generated in minutes
- API allows automation

Links can be found embedded in many online library catalogues



# Conan's Online library catalogues



This collage displays a variety of university library websites from Australia, showcasing different user interfaces and features. The websites include:

- QUT Library:** Features a search bar, navigation menu, and sections for Library Search, Quick links, and Databases and specialised search tools.
- The University of Queensland Library:** Includes a search bar, navigation menu, and sections for Library services, Research tools & techniques, and Collections.
- University of Tasmania Library:** Features a search bar, navigation menu, and sections for University Library, FINDR Explore the Library, and READ & PUBLISH.
- University of Notre Dame Australia Library:** Includes a search bar, navigation menu, and sections for Home, Learning, Teaching, Services, and Borrowing.
- Inveresk Library:** Features a search bar, navigation menu, and sections for Library services, Latest library update, and MyPrint.
- RMIT Library:** Includes a search bar, navigation menu, and sections for Borrowing and collections, Study, and Research.
- Charles Sturt University Library:** Features a search bar, navigation menu, and sections for Library services, Latest library update, and Assignment support.
- UNSW Library:** Includes a search bar, navigation menu, and sections for Research, Teaching, and Students.
- ECU Library:** Features a search bar, navigation menu, and sections for Library Search, Kaya, and Borrowing items.

# Tools - Reporting



## Authentications (summary info)

- How many logins have occurred
- How many unique
- Averages, etc

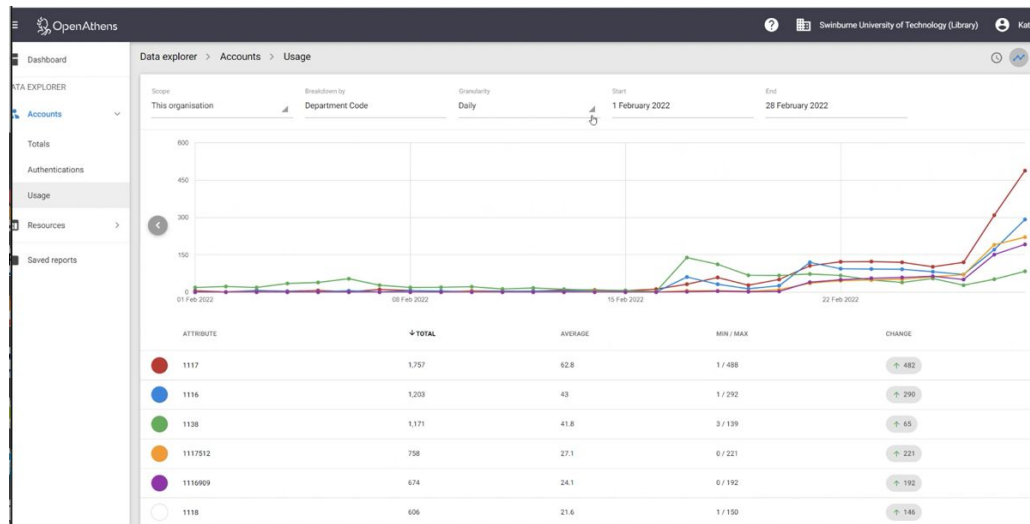
## Access reports

- Access attempts to specific publishers
- Are the active publishers being used - value for money

## Aggregations

- Data mining - what's really going on?

## Value for Money



# Understanding usage



- Reports are not anonymized
- Structural information is essential
  - Organisation / Department / School
  - Access from on campus, in country or overseas
  - User's affiliation
- Unique user logins



## Access via Federations generally not counted

- Blind spot
- Data not readily or reliably available
- Minimal structural information available

## eZProxy and OpenAthens provide useful reporting tools

- Targeted at the needs of the librarians
- Are not concerned with user privacy - all users from their university.

# Synthesizing Attributes



Universities create and maintain attribute sets for all of their users.

- Includes the usual information required by identity federations
  - PIDs, names, affiliations, email addresses, etc
- Membership information
  - Faculty, school, department, courses, subjects

Synthesize attributes based on information above

- Categorize students as Australian or international
- Entitlements to access specific resources
- Reporting and authorization

Synthesized attributes are not released beyond the IdP, but can be used to influence how the IdP operates.

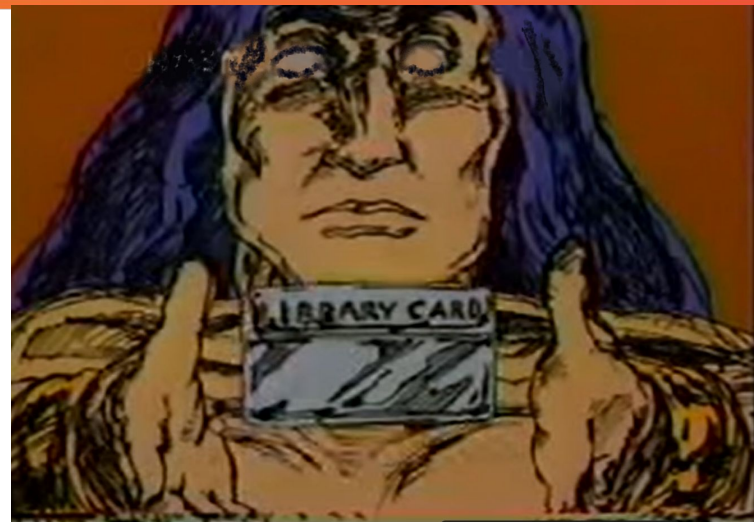


# Authorization at the IDP



## Is the user entitled to access the resource?

- May be based on the licensing agreement
  - Members of a faculty, department, school, etc
  - Users within Australia
  - Staff and postgraduate students only
  - And many other possible combinations
- User is stopped at the IdP with a friendly “Access denied” message
- Publishers don’t grant authorization well yet



## The user experience

- Don’t want the user getting lost at some external resource that may be a paywall

## Controlling costs

- Restrict access to cohort that need access rather than open the whole university

# Challenges - The agreements



Enabling seamless access to licensed electronic resources is *an ongoing saga*

- The license agreements are:
  - either negotiated directly between each library and each publisher, or
  - between CAUL and each publisher

They define:

- how access is provided
- restrictions on who gets access

Trust between the University library and the publisher is codified in each agreement.

# Licensing and access control challenges



- Negotiating access terms in licence agreements
  - Authorised users
    - Current enrolled students, current employed staff
    - Walk-in users (guests)
    - Alumni
    - All campuses (including international) covered
    - Affiliated/adjunct faculty
    - Licensing for subset of users typically avoided



example:

## **Authorized Users/Sites.**

Authorized Users are the full-time and part-time students, faculty, staff and researchers of the Subscriber and individuals who are independent contractors or are employed by independent contractors of the Subscriber affiliated with the Subscriber's locations listed on Schedule 2 (the "Sites") and individuals using computer terminals within the library facilities at the Sites permitted by the Subscriber to access the Subscribed Products for purposes of personal research, education or other non-corporate use ("Walk-in Users").



# Licensing and access control challenges



- Authentication/access

- IP authentication still often the default
- Publisher capability to support more robust authentication/access control (e.g., SAML and SSO) varies tremendously
- Library capability to support more robust authentication/access control varies
- Recent library trend away from EZproxy to OpenAthens
  - 17 members currently using OpenAthens
  - 6 actively considering
- Opportunities with OpenAthens for more granular access control, usage reporting

Example:

## **Authentication.**

Access to the Subscribed Products will be authenticated by the use of Internet Protocol (“IP”) address(es) and/or usernames and passwords and/or a delegated authentication mechanism requiring at least two different credentials, as identified on Schedule 2. Distribution of usernames, passwords, credentials or otherwise providing remote access to the Subscribed Products by Authorized Users who are Walk-in Users is not permitted.

# Authentication by IP Address



## On-going support by consumers

- eZProxy - on campus solution
- OpenAthens - cloud proxy
- INFed (India) - planning to build one

Reporting needs are already met

Some publishers unwilling or incapable of moving

- Small publishing houses
- Lack of technical skills
- Why move? - no real incentives

INFed offered technical assistance - refused

Will be around for some time yet

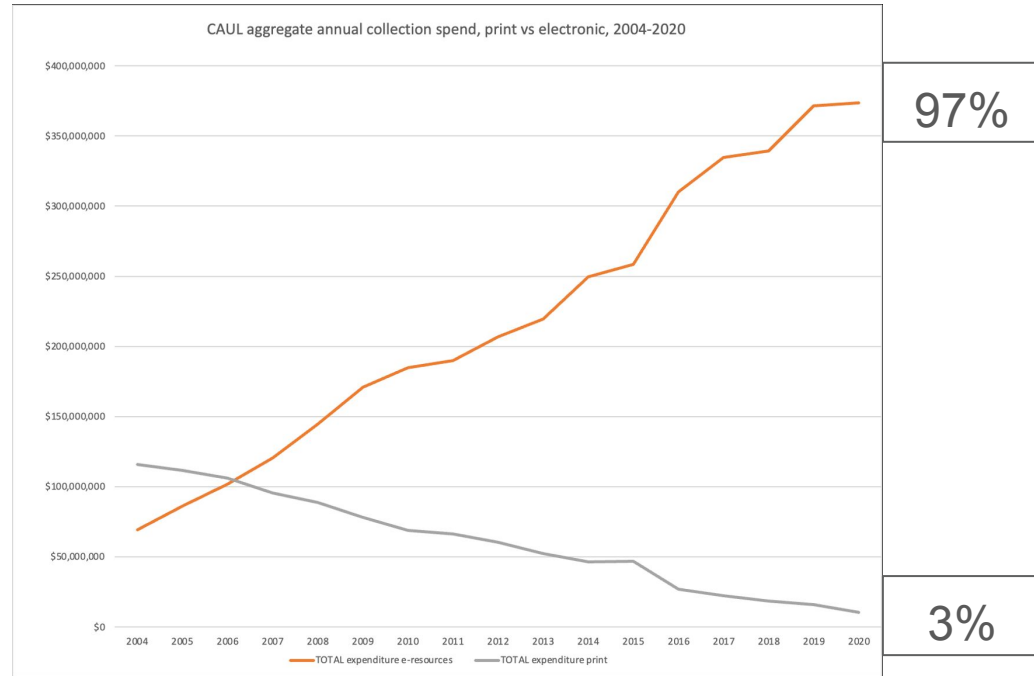
# Seamless Access Challenges



- Pathways through library discovery (catalogue) systems works well, but face the following challenges:
- Majority of access is via other pathways, e.g.,
  - Google
  - Google Scholar
  - Worldcat, Trove, etc.
  - Lecturer provided direct deep link links
- Users often encounter paywalls at point of access, for content licensed by their library
- WAYF interfaces are not standardised, are often confusing
- Increasing use of browser-based tools like Lean Library to assist users in navigating through paywalls



# Library transition to digital collections



Source: [CAUL Statistics](#)

# Paywalls and WAYFs

Sometimes quicker and easier to use the corporate card or pay out of their own pocket than to workout how to login.

- Paying again for content that is already licensed for use

Even if the user can find the login button, the user experience may be less than desirable.

Login via Institution

A screenshot of the BRILL website's institutional login page. The BRILL logo is in the top left. The navigation menu includes Publications, Subjects, Services, Open Access, About, Contact, and a Search icon. A search bar contains the text "SWINBURNE". Below the search bar, a list of institutions is displayed, including Swinburne University of Technology, Swinburne (Sarawak Campus), and Swinburne University of Technology (Library). A "Feedback" button is visible in the bottom right corner.

BRILL

Publications Subjects Services Open Access About Contact Search

Find your institution  
Your university, company or library.

SWINBURNE

Examples: Science Academy, sue@uni.ac.uk, London.

SU	Swinburne University of Technology	>
SWINBURNE	Swinburne (Sarawak Campus)	>
SWINBURNE	Swinburne University of Technology (Library)	>

Feedback

# Browser tools



## LibKey Nomad

LibKey Nomad automatically provides instant links to articles from journals subscribed to by your library – and Open Access sources – connecting you to literature discovered on the web. LibKey Nomad works with your library to determine the fastest path to content across thousands of publishers and millions of articles.



## Lean Library

A comprehensive access solution helping libraries drive usage, increase visibility and save money.



**Discovery and Seamless Access**

# Seamless Access - getting there



## **The journey continues towards Seamless Access**

Over the the years many options have been explored for access in a pay-to-read world...

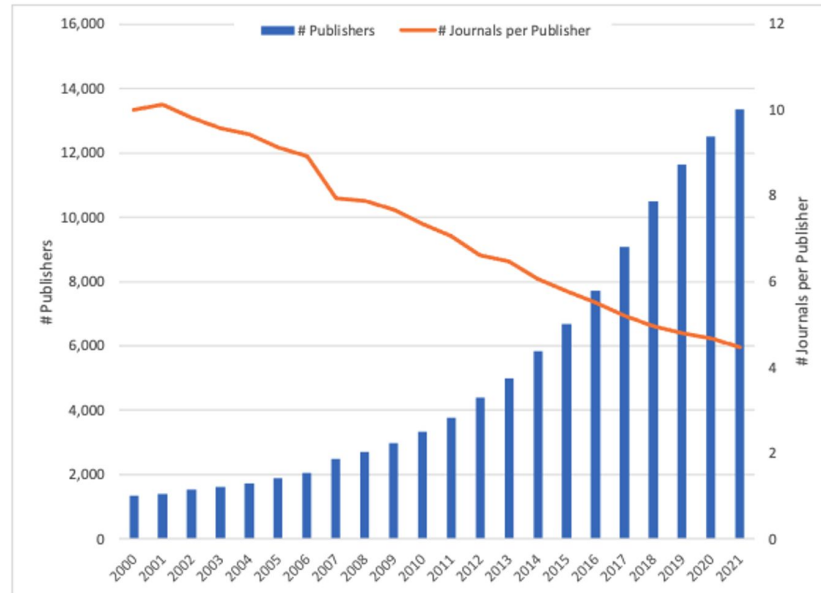
### **NZ Strategic Priorities 2022-2025**

Challenge traditional publisher agreements to provide the most appropriate and widest possible access to Aotearoa's research and **truly transform (or break) current models**

# Journal publisher consolidation and long tail



Figure 1 – Publishers and Journal Density



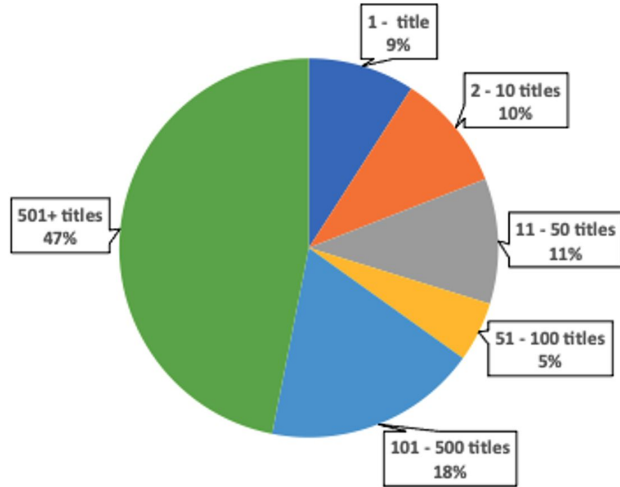
Sources: OpenAlex, Delta Think analysis. © 2022 Delta Think Inc..



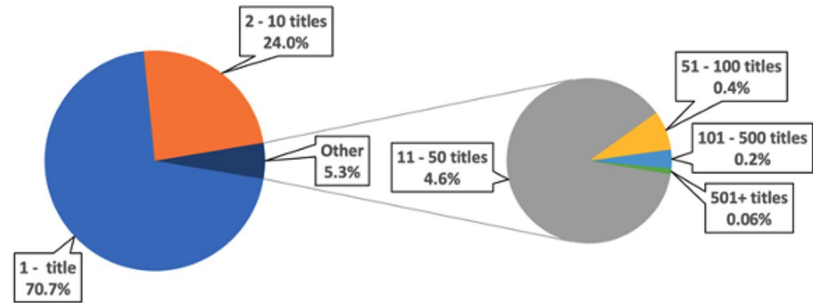
# Journal publisher consolidation and long tail



**Figure 3 – Share of Articles Published by Publisher Size**



**Figure 2 – Proportion of Publishers by # Titles Published**



# Open Access Agreements



- The move is on to Open Access Agreements

IOP Publishing (IOPP) and the Council of Australian University Librarians (CAUL) have agreed a three-year transformative agreement (TA) for unlimited open access publishing and access to IOPP's journals.

- CONZUL - Strategic priorities 2022 - 2025

Challenge traditional publisher agreements to provide the most appropriate and widest possible access to Aotearoa's research and truly transform (or break) current models

# Enabling researchers to publish Open Access



- Determining eligibility for OA entitlement is done by publishers
- Publisher platform capability varies
- Author **email address** often primary mechanism for determining eligibility
- Problematic as authors often use personal email accounts for publisher correspondence
- Area that would benefit from more standardised approach

**An opportunity for Federations here...**

# Credits



**CAUL Identity Management Challenges: Bob Gerrity, University Librarian, Monash University**

[Conan the Librarian \(animated\)](#) - Gillian Dawson

[Conan the Librarian](#) - Danny Quah - Title Image



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# Craiyon (Formerly DALL-E Mini)

Free online AI image generator from text

conan the librarian

 Draw



# Agenda: What Stirs the Librarian

- Drivers for change
  - Bulk content theft shifts access from IP address to federated controls
  - Pandemic effects
    - Access from home - Cross domain cross border research
- Emergent activities to engineer better privacy
- (Absolute privacy is elusive)
- FIM4L
- Seamless Access efforts
- NSF FAIR

# Emergent activities

- New end-entity tags
  - Identified, pseudonymous and anonymous access
- Agile content providers
- Regulations
- New tools – consent



## End-entity tags

- Intended to foster appropriate attribute release
  - Either by the institution or the individual on the IdP side
  - Needs of the RP
- Three tags:
  - Anonymous – session-centric
    - Indicate authn and some affiliation/entitlement
  - Pseudonymous – persistent but otherwise not identifiable
    - Indicate authn, entitlements and pseudonymous pairwise identifier
  - Personalized (aka Research and Scholarship)
    - Indicate authn, and persistent, unique identifiers

## Agile content providers

- Able to provide content with appropriate privacy choices
  - Default to authenticated but anonymous access
  - Can step up to pseudonymous and identified access if required
- E.g. Elsevier EBSCO
- Challenges—
  - Cobbled together back end systems
  - User confusion
  - User desire to move in and out of privacy – e.g. notifications

# Regulations

- GDPR
- State laws galore – CCPA, New York, Maryland, . . .
- New EU regulations
  - Digital Markets Act – open markets
  - Digital Services Act – illegal content, transparent advertising, disinformation
- Librarians aren't often responsible for such transactions but worry about them a lot ...

# Consent

- Easy to not do or do poorly; hard to do right
- What's hard?
  - Purpose of use taxonomy
  - Understanding where it is required and where it is forbidden
    - By contract, geography, law
  - Clarifying authorities on campus
- CAR, an open source product of Duke University does it
  - Offers some useful side effects such as transparency, personal data management, etc.

# Privacy is elusive

- Lots of other ways to track users, e.g. browser fingerprints
- Lots of juicy marshmallows to dangle in front of users
- Device tracking, surveillance cameras, etc.

# FIM4L

- Federated Identity Management for Libraries
- Fostered by LIBER, the EU academic library association
- Chaired by Jos Westerbeke, Erasmus U, Netherlands
- Major output have been
  - **Federated Access to Online Resources: Principles & Recommendations for Library Services**
- FIM4l.org

## Seamless Access



Access through your institution

- Began as an IdP discovery service with an orientation to libraries and publishers looking for a uniform experience
  - Produced three implementation mechanisms, with options about metadata, server, icons, etc
- Has moved on to helping libraries in other part of FIM
- [Contract Language Model License Agreement 1.0](#)
- Current activity is addressing other implementation challenges, e.g. multiple IdP's with the same display name.
- SeamlessAccess.org

# FAIR principles and activities

- Positive Characteristics of Research Data Sets for Open Science
- Principles
  - Findable
  - Accessible
  - Interoperable
  - Reusable
- Activities
  - Major theme in EU
  - New NSF office in CISE - OAC
    - FAIROS  
[https://www.nsf.gov/publications/pub\\_summ.jsp?WT.z\\_pims\\_id=505943&ods\\_key=nsf22553](https://www.nsf.gov/publications/pub_summ.jsp?WT.z_pims_id=505943&ods_key=nsf22553)