AGENDA

1. SciVal Experts introduction

2. Northwestern University and SciVal Experts

3. Questions?
What is SciVal?

- SciVal is a suite of software tools designed to support administrators and researchers to:
  - Identify institutional research strengths and benchmark performance
  - Review tailored analytical report services for measuring research performance
  - Manage an institution’s research data in one place and simplify faculty activity reporting
  - Form effective research teams and find the best funding opportunities
Introducing SciVal Experts

SciVal Experts is a configurable Research Networking Tool that serves as a directory of research expertise.

SciVal Experts uses fingerprint technology to provide researchers, research administrators and senior leadership with the ability to understand and utilize the expertise across their institution – both at an individual and departmental level.

Two offerings in one:

• **Knowledge management** and research networking application solving the “who knows what” questions and increasing collaboration
• **Data services**: Manually tailored profiles of faculty on an ongoing basis
SciVal Experts: Expertise profiling and research networking

- **Enable collaboration** within your institution or across organizations

- **Connect your researchers** with faculty in leading US institutions

- **Demonstrate your researchers’ accomplishments** to the global research community
Integrate your institution’s own data into SciVal Experts

**Rooted in Scopus®** – the world’s largest abstract and citation database of peer-reviewed literature and quality web sources – SciVal Experts is also **flexible**, able to incorporate institutional data and individual researcher updates for a more comprehensive picture of institutional expertise.

**Institutional content**
- Human resources
- Awarded grants
- Document repositories
- Intellectual property

**Publication data from Scopus®**
- 45.5 million records
- Automatically and manually disambiguated author names
- Automated weekly profile updates
- Quarterly manual reviews

**Individual content**
- Book titles and chapters
- Additional articles and abstracts
- Teaching history
- CV data
- Grants, patents, honors and awards

**SciVal Experts**
Content made clear:
- Accurate
- Searchable
- Expandable
By searching via concepts, SciVal Experts takes context into account
• Correctly identifies articles that contain synonyms
• Recognizes variants on spelling to the search term
• Identifies homonyms, ensuring that irrelevant manuscripts are not retrieved

How the Elsevier Fingerprint Engine works

1. Mine Text
2. Identify Concepts
3. Create Document Fingerprint

- MeSH
- Compendex
- GeoTree
- GESIS
- and more

- Disorders
- Uterine Cervical Neoplasms
- Neoplasms
- Breast Neoplasms
- Chemicals & Drugs
- Biological Tumor Markers
- Papillomavirus Vaccines
- Aspirin
Detailed process to ensure author profiles are reliable

Maximize precision  +  High level of recall

1. Automatic Phase
   Algorithm creates profiles taking into consideration many factors including:
   - Author name segments
   - Co-authors’ names
   - Author email address
   - Affiliations (dept, org, city)
   - Journals (ISSN)
   - Fingerprints

2. Manual Phase
   SciVal Profiles Team verifies the results of the algorithm through a series of tasks.
   Example: Profiles Team completes a biodata search for every profile by:
   - Matching publications to the author’s CV
   - Searching for past affiliations
   - Identifying name changes
SciVal Experts: Not only an application, also a source of data

With SciVal Experts, there are many ways to download the data that are presented for use in other systems.

- Export in .RIS format
- Save Search results to Excel
- Webservices
- Bulk XML export
- SPARQL endpoint

VIVO Compliant Data

Scopus Publications

Institutional Content

Individual Content

SciVal Experts

XML

Web Services

Experts2RDF

RDF

SparQL Endpoint

RDF Database
Northwestern University and SciVal Experts
Northwestern University Summary

Northwestern University (NW):

• Is a private research university with campuses in Evanston and Chicago in Illinois, United States, and a satellite campus in Qatar.
• Times Higher Education World Ranking placed Northwestern 19th for 2012-2013.

NW Research:

• NW received $511.7 million in research funding in 2011.
• NW supports nearly 1,500 research laboratories across two campuses, predominately in the medical and biological sciences.
• NW researchers disclosed 165 inventions, filed 76 patents applications, received 58 patents, started 4 companies, and generated $824.4 million in license income in 2009.
Northwestern Scholars Overview

• **Goals of the system:**
  • Showcase the faculty
  • Connect faculty
  • Link publicly available NU data to proprietary systems and open source systems

• **Key use cases:**
  • Connecting University Stakeholders
    • Where is my expertise?
    • Who has worked together in the past?
  • Connecting Research Communities
    • What organizations have we worked with in the past?
  • Connecting Students
    • Learn about professors as researchers

• **Northwestern Stakeholders:**
  • FASIS project members
  • Technical staff
  • Library
  • Key faculty members
  • Research administrators
  • Senior administrators
Northwestern Scholars data integration with SciVal Experts

Data Sources
- HR System
- NW Grant Source 1
- NW Grant Source 2
- NW Grant Source 3
- NW Patent Data
- NW CV Data File
- Core Facilities
- Legacy NW System
- Scopus Data

SciVal Experts Platform
- Fingerprint Engine
- Co-author Networks
- Institutional Networks
- QA’d author profiles
- Visualizations
- Researcher Profile Pages
- Search capabilities
- Organizational Structure Display

SvE Modules
- Core Facilities
- Admin Tool
- Web Services
- Profile Enhancer
- Funding Recommendation
- Bulk Export
- VIVO
- Community
- DIRECT2Experts

Data provided by NW
Data provided by Elsevier
Northwestern Scholars Summary

- **Application Statistics:**
  - Profiled Researchers: 3,344
  - Number of Scopus Publications: 111,757
  - Number of publications added by users: 22,172
  - Number of grants: 12,309

- **Data in the system:**
  - 12 data methods of data input into SciVal Experts by:
    - Synchronizing with legacy NW systems programmatically
    - Users inputting data on their own
    - Bulk data uploading
Welcome to Northwestern Scholars

Northwestern Scholars is a searchable database of expertise across all disciplines at Northwestern University. Explore the profiles, publications, and grant data of thousands of scholars within Northwestern – follow the network and collaborations within Northwestern, throughout the SciVal Experts Community, and across the national DIRECT and VIVO networks. The publications and grants listed for each faculty member reflect their expertise in the department(s) with which they are affiliated here at Northwestern or at prior institutions.

We invite you to view Northwestern Scholars within their academic departments. Northwestern Scholars is an integral part of the University’s Faculty and Staff Information System (FASIS). Access to this system is limited to Northwestern employees.
Sarah Elizabeth Fraser
Judd A. and Marjorie Weinberg College of Arts and Sciences, Weinberg Humanities, Art History

**Research Statement:** Historical and theoretical investigations in the history of Asian art with a concentration on Chinese, Japanese, and eastern Tibetan painting. (18th through 19th century) pan-Asian Buddhist wall painting; cognition and the artist's personal ethnographic paradigm in Colonial arts of Asia, and Neo-Colonial Chinese Photography.

**Profile**
- Photography
- Wall painting
- Cultural exchange
- Central Asia
- Buddhism
- Modern culture
- Archeology
- Medieval
- Ancestrism
- Song dynasty
- Cultural transmission

**Grants**
1. Muq Cophie II, Sarah Elizabeth Fraser
   Modernism and the Black Metropolis
   12/1/2007 - 6/30/2008
   Document ID: Agreement/213/08
   Sponsor: Terra Foundation for American Art
2. Sarah Elizabeth Fraser
   Fulbright Hays Faculty Research Abroad Program
   "What is Chinese about Modern Chinese Art?"
   7/1/2007 - 12/31/2008
   Document ID: P01940/08/701
   Sponsor: Department of Education

**Publications**
1. Sarah E. Fraser
   Chinese as Subject: Photographic Genres in the Nineteenth Century
   Brush and Shutter, Late Qing Dynasty Photography, Terazaki, F., Cody, J., editors. Los Angeles: Getty Publications; Hong Kong University Press; 2011, pp. 90-109.
2. Sarah E. Fraser
   Donors of Longmen, by Amy McNair
3. Sarah E. Fraser
   Conference Proceedings
   "Photography in 19th-20th century China," Northwestern University, April 24-25, 2009
   Trans-Asia Photography Review. (2010).

**Similar Experts**
- Robert Hariman
  Publications
  94
  39
- Jack Tumble
  Publications
  46
- Scott Cuthis
  Publications
  37
- Joel E. Fraser
  Publications
  37

**Journals**
- Arts Major
  Publications
  1
- Orientalism
  Publications
  1
- Tona Yami
  Publications
  1
- Token National History
  Publications
  1
- Artibus Asiae
  Publications
  1
Geraldo L Cadava
Judd A. and Marjorie Weinberg College of Arts and Sciences, Weinberg Social Sciences, History

Curriculum Vitae

These data have been extracted from CVs or have been added by the researcher through the Northwestern Scholars profile enhancer. If you have authorization to edit this information, select Edit your profile and log into the profile enhancer. CV data for Feinberg School of Medicine faculty members are from the PSM Faculty Profiles system, available at: https://psmweb.northwestern.edu/faculty/. Contact facs@northwestern.edu if you have any questions.

Education

2008
Ph.D. in History, Yale University

2006
M.Phil., Yale University

2004
M.A., Yale University

2000
B.A., Magna Cum Laude, with High Honors in History, Dartmouth College

Employment, Positions & Ongoing Activities

2009 -
Assistant Professor, Department of History & Program in Latina and Latino Studies, Northwestern University

2008 - 2009
College Fellow, Department of History, Northwestern University

Publications

2011
Geraldo L. Cadava
Borderlands of Modernity and Abandonment: The Lines within Ambos Nogales and the Tohono O’odham Nation

2009
Geraldo L. Cadava
Latinas and Latinos in Arizona

Memberships

American Historical Association
American Studies Association
Organization of American Historians
Pacific Coast Branch of the American Historical Association
Western Historical Association
Chad A Mirkin
Judd A. and Marjorie Weinberg College of Arts and Sciences, Weinberg Natural Sciences, Chemistry

230 Grants

This is a chronological listing of grants held by this researcher, with the most recent listed first. New grants appear in this list weekly and contribute related to their Fingerprint profile. The source of grants for this application comes directly from your institution.

1. Chad Mirkin, Timothy Sita, Alexander Steg
   Overcoming Temozolomide Resistance using MGMT-targeting Spherical Nucleic Acids
   1/1/2013 - 12/31/2016
   Document ID: 1F38CA17+4055-01
   Sponsor: National Cancer Institute

2. Chad Mirkin, Richard Van Duyne, Milan Mrketic, George Schatz
   In Vivo SERS Nanoplatforms for Diagnostics
   12/01/2012 - 12/30/2013
   Document ID: InVivoSERSNanoplatforDioq
   Sponsor: Defense Advanced Research Projects Agency (DARPA)

3. Chad Mirkin
   In Vivo SERS Nanoplatforms for Diagnostics
   12/21/2012 - 12/20/2013
   Document ID: InVivoSERSNanoplatforDioq
   Sponsor: Defense Advanced Research Projects Agency (DARPA)

4. Colby Thorton, Michael Arveng, John Caskey, Chad Mirkin, Olga Volob
   High Density Lipoprotein Nanoparticles for siRNA Delivery
   9/21/2012 - 6/30/2013
   Document ID: 1H01CA167114-01A
   Sponsor: National Cancer Institute

5. Chad Mirkin, Emily Day
   Polyvalent siRNA-Gold Nanoparticle Constructs to Eradicate Glaucoma
   9/1/2012 - 6/30/2015
   Document ID: 1F3QCA17194P-01
   Sponsor: National Cancer Institute

6. Liangang Hou, Chad Mirkin
   NIH/NIH Fellowship: Going Small for Big Advances: Using Spherical Nucleic Acids for Novel, Targeted microRNA Therapeutics (Liangang Hou)
   9/1/2012 - 6/31/2014
   Document ID: 591E7689
   Sponsor: Howard Hughes Medical Institute

7. Amy Paller; Chad Mirkin; Xiao-qi Wang; Heather Wilson
   Topical delivery of keratin 10 mutation-specific siRNA-gold nanoparticles for epidermolytic ichthyosis
   9/1/2012 - 6/30/2013
   Document ID: AgreementDate 9/7/12
   Sponsor: Foundation for Ichthyosis & Related Skin Types
### 8 Patents

This is a list of patent data by this researcher. If you are an authorized user, you can add content by selecting the Edit your profile button above. Access to this tool is managed by a project team at your institution.

<table>
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<tr>
<th>Patent Number</th>
<th>Patent Title</th>
<th>Issue Date</th>
<th>Inventor(s)</th>
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<td>PATTERNING OF SOLID STATE FEATURES BY DIP-PEN NANOLITHOGRAPHIC PRINTING</td>
<td>03/19/2008</td>
<td>Chad Mirkin, Vinayak Dravid, Kaogang Liu, Ming Su</td>
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<td>7911605</td>
<td>PATTERNING OF SOLID STATE FEATURES BY DIRECT WRITE NANOLITHOGRAPHIC PRINTING</td>
<td>10/11/2006</td>
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<td>7736001</td>
<td>SCANNING NEAR FIELD ULTRASOUND HOLOGRAPHY</td>
<td>09/20/2006</td>
<td>Vinayak Dravid, Gajendra Shelahwadi</td>
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<td>775924</td>
<td>CASC,DED MOSFET EMBEDDED MULTI-INPUT MICROACANTILEVER</td>
<td>07/19/2006</td>
<td>Vinayak Dravid, Gajendra Shelahwadi, Anindya Sinha, Se-Hyun Tark</td>
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<td>7741963</td>
<td>NANOLITHOGRAPHY METHODS AND PRODUCTS THEREOF AND PRODUCED THEREBY</td>
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<td>7722928</td>
<td>NANOLITHOGRAPHY METHODS AND PRODUCTS THEREOF AND PRODUCED THEREBY</td>
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<td>7748269</td>
<td>SCANNING NEAR FIELD ULTRASOUND HOLOGRAPHY</td>
<td>11/19/2006</td>
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In summary

• SciVal Experts compliments existing institutional repositories and legacy systems.
• The combination of Elsevier data and technology with institutional data gives customers a chance to represent faculty across all disciplines like never before.
• An institution must establish a clear vision of how they want to use SciVal Experts.
Thank you

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