Research Catalogue
Powered by Elsevier SciVal Experts

Location/Access - www.experts.scival.com/asu/ Research Catalogue Home Page
Public access

User Friendly
Instructions and info are provided at the top of each page
At the bottom right corner, each page has “contact” link for reporting questions and concerns
Each page has links to help user move efficiently back and forth throughout the catalogue

Purpose, Functions, Capabilities
To help investigators locate experts outside their own field of expertise
To help investigators gain exposure through their own profile
Tool for locating experts from multi-disciplinary fields and concepts for collaborations on

• multi-million dollar proposals ($10mill+)
• ground-breaking research

Catalogue Status at June 2012 (see Home Page)
Current status can always be viewed at home page overview (click on any bar under "Home") and includes:
Names of Top 100 Frequent Journals used as source information ("Most Frequent Journals" bar)
Number of proposals and publications included ("Profiling Overview" bar)

Overview of the Community of Experts:
• SciVal Research Catalogue network includes ABOR schools (ASU, NAU, UA), MD Anderson, UC Davis, John Hopkins. ("SciVal Community” bar)
• National Research Catalogue Network includes Harvard, Cornell, and Princeton who have their own version with similar features, but a different “look”. ("National Network” bar)

Goals to Improve the Catalogue’s Value
To perfect data that is being accumulated with support and cooperation of each investigator
To perfect presentation and accuracy of catalogue reports to maximize their value to investigators – (if you see a need or have an idea that would improve the catalogue’s process, send a message via the “contact” link)

Investigator Profiles Archived
Includes all investigators listed on From 300 Rec/RID/IIA credit box from the following schools: ASU, NAU, UofA
Does not include post docs, GRA’s, or UG’s

Investigator Profile Enhancement Tool
Goal is to allow investigators to add information to their own profile.
Faculty can currently request corrections to their publication data by using the “contact” link at the bottom right corner of each page.

Three “Expert Search” mechanisms located at top right corner of each page

1 “Concept” Search - (Enter keywords such as Robotics, Cyber Security, Forensic Anthropology, Architecture)
• Search results include alphabetic list of matching “concepts”. Select desired concept.
• Results include number and names of experts found, based on either publications or proposals in Catalogue database (see selection button at right). 3 Community search bars (at top left) are:
  o “Internal” experts bar (ASU, NAU, UofA)
  o “Community” experts bar (SciVal Community: MD Anderson, John Hop, UC Davis…)
  o “National Network” experts bar (Research Catalogue Community: Harvard, Cornell, Stanford…)
• To refine or expand search results
  o Further refine search by “adding” more concept terms (bars at right)
  o Broaden search by “removing” concept terms (bars at top right)
• Click on any expert name to see that expert’s profile overview
2 “Last Name” Search - (Enter Investigator’s last name)

- Expert Overview includes summary overview of investigator’s profile
- Faculty profile department is determined by the department that generates their paycheck and includes: Faculty name, School, contact information
- Detailed View of Investigator profile – click on any bar under “Expert Overview” bar (left side of page)
  - “Profile” bar includes list of Investigator’s research areas. Weight bar for each area indicates level of activity. Hover cursor on any area to see text box indicating percentage of weight (Example: “The concept XML has a weight of 100%”)
  - “Publications” and “Proposals” bar (Proposal info includes only list of collaborators, title, proposal status, and amount/value)
  - “Similar Experts” and “Journals (published)” bars
  - “Trends” bar is Visual Aid 1 – Area Chart of Investigator Publications
    - Can drag and stop timeline to reduce or increase the analysis period.
    - Can remove keywords underneath chart to isolate chart results to one keyword / concept.
    - Hover cursor on any “trend” area to see topic, year, number of publications
    - Goal is to add a tool to instantly uncheck all keywords so chart can isolate publication concepts more efficiently
  - “Institutional Network” (internal and external collaborations) and “Coauthor network” bars
  - “Research Network” bar is Visual Aid 2 – Floating Scatter Chart of Internal Collaborations
    - Currently is based on publications. Goal is to also include an exhibit based on proposals.
    - Thickness of line indicates measure of the amount of collaboration with each collaborator.
    - Visual can be resized and floated for better view of names and collaboration connections.
    - Also shows collaborations amongst each investigator’s collaborator

3 “Free Text” Search – (Enter text from internet research or publication)

- Copy into the text box a key section from a publication to locate experts in the publication’s topic.
- Select the desired discipline (located at the right: Engineering, Geosciences, Medicine and Life Sciences…).
- Click “Find” bar. Results page includes:
  - Number and names of “experts found based on publications [or] proposals” (selection button at right)
    - “Internal” experts bar (ASU, NAU, UofA)
    - “Community” experts bar (SciVal Community: MD Anderson, John Hop, UC Davis…)
    - “National Network” experts bar (Research Catalogue Community: Harvard, Cornell, Stanford…)
    - Click on any expert name to see that expert’s profile overview
  - Fingerprints based on publications or proposals (selection button at right, above “Fingerprints”)
    - Each listing starts with the most popular “hits” and lists the remaining hits in descending order of incidence
    - Can broaden the scope by removing “fingerprints”

Source of keyword database is publications and submitted proposal abstracts
Abstracts are not publicly available thru Research Catalogue. Keywords are mined from proposal abstracts to populate the profile database

Process for Perfecting the Research Catalogue
Requires support and assistance by all investigators who are asked to view their own profiles to confirm
  - Accuracy of contact information
  - List of journal and book publications is complete
  - Experts recognized (sharing credit) on proposals / awards are correctly credited in database
Submit suggestions for adding or enhancing mechanisms that can make the Catalogue more efficient and effective

Challenges
Key words are dependent on established linguistics
  - Long established disciplines have long established, sophisticated key word tokens
  - Need to refine key words to make them recognizable tokens
  - New disciplines have key word tokens not yet well established & not as sophisticated at generating efficient results