Navigating Your Career Using Research Networking & Analytic Tools

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Today you will learn about:

- Trends in Research Networking’s (RN) focus & application to academic efforts.
- How RN takes advantage of digitalization of scholarly products, communications, & other academic products to accelerate innovation.
- Tools to identify research, educational & collaborators.
- ORCID for researchers/academics.
- Tools for measuring scholarly impact.
- How to use RN tools to meet your academic needs.
Outline

Networking
Profiling Software
ORCID
Measures of Impact
USE-CASE SCENARIOS
Resources
Q & A
Networking:
Shared Activities Create Relationships

<table>
<thead>
<tr>
<th>Professional relationships established via:</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grants</td>
<td>e.g. Co-PI, Co-I, Consultant</td>
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<tr>
<td>Projects/Studies</td>
<td>Members</td>
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<tr>
<td>Papers</td>
<td>Co-authors</td>
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<tr>
<td>Curriculum</td>
<td>Residency Training Program</td>
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<td>Teams</td>
<td>Clinic Team 3</td>
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<tr>
<td>Committees</td>
<td>e.g. Finance Committee, Practice Committee</td>
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<tr>
<td>Organizational</td>
<td>Member of America College of Cardiology</td>
</tr>
<tr>
<td>Institutional Hierarchy</td>
<td>e.g. Member of Section of General Internal Medicine, attending staff at BMC</td>
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Relationships & networks are...  
...complex & in constant flux

- Tracking & managing relationship knowledge is labor intensive
- Solution: Identify/use key common self-documenting workflows
- Research self-documentation:  
  Grants → Projects/Studies → Papers
- Data stored in:  
  - Medical Literature  
  - Funding Agencies (e.g. NIH)
- Relationship data captured in medical literature:  
  - First Author  
  - Last Author  
  - Other Authors  
  - MESH Terms’  
  - Title  
  - Institution  
  - Address
accelerating innovation → IMPLEMENTATION

- Traditional networking methods are insufficient

- Research Networking Tools can:
  - Help initiate & nurture partnerships
  - Help secure collaborative extramural research funding
  - Facilitate collaboration by reducing time to search & make interdisciplinary matches
Traditional networking:

- Inadequate for translational research
- Disadvantage junior investigators lacking extensive networks

Limitations
- Low capability
- e.g. Excel, Dept. systems, Google
- Relationship based
- Serendipitous
- Tendency to return to previous collaborators
- Institutional memory difficult to sustain
- Difficult to go beyond own institution or scholarly domain
- Information tends to lag practice

Subsidiary needs arising in today’s academic world:
- Professional accountability & self-assessment
- Accelerated communication & Digital overload
Electronic Tools: Profiling Software

Tools that address these needs:
- Profiles Software (e.g. BU Profiles- a Research Networking Tool )

WHAT?
- Online web-based tool
- To Identify & research, educational & clinical collaborators.
- Powerful, user-friendly, network & expertise data-mining tool

WHY USE?
- Find potential collaborators/mentors
- Help potential collaborators find you
- Add expertise to your team
- Help others add your expertise to their team
- Reveal new directions for your research
Identity:
- Critical to the academic enterprise.
- Disambiguation is imperfect

Solution:
Permanent unique Academic ID
ORCID for individuals in discovery & education.

**What?**
- ID assignment integrated into key research workflows
- Supports automated linkage between each researcher & their professional activities to ensure recognition for their work.

**Why?**
- Precise & reliable attribution critical to ensuring academic communication, recognition, efficiency, impact & evaluation.

**Who?**
- Academia, Publishers, & Funders.
IMPACT & ALTMETRICS

- **Traditional Measures of Research Impact**
  - Methods of evaluation of research
  - Count of Citations (Web of Science, Scopus, CrossRef, Google Scholar)
  - Journal Impact Factor (Thomson Reuters) – 1, 2, & 5 year impact
  - h-index = Body of work for individual researcher impact
  - Usage - Download / Views
  - Peer Review
Traditional Measures of Research Impact:

Limitations & Criticisms

- Ability to “Game” the metrics
  - E.g. Self-citations
- Lagging indicators
- Not all impactful research is cited
- Not all cited research is impactful
- Other forms of impact ignored
Altmetrics: Alternative Metrics of Impact

- Scholarly communication increasingly online → more indicators available:
  - # of times article bookmarked, downloaded, saved, media coverage, cited in Wikipedia, & shares on social media (blogs / tweets)
- Beyond citations – Context Matters:
  - Who said it, & what did they say?
- Can include on grant applications, CVs, promotions applications, NIH Biosketchs, etc.
**Altmetrics: Potential advantages**

- **More nuanced understanding of impact**
  - Focus on readership: measures degree that scholarly products are read, discussed, saved, recommended & cited by tracking diffusion & reuse indicators.

**Metrics**

- **Usage** - downloads, views, etc.
- **Captures** - favorites, bookmarks, etc.
- **Mentions** - blog posts, news stories, Wikipedia, etc.
- **Citations** - Scopus, Google Scholar
- **Collaborative annotation tools** - social bookmarking, Google +1
- **Reference management services** – Mendeley, etc.
- **Social Media** - Tweets, Google +1’s, Facebook, etc.
Altmetrics: Potential advantages

- **Timeliness**
  - *Evidence of impact in days instead of years.*

- **Impact of web-native scholarly products**
  - *datasets, software, blog posts, videos & more.*

- **Indicates impact on diverse audiences**
  - *scholars, practitioners, clinicians, educators & the general public.*
RN: USE-CASE SCENARIOS

- Assemble a research team
  - Topic Area: Pre-operative evaluation
  - Required expertise: Outcomes Research

- Look for collaborator
  - Topic Area: Addiction, Alcohol, Screening
  - Required expertise: Clinical trials

- Look for a mentor
  - Topic Area: Health Services Research, Health Care Disparities
  - Rank: Associate or Higher
  - Evidence of Mentoring

- Look for PI with funding
  - Topic Area: Joint Replacement Surgery
  - Evidence of Research Funding

- Find a new area of research
  - Topic Area: TBD
  - Find Potential Collaborators

- Prepare for a professional conference
  - Take a proactive approach, An
  - Find and investigate key anticipated meetings with two key individuals
  - Reviews & familiarizes herself with their research via their profile site

- Find a reviewer for your paper
  - Use a collaborator of well known peer
Career Resources

PROFILES

- BU Profiles (Research Networking)
  http://profiles.bu.edu/search/

- Direct2Experts (Research Networking)
  http://direct2experts.org/

- ORCID (Unique Researcher ID)
  http://orcid.org/

- ORCID at BU - http://sites.bu.edu/orcid/

Funding Support

- PIVOT (Research Funding Search Tool)
  http://pivot.cos.com/funding_main
Professional Impact

- Web of Science: http://med-libwww.bu.edu/
- ImpactStory (Publication metrics): www.impactstory.org
- Plum Analytics (Research impact measures): www.plumanalytics.com
- Altmetric (Publication metrics): www.altmetric.com
- Altmetrics (Publication metrics): http://altmetrics.org/manifesto/
- NISO: www.niso.org/home
- DORA: www.ascb.org/dora (The San Francisco Declaration on Research Assessment)