

# Navigating Your Career Using Research Networking & Analytic Tools

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CLINICAL AND TRANSLATIONAL  
SCIENCE INSTITUTE

*Accelerating Discoveries Toward Better Health*

# 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

<b>Professional relationships established via:</b>	<b>Examples</b>
Grants	e.g. Co-PI, Co-I, Consultant
Projects/Studies	Members
Papers	Co-authors
Curriculum	Residency Training Program
Teams	Clinic Team 3
Committees	e.g. Finance Committee, Practice Committee
Organizational	Member of America College of Cardiology
Institutional Hierarchy	e.g. Member of Section of General Internal Medicine, attending staff at BMC

# 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  | • Title       |
| • Last Author   | • Institution |
| • Other Authors | • Address     |
| • MESH Terms'   |               |

*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



# ORCID (Open Researcher & Contributor ID)

- **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

**altmetrics**

# 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 Biosketches, 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 know 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](http://pivot.cos.com/funding_main)

# Professional Impact

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

Q & A