

Organizational, Cultural and Professional Issues in Collaboratories End-of-Workshop Summary

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Expanded Access to Science

- International Participation
 - Lesser-developed countries
- Under-resourced American Institutions
 - Unmet need for D1 and D2 faculty to participate in research
 - Beneficial consequences for them and students
 - Make more Oberlin-type experiences/undergrad exposure to research
- Outreach to K12 and science museums
 - Lack of sustainable funding
 - Policies for access and intellectual property control

Structural Transformation

- Breakdown of disciplinary boundaries
 - Why are we so interested in multidisciplinary?
 - Multiple authorship is increasing, but not necessarily more heterogeneous
 - No correlation between increased email use in collaboration and heterogeneity
- Impact on research university structure
 - Career transforming power
 - Progress to ph D
 - Better career prospects (visibility to networks)
 - Students brokering collaborations amongst faculty
 - Evaluative criteria for scientists
 - Difference between value of contributions and what they are doing
 - Eg technical contributions vs. publications
 - New ways for people later in their careers?
 - Distraction or opportunities?
 - Rejuvenation and redirection of careers
 - Funding models
 - Perception by NSF that research and infrastructure are separate entities

- Mentoring and student relationships across institutional lines
- Willingness to collaborate is higher earlier in the career and later?

Transformational Potential

- Data reuse producing new kinds of science
- Synthesis of data streams
- Are we still seeing 1st order effects? Does the technology need to mature before we see more?
- New fields are more flexible with respect to method and practice

Collaboratory Taxonomy

- Integrated collaboratories vs. bricolage
- Kinds of collaboratories
- Who calls themselves collaboratories and why

Search for collaboratory analogies

- Previous intervention with similar characteristics for forecast of collaboratories
- E-publishing? Proportion of citations to US authors in major journals is declining
 - US getting weaker? US same others stronger? US scientists doing something else (Citing unpublished papers?)
- Email: we know when the tipping point was (late 80s/early 90s) some change in collaborations, but Walsh shows we don't see a change in scientific productivity or heterogeneous collaborations
- Collaboration is generally increasing in time, must demonstrate impact of collaboratories by showing faster than usual growth
- Sensitivity analysis
 - Lots of data would be required to begin to show any sort of consequence
 - Dead end for attempts to correlate

Ecological Study of Collaboratories

- Understanding use of these things in context
- Exploring nonparticipation
- Collaboratory use is "log in and bail out"
 - Small % constitute a large part of use, lots not coming back
 - Talk to people who never come back

