Working Together Apart

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Informatics
This work...

- ...is done by
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  - Gary Olson
  - Steve Abrams
  - Matthew Bietz
  - Julia Haines

- ...and currently supported by
  - NSF
  - Google
  - Donald Bren Foundation
Today

- Our work in distributed teamwork
- Current focus on cross-cultural teams
- Extending our work to Korea
Research on distributed teams

- 20 years
- Observed a number of distributed teams in Science and Engineering
Research on distributed teams

- Ran controlled laboratory studies of
  - Communication through technology
  - Trust
  - Focus on collocated people, ignoring the remote
Collect a large set of collaboratories
- We have identified more than 350 examples

Collect a basic set of information

Note similarities and differences on both technical and social dimensions
### Resources: Collaboratories at a Glance -- Alphabetical

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Start Date</th>
<th>Primary Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Toroidal LHC Apparatus (ATLAS)</td>
<td></td>
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<tr>
<td>Alcator C-Mod Tokamak Fusion Research Project</td>
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<tr>
<td><strong>Alliance for Cellular Signaling (AfCS)</strong></td>
<td>1999</td>
<td>Distributed Research Center</td>
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<tr>
<td>Arizona Telemedicine Program (ATP)</td>
<td>1993</td>
<td>Expert Consultation</td>
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<tr>
<td>Astrophysics Simulation Collaboratory (ASC)</td>
<td>1996</td>
<td>Distributed Research Center</td>
</tr>
<tr>
<td>Baltimore Washington Collaboratory (BWC)</td>
<td></td>
<td>Community Data Systems</td>
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<tr>
<td>Bay Area Science Museum Learning Collaboratory</td>
<td></td>
<td>Virtual Learning Community</td>
</tr>
<tr>
<td>Berkeley Structural Genomics Center (BSGC)</td>
<td>2001</td>
<td>Distributed Research Center</td>
</tr>
<tr>
<td>BioImage</td>
<td></td>
<td>Community Data Systems</td>
</tr>
<tr>
<td>Biological Collaborative Research Environment (BioCoRE)</td>
<td>1998</td>
<td>Distributed Research Center</td>
</tr>
<tr>
<td><strong>Biomedical Informatics Research Network: Coordination Center (BIRN C)</strong></td>
<td>2001</td>
<td>Distributed Research Center</td>
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<tr>
<td><strong>Biomedical Informatics Research Network: Brain Morphometry (BIRN C)</strong></td>
<td>2001</td>
<td>Community Data Systems</td>
</tr>
<tr>
<td><strong>Biomedical Informatics Research Network: Function (BIRN, FIRST BIRN)</strong></td>
<td>2002</td>
<td>Community Data Systems</td>
</tr>
<tr>
<td><strong>Biomedical Informatics Research Network: Mouse (MBIRN)</strong></td>
<td>2000</td>
<td>Community Data Systems</td>
</tr>
<tr>
<td>Bioluminescent Interaction Network Database (BIND)</td>
<td></td>
<td>Community Data Systems</td>
</tr>
<tr>
<td>Botswana-Harvard AIDS Institute Partnership for HIV Research and Education (BHP)</td>
<td>1996</td>
<td>Distributed Research Center</td>
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<tr>
<td><strong>BugsScope</strong></td>
<td>1999</td>
<td>Shared Instrument</td>
</tr>
<tr>
<td>Campbell Collaboration (C2)</td>
<td>2000</td>
<td></td>
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<tr>
<td>Canadian Institute for Advanced Research - New Investigators Network (CIAR NIN)</td>
<td>2002</td>
<td>Virtual Community of Practice</td>
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<tr>
<td>Cell Migration Consortium (CMC)</td>
<td>2001</td>
<td>Distributed Research Center</td>
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<tr>
<td><strong>Center for Behavioral Neuroscience (CBN)</strong></td>
<td>1998</td>
<td>Distributed Research Center</td>
</tr>
<tr>
<td>Center for Functional Structural Genomics (CFSG)</td>
<td>2000</td>
<td>Distributed Research Center</td>
</tr>
<tr>
<td>Name of Collaboratory</td>
<td>Biomedical Informatics Research Network: Brain Morphometry (Morphometry BIRN)</td>
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<td>-----------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Logo</td>
<td><img src="image" alt="BIRN logo" /></td>
<td></td>
</tr>
<tr>
<td>URL</td>
<td><a href="http://www.nbirn.net">http://www.nbirn.net</a></td>
<td></td>
</tr>
<tr>
<td>Collaboratory Status</td>
<td>In Development 2001 - End Date: 2004</td>
<td></td>
</tr>
<tr>
<td>Primary Collaboratory Function</td>
<td>Neurosciences -&gt; Brain Imaging -&gt; Diseases of the Brain and Treatment of.</td>
<td></td>
</tr>
<tr>
<td>Secondary Collaboratory Functions</td>
<td>Aim: The aim of the Brain Morphology BIRN project is to create a nation-wide database that will advance the use of biomedical imaging for diagnoses and treatment of neuropsychiatric illness.</td>
<td></td>
</tr>
<tr>
<td>Domain(s)</td>
<td>Community Data Systems</td>
<td></td>
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<tr>
<td>Brief Description of the Collaboratory</td>
<td>Method: The database will allow investigators to share both clinical data (including biomedical imaging data) and software (analysis and visualization tools). By sharing clinical data across multiple sites, the populations of patients investigated can be expanded thus improving the statistical accuracy of the results. By sharing the processing tools, all investigators will have access to the most advanced research tools.</td>
<td></td>
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<tr>
<td>Access to Instruments</td>
<td>Brain Morphometry BIRN has two types of human data in a distributed database:</td>
<td></td>
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<tr>
<td></td>
<td>1) Structural MRI data (volumes) and morphometric derived data (volumes, surfaces, labels)</td>
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<td></td>
<td>2) Clinical metadata (e.g., subjects' gender, age, diagnose, clinical scores)</td>
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<td></td>
<td>In addition, there are software tools that access these data allowing its visualization, processing, and querying.</td>
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<tr>
<td>Access to Information Resources</td>
<td>Morphometry BIRN reports the milestones to BIRN CC. They also report resources need and resources allocation to BIRN CC. There are also communications across sites for the working groups, which handle an array of project development tasks.</td>
<td></td>
</tr>
<tr>
<td>Access to People as Resources</td>
<td>United States Department of Health and Human Services National Institutes of Health (NIH) National Center for Research Resources (NCRR)</td>
<td></td>
</tr>
</tbody>
</table>
| Funding Agency or Sponsor | Notes on Funding Agencies/Sponsors:
Culminating in...

MIT Press, 2008

Chapter 4: Theory of Remote Scientific Collaboration (TORSC)

Many case studies
What’s in TORSC?

- Factors that affect success
  - The Nature of the Work
  - Common Ground
  - Collaboration Readiness
  - Management, Planning and Decision Making
  - Technology Readiness
Web accessible assessment tool

Assesses

- Where are you strong
- Where are you vulnerable
- What do do about it
Current focus

- Cross-cultural collaboration
  - When workdays do not overlap
  - Focus on the Pacific Rim
Our approach

- Literature review
  - Greetings
  - Tone
  - Pauses
  - Interruption
  - Directness
  - How to say “no”
  - Facial expressions
  - Turntaking
  - Proxemics
  - Backchanneling
  - Who is involved in a decision
  - Trust
  - How establish trust
  - …
Our approach

- Interviews and observations of cross-cultural teams, typically support teams
  - Google
  - Microsoft
  - IBM
  - Baidu
  - Korean search engine company
Our approach

- Online assessment and awareness
  - GlobeSmart
  - Fastenseatbelts

- Selection of people for cross-cultural teams
  - Global Mindset Inventory
  - Global Competencies Inventory
GlobeSmart Assessment Profile Overview

This GlobeSmart Assessment Profile (GAP) survey asks you to respond to items concerning your business-related cultural values and attitudes. Your resulting “profile” will be displayed as soon as you submit your answers.

You will be able to see how your profile compares with the average profile of a person from any other country in GlobeSmart. If you are responding to an invitation from other GlobeSmart users, you will also be able to compare your profile with theirs.

Note: The GlobeSmart Assessment Profile is not a predictor of success across cultures; it is a tool for helping you increase your awareness of potential gaps and develop strategies for effectively bridging those gaps.

The survey generally takes 5-10 minutes to complete. Be sure to complete it within 60 minutes, or your web session will end and progress will be lost.

Demographics

Please select an answer for each item below. NOTE: This information will remain anonymous. It is not linked with individual identities, and is used for ongoing research in aggregate form only.

Nationality/Home Country United States

Gender Female

Industry Other

Job Type Other

Prior International Living Experience 1-3 years

Survey

For each statement below, click the button that best expresses the extent to which you agree or disagree with the statement. Your responses should reflect YOUR OWN VIEWS when you are in YOUR OWN COUNTRY.

Please complete each item. Then click “Submit AP” at the bottom of this page. Your responses will be saved, and you may view them when you return to GlobeSmart. You can change the responses at any time and resubmit your profile.

1. When other team members express a set of priorities that are different from mine, I should compromise my own wishes and act in union with them.

2. I feel a strong sense of loyalty towards others in my organization.

3. I believe that seriously should be taken into account along with achievement when distributing awards, benefits, or recognition.

4. I believe that the entire team should share the blame even if one individual is responsible for the team not meeting its goals.

5. I must be prepared to sacrifice my personal goals in order to achieve the goals of the team as a whole.

6. I try to display proper manners and etiquette towards other members of my organization regardless of how I really feel.

7. As a manager, I should be able to give advice to subordinates about their personal lives even if they do not ask for it.

8. It is appropriate for me to raise my voice if angered by the actions of a junior employee.

9. When I am speaking with a junior employee, it is natural that I should control the conversation.

10. It is fine for me to challenge my boss if he or she disagrees with my opinions.

11. If I am frustrated with a subordinate, I should not reveal my feelings to him/her.

12. I am comfortable telling subordinates exactly what they need to do.
Fasten seat belts

Fasten seat belts, a light-hearted guide to avoid misunderstandings while travelling. An innovative way to learn languages and pick up cultural tips.

Travel by Country / Korea
# Global Mindset Inventory

## Rate Yourself Using the Following Scale

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not At All</td>
<td>Small Extent</td>
<td>Moderate Extent</td>
<td>Large Extent</td>
<td>Very Large Extent</td>
</tr>
</tbody>
</table>

## To What Extent Do You

### Intellectual Capital 
Sample Questions

- Know how global events may affect your industry.
- Know about the geography and history of several cultures.
- Have the ability to understand abstract ideas.

### Psychological Capital 
Sample Questions

- Enjoy exploring other countries.
- Test your personal abilities.
- Feel comfortable in new environments.

### Social Capital 
Sample Questions

- Have the ability to work with people from other cultures.
- Have a network of people from other cultures.
- Experience ease with starting a conversation with a stranger.

*Sample survey questions are not actual GMI questions*
Global Competencies Inventory

Discovering and Developing Exceptional Talent
Moving forward

- Korea is in our sites (Pacific Rim)
- Do the things that make long-distance teams successful differ in Korea?
  - Wizard
- Are cross-cultural teams with headquarters in Korea differ from those in the US?
- On what features do you select a Korean to be good in a cross-cultural teams?
Resources needed to move forward

- Access to Korean distributed and cross-cultural teams
- Find Korean academic partners on this topic
- Money for travel and US and Korean personnel
  - Translation support
Thank you

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