## **Working Together Apart**

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### This work...

- ...is done by
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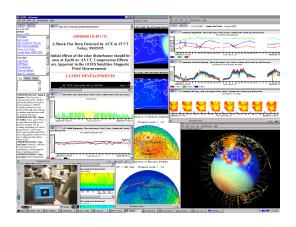
- ...and currently supported by
  - NSF
  - Google
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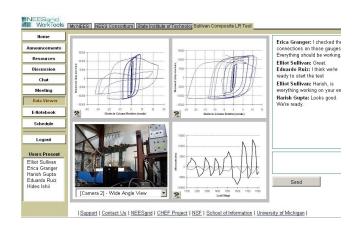
## Today

- 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





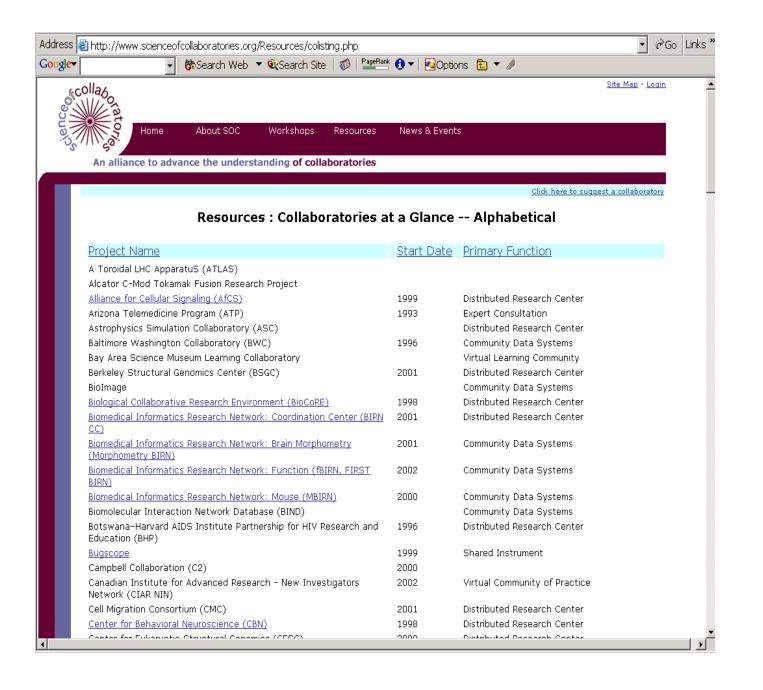
### Research on distributed teams

- Ran controlled laboratory studies of
  - Communication through technology
  - Trust
  - Focus on collocated people, ignoring the remote



#### Collaboratories at a Glance

- 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





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#### An alliance to advance the understanding of collaboratories

Return to the list of Collaboratory Projects

Name of Collaboratory:

Biomedical Informatics Research Network: Brain Morphometry (Morphometry BIRN)



URL:

http://www.nbirn.net

Collaboratory Status:

Start Date :

Development 2001

Primary Collaboratory Function: Secondary Collaboratory Functions:

Community Data Systems

Domain(s):

Neurosciences--> Brain Imaging--> Diseases of the Brain and Treatment of.

Brief Description of the Collaboratory : 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.

End Date : 2004

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.

Access to Instruments

Access to Information Resources

Brain Morphometry BIRN has two types of human data in a distributed database:

- Structural MRI data (volumes) and morphometric derived data (volumes, surfaces, labels)
- Clinical metadata (e.g., subjects' gender, age, diagnose, clinical scores)

In addition, there are software tools that access these data allowing its visualization, processing, and querying.

Access to People as Resources :

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.

Funding Agency or Sponsor :

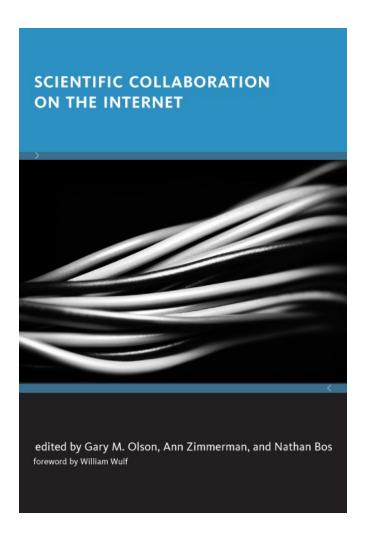
United States Department of Health and Human Services

National Institutes of Health (NIH)

National Center for Research Resources (NCRR)

Notes on Funding Agencies/Sponsors:

## Culmnating in...



MIT Press, 2008

Chapter 4: Theory of Remote Scientific Collaboration (TORSC)

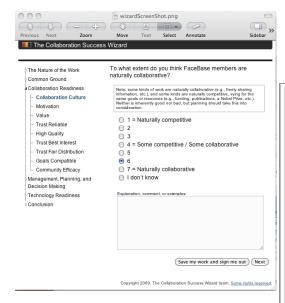
Many case studies

### What's in TORSC?

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

### Collaboration Success Wizard

- Web accessible assessment tool
- Assesses
  - Where are you strong
  - Where are you vulnerable
  - What do do about it



#### Collaboration Success Wizard Report for The FaceBase Consortium

July 31, 2010 2:03 pm

This report is generated from your survey responses and is focused on suggesting remedies where your This report is generated miny joint survey responses and is locused on suggesting remoleties where your telestype the properties of the p summary. If you have any suggestions to improve this report, please feel free to email them to Dr. Steve

#### Overview based on your responses

The Nature of Your responses here suggest you have a collaboration with some serious challenges to the Work overcome and which should be addressed as soon as possible.

Common Your responses here suggest you may share common ground with some colleagues. fround but not with others. If your work depends on others, make an effort to understand those with whom you lack common ground. Be advised, however, that common ground is fluid and can change with changes in a project's membership or leadership.

Collaboration Your responses here suggest there are some areas you and your colleagues need to Readiness work on together to become better prepared to cope with problems that may arise in

Management, Your responses here suggest the leaders in your project, both formal and informal, Planning, have covered many of the key areas of organizing this collaboration and will likely and Decision manage well any project-level problems that may arise. Making

**Technology** Your responses here suggest that some technology systems available to project **Readiness** members may not be supporting the collaboration as well as they could be, either in their deployment or in their "If" with the needs of project members.

Conclusion It's a good sign that you believe this collaboration will succeed and we certainly hope

- Common Ground: To what extent do you think the people in FaceBase actively help each other to resolve confusions when they asked?
   Your answer 6. (1 = Not very helpful: 7 = Very helpful)
   Research shows that having a culture of noting when others are confused, and reaching out to help them, results in better work. Look for opportunities to reinforce your culture of helpful, (2 (Conclusion); In your opinion, will this project be successful? Please explain your answer in
- the box below. If you can think of anything we did not ask, but should, please describe it in
- Your answer: 6 (1 = It has a poor chance of success; 7 = It has a good chance of success)
  Good luck! We certainly hope you succeed!!

#### Areas that Need Improvement

- Collaboration Repdises; iii, pepared, to what extent do you trust that others in FaceBase keep your needs in mind and won't take advantage of you?

  Your answer; 6: (1 = Very trustful; 7 = Very distrustful)

  When popple on to believe others will keep their interests in mind when actions are taken in their absence, they become reluctant themselves to keep others' interests in mind, creating a 18-for-tat artitude. This engenders bad feelings and a reluctance to work together. Research shows that, Or attitude. This engenders bad feelings and a reluctance to work together. Research shows that, Or the properties of th having social interactions early in a project (e.g., go out to dinner together, have a common experience like a hike or visit to a famous spot), people look out for each other s interests later,
- both personally and professionally. . [Collaboration Readiness]: In general, to what extent do you trust there is a fair distribution of resources among TaceBase collaborators? Your answer: 7 = Very Unfair (1 = Very fair; 7 = Very Unfair)

### 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
- . . .

	A	В	С	D	E	F	G	
2	Dimensions of Cu	tural Differences						
-	Conversation		US	China	Japan	Korea	Singapore	
				Present and receive business cards in two hands, with printing facing receiver. "Many Chinese will book towards the ground when greeting	Present and receive business cards in two hands, with printing facing receiver. Do no	many businesspeople shake hands, but will often bow at the same time:	Between men and nodding/bowing th and smiling is non however, men an shake hands, but be the one to exte the order of introd age and status; bi	
		Greetings		someone."; handshakes are common with foreigners	shake hands; bow to a depth that honors the person.	business cards are necessary	exchanged after a both hands	
6		Tone			There are layers of soft language to be polite and respectful		Reliant on tone of forms of soft lang someone feels	
,		Pauses	English native speakers try to avoid pauses by trying to fill them.	"Many silent periods (greater than ten seconds) by East Asians."	Pauses signals a person's "1) ruminating about what the speaker is talking about, 2) showing that they are listening and encourage the speaker to schinus, and 3' waiting to be given more information or a rum.—Pausing is interpreted as a rapport building strategy to show that listeners are considerate of the speaker and encourage the speaker to talk at the speaker's own pace"		Before answering pause up to 15 se respect); pausing has given a quest sufficient thought	
3		Interruptions	though can seen as a sign of dominance & hostilly, it also shows positive aspects and a moral dimension	"Chinese tend to interrupt as a matter of convention of their language and culture." Interruptions are seen as signs of cooperation that together they'll complete the thought. Called collective sentence production, "which reflects the Conflucian cultural values of interdependence, cooperation, and groupism."; tend to interrupt more than Takwanese and Japanese				
•		Direct or Indirect	Everything has to be communicated explicitly.	People use indirect speech so as not to offend anyone. Statements are hedged. Things are phrased in a peasimistic way. They also minimize the imposition. There is a lot of implicit information, rules, procedures and rituals that influence behavior, principle of "Keqi Ihua" used to preserve harmony through indirect speech acts.	People use indirect speech so as not to offend anyone.	Communication is high- context: intention/meaning conveyed through social roles, positions, and nonverbal channels	Instead of making they "hint at a poir communications a indirect	
0		How negative opinions are expressed	Communicated explicitly.	Use of silence. "If someone disagrees with what another person says, rather than disagree publicly, the person will remain quick."	If someone cannot agree to a request, the say "its inconvenient" or "its under consideration," statements that might be disagreeable are presented "in a gentle an indirect fashion"	Koreans will often give positive answers even wher disagreeing to maintain harmony. They are very conscious of another's feelings. Instead of saying "no," they will say things like	Instead of saying say "I will try" or " do"; this allows be face" and "mainta relationship"	
1		Facial expressions	Expressionless faces are seen as signs of worry, criticism or embarrassment.	Frowning is a sign of disagreement; maintain impassive expression when speaking	Expressionless faces are seen as expressing a neutral waiting period or evidence of agreement; frowning is considered a sign of disagreement		More reliant on far and other forms o tone) to tell how s spoken language	
2		Turntaking Change of verbs	Americans tended to overlap speech in the middle of an interlocuter's utterance or turn, rather than toward the last phonemes	Chinese are more active in turn- taking both as hosts (with Finns) and as guests (with Dutch).	A Japanese speaker will usually pause a few seconds before responding to a conversation partner			
3		Change of verbs depending on completion, in process, or future		The same verb form can be used for past, present, or future actions				
4		Proxemics		do not like to be touched, slapped on back, or shake hands "A slight bow and brief shake of the hands is more appropriato", speaking distance is greater than that of Americans		Body contact is acceptible; stand when a boss approaches; "To touch another person physically is considered an affront to his or her person, unless there is a well-established bond of close friendship or childhood ties."		
5		Other		Kinesics: Posture becomes rigid when goals are being compromised	Say "hai" (literally yes) when they really mean they understood us	relationships are more important than tasks, so social interactions are important at the outset of online collaboration		
6					,			
		Backchanneling						
		I	I	I	I	*Korean language is	1	

## Our approach

- Interviews and observations of crosscultural 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**



This GlobeSmart Assessment Profile (GAP) survey asks Sample GlobeSmart Profile you to respond to thems concerning your business- related cultural values and attitudes. Your resulting "profile" will be displayed as soon as you submit your answers.	GL  BESMART  Select a Locale  GO  SELF - ASSESSMENT GLO	DBAL ADVICE CUSTOM CONTENT	GO MOBILE!   HOME   ABOU
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  **Description**  **Profile** **Description**  **Description**  **Description**  **Tour profile**  **Description**  **Description**  **Tour profile**  **Description**  **Description**  **Tour profile**  **Description**  **Description**  **Tour profile**  **Description**  **Description**	GlobeSmart Assessment Profile Overview	,	Language: English 💠
FGALITARIANISM STATES	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	INDEPENDENT	INTERDEPENDENT Your profile China Iraq

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.

PROFFERENT

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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 \$

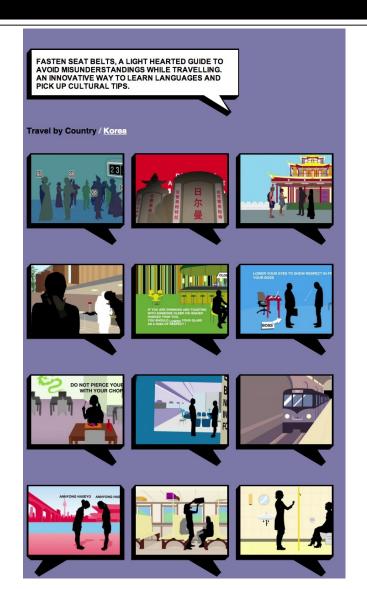
#### Survey

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 All" 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.

	Retake The Survey Clear All	!			m				
		Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree	Not Applicable
1	When other team members express a set of priorities that are different from mine, I should compromise my own wishes and act in unison with them.	0	0	0	0	0	0	0	0
2	I feel a strong sense of loyalty towards others in my organization.	0	0	0	0	0	0	0	0
3	I believe that seniority should be taken into account along with achievement when distributing awards, benefits, or recognition.	0	0	0	0	0	0	0	0
4	I believe that the entire team should share the blame even if one individual is responsible for the team not meeting its goals.	0	0	0	0	0	0	0	0
5	I must be prepared to sacrifice my personal goals in order to achieve the goals of the team as a whole.	0	0	0	0	0	0	0	0
6	I try to display proper manners and etiquette towards other members of my organization regardless of how I really feel.	0	0	0	0	0	0	0	0
		Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree	Not Applicable
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.	0	0	0	0	0	0	0	0
8	It is appropriate for me to raise my voice if angered by the actions of a junior employee.	0	0	0	0	0	0	0	0
9	When I am speaking with a junior employee, it is natural that I should control the conversation.	0	0	0	0	0	0	0	0
10	It is fine for me to challenge my boss if he or she disagrees with my opinions.	0	0	0	0	0	0	0	0
11	If I am frustrated with a subordinate, I should not reveal my feelings to him/her.	0	0	0	0	0	0	0	0
12	I am comfortable telling subordinates exactly what they need to do.	0	0	0	0	0	0	0	0

## Fasten seat belts



## **Global Mindset Inventory**

Rate Yourself Using the Following Scale								
1	1 2 3 4							
Not At All	Not At All Small Moderate Large Extent Extent							
To What Extent Do You	Rating							
Intellectual CapitalSamp								
Know how global events may affect your industry.								
Know about the geography and history of several cultures.								
Have the ability to underst								
Psychological Capital Sample Questions								
Enjoy exploring other countries.								
Test your personal abilities.								
Feel comfortable in new e								
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 crosscultural teams
- Find Korean academic partners on this topic
- Money for travel and US and Korean personnel
  - Translation support

# Thank you

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