Success Factors for Team Science

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BREN:ICS
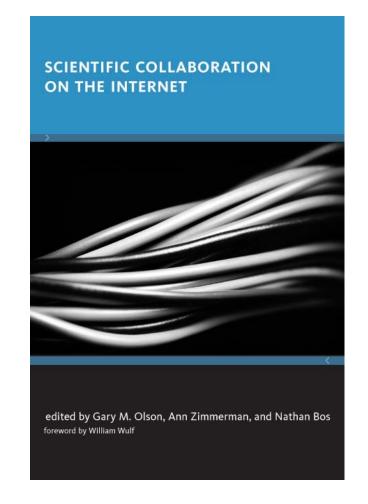INFORMATION AND COMPUTER SCIENCES

Distance Matters

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ABSTRACT

Giant strides in information technology at the turn of the century may have unleashed unreachable goals. With the invention of groupware, people expect to communicate easily with each other and accomplish difficult work even though they are remotely located or rarely overlap in time. Major corporations launch global teams, expecting that technology will make "virtual collocation" possible. Federal research money encourages global science through the establishment of "collaboratories." We review over 10 years of field and laboratory investigations of collocated and noncollocated synchronous group collaborations. In particular, we compare collocated work with remote work as it is possible today and comment on the promise of remote work tomorrow. We focus on the sociotechnical conditions required for effective distance work and bring together the results with four key concepts: common ground, coupling of work, collaboration readiness, and collaboration technology readiness. Groups with high common ground and loosely coupled work, with readiness both for collaboration and collaboration technology, have a chance at succeeding with remote work. Deviations from each of these create strain on the relationships among teammates and require changes in the work or processes of collaboration to succeed. Often they do not succeed because distance still matters.

Gary Olson is a psychologist interested in computer supported cooperative work; he is Professor in both the School of Information and the Department of Psychology. Judy Olson is a psychologist interested in computer supported collaborative work; she is Professor in the School of Business Administration, the School of Information, and the Department of Psychology.

SCIENTIFIC COLLABORATION ON THE INTERNET

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Factors → Success (TORSC)

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

Collaboration Success Wizard

- The theory as a set of questions
  - Multiple versions: past, current, planned
- Report at the end
  - Red flags
  - What to do about them
- In the midst of user testing & revising
- Trial administration with UCI medical school
  - Another trial pending with U of Pittsburgh project
- Will go "public" soon – a web site that describes it, gives application procedure
  - Inquiries: gary.olson@uci.edu

New Thrust

- Intercultural collaboration
  - Have seen culture as a factor many times
    - Have already written a few articles on it
  - Now want to move it into the foreground
- Culture has many meanings
  - National
  - Organizational
  - Professional
- Initial focus on Pacific Rim
  - Variety of interesting cultural differences
  - Added stress of time zone differences
    - Will allow us to focus on asynchronous tools