Extra Topic – Collaborative HCI Issues

Bridging Distance in Collaborations

Human-computer Interaction Consortium

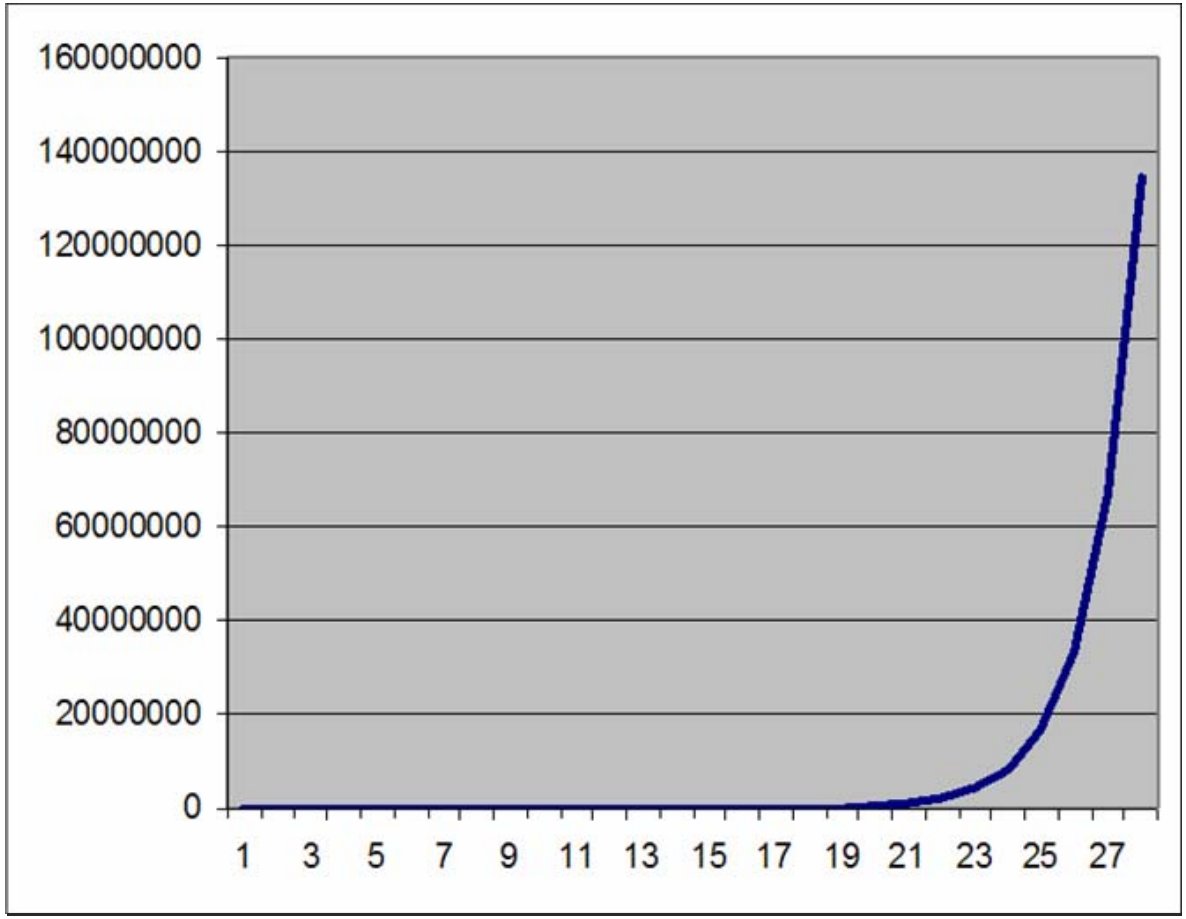
- Founded in1980’s
- Goals (quoted from their Web site)
  - Construct a scientific foundation for Human-Computer Interaction
  - Promote research, education, and training
  - Promote technology transfer and information exchange
  - Participate in collaborative research
  - Develop practical applications for Cognitive Engineering

Members

- Carnegie Mellon University
- Drexel University
- Georgia Institute of Technology
- Pennsylvania State University
- Stanford University
- University of California, Irvine
- University of Colorado
- University of Michigan
- Virginia Polytechnic Institute and State University
- Fraunhofer Institute for Integrated Publication and Information
- FX Palo Alto Laboratory
- Google
- IBM T.J. Watson Research Center
- Microsoft
- Mitsubishi Electric Research Laboratories
- NASA - Ames Research Center
- National Institute of Advanced Industrial Science and Technology
- National Institute of Standards and Technology
- Nokia
- Palo Alto Research Center (PARC)
- Sun Microsystems, Inc

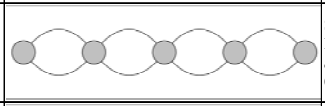
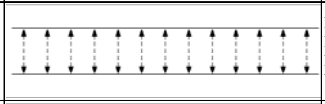
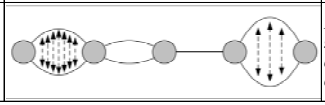
Grudin – The Exponential Curve

- Change is sudden



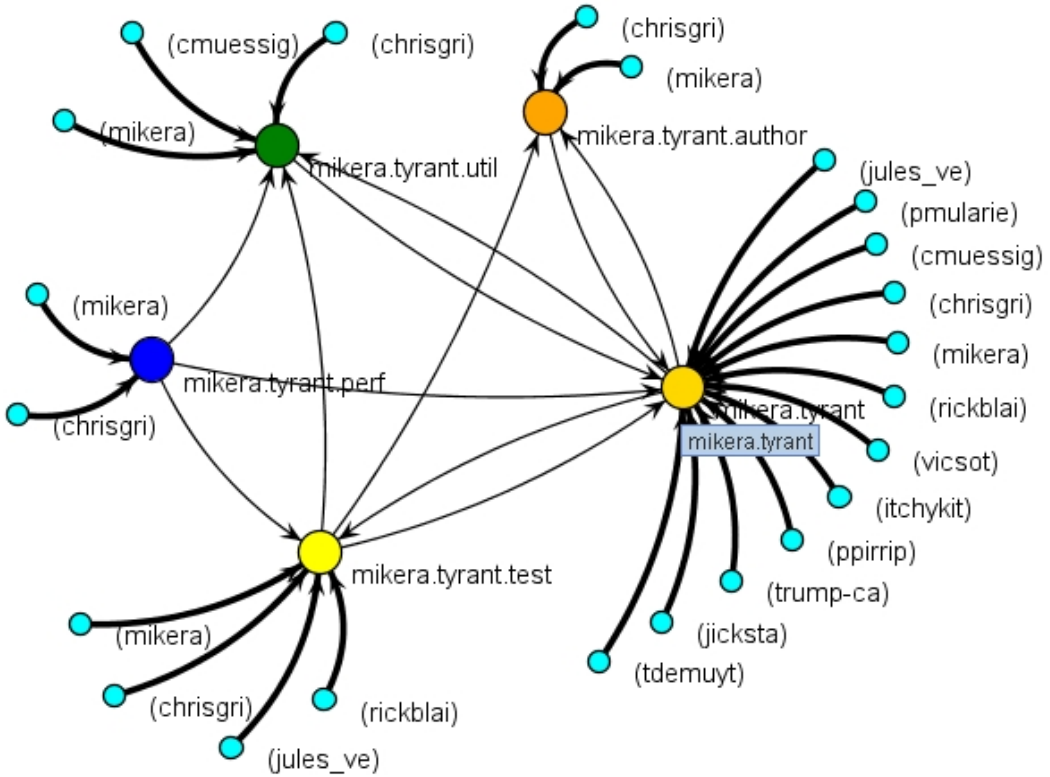
Redmiles

- Interfaces must accommodate both formal and informal processes.

	Conceptual Visualization	*Strengths*	*Weaknesses*
Formal process-based coordination		Scalable; Control; Insulation from other activities; Group-centric	Resynchronization problems; Insulation becomes isolation
Informal, awareness-based coordination		Flexible; Promotes synergy; Raises awareness; User-centric	Not scalable; Requires extensive human intermediation
Continuous coordination		*Expected to be the strengths of both formal and informal coordination*	*To be discovered by future research*

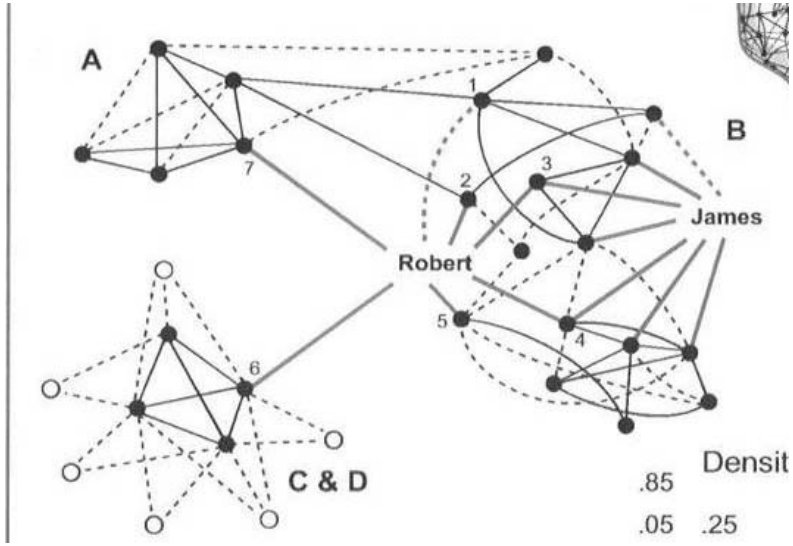
Redmiles

- And, finding the right people



Chi / Pirolli

- Quoting Bert from a forthcoming book on Structural Holes
  - Bridging gaps between expertise



Carroll

- "Beyond being aware"
  - There are many kinds of activities to be aware of and at different levels of generality.

Table quoted from Carroll talk at HCIC 2006, Frasier, Co.

Human development	Reconcile different levels of performance and approaches to problems by synthesizing zones of proximal development
Social capital	Nurture & exploit mutual interdependencies; access broader resource networks
Community of practice	(Tacitly) leverage and regulate shared praxis through enactment and improvisation
Common ground	Protocol for continual testing and signaling of shared knowledge and beliefs