

Facilitating NEES

a nanoscience research center
for energy storage

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Nanostructures for Electrical Energy Storage

DOE Energy Frontier Research Center



www.efrc.umd.edu

Five-year funding beginning 2009

~20 senior investigators & ~35 students and postdocs

Materials science, physics, chemistry, electrical engineering

Synergy

People working together to produce an effect that is more than the sum of what each could produce alone.

“If we make proactive organizational choices alongside our decisions about science goals, funding allocation, and technical design, we can optimize our science and operations, and reduce miscommunication and misunderstanding, resulting in more efficient and effective missions.”

-- J. Vertesi, et. al. *Sociological Considerations for the Success of Planetary Exploration Missions* (Nov 2009), white paper submitted to the NASA Planetary Science Decadal Survey 2013-2022

“...disciplinary traditions and culture are not of overriding importance to the organization and management of multi-organizational collaborations” [p90]

-- Shrum, Wesley; Genuth, Joel; and Chompalov, Ivan. *Structures of Scientific Collaboration*. Cambridge: MIT Press, 2007.

Leadership & Management

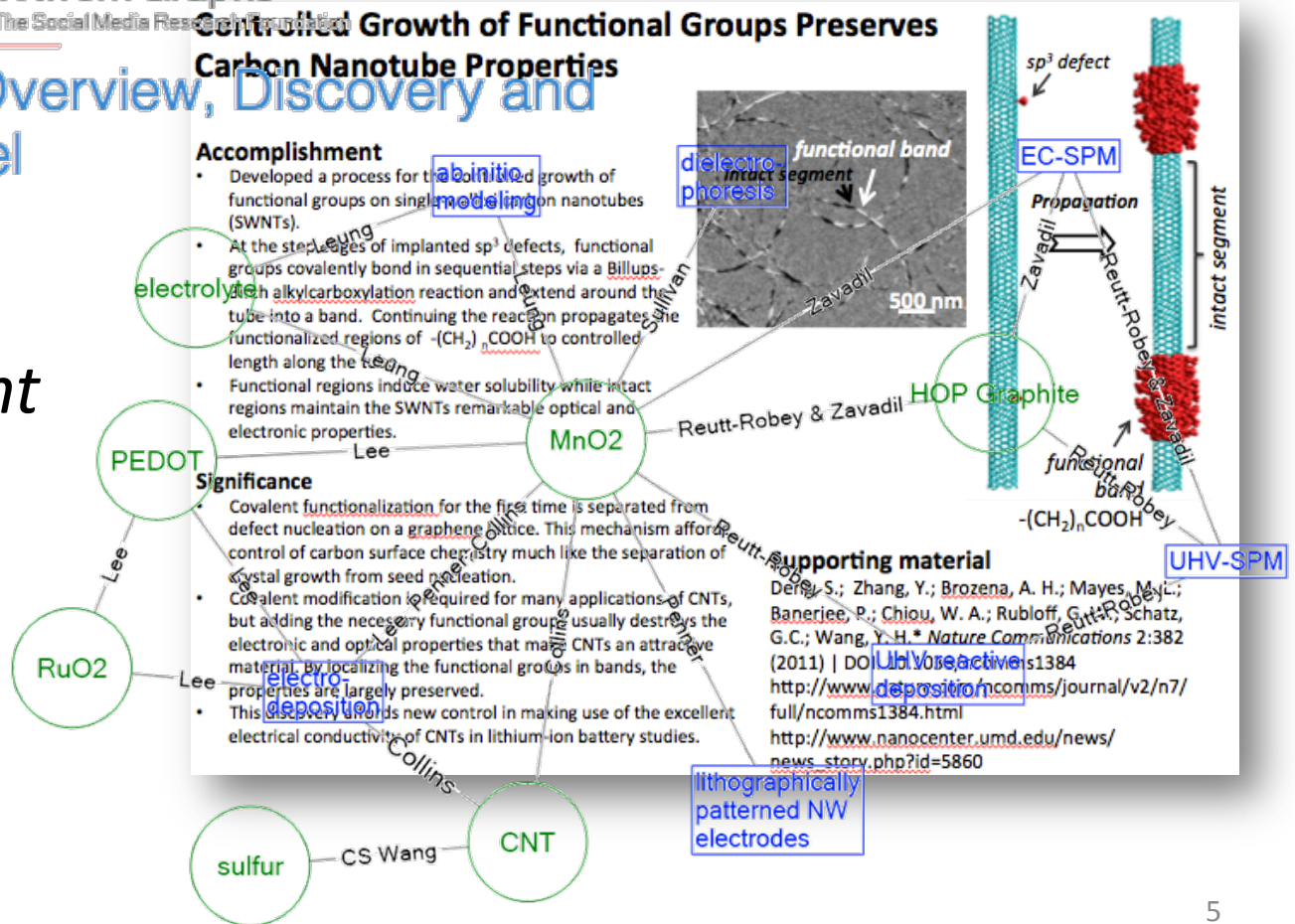
- Leadership styles across international cultures
Global Leadership and Organizational Behavior Effectiveness (GLOBE) research study
- Team Evolution
Tuckman's Development Sequence in Small Groups:
Forming, Storming, Norming, Performing, Adjourning
(Tuckman, 1965)

Cognition

NODEX Network Graphs
 The Social Media Research Foundation

NodeXL: Network Overview, Discovery and Communicating with Highlights

Accomplishment
 +
 Significance



Self-Evaluation

- **Improvement Oriented Evaluation & internal evaluators**

Gray, D.O. (2008) Making team science better: Applying improvement-oriented evaluation principles to evaluation of cooperative research centers. In C.L.S. Coryn & M. Scriven (Eds), *Reforming the evaluation of research. New Directions for Evaluation*, 188, 73-87.

- **Theory of Remote Scientific Collaborations**

Collaboration Success Wizard

- **Reflective Exercise**

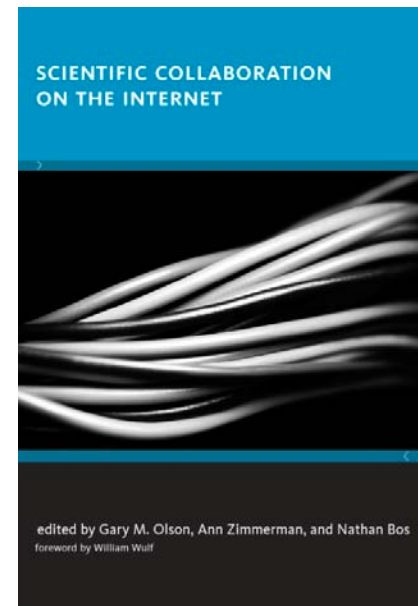
What do we need

... to start?

... to stop?

... to improve?

... to continue?



Tools for Collaborations

- On demand teleconferencing
- Meet twice per year in person
- Meeting facilitation – Institute of Cultural Affairs, ToP facilitation
- Artifacts of collaboration – create evidence of interactions
- How to negotiate - *Getting to Yes*, by R. Fisher, W. Ury, and B. Patton

Questions?

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