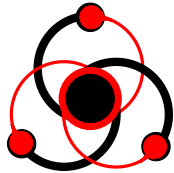
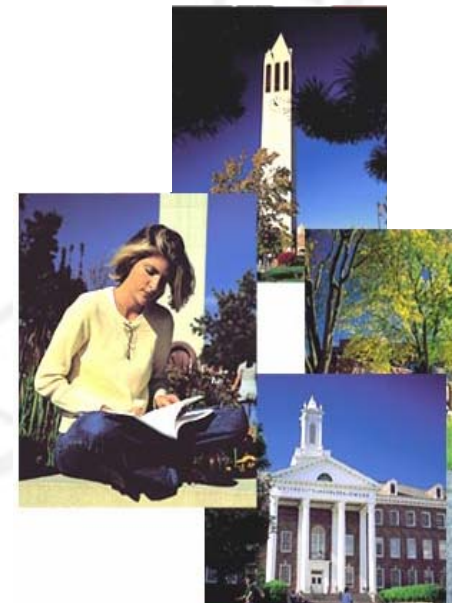


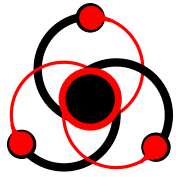
The Role of Collaboration Science in Creativity and Innovation



THE INSTITUTE FOR
COLLABORATION SCIENCE

Roni Reiter-Palmon, Ph.D.
Department of Psychology
Director of Research – ICS





Collaboration is everywhere

- Collaboration is not a goal in itself

Finance

*Operational Risk
management*

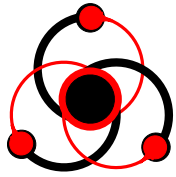
Service/Product

development

Examples of Collaboration Science domains and applications

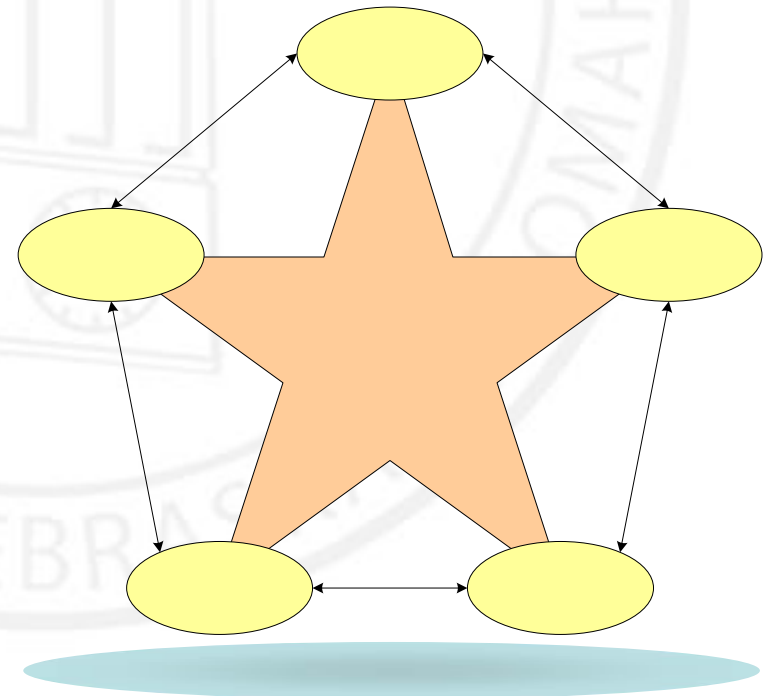
✓ *Sarbanes-Oxley*

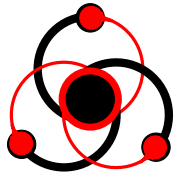
✓ *Marketing Focus*



Collaboration is challenging

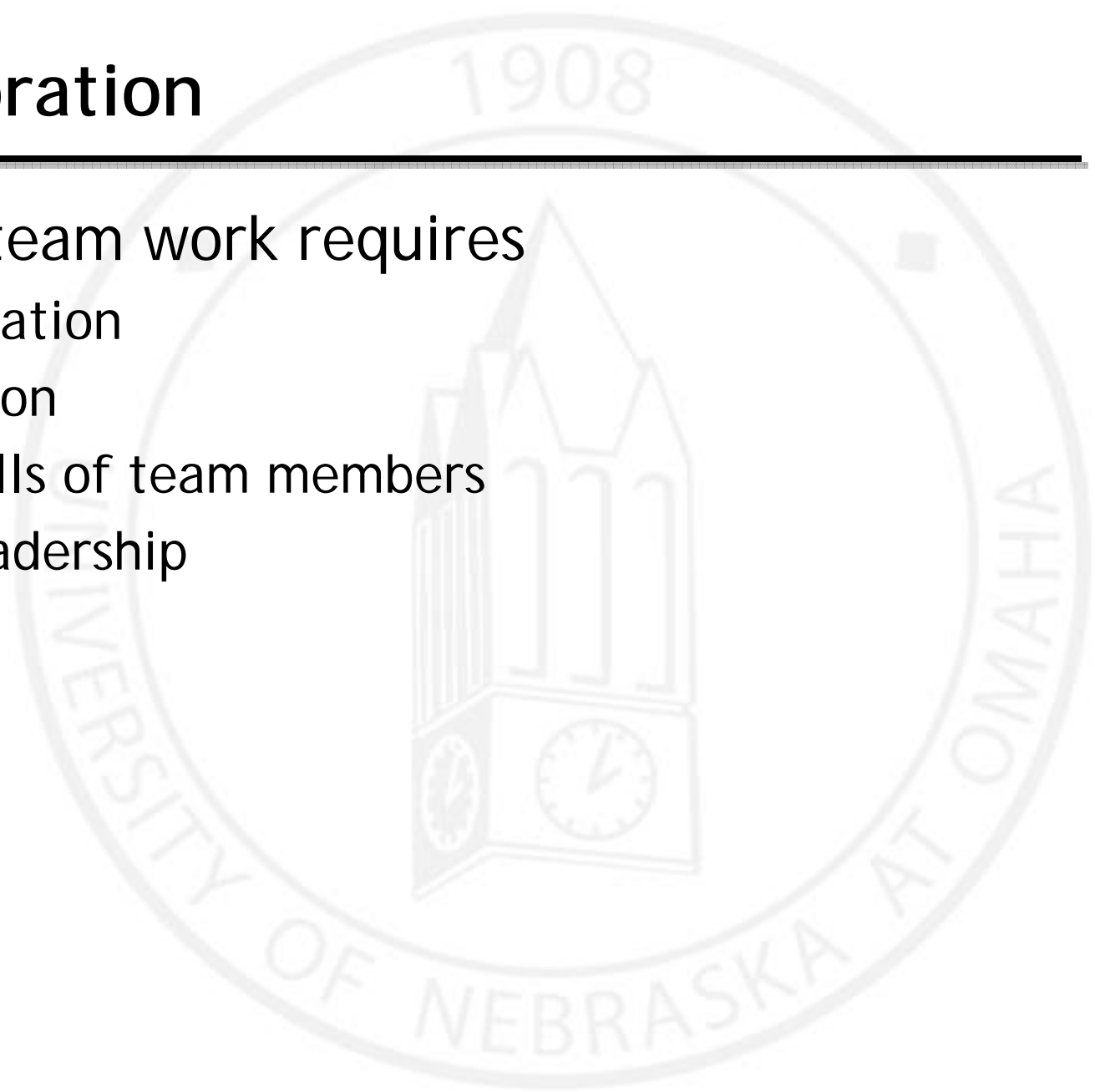
- Collaboration Science: The study of individual, group, organizational, and societal factors affecting outcomes for people who work together to achieve goals
- Collaboration is too complex to approach from a narrow, single perspective
- It is imperative to not only understand collaboration issues, but in fact design collaborative work practices and technologies

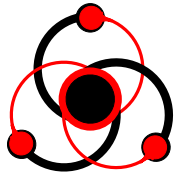




Collaboration

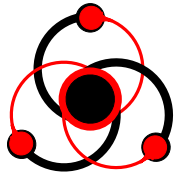
- Effective team work requires
 - ➔ Communication
 - ➔ Coordination
 - ➔ People skills of team members
 - ➔ Quality leadership
 - ➔ Time





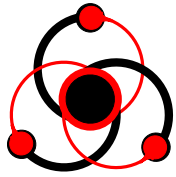
Collaboration and Innovation

- Effective work in innovation teams is even more complex
 - Individuals from different disciplines, backgrounds
 - Knowledge sharing
 - Creative thinking skills
 - Different perspectives on what the problem is
 - Different perspectives on what is an acceptable solution



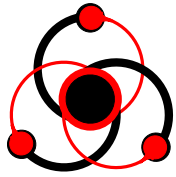
Collaboration and Innovation

- Teams required for creativity/innovation
 - Problems too complex for one person
- Team Advantages
 - Multiple perspectives, points of view
 - More knowledge
 - Ability to share workload (physical and mental)
 - Ability to capitalize of various strengths of team members (cognitive skills, personality)
 - Diverse teams have more of these



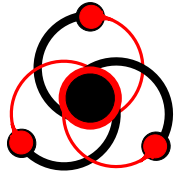
Collaboration and Innovation

- Disadvantages of Teams
 - Multiple perspectives, points of view can lead to conflict
 - Different “languages”, approaches
 - Coordination costs (time and effort)
 - Dominant individuals in a group
 - Social loafing



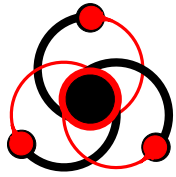
Team Diversity

- Effect of team diversity on social processes or collaboration
 - Cohesion
 - Liking
 - Communication
 - Conflict
- Effects of team diversity on outcomes
 - Efficiency
 - Effectiveness
 - Creativity



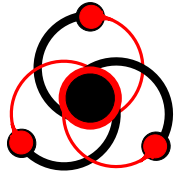
Paradox of Team Collaboration for Creativity

- Team similarity makes collaboration easier (similarity attraction)
- Diverse teams are more likely to innovate (cognitive resources)
- Need to be able to capitalize on team diversity without compromising collaboration



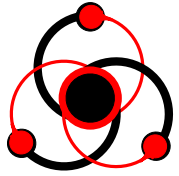
The Solution - Interdisciplinary

- Understanding the factors that hinder or facilitate collaboration and innovation
 - Leadership that facilitates open discussion
 - Leadership that allows for new ideas
 - Team appreciation of diversity
 - Team appreciation of different perspective
 - Communication that allows for disagreement without discord
 - Technology that facilitates sharing of information and communication



Collaboration and Innovation

- Ineffective collaboration will disrupt effective application of cognitive processes
- Diverse teams need to work harder to attain effective collaboration
- Once collaboration practices are set, diverse teams have a cognitive advantage

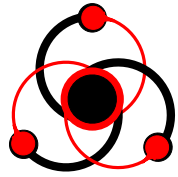


The Institute for Collaboration Science

An interdisciplinary institute involving all colleges at UNO

Mission:

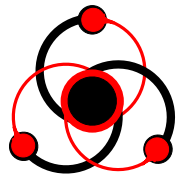
- Create scientific knowledge through theoretical understandings of collaboration-related phenomena
- Support groups, organizations, and society by designing and deploying solutions for collaborative needs
- Educate undergraduates, graduates, and professionals about collaboration concepts through university programs, publications, and professional training and certification



Institute Expertise

- Collaboration Skills Training
- Conflict & Collaboration
- Creativity and Innovation
- Cross-Cultural Collaboration
- Collaboration Engineering
- Diversity & Collaboration
- Group Interactions
- Leadership & Facilitation
- Personality and individual differences
- Research methods & techniques for collaboration phenomena
- Technology for collaboration and communication
- Virtual work arrangements



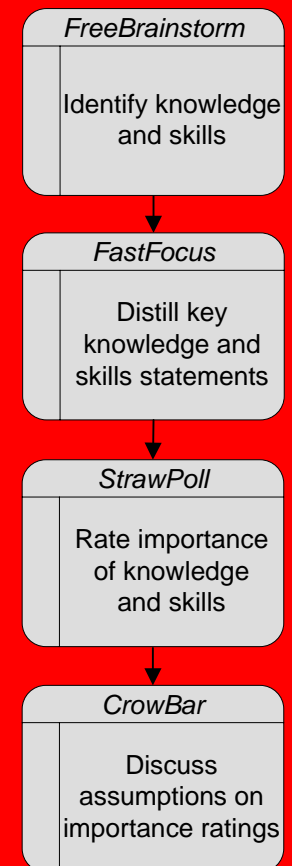


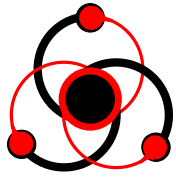
Institute Projects: Public Conversations

"Thank you so much for all that you did...setting up the room, great technology support, and excellent assistance and insight for the facilitation process itself. I truly cannot express how much I appreciate the quality of your work with this project."

- UNO's General Education challenge:
 - Involving all stakeholders in a discussion on the skill and knowledge requirements
- Collaboration Science approach:
 - Design repeatable public conversation process
 - Train practitioners (faculty) in leading the public conversation process
 - Create a self-sustaining work practice to solicit campus-wide feedback on institutional issues
- Results:
 - 25+ facilitated sessions with UNO Stakeholders from all colleges, including faculty, students, administration

GENERAL EDUCATION ELICITATION PROCESS



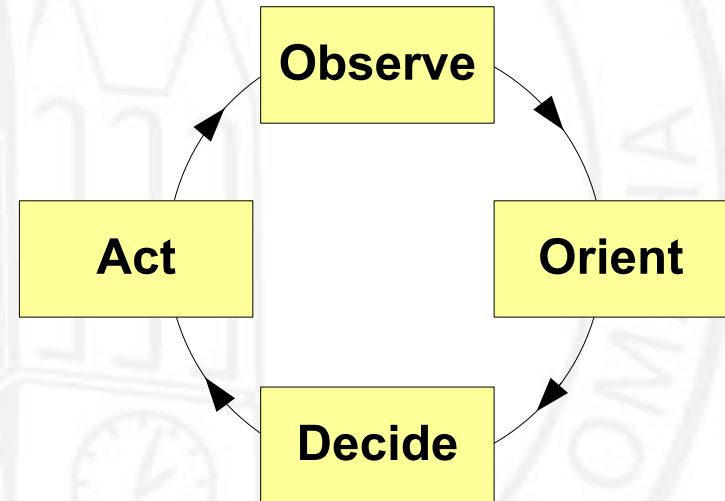


Institute Projects: BattleSpace

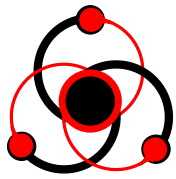
- Reducing the OODA loop by 50% from Situational Awareness through Execution and After Action Review

- Military Decision-Making Cycle

- Observe
- Orient
- Decide
- Act

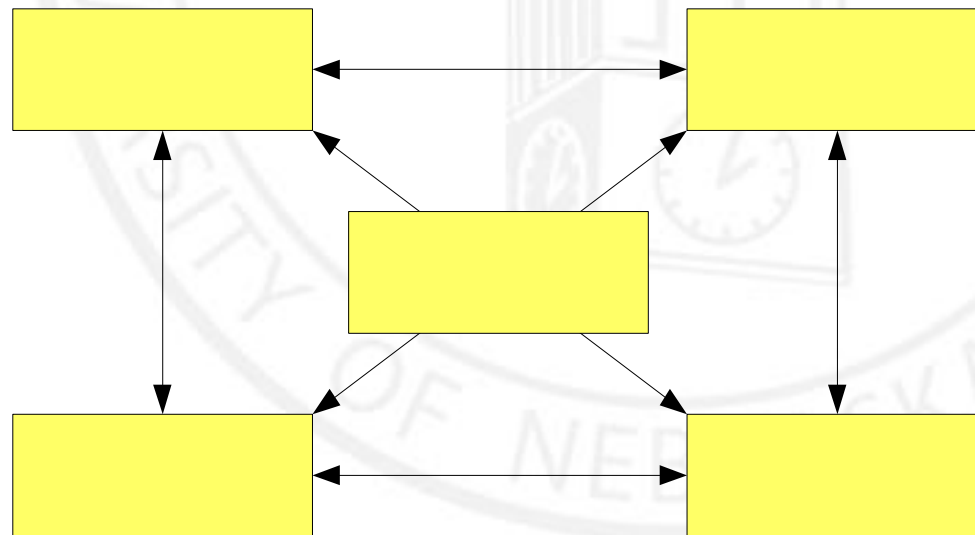


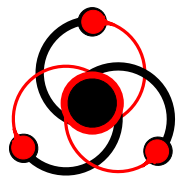
- The Army that can decide and act fastest, dominates



Institute Projects: Strategic Planning

- Supporting Nebraskan organizations:
 - Woodmen of the World
 - Home Instead Inc.
 - ICAN
 - UNO Graduate Studies
 - UNO Public Administration

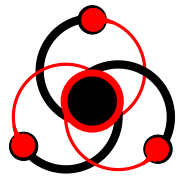




Collaboration Science at UNO: Education

- Collaboration Science courses:
 - Principles of Collaboration (Undergraduate and graduate)
 - Facilitation and Groupware (All levels)
 - Leadership, Creativity, Computer Mediated Communication, and a variety of others
- Distinguished Lecture Series:
 - Hosted seven international thought-leaders to date
 - Three additional lectures planned for 2008-2009

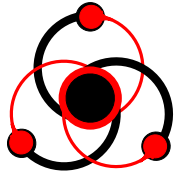




Collaboration Science at UNO: Accomplishments

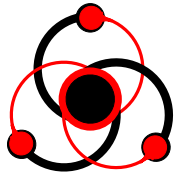
- Knowledge dissemination:
 - 50+ peer reviewed papers accepted for publication
 - In progress: over 2 dozen papers and books on Collaboration Engineering, thinkLets, Creativity, etc.
 - In preparation: Collaboration Science concentration
- Facilities:
 - Collaboration Research & Teaching Lab (IS&T)
 - Collaboration Commons (CPACS)
 - Executive Collaboration Lab (CBA)





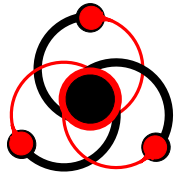
The Value - External

- For our partners:
 - Access to a team of reputable experts
 - Addressing practical problems from relevant disciplines
 - Benefit from custom-made educational programs
- For ICS:
 - Access to rich environments for Collaboration Science activities
 - Showing the value of a multidisciplinary approach
 - Addressing collaboration challenges that matter



ICS and Innovation

- ICS has expertise on collaboration and innovation in teams
- Focus on research and practice that facilitate individual and team innovation
 - Creative thinking skills
 - Motivation
 - Leadership
- Focus on research and practice that facilitate collaboration in diverse teams
 - Technology
 - Facilitation

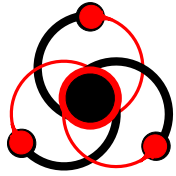


Collaboration Science!!

- Improving how people and organizations work together to achieve goals
- Studying and teaching about factors that affect outcomes in collaborative work

**UNO is emerging as a world leader
in this relevant & exciting field!**





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