Opening Remarks (9:15-9:30 AM)

Morning Presentation (9:30-10:30 AM)

Looking and Learning: Teaching with Visuals Across the Curriculum

Research into human learning demonstrates the power of visuals in shaping understanding of the world; sighted individuals process visual images more quickly than text and rely on them more heavily, even when they contradict conceptual knowledge. As images become more a part of our teaching and research across disciplines, we need to consider their use outside traditionally visually-oriented fields. In this session, we’ll explore techniques that can help students learn to look more carefully and more critically and discuss ways to adapt these to different disciplines and learning goals. We’ll explore visual thinking, visual learning, and visual communication, all important components of what we might call visual literacy.

Dr. Chad Berry Academic Vice President and Dean of the Faculty, Berea College

Dr. Berry is a historian and scholar in the field of visual literacy. He has previously served as Director of the Loyal Jones Appalachian Center and as Director of the Center for Excellence in Learning through Service. He is the author of Southern Migrants, Northern Exiles, published by the University of Illinois Press, which examines the migration of millions of white southerners to the Midwest during the twentieth century. This work is complemented by a broad number of publications in the area of Appalachian studies, international education, and teaching with visual images. The latter include, "Liberal Education in a Visual World" and “The Role of Emotion in Teaching and Learning History: A scholarship of teaching history”, which explores relationships between images, emotion, and student learning in history.

Dr. Berry is currently working on a project analyzing maps that Berea students drew of their home communities between 1948 and the late 1960s for a general studies class. The goals of the class were to teach students how to "read" images from various theoretical perspectives, and to design and construct a website that would make the drawings accessible to scholars and to the public. The project can be viewed at www.mappalchia.org.

Faculty Lightning Talks (10:45-11:45 AM)
In this fast-paced session, a cross-section of faculty from Trinity will describe how they are using visualizations to foster student creativity and critical reasoning in their courses. The talks will be presented consecutively and will be limited to no more than 6 minutes each. There will be time for general discussion and questions at the end. If you have ever attended lightning talks before, then you know what fun awaits us. This session will include a surprise or two as well!

**Lunch Keynote Presentation (12:15-1:15 PM)**

**How Graphics Communicate**

Graphics of all kinds are an ancient and widespread cognitive tool. They serve many ends: to attract interest, to record and convey information, to offload memory and information processing, to facilitate inference and discovery, to promote collaboration. To do so effectively, they use elements and the spatial relations among them to convey meanings that are spatial or metaphorically spatial. An historical survey and current experiments reveal how space and the things in it are used to convey meaning and foster creativity. A program for revealing and instantiating cognitive principles for designing effective graphics will be described.

Dr. Barbara Tversky Professor Emerita of Psychology, Stanford University
Professor of Psychology and Education, Columbia Teachers College.

Dr. Tversky is an internationally recognized cognitive psychologist whose expertise includes spatial language and thinking, event perception and cognition, and gesture. Her specific topics of interest include picture memory and pictorial representations, imagery, spatial thinking, spatial language, cognitive maps and graphs, recollections and eye witness testimony. These areas of study are manifest in her 2011 article, "Visualizing Thought", which serves as an entry point to her extensive record of publications. Dr. Tversky teaches courses in spatial thinking, including its relation to language and math, cognitive psychology, and visual communication. In recognition of her many professional contributions, Dr. Tversky was elected to the American Association of Arts and Sciences earlier this year.

**Afternoon Concurrent Sessions:**

**Concurrent Session A. Evaluating Visual Explanations of STEM Phenomena Produced by Students (1:30-2:15 PM)**

Research in visual reasoning, graphical perception, and adult learning can provide us guidance on how to assist students in the effective design and use of posters, data-graphics, concept-maps, a other visual media for the purpose of scholarly communication. Conversely, such products of student work can offer us insight into their understanding of complex systems and disciplinary methods.

In this informal round-table, Dr. Barbara Tversky invites us to analyze the kinds of information students include in visual explanations of scientific phenomena and discuss how we might
distinguish meaningful visual expressions of key concepts from those that are decorative or simply expressive. Participants are welcome to bring examples of student work and/or their own to share and consider as a group.

**Concurrent Session B. Managing Visual Media for Teaching and Research (1:30-3:00 PM)**

Managing an image or video collection for teaching and research can be a daunting task. This is particularly true in the absence of a well-integrated, scalable, workflow for media acquisition, documentation, and delivery to students or colleagues.

In this interactive session led by Patrick Keating, Sean Connin and Rob Chapman, participants will explore several systems for managing digital media collections and options for their use in educational contexts. Particular focus will be given to free or low-cost applications that allow users to work untethered from traditional folder and file structures, provide sensible search and retrieval options, and conform to high standards for accessibility and security. Participants will leave this session with appropriate strategies and tools to create their own flexible and customizable visual media collections. They will also learn how to use selected applications to support student projects, inquiry, and collaboration around image collections.