

“Somebody telling something to someone about something¹”

Telling stories is a fundamental part of what makes us human, arising from the desire to transform the fragmented chaos of our everyday lives into a patterned, coherent and shareable narrative. From the earliest cave drawings to oil portraits, photographs and home movies, we have used a variety of audiovisual media and technologies to support our endeavors in representing ourselves and our life experiences. The basic properties of a particular medium determine what type of narratives can be told, how they are presented, why they are communicated and how the audience experiences them². In creating, generating and sharing our mediated stories, our choice of media capture system, editing and composition software, visualization method or publishing platform greatly impacts the types of stories told, how they are displayed, how they are responded to and how they can be understood. In this presentation I will focus on three facets of my research directly concerned with rich-media storytelling, interactive social media visualizations and visual summaries of social media activity.

Rich Media Storytelling:

Relevant results from a longitudinal ethnographic study of best-practice methodologies for soliciting and recording stories, developing storybuilding strategies, and constructing story evaluation metrics are presented. Based on these findings, *Confectionary*, an online authoring and publishing application for creating everyday rich-media narratives was developed. *Confectionary* provided the storyteller with a spatial rich-media authoring environment that encouraged creativity, supported a wide variety of story-making styles and provided diverse opportunities for audience participation.

Interactive Social Media Visualizations:

Two recent collaborative projects seek to harness the dynamic communicative power of popular social media platforms to increase awareness and enhance communication in a small community. *KiteViz* is an interactive Twitter visualization interface depicting informal communication dynamics between workplace collaborators using a kite flying metaphor. The interface playfully reveals the conversational dynamic between participants as an evolving process, providing a visual narrative of interactions over time. *Taskville* is an engaging, interactive workplace game mediated by social media, where participants play the game by completing both work and personal related tasks. Participants use the Twitter platform to communicate with the Taskville game, which then parses these messages using a city building metaphor; completed tasks are rendered as new buildings in the graphical environment.

¹ Kearney, R. (2002). *On Stories*, p5. New York: Routledge.

² Ryan, ML (2004). *Narrative Across Media: the languages of storytelling*. Lincoln and London: University of Nebraska Press



Figure 1. Kiteviz interface depicting evolving relationships between Twitter users

Visual Summaries of Social Media Activity:

Social media streams contain meaningful inter-relationships between attributes such as visual content, users, actions and time. Discovering and visualizing the structure of these social media streams presents unique challenges with applications for content organization, recommendation and community understanding. *GAct* is an interactive prototype system that generates relational clusters automatically from a given Flickr photo pool and allows users to explore the relationships between photos, users, tags and times. Using a joint factorization method, the system extracts five clusters in the Flickr group, retrieves representative users and tags and renders their membership with each cluster by links, where the link thickness indicates the membership weight. It also retrieves representative photos and generates a timeline for each cluster.

Bio:

Aisling Kelliher is a theorist, designer and toolmaker. She develops computational systems for responsive cultural sensemaking. Storytelling is the essential process of cultural formation and exchange that forms the foundation of her research approach. Over the last decade, she has created desktop, mobile and online software systems and installations to facilitate cultural sensemaking through the creation, sharing and interpretation of personal media compositions. Working in partnership with industry (e.g. Nokia, SEED-Schlumberger, Telecom Eireann), cultural institutions (e.g. DeCordova Museum, ProjectSAVE), federal agencies (e.g. NSF CreativeIT and IGERT), foundations (e.g. MacArthur Foundation) and local communities (e.g. Scottsdale Schools District), she has developed her research interests in service of the needs and desires of highly varied populations. Her work has been published in high-impact journals and conferences including the Journal of Science Education and Technology, SIGCHI, ISEA, CIKM, ICWSM and WWW, and exhibited at leading national venues including SIGGRAPH and the DeCordova Museum. Her research is supported by grants from the MacArthur Foundation, NSF IGERT and NSF CreativeIT programs.