Storytelling with Big Multimedia Data

Keynote Talk

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ABSTRACT

Big data is becoming increasingly multimedia data. Storytelling is one of the oldest and the most popular activity for humans. Historically, since the early days of human existence, storytelling has been used as a means of simple communication as well as medium of entertainment, education of people, cultural preservation, and instilling moral values through examples. A story is presentation of experiences related to events. Events and their experiences are selected to communicate the intent of a story compellingly. The art of storytelling always had close relationship to technology of the time. A good story considers the message and the audience and then selects appropriate events and proper related experiential media and information to weave a compelling and engaging account of the events.

There is a virtuous cycle between storytelling and the technology that is intertwined and synergistic. Historically, both have evolved together and are likely to continue evolving together in the near future. Most events of interest occur in physical world and must be captured using different sensors. Usually a single sensor is inadequate to capture diverse aspects of the event and hence the use of multiple sensors or media to capture an event and also to present event experiences for re-experiencing the events. Now we have diverse sensors to capture an event in all its details and use what will be compelling in storytelling.

A good story is the result of many activities: collection of data, analysis of data, selection of events and experiences that are relevant to the message, and a compelling presentation using this material. All of these activities are active research areas in multimedia big data. We discuss different forms of storytelling as they evolved and the role of technology in different stages of storytelling. We believe that now we have powerful tools and technologies to make the art of storytelling really effective. In this presentation we will show challenges for multimedia researchers that could make storytelling very effective and very compelling.

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Categories and Subject Descriptors

H.1.2 [**Models and Principles**]: User/Machine Systems

Keywords

Big data; multimedia; storytelling; experiential media; sensor data; events

1. BIOGRAPHY

Ramesh Jain is an entrepreneur, researcher, and educator.

He is a Donald Bren Professor in Information & Computer Sciences at University of California, Irvine where he is doing research in EventWeb and experiential computing. Earlier he served on the faculty of Georgia Tech, University of California at San Diego, The University of Michigan, Ann Arbor, Wayne State University, and the Indian Institute of Technology, Kharagpur. He is a Fellow of ACM, IEEE, AAAI, IAPR, and SPIE. His current research interests are in processing a massive number of geo-spatial heterogeneous data streams for building Smart Social Systems. He is the recipient of several awards including the ACM SIGMM Technical Achievement Award 2010.

Ramesh Jain co-founded several companies, managed them in initial stages, and then turned them over to professional management. These companies include PRAJA, Virage, and ImageWare. Currently he is involved in Stikco and SnapViz. He has also been advisor to several other companies including some of the largest companies in media and search space.