Interacting with Third-Party Content:
Is a Second Screen Enough?

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Abstract

Creating compelling multimedia content is a difficult task. It involves not only the creative process of developing a compelling media-based story, but it also requires significant technical support for content editing, management and distribution. This has been true for printed, audio and visual presentations for centuries. It is certainly true for broadcast media such as radio and television.

A broadcast model of content distribution is based on maximizing the appeal of content while minimizing the 'cost' per viewer. This 'one size fits all' model has lost some of its appeal as more content distribution channels has developed and as an increased desire for content personalization has manifested itself. Simply put, modern content needs to be accompanied by an increased degree of personal interaction with that content.

Several technologies have been developed to increase the degree of personal interaction with content. One of these is the secondary screen: a device that lets users select adjunct information or provide feedback to (and with) other content viewers. At present, the secondary screen helps viewers *discuss* content, but it provides only limited support for *influencing* content. This makes the secondary screen a transitional technology.

An important trend within media production that will likely drive increased content interaction in the future is *content personalization*. Personalization, as considered in this talk, has two aspects: having the viewer transition to being the supplier of content, and having the viewer (in the small) becoming the determinant of content. An example of the first instance is having a viewer of an event share content from this event with others. An example of the second instance is tailoring the content to a particular audience: the story you share with Mom about the event may be different than the version you'd like to share with your friends. (It also may be different from the version you'd like to tell your own children 15 years after the event had taken place.) This makes media interaction a context- and time-sensitive problem. No wonder most researchers analyze media instead of create it!

The talk will survey several approaches to describe and manage media interactions. We will focus on the temporal modeling of context-sensitive personalized interactions of complex collections of independent media objects. Using the concepts of 'togetherness' being employed in the EU's FP-7 project *TA2: Together Anywhere, Together Anytime*, we will follow the process of media capture, profiling, composition, sharing and end-user manipulation. We will consider the promise of using automated tools and contrast this with the reality of letting real users manipulation presentation semantics in real time.

The talk will not present a closed form solution, but will present a series of topics and problems that can stimulate the development of a new generation of systems to stimulate social media interaction.

Categories and Subject Descriptors

H.4.3 [**Information System Applications**]: Communication Applications - Computer conferencing, teleconferencing, and videoconferencing; I.7.2 [**Document and Text Processing**] Document Preparation - Languages and systems.

Keywords

Personalization; shared content; media browsing.

Short Bio

Dr. Dick Bulterman is President of the FX Palo Alto Laboratory (FXPAL) and professor of computer science at the VU University in Amsterdam. Before joining FXPAL in 2013, he was a senior researcher at CWI in Amsterdam, where he founded the Distributed Multimedia Languages and Interfaces group. In 1999, he started Oratrix Development BV, a CWI spin-off company that transferred the group's SMIL-based GRiNS software to many parts of the civilized world. Prior to joining CWI in 1988, he was on the faculty of the Division of Engineering at Brown University, where he was part of the Laboratory for Engineering Man/Machine Systems. Dr. Bulterman received a Ph.D. in computer science from Brown University (USA) in 1982. In 2013 he was awarded the ACM SIGMM Lifetime Technical Achievement Award. He is a member of Sigma Xi, the ACM and the IEEE.