

Social TV Workshop Position Paper

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Chris' Bio

Chris has been developing consumer products for the PC industry for over 10 years. He began his career in Japan, working with IBM Japan's Thinkpad product design group; where he developed a deep appreciation and knowledge for quality and highly functional products. He later moved to the VAIO division of Sony where he remained for close to 7 years. During his tenure at Sony, Chris made significant contributions to the success of a number of VAIO products. While still in Japan Chris became one of the early product planning team members of VAIO's digital home group. After launching VAIO's first ever PC targeted at the living room, he returned to the US where he continued his passion for delivering new digital home products and services. In the US Chris lead a new US based project focused on a next generation TV experience. During this time significant user research and development effort was spent on understanding how to create the best experience possible. The results of this work are currently being incorporated into future Sony wide projects.

Most recently Chris left Sony to become President and Chief Experience Architect for his own venture, GlideTV, where he continues to focus on delivering products that will improve the entertainment experience in the home.

Formal Education

Master of Science, Mechanical Engineering
Massachusetts Institute of Technology, 1998

Researcher, Mechanical Engineering
Chubu University, 1996

Bachelor of Science, Mechanical Engineering
University of Rochester, 1995

Topic of Interest

What are some of the challenges in developing and implementing social TV? How can they be addressed?

The Challenges

There are a number of factors that affect development and implementation of social TV or the broader scope of interactive TV: the first and most profound, in particular in the US, is the business constraints; the second has been technological constraints, and the third is the progress in human interaction methods for TV.

Business Constraints

Companies continue to struggle with finding a sustainable business model around social and interactive TV services. The heavy upfront investments from a hardware and software

perspective are not minor and there is still not a clear winning solution out there. The other related challenge is what type of box to create, is it an add-on device or a replacement device. Most mainstream consumers would prefer to avoid having to add any more devices to their living room and even if they are, often find it hard to justify a price over \$199. If we focus specifically on interaction around TV content, the even bigger challenge is how most US households receive that content today. 90% of US households get their TV via cable, satellite, or a telecom provider; the majority being the first two. These systems are, for the most part a closed system, and the end user is locked into the experience that each company has created. Improvements around these experiences have been extremely slow to come and have never been a revolutionary leap forward, but baby evolutionary steps. This is largely due to the fact that most decisions around changes to the service are influenced by business goals and monetization of services rather than improving the user experience. Developing an experience that includes cable like broadcast content requires huge up front capital, much more than many of the truly nimble and innovative companies might have. Convincing cable or satellite companies to adopt a new technology is also near impossible, as Tivo can attest to; who has taken years to even get 1 or 2 MSOs to begin incorporating their experience.

Technology Constraints

Most technology constraints today are less about availability and more about associated costs. MSOs are focused on driving costs out of their systems, not adding costs. As mentioned above, the mainstream user also does not want to pay much more than \$199 or at most \$299 for another device. This makes it extremely challenging to incorporate some of the more advanced features that would be associated with next generation interactive and social TV services. However, the costs of all the necessary technologies will continue to decrease and this will be less and less of a challenge.

Human Interaction Methods

Business and technology constraints are not the only factors that affect developing and implementing social and interactive TV: "At the end of the day, success or failure for iTV rides on whether a consumer can pick up a remote control, instinctively understand where they can go and what they can do with interactive television, and, once there, find that value has been added to the passive experience" [1].

The human interface to today's TV's is still based on legacy technology developed decades ago and has seen little improvements since. This problem is twofold: one is the hardware user interface, and the other is the software user interface. Unless both are addressed together, the evolution forward will take even

longer and we will see little progress made in the area of TV interaction.

With PCs we have had the flexibility of mice, touchpads, touchscreens, and a full QWERTY keyboards to drive interaction between humans and the interfaces on screen. Even cell phones now have full touch screens, full QWERTY keyboards, and now support all sorts of gestures. Yet the one device we use to interact with TV everyday (the remote) still relies almost exclusively on the legacy of a 4-way directional pad and select. The addition of new buttons only seems to add complexity, rather than improve the user experience. Improvements to the on screen user interface, as long as they rely on this type of remote, will always be limited and will have trouble scaling to support the types of social interactions that today's and especially future generations come to expect. Entering text, a common task associated with almost every type of social interactions today like IM, email, SMS, chat, etc., is near impossible with today's remotes. Bringing a keyboard into the living room has proved not to be the solution either; as has been proven by the lack of success of those PC products and other Internet enabled products designed to be used connected to a TV.

Possible Approaches

There are a number of ways that we can begin to develop social TV, avoiding the challenges discussed previously. The best way in the US is to avoid having to deal directly with the MSOs or their systems.

Multiple Screens

One often discussed approach is to utilize multiple screens. Take advantage of the other devices that users already are using, like mobile phones, or notebook PCs and have them interact with

these devices while watching TV. Many users are already engage in such activities. However, this limits the interactions to just a single person, i.e. the person holding the PC or the phone. In a family setting, often the entire family will be watching a TV program.

Next Generation Remotes and UIs

With the advancements in low cost processing power and other technologies, it is now possible to develop a new type of remote; one that puts more of the burden on the UI than on the device to handle much of the interaction. One company, Hillcrest Labs, has attempted to take on this challenge, with a new type of gyro-based remote that allows free control of a cursor. Other types of devices like Nintendo's Wii controller can also offer this type of free cursor control. These and others could potentially lead the way for improved TV interaction, providing a better means of socially interacting with TV while watching it, not requiring us to look away at another screen.

Closing Comments

This TV space, particularly in the US is a big challenge and will require some new approaches to business models as well as some new innovations around user interaction to move things forward. It will be very exciting to see where things go and that is why I am a part of it.

1. REFERENCES

- [1] Curran, S. (2003). Convergence design: Creating the user experience for interactive television, wireless, and broadband (Gloucester, MA: Rockport Publishers, Inc.)