VCDWG Report on TV/Video Research

CFP All-Members’ Meeting
October 28-29, 2009
Cambridge, MA
History of the research

- Mapping the industry landscape
- Historical perspective (4 phases of TV)
- Competitive dynamics
- Social TV
- The future of TV: all-IP, mobile (multi-platform), social
- Parallel research stream: Building social services
Activities

• Publications
  • Klym, Montpetit: Innovation at the Edge: Social TV and Beyond, 2008
  • Montpetit, Klym, Blain: “The Future of Mobile TV,” Mobile TV: Customizing Content and Experience, Springer November 2009 (available on CFP wiki)
  • Montpetit, Klym, Mirlacher, The Future of IPTV, MTAP Journal, January 2010
  • Klym, Montpetit, Blain: Building Social Services, IEEE CCNC’10 conference proceedings
  • Hietanen: Networked Digital Video Recorders and Social Networks, IEEE CCNC’10 conference proceedings
  • Martin, Santos, Shafran, Holtzman, Montpetit: neXtstream: A Multi-Device, Social Approach to Video Content Consumption, IEEE CCNC’10 conference proceedings

• Conferences
  • IEEE ConTEL conference in Zagreb, June 2009, keynote address
  • X|Media|Lab conference on Public Media, Amsterdam, November 2009, keynote address
  • IEEE CCNC’10 Workshop on social TV, January 2010, Las Vegas

• Industry meetings
  • PBS, HBO, WGBH, Thomson Electronics (France), Time Warner Cable, Shaw, Reed-Elsevier, BBVA

• CFP Workshop on video convergence
  • Spring 2010 (in conjunction with next plenary)
Building Social Services: Social TV case study

CFP All-Members' Meeting
October 28-29, 2009
Cambridge, MA

Natalie Klym
nklym@cfp.mit.edu
Social TV

- Consume
- Distribute
- Create

as a group
Social TV

- Consume
- Distribute
- Create

as a group of “friends”
Social TV

- Consume
- Distribute
- Create

as a group of "friends"

Familiar
Trustworthy
Relevant
Secure
Social TV

- Consume
- Distribute
- Create

as a group

of “friends”

- Groups are created using proprietary SN tools or
- Third party OSNs become a new player in the value chain
- “Friends” also participate in the value chain through social TV applications
Social TV

- Consume
- Distribute
- Create

as a group of “friends”

- Social TV applications
  - Shared viewing and interaction
  - Ratings and recommendations
  - Shared content distribution
  - Shared infrastructure
  - Shared content creation

Familiar
Trustworthy
Relevant
Secure

- Groups are created using proprietary SN tools or
- Third party OSNs become a new player in the value chain
- “Friends” also participate in the value chain through social TV applications
Social TV

- Consume
- Distribute
- Create

as a group

- Social TV applications
  - Shared viewing and interaction
  - Ratings and recommendations
  - Shared content distribution
  - Shared infrastructure
  - Shared content creation

Familiar
Trustworthy
Relevant
Secure

- Groups are created using proprietary SN tools or
- Third party OSNs become a new player in the value chain
- “Friends” also participate in the value chain through social TV applications

How to design social experiences?
Privacy issues?
Legal (copyright) issues?
Social TV

- Consume
- Distribute
- Create

The group becomes the “virtual operator” (community generated programming)
Community Generated Programming: Social, IP and Mobile TV

CFP All-Members' Meeting
October 28-29, 2009
Cambridge, MA

Marie-José Montpetit
MIT RLE
mariejo@mit.edu
“Social TV” everywhere

• VCD analysis identified:
  • Video convergence:
    • Mobile, broadcast, IP-based/OTT becoming one
    • Social TV as a driver to convergence
    • Service mix
    • The group becomes the operator and defines the brand
  • An embodiment of the vision:
    • The community multi-screen TV experience
Building the Virtual Operator

• The group as a “brand”
  • It’s formation enabled by a SN tool
  • Defined by what the group likes (or dislikes) based on rating
  • Suggestions not imposition of content

• Enables (social) Video Convergence
  • Watch on any “screen”
  • Combine OTT video, widgets, linear TV, UGC with IM, Twitter, conferencing etc.

  • Collaborative devices and UI
    • Use proximity
    • Use the “best” interface
Development & Research

- Common platforms
  - Development still done in “silos” with competing models
  - Moving from products (devices) to services (content)
  - Common backoffice/management
- Mixed centralized and peer-to-peer communications and transmission
  - Beyond storage – reliability and propagation
    - Some refs: Medard (2005), Fulu Li (2008), Lucani (2009)
    - P2P propagation and storage
    - New: add dynamics, multiple services, and mobility
- Heterogeneous network/device ecosystem aspects
  - Management of resources
  - Codecs and networks
  - End to end architecture and feedback loops
- User behavior and UIs
  - Lean back/lean forward
- Business models: who makes money where
  - Customer loyalty/increased participation
  - Cost to the users (including electricity)
  - Virtualization/resource sharing

MIT Communications Futures Program
Going Forward

• Join us:
  • CCNC10 Workshop on Social TV – January 9 2010
  • CFP Workshop on “Video Convergence” – April 2010
  • Class on “Social TV” at Media Lab – January-April 2010
  • Proposed SIGCOMM 2010 Workshop on IP based TV

• Open Issues: technology/network aspects of video convergence
  • How do we build better networks?
    • Leverage distributed information nodes/CDNs
    • Integrate networks and devices/codecs
    • Layer 3 (and below) aspects not be forgotten
      • Heterogeneous networks architectures
  • How do we build better experiences
    • Break the silo mentality
  • Prototyping (use class on “Social TV”)

• Link to PrivSec:
  • Who owns the Social TV experience?
    • The privacy mediator concept

MIT Communications Futures Program