

# Privacy for Social TV

## uxTV 2008: Workshop on Social Television and Video

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### Biography

#### Education:

BA Engineering, University of Cambridge, UK  
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#### Current Occupation:

Research Engineer, Interactive Platforms, BBC Research<sup>1</sup>

The Interactive Platforms group within BBC Research is the technical authority for digital text and interactive services on the BBC's television platforms.

The author's work within the group is focused on how digital TV receivers can make use of broadband IP connections in the home. Through the Digital Television Group (the industry association responsible for digital television in the UK), the BBC has been instrumental in developing a specification for interactive services that can seamlessly integrate broadcast and IP-delivered content.

In addition to this activity, the author has worked on demonstrations of various new services to explore the opportunities and challenges that will be presented by the next generation of interactive TV services, including social and personalised TV.

### Social Interactive Television

Several of the demonstration interactive services developed by the author have shown that Web content can be easily integrated into a broadcast interactive application (using the MHEG-5 middleware language). This technique only requires a standard web server and very little (if any) code needs to be added to either the web or interactive content. This can be applied to any web service that provides an API using HTTP GET and POST commands.

This enables an interactive service to present data from an RSS feed, which could contain news, personalised information from a social networking site or instant messaging data.

One use, which has been demonstrated by the author, would be to display and compose messages (using the social messaging service Twitter) over TV, allowing the viewer to conduct a two-way conversation in real time. Instead of sitting at a computer, with messages and video sharing a small screen, the viewer can enjoy the traditional TV experience but augmented with social messaging.

<sup>1</sup><http://www.bbc.co.uk/rd/>

### Privacy Issues

In general, the model of integration between the broadcast and broadband spheres treats the Internet simply as a means of transferring data and tries to avoid replicating the web experience on television. However, when considering privacy requirements it makes sense to build on the familiar solutions provided by the web and adapt them to a new environment.

In order to make use of a social or personalised service, a viewer has to identify themselves to that service. There are a number of techniques for how this might be achieved, many of them requiring the viewer to enter some data using their remote control.

Although it is difficult to achieve the same level of privacy that can be offered by a PC-based service with a keyboard, it is possible to limit the likelihood of a password or PIN being seen by another viewer by obscuring the displayed text, perhaps after a short delay to allow the viewer to confirm what they have entered. However, future devices may bring new challenges in this area. For instance, a free-space controller or voice recognition system both present very different scenarios to be considered.

Viewers' privacy requirements are tightly connected to their lifestyles, such that a single person, a shared household and a family with young children will all have different concerns.

Most people will want to be certain that they can share information with others while retaining control of their personal data. Some data may be for access 'at home' but not in public or when visiting friends. Viewers will expect at least the same level of control that is currently provided by web browsers.

Additionally, because television is a shared experience, viewers will need access to shared identities. For example, when a viewer is watching TV on their own and a second person arrives, a combined identity is then present, formed from each of their own identities and privacy settings.

Viewers also need a way of confirming that they have logged in and out of a service and that their personal information has really been deleted when they have requested it (and has not been intercepted via the IP connection). This is difficult to achieve in-band as an interactive application has complete access to the TV screen, so confirmation by email or text may be necessary.

The BBC hopes to deploy social and personalised interactive services to the public in the near future and is currently developing the ideas above to inform its requirements.