MyMedia: Dynamic Personalization of Multimedia

Alexander Voß
Microsoft EU Innovation Center
Ritterstraße 23
52072 Aachen
+49.241.99784.34
avoss@microsoft.com

Chris Newell
BBC Research & Development
Kingswood Warren
Tadworth, Surrey KT20 6NP, UK
+44 1737 839659
chris.newell@rd.bbc.co.uk

Paul Marrow
BT Innovate
Orion 3 Room 7 PP1
Adastral Park, Ipswich IP5 3RE, UK
+44 1473 641456
paul.marrow@bt.com

ABSTRACT
This paper describes a demonstration by the MyMedia EC-funded collaborative research project at the 2009 European Interactive TV conference. The MyMedia project addresses the key social problem of information overload that has been called the "Crisis of Choice". The project has developed a recommender system which provides personal recommendations about TV and radio programs tailored to specific individual tastes and interests by analyzing implicit and/or explicit user feedback.

This demonstration will show the current state of development of the recommender system technology and the associated user interface design work as the project prepares for four independent field trials.

Categories and Subject Descriptors
H.3.3 [**Information Storage And Retrieval**]: Information Search and Retrieval – *Information filtering, Relevance feedback, Selection process.*

General Terms
Algorithms, Design, Human Factors.

Keywords
Personalization, Recommender, Social Networks.

1. INTRODUCTION
The MyMedia project has created an open source software framework which allows the integration of multiple, Audio/Visual content catalogues and recommender algorithms into a single system. Application developers that want to incorporate the Dynamic Personalization Framework in their applications can easily use the architecture and tools provided by the project to create a recommender engine.

The framework architecture provides a platform for the evaluation of recommender algorithms [1] and for exploring metadata enrichment technologies [2, 3]. The project is also exploring the creation of media-centric social networks to exploit the potential of shared recommendations and user generated metadata such as tags [4].

2. FIELD TRIALS
The MyMedia project includes four comprehensive field trials in three different countries. Each trial will provide a user interface through which it will gather implicit and/or explicit user feedback.

The BBC field trial in the UK will explore MyMedia in the context of its developing online catch-up services. It will study the specific difficulties raised by continuous broadcast services where there is a constant stream of new content for which there is initially no user feedback for recommenders to exploit.

The BT field trial will investigate the provision of MyMedia recommendation services through its BT Vision IPTV Video-on-Demand purchasing service. Viewers will be offered recommendations to view and the trial will investigate their responses in terms of experience of the recommendation service, and effect on purchase of Video-on-Demand content.

The Microsoft field trial will investigate the impact of personalized recommendation services on the end user perceived usefulness of Microsoft's MSN Video content offerings. The field trial will incorporate social networking technology and analyze if recommendation services are influential to the personal relationships and media consumption habits of people in a given application context. Furthermore it will test novel ways to present content offerings and incorporate user feedback and analyze how they affect the user experience.

The Microgénesis field trial in Spain will involve Yoguie, an e-commerce application for audiovisual and musical content.

3. DEMONSTRATION

3.1 BBC demonstration
The BBC demonstration will show the use of the MyMedia Framework to provide personalized recommendations in the context of an online 7-day catch-up service for viewers of the BBC's broadcast TV and radio services.

The user interface will allow viewers to contribute explicit feedback about content and recommendations whilst also collecting implicit feedback. The benefits of personalized recommendations will be shown in comparison to non-personalized recommendations based solely on similarity and context.

Figure 1. BBC recommender demonstration.

3.2 BT demonstration

BT's field trial will be held in the UK in households and lab conditions with IPTV services provided through BT broadband. The BT demonstration will show how viewers can interact with the MyMedia recommendation toolkit in a novel IPTV context, through a simulation of this user experience generated from a laptop.

Viewers of the demonstration will initially see the front screen of the BT Vision service, and will be able to browse from this screen to other screens of the service, and see how recommendations provided by the MyMedia recommendation toolkit can be seamlessly integrated with the service.

Viewers can find out more information about recommended items, choose whether to purchase or not these recommendations, or follow up other directions. As viewer interaction with the system develops, the user profile should become more sophisticated and recommendations should correspond better to user expectations.

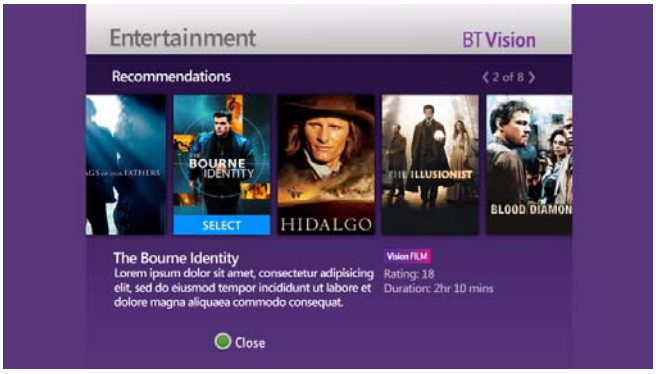

Figure 2. BT recommendations via BT Vision.

3.3 Microsoft demonstration

Microsoft will show a feature rich live demonstration of a prototype of MSN ClipClub which is a video sharing and social networking application that includes a video recommender based on the MyMedia recommender framework.

The demonstration will start with an overview of the novel user interface that enables people to interact with the system and provide feedback of a user's preference in a seamless fashion.

It will show in the live demonstration that even with few user feedbacks the MyMedia recommender framework can generate highly personalized media recommendations. Users are enabled to identify other people with similar likings based on their preferences and provided with an interface to share content offerings, exchange instant messages or invite people to the user's social network. Users can monitor and control their privacy settings to decide what preferences are shared with a broader public community.

Figure 3. MSN ClipClub demonstration.

4. ACKNOWLEDGMENTS

MyMedia is a collaborative research project funded by the European Commission. The partners are: European Microsoft Innovation Center, BT Research, BBC Research & Development, University of Hildesheim, Telematica Instituut, Technical University of Eindhoven and Microgénesis.

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