Interactive Television

Part 1: Theory

*Digital Interactive TV and Metadata* is structured into two parts. The first part focuses on technology for metadata and includes a comprehensive overview of standardization efforts (including Multimedia Home Platform [MHP], MPEG-2, Digital Video Broadcasting [DVB], and Advanced Television Systems Committee [ATSC]), metadata fundamentals (such as MPEG-7, MPEG-21, Scalable Vector Graphics [SVG], and DVB-HTML), and system architectures for metadata (such as Web deployment architectures, the Simple Object Access Protocol [SOAP], and network protocols for metadata transmission).

This part is especially suited for teaching purposes and gaining an in-depth view of digital interactive TV. It gives a nice overview of metadata in broadcasting, which is currently hard to find in existing works. The MPEG-21 sections are especially interesting because they provide so much detail; descriptions in other literature remain rare. In addition, this book includes the first real-world application scenario of MPEG-21 that led to the idea of the digital broadcast item (DBI)—an MPEG-21-based, value-chain spanning metadata framework for delivering digital services to the consumer while minimizing production costs.

Chapter 3 gives a nice look into the theoretical foundations of metadata. It describes formal language theory and how metadata models are derived that manifest today in XML.

Chapters 4 and 5 give an excellent overview of how to deploy metadata in digital broadcasting systems. The chapters present complete system architectures of broadcast stations or Web-based feedback channel networks including their network protocols.

Part 2: Applications

The second part focuses on innovations in digital TV, especially metadata-driven service concepts. This includes an overview of interac-
Further considerations

This book, together with the accompanying Web site (http://www.digitalbroadcastitem.tv), provides a rich resource for educators. The book is especially suited for the engineering audience in the broadcasting world. For decision makers, the second part of the book dealing with business models and consumer research is especially interesting. Also, because the second part has so many embedded nuggets and pieces of knowledge, it’s a nice resource for references and further reading.

As I read through this book, I found myself wondering, What will ultimately be the role of the TV environment? The book’s last chapter forecasts that digital TV will be associated with different revolutions. The authors anticipate that the next revolution will be media convergence, followed by TV as an immersive and ambient experience.

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