book proposal: topical media & game development

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online material – www.cs.vu.nl/∼eliens/media

manuscript (pdf) – www.cs.vu.nl/∼eliens/media/doc.pdf

short version (pdf) – www.cs.vu.nl/∼eliens/media/short.pdf

sample sections (pdf) – www.cs.vu.nl/∼eliens/media/media-course-full.pdf

the book

From the preface:

> *This book provides a concise and comprehensive introduction to multimedia. It arose out of the need for material with a strong academic component, that is (simply) material related to scientific research.*
>
> *The themes and variations addressed in this book may be summarized as follows.*
>
> <div align="right">themes and variations</div>
>
> - digital convergence
> - broadband communication
> - multimedia information retrieval
> - multimedia and game application(s)
>
> *To explain in somewhat more detail,* digital convergence *may be characterized as the coming together of data (including audio, video and information) in a possible multitude of platforms, to which these data are delivered by a variety of (broadband) communication channels. In fact, the increasingly powerful communication infrastructure due to the popularity of the Internet and the World Wide Web, leads to an almost universally accessible multimedia (information) repository, for which (unfortunately) the notion of (multimedia) information retrieval seems to have occurred only as an afterthought. Digital content design is only one step in the process of multimedia application development. Important issues in multimedia application development are, apart from project maanagement, data representation, navigation, presentation and usability.*
>
> *An underlying thought that motivated the writing of this book is that somehow the gap between* authoring *and* retrieval *should be bridged. In other words, either by developing the technology for extracting features or attributes from multimedia objects, or by applying content*

annotation for such objects, multimedia information retrieval should be considered as a necessary asset to make a multimedia web an effective information repository.

Another line of thought, that became more clear during the writing of the book is concerned with the aesthetics of (interactive) applications. You will find more on this in chapters 11 and 12, that deal with game development.

This book aims at giving a concise, albeit at times personal, introduction to multimedia, covering the themes mentioned above. It can be used either for self-study or as material for presentation in class. In the book an overview is given of concepts and technology that are present in multimedia practice and research. In addition, numerous hints are given for further reading, research and student projects.

brief history:
I started developing the course notes for the course Introduction Multimedia in the beginning of 2000. I used Principles of Multimedia Databases then as a book. But I was dissatisfied with the course, and decided to develop my own material. After presenting that in class, I decided to write the book, since the idea of it had grown over a period of almost two years.

The original title of the manuscript was *A (not so) gentle introduction to multimedia*. Only later I changed the title into the current title, since it seemed to reflect both the contents and the approach more adequately.

slides format Using my experience in writing the OO book, I again adopted the so-called 'slides' as a means to take text from the book for presentation. Let me explain that in somewhat more detail: a slide is a piece of text, a list, table or figure, that (using some tools) is taken out of the text and presented. The advantage of this approach is that the relation between slides and the text is immediate, which is not the case with other presentation formats. In contrast with the OO book, however, where the slides were made explicit by boxes in the text, I now use an implicit slide mode, to allow for more continuous text. The use of slides is, however, reflected in the text by what may be called a graphical or short hand style, using layout and brief bulleted phrases instead of long passages of text.

background

A full CV is available at: www.cs.vu.nl/∼eliens/cv/cv.html

previous titles of the author:
- DLP – A language for Distributed Logic Programming, Wiley (1992)
- Principles of Object-Oriented Software Development, Addison-Wesley (2000), 2nd edn. (translated in russian and chinese)

The material in the book is being used for a variety of multimedia courses[1] at the CS Department of the VU University Amsterdam, and partly based on my research[2].

contents

from the afterthought(s)

explorative development From the perspective of research, the situation is not much better. It is my strong belief, right or wrong, that relevant research in the area of multimedia and game development requires *explorative development*, that is the design and implementation of prototype applications that embody the realization of an idea, as with our research on the *digital dossier(s)*, an idea that includes technical as well as cultural and presentational aspects. But how hard it is to perform such multi-disciplinary research in an environment that is by tradition pre-dominantly mono-disciplinary.

Back to the book, apart from providing an introduction to a number of issues and research areas in the world of multimedia, this book also defines, in an implicit way, a research program that concerns the development and use of

virtual reality interfaces for multimedia information systems[3]

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[1] www.cs.vu.nl/∼eliens/onderwijs
[2] www.cs.vu.nl/∼eliens/multimedia/research
[3] www.cs.vu.nl/∼eliens/research

All aspect covered in this book contribute, one way or another, to that (implicit) research program that may be classified under the heading of *intelligent multimedia*, of which a tentative definition is given in appendix C. And, admittedly, there are many aspects that are not covered, in particular those that are related to more advanced multimedia, virtual reality technology, and artificial inteligence.

the skill(s) of relevance At this stage you may still wonder why I chose to name the book *topical media & game development*. Let me explain. The phrase *topical*, as an adjective, has the following meanings:

topical

1. designed for involving local application (as an anesthetic),
2. relating to, or arranged by, topics,
3. referring to the topics of the day or place.

Although certainly not meant as an anesthetic, and even though it is arranged by, or at least refers to, topics, the intended meaning is due to the motivation to write a book that is relevant for the topics of (interest of) todays world. And, although it may not teach you the actual skills necessary to survive in todays world of multimedia and game development, it is certainly meant to help you in acquiring the *skill of relevence*, see Education, in this area, a skill that you will need to find your proper place and direction, anytime, anywhere.

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