COMPSCI 708S1C Multimedia and Hypermedia Systems

Introduction to course and overview of Hypermedia and Multimedia systems

Department of Computer Science, UoA
Emilia Mendes (supervisor) (emilia@cs), city room 583
Georgy Gimel'farb (g.gimelfarb@auckland.ac.nz), Tamaki room 320
Chris Anderson, (chris-a@cs), city 3rd floor technical team

http://www.cs.auckland.ac.nz/compsci708s1c/

Course Aims

- To look at the use and development of multimedia and hypermedia applications
- Introduction to terminology
- Understanding of concepts
- Experience in developing hypermedia applications and image retrieval research

Course Outline (1)

- A model for the Design and Development of Multimedia and Hypermedia projects
- Using Macromedia Director
- Graphic design and Usability
- Usability assessment of MM/HM applications
- Research Topics in Hypermedia
- How to manage MM/HM projects effectively

Course Outline (2)

- Content-based Information Retrieval
  - Querying, searching
  - Interaction and evaluation
  - Colour, texture, shape features
  - Image indexing
  - Dimensionality reduction
- Moving Picture Experts Group 7 (MPEG7) is often used as an example

Texts

- There are no prescribed textbooks in this course
- However, research of numerous sources (e.g. The Web, books) will be required

Course Organisation

- Teaching
  - Emilia and Chris lecture during first 6 weeks; Georgy last 6 weeks
- Assessment
  - 50% assignments; 50% exam
  - A pass in both practical and theoretical is necessary to pass the course
- Assignments
  - 5 assignments (group projects and individual presentations)

During Classes

- Explanation of concepts
- Debate over a topic ;-)
- Presentations (given by yourselves)

Our Team: Chris Anderson

- Qualifications:
  - MSc & BSc in Computer Science
  - 12 years Multimedia experience
- Research interests: Media & Compression
  - MPEG, predictive audio & video compression
  - GUI design & use
- Standup comedian & Improvisor
- Illustrator & Cartoonist

Our Team: Georgy Gimel'farb

- Qualifications:
  - PhD in Engineering Cybernetics
  - MSc in Computational and Mathematical Devices
  - D.Sc.(Eng) in Control in Engineering Systems
- More than 40 years of research and teaching experience
- Research interests: computer vision, image processing and retrieval, pattern recognition
- More detail including personal interests: in http://www.tcs.auckland.ac.nz/~georgy

Our Team: Emilia Mendes (sup.)

- Qualifications
  - PhD Computer Science, UK
  - MSc Computer Science, Brazil
  - BSc Computer Science, Brazil
- 10 years software development experience
- Research interests:
  - Empirical software/Web engineering (cost estimation, sizing, quality, usability)
  - Hypermedia
  - CS/ SW. Eng. Education
- Crochet & oil painting

Concepts

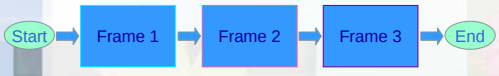
- Multimedia
- Hypertext
- Hypermedia

And now the Survey

- Please fill out our survey questionnaire and hand it back to Emilia by the end of this class.

Multimedia

- Use of different types of media to present information. Examples of media are text, audio, video, and animations in digitised form.
- Multimedia applications often offer its users a sequential trail to follow.



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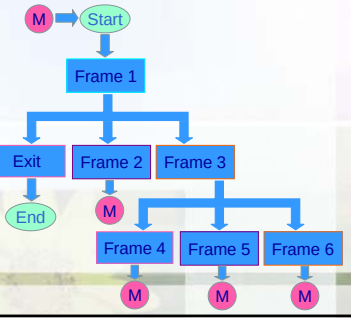
Hypertext (1)

- Text chunks are related to one another non-sequentially;
- Non-sequential writing and reading



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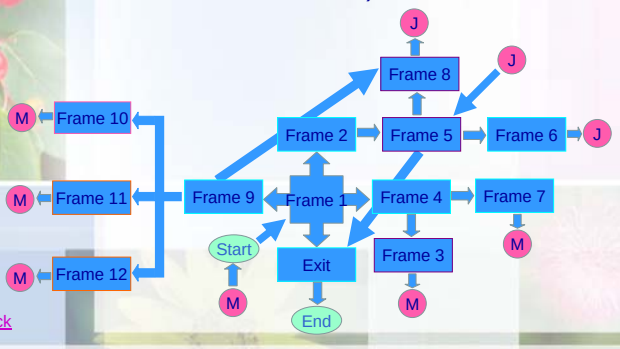
Hypertext (2)

- Different backbone structures (e.g. hierarchical, network)



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Hypermedia

- Also non-sequential writing and reading, however this time chunks of information consist of multimedia pieces (text, audio, video, animations etc)

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