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ABSTRACTS - MULTIMEDIA DEVELOPMENT PROCESS

Development of multimedia interactive presentation demands information technologists to interact with artistes, historians, social scientists, archaeologists and other persons in non-computer fields. Multi-disciplinary nature of this development poses interesting challenges for designer planning and management.

Interactive Virtual Heritage Documentation using Image and Video Based Modelling and rendering

The digital documentation of virtual heritage poses many computational challenges primarily due to the multiplicity of media and also the inherent intricacies that are present. Traditional methods of synthetic image generation rely on the use of geometric modeling and rendering of scenes and the use of animation for time varying display. While rendering techniques abound with colour, texture, material and lighting effects etc., realism is rather difficult due to the need for capturing all the detail that is present in the original. Image based modeling and rendering refers to techniques that generate new images from other images (typically images of the original object), and also enable the creation of digital 3D models from images of the original. These techniques have been used for the generation of scenes with dense image-based 3D objects like forests, cities, not-rigid scenes and moving illuminations. Obtaining inputs, preprocessing them and conditioning them for extraction of desired models or rendering from different view points in varying environments are some of the challenging issues being addressed these days. At the National Centre for Software Technology (NCST) we have been carrying out some work in this area. This presentation will briefly introduce the problem, review the state of the art and then present the work being done at NCST.

Managing Electronic Interactive Multimedia Publishing: A case Study by Arvind Jha

Encyclopedia India is the largest electronic interactive multimedia database on Indian tourism. It covers over 600 cities and almost 4000 sites within these cities. Historical monuments, religious places, parks and later adventure sports, markets and bazaars, wildlife parks, beaches, hill station, modern institutions, cultural centres and virtually any tourist attraction throughout India is presented through text, images, sounds, videos and an aesthetically pleasing and Indian context. India's history and demographic facts, course ,music, cuisine, festivals are all part of this almost 4 giga-bytes (4000 million bytes) database spread over 6 CD-ROM.

The two and half years span in developing this product have been an eye-opener for the author in the context of electronic multimedia publishing. A variety of problems, blind allays, mistakes, fumbles, wrong starts and all sorts of the "unexpected" have raised their head at various stages.

The challenge to take them head-on and to dourly graphic with these situations has taught the author great tenacity and made one wise to the process of multimedia interactive database development.

This paper is a case study of the experiences involved in developing such a large project. It details the problems encountered the solutions attempted and conclusively shows that there is no alternative to detailed planning even when one is sure that most planned events will run into problems. The requirements design artists, historians, social scientists, archeologists and other personnel from non computer-intensive fields. For a generation accustomed to interacting with and manipulating "machines", this present a great challenge. the learning curve of this process makes interesting reading.

Methodology of Multimedia Production by Atul Pant

The World multimedia refers to the integration of multiple media - such as visual imagery, text, video, audio, sound and animation - which together can multiply the impact of the message. The production of fine-quality, high-end interactive multimedia applications is the work of a team of specialists from varied fields, whose efforts are coordinated by a project leader. The prime roll the project leader is to keep the project on schedule and on-budget.

The production of interactive multimedia applications involves multiple steps. It can broadly be divided into - conceptualisation, defining project goals and objectives, defining the target audience, defining the production schedule, project, budgeting and copyright issues. Conters identification, selection, development and acquisition is the next major task involved is developing a good multimedia title. content refers to text, narration, graphics, colors backgrounds, videos and animation. It has 'value'-usefulness and significance; and a 'cost' the monetary price incurred to acquire or develop content.

Testing of a multimedia title is essential so that the final application is a high quality product, not infested with bugs, technical snags, inaccurate information or simple grammatical of typographical errors. The process of evaluating (testing) and revising a multimedia application project is dynamic and constant. It involves both internal and external evaluation. Use documentation is another very important feature of high-end multimedia titles. This includes instructions for installing system requirements, developing acknowledgements, copyrights technical support and other information important for the user.

Finally the multimedia title has to be burnt on to a CD-ROM for further reproduction and distribution.