Preface

In recent years there has been a rising awareness within the international scientific community that there is a need to study the various aspects of the integration of images and new media both from the point of view of computer science as well as from other areas which deal with users' interface to information sources, in particular design, psychology, education, political science, sociology, and philosophy.

To a certain extent the view of the topic from any single one of these disciplines leads to a one-sided analysis. Indeed, interdisciplinary approaches involving two or more of them applied to selected research problems have emerged. Examples of scientific conferences which embody such approaches are CHI and the German "Mensch und Computer" Conferences, where in particular the collaboration between disciplines is furthered. Truly interdisciplinary research involving pairs of disciplines, or even triplets or quadruples of these areas, are still few and far between.

At the same time, a number of research universities world wide have risen to the task of providing formal structures in which interdisciplinary teaching and research on these topics can take place. In particular, degree programs have been developed in which faculty from the different areas contribute to teaching undergraduate or – more often – graduate students with the goal of leading the next generation of scientists toward interdisciplinary research. Such degree programs place a large burden on their students, as they are to integrate in their minds the teaching of various different subjects – often with goal of achieving a deeper understanding of the interdisciplinary nature of the subjects than their professors from any one of the contributing subjects might have. In keeping with this challenge, such degree programs are often associated with centers of excellence in research within the respective institutions.

In April, 2003 representatives of a group of German research universities offering degree programs in the areas of **Computational Visualistics** (CV) and **Media Informatics** (MI) (together abbreviated CVMI) met for the first time in Magdeburg, Germany. Their goal is to collaborate in research and research-oriented teaching through the exchange of ideas, information and experience. This volume collects information on their views of their own degree and research programs as a starting point for discussions. The volume also contains examples of interdisciplinary research being carried out in the area.

The CVMI Group has decided to collaborate in a number of areas. Eventually this is to take place in a virtual community, hence this volume presents a number of papers on this topic. In the meantime a web site **www.cvmi.net** with information on the CVMI Group's activities is being built up. The first of these activities are:

- **CVMI Summer School**
  Students at the various institutions are to be given the opportunity to network among one another and also take part in specialized courses offered by faculty at other uni-

versities. Therefore the CVMI group plans to carry out a first Summer School in about August, 2004. The CVMI Summer School 2004 is being organized by Jürgen Friedrich of the University of Bremen.

- **Registry of Graduates**

  The number of graduates in the new degree programs of the CVMI group is small and for the foreseeable future will remain relatively small compared to those of mainstream computer science programs. Graduates can join a virtual community which will provide them with the possibility to interact with one another. The community will also provide and interface for employers to post job offers. The editor is Jürgen Friedrich of the University of Bremen.

- **Collection of Teaching and Research Materials as well as Data**

  One of the challenges of a new interdisciplinary topic as is being addressed by the CVMI group is that specific research compendia as well as teaching materials and data often have to be developed and compiled. This is necessary on the one hand to provide impulses for interdisciplinary research as well as to cater adequately to the interests and needs of the students in the interdisciplinary degree programs.

  The CVMI Group will build up a depository of materials which are to be shared. It will have three sections:

  o Research
  o Teaching
     Course descriptions and teaching materials (typically at the graduate level) used to lead students on to their own research topics
  o Data
     Geometric models and other media created at the institutions involved and which are being given away for free for educational and research use.

  The editor is Ian Pitt of University College Cork.

- **Registry of Degree Programs**

  The degree programs of the research universities involved in CVMI share the common goal of wanting to prepare students for the specific challenges of working with new media by using the methods and tools of computer science with an understanding of the context in which the media will be used. The degree programs being offered today were developed largely independently of one another, and each has its own focus. There is thus the need to inform future employers what students who study in the degree programs offered by the institutions represented in the CVMI Group are actually capable of doing. On the other hand, prospective students need to be aware of this and the individual differences between the programs so that they can choose the one that

will best allow them to pursue their own interests. The editor is René Rosenbaum of the University of Rostock.

- **Foundations**

  Interdisciplinary research in Computational Visualistics and Media Informatics raises the question as to the relationship between these two topics and the more traditional topics like computer science, design, psychology, education, political science, sociology, and philosophy. The fundamental question which is raised is whether a theoretical basis can be found which defines the new emergent area. A group being organized by Klaus Sachs-Hombach (Philosophy, University of Magdeburg) is investigating these questions. Initially, the other members of the group are Jana Dittmann (Computer Science, University of Magdeburg), Heidi Schelhowe (Computer Science, University of Bremen), Ulrike Spierling (Design, University of Applied Sciences, Erfurt), and Gerhard Weber (Computer Science, Multimedia Campus Kiel).

The CVMI Group actively seeks communication with scientists and university teachers involved in the areas of computational visualistics and media informatics. The English language has been chosen as the language of communication within the group of scientists so that their thoughts can be shared with the international community at large.

The editors wish to thank all those persons who participated in the Workshop, particularly those who volunteered to coordinate the activities listed above. Thanks also to Mara Mellin for proof-reading the papers in this volume.

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