With the advent of new forms of media and the rapid evolution of interaction devices, there is a continuous cycle of renewal in the approaches and technologies that support the creative process of artists, interaction designers and developers. This renewal cycle needs to be grounded on the understanding of fundamental aspects of perception and cognition in interaction in order to perform a clear shift towards better interfaces and evolved user interaction. The Smart Graphics series of events closely explores this cycle of renewal by gathering and promoting multidisciplinary approaches. The development of such new approaches requires an understanding of the fundamentals of perception and cognition as they relate to interaction and communication technologies, together with artificial intelligence and computer graphics techniques to automate reasoning and enhance cognition. Smart Graphics is in essence an interdisciplinary endeavor and brings together the fields of computer graphics, artificial intelligence, cognitive science, graphic design and fine art.

From year 2000 that hosted a AAAI Symposium that initiated the event and all along the 10 next years, the Smartgraphics series has been endlessly exploring the interfaces between Computer Science, Arts, Design, HCI and Psychology. This quite unique series of events now gathers a passionate group of researchers and is an opportunity to discuss, exchange and collaborate.

For the first time we dedicate a special issue to this event, which celebrates the 10 years of the Smartgraphics Symposium. The issue illustrates the spectrum of papers that are typically selected and presented during the event and make it a success.

In this special issue, we have gathered five contributions that offer a typical overview of research topics at the core of the Smartgraphics event, ranging from viewpoint computation, data visualization, intelligent user interfaces, to augmented reality for graphical augmentation of instruments.

The first paper explores issues related to the World in Miniature (WIM) metaphor i.e. displaying a miniature copy of the environment from a second dynamic viewpoint. The authors propose an original contribution on handling the occlusion inside the WIM using a cell decomposition technique to maintain visibility.

The second paper studies a new graphical representation to support hierarchical structure and semantic relationships in TagClouds visualization. The authors propose to rely on a TagCluster metaphor that first identifies semantic groups in the data and then proposes a specific visualization that highlights relations and hierarchy using overlapping regions.

The third paper proposes a visualization system to address a well-known problem in our every-day lifes, that is the handling and organizing
of e-mails. The authors design a physically-based metaphor, Magnet Mail, to map user interaction and relationships among emails and keywords.

The fourth paper describes a prototyping tool for the smart design of pop-up cards (with a three-dimensional structure that can be folded flat). Such cards follow a list of empirical design rules that the authors have integrated inside an assistant interface. Different examples are detailed and user evaluations are reported.

Finally, the last paper presents a real-time graphical augmentation of a complex musical instrument: an organ. The authors propose some intuitive and familiar representations (LED-bar VU-meters) which are directly mapped on the pipes of the organ through the use of multiple projectors, thereby augmenting the artistic content of the musical event.

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