Call for Papers

Smart Depiction for Visual Communication

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Guest Editors
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As computers become faster, smaller, ubiquitous, and interconnected, their primary function is shifting from computation to communication. Visual media in the form of photographs, photorealistic renderings, diagrams, sketches, animations, and film are increasingly generated, manipulated, and transmitted by computers. Yet even with the aid of a computer, producing effective and expressive visual content can take hours or days and consume considerable artistic skills. The challenge is to develop new algorithms and user interfaces that facilitate visual communication by making it fast and easy to generate compelling graphical visual content.

The most effective graphics combine principles and techniques from graphic design, visual art, perceptual psychology, and cognitive science. Smart depiction systems are computer algorithms and interfaces that embody these principles and techniques. Such systems hold the potential for significantly reducing the time and effort required to generate rich and effective visual content.

The purpose of this special issue is to attract novel research results on smart depiction for visual communication. We seek work that identifies and algorithmically instantiates the principles and techniques for creating effective visual content. Potential topics for articles include, but are not limited to:

- Visual abstraction techniques
- Dealing with visual density and clutter
- Creating effective explanatory animations
- Material perception, depiction, and stylization
- Improving comprehensibility of photorealistic images
- Automated lighting and viewpoint control
- Design principles for layout and composition
- Shape and space perception and visualization

Articles should be fewer than 10 magazine pages, where a page is 800 words and a quarter page image counts as 200 words. Cite only the 12 most critical references, and consider providing background in sidebars for nonexpert readers. Color images can be interspersed through the article and should be limited to a total of 10. Visit CG&A style and length guidelines at http://www.computer.org/cga/author.htm.

Please submit your article using our online manuscript submission service at http://cs-ieee.manuscriptcentral.com/. When uploading your article, please select the appropriate special issue title under the category “Manuscript Type.” If you have any questions about submitting your article, please contact Alkenia Winston at cga-ma@computer.org.

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