



## From the Editor

### The Best and Brightest

**Jim Foley**

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Looking back over the evolution of computer graphics from its early beginnings in the 1950s and my first studies in the mid-1960s, it's clear that academic research, often done by bright, young PhD students and recorded in their dissertations (and conference and journal papers), has advanced many facets of computer graphics and associated applications. Thus, the *IEEE CG&A* editorial board has established the Dissertation

Impact department to acknowledge these early research contributions. I feel privileged to have been asked to be that department's editor.

Dissertation Impact will feature articles by award-winning young PhDs a few years after graduation. The articles will summarize, in a way that's more accessible to our readers than the dissertation or its derivative research papers, what the research was about and what impact that re-

### Welcome to the Editorial Board and Advisory Council



In addition to his role on the CG&A advisory council, **Jim Foley** will be rejoining the editorial board as an associate editor and department editor of the Dissertation Impact department. Foley is a professor and the Stephen Fleming Chair in Telecommunications at the Georgia Institute of Technology's School of Interactive Computing. He was the founding director of Georgia Tech's Gvu Center. He spent four years in Cambridge, Mass., directing US research labs for Mitsubishi Electric. He's the coauthor, with Andy van Dam, Steve Feiner, and John Hughes, of several computer graphics books. He received ACM Siggraph's biannual award for lifetime contributions to computer graphics and ACM SIGCHI's annual award for lifetime contributions to human-computer interaction. He's a member of the US National Academy of Engineering and a fellow of the American Association for the Advancement of Science, ACM, and IEEE. Contact him at [foley@cc.gatech.edu](mailto:foley@cc.gatech.edu).



Editorial board member **Seok-Hee Hong** is a professor and a Future Fellow at the University of Sydney's School of IT. She previously was a Humboldt Fellow and a leader of the Visualization and Analysis of Large and Complex Networks project at the National Information and Communications Technology Research Centre, Australia. Her re-

search interests include graph drawing, algorithms, information visualization, and visual analytics. She co-developed open-source visual-analytics software called GEOMI (Geometry for Maximum Insight).

Hong received a PhD in computer science and engineering from Ewha Womans University. She won the 2006 Computing Research and Education Association of Australasia Chris Wallace Award for Outstanding Research Contribution in the Field of Computer Science, for her work on the theory and practice of graph drawing. Her latest project is Algorithmics for Visual Analytics of Massive Complex Networks. Hong is the author of more than 140 publications, including 10 edited books, seven book chapters, 40 journal papers, and 90 conference papers. She has given 10 invited talks at international conferences and 50 invited seminars worldwide.

She's on the steering committees of the International Symposium on Graph Drawing (GD), IEEE Pacific Visualization Symposium (PacificVis), and the International Symposium on Algorithms and Computation (ISAAC). She has been a program committee chair of the 2004 Australasian Workshop on Combinatorial Algorithms, the 2005 and 2007 Asia Pacific Symposium on Visualization, GD 2007, ISAAC 2008, and PacificVis 2013, and a program committee member of 50 international conferences. Hong was a founder of PacificVis and is an editor of the *Journal of Graph Algorithms and Applications*. Contact her at [shhong@it.usyd.edu.au](mailto:shhong@it.usyd.edu.au).

search has had, is having, and is expected to have. The authors will present their research vision, why it matters, and how that vision is materializing. We'll request articles from recipients of best-dissertation and best-student-paper awards given by computer graphics groups and conferences.

The first article in this department is on page 8 of this issue. It's by Alex Endert, who earned his PhD from Virginia Tech in 2012 (advised by Chris North). Alex received the 2013 best-dissertation award from the Visualization Pioneers Group (VPG) of the IEEE Visualization and Graphics Technical Committee. We'd be delighted if the establishment of this department encourages other groups to emulate the VPG's best-dissertation award.

A dissertation's impact can take many forms. One is the establishment of a new direction or theme taken up by other researchers to probe more deeply, to generalize, or to apply in a different domain. Another is the researcher's own insights that extend into new research. An additional impact is the research's development toward use in

practice—for example, converting prototype research software into a tool that's more robust and more usable beyond the research lab. That might happen initially in a government or industrial lab. The idea might be so powerful and ready for prime time that it becomes a feature added to an existing product or spawns a new product by itself. An article might trace some of the steps—and likely missteps—as the idea moves from research to practice.

These articles might also speculate on how current software systems and products can use the research contributions to extend capabilities or reach new classes of users.

We want Dissertation Impact to highlight the most promising of those dissertations. Suggestions for dissertations to consider for this department are welcome.

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Editorial board member **Gerik Scheuermann** is a full professor at the University of Leipzig's Institute for Informatics. He previously was an assistant professor of computer science at the Technical University of Kaiserslautern. His research interest is visualization with a broad spectrum of methods

and applications, including fluid dynamics, solid mechanics, neuroscience, biology, and the humanities. Scheuermann received a master's (diplom) in mathematics in 1995 and a PhD in computer science in 1999, both from the Technical University of Kaiserslautern. He completed his postdoctorate at the University of California, Davis. He's a coauthor of more than 160 reviewed book chapters and journal and conference papers. He was the paper cochair for the 2008 Eurographics Conference on Visualization (EuroVis) and the 2011 and 2012 IEEE Scientific Visualization Conference, and was the general chair of EuroVis 2013. He has been on the *IEEE Transactions on Visualization and Computer Graphics* editorial board and is on the editorial board of the *Visual Computer*. Contact him at [scheuermann@informatik.uni-leipzig.de](mailto:scheuermann@informatik.uni-leipzig.de).



After 20 years of service as an associate editor, **Rae Earnshaw** has retired from the CG&A editorial board. The CG&A editorial board would like to express its highest gratitude for Rae's two decades of service and contributions. Continuing his commitment to the magazine, Rae will be moving

to our recently established advisory council. He's a professor of creative industries and interactive systems at Glyndŵr University and an emeritus professor of electronic imaging at the University of Bradford. He's the UK representative at the International Federation for Information Processing (IFIP) Technical Committee 5 (Information Technology Applications), a member of the European Union and US National Science Foundation Joint Research Strategy Committee, and an adviser to several overseas governments. His research interests include mixed reality and technology platforms for cultural and artistic creative expression.

Earnshaw received a PhD in computer graphics from the University of Leeds. He completed the UK Leadership Foundation's Top Management Programme (TMP) in 2005. He was Pro Vice-Chancellor at the University of Bradford from 2004 to 2009 and was a former dean of the university's School of Informatics. He has been a visiting professor at the Illinois Institute of Technology, George Washington University, and Northwestern Polytechnical University, China. He received the IFIP Silver Core award in 2010 and an honorary fellowship of the British Computer Society in 1994, and was a Goodwill Envoy to Fukushima Prefecture, Japan, in 1991. He's a TMP Fellow, a Chartered Engineer, and a Chartered Information Technology Professional. He has published 200 papers and is author, editor, or coeditor of 36 books. Contact him at [r.a.earnshaw@bradford.ac.uk](mailto:r.a.earnshaw@bradford.ac.uk).



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