Welcome, and Beyond

Welcome to the beginning of another year of CG&A. For me, 2007 was a year of transition and restructuring. I hope in 2008 to look more to the future. First, however, I would like to publicly thank Miguel Encarnação for accepting the position of Associate Editor in Chief in charge of general submissions last September. Miguel has been on the board for several years and brings formidable technical, organizational, and persuasive skills to the task. Holly Rushmeier, who formerly had that role, has graciously agreed to take over my old job of AEIC in charge of our theme issues. Their hard work and expertise ensures the quality of our publication, and I am very grateful to them.

Traditionally at this point I would enumerate the editorial calendar, thank everyone, and close. Instead, I am going to reflect on the structure defined by the editorial calendar (see the inside back cover) and how this relates to the evolution of technical publishing.

Digital versus paper

The Computer Society, like other technical publishing organizations, has evolved a process optimized for taking content created by authors from the technical communities it serves and creating sets of bound, printed pages. In the case of CG&A, the driving force for the entire publishing process is the need to produce exactly one magazine’s worth of pages every two months in time to mail it to subscribers.

As well as generating printed pages, the production process generates PDF files, which are indexed and added to the CS Digital Library. This makes the articles available for individual discovery and download. Which issue any particular article was printed in becomes only one of many pieces of metadata associated with the file. The carefully constructed entity that is a specific issue of the magazine is, at best, only weakly preserved in the Digital Library.

As we move to a primarily digital future, I believe we need to clearly understand all the value that creating a bound collection of articles called a magazine adds. Perhaps we should free ourselves from the constraints needed to produce one magazine’s worth of pages every two months and simply stream content into the Digital Library as it becomes available. But, if producing a bimonthly magazine does add value, how do we preserve and perhaps even enhance that value in digital form?

Most discussions about doing away with printed pages start with an analysis of paper versus displays. It is generally agreed that people prefer to read text on paper, but they will read the information on a display if the benefit is sufficient. It is usually easier to methodically search and organize digital files than stacks of papers. But, it is faster to visually search, compare, and incrementally organize printed pages if they can be conveniently spread out and manipulated. Paper has higher spatial resolution; displays are interactive. All these affordances are important and suggest that printed pages will not become entirely obsolete in the digital future. But they do not specifically support printing whole magazines on a regular basis.

Another common topic in the digital versus paper discussion is the value the editorial process adds. An article that has passed peer review has more value than one self-published on the Web because the review process ensures a certain standard for accuracy and originality. Different publications have different standards, so where the article is published influences its perceived value. Even within CG&A, standards differ not only from peer-reviewed articles to departments, but also among the departments themselves. But as online magazines clearly illustrate, editorial control can be applied without printing paper.

What to read (or not to read)

A bound magazine in the hand is a package of ideas presented in a form that is familiar, easy to browse, easy to carry, and easy to read almost anywhere. It has a uniform style, and the collected content is selected to reflect the publication’s editorial goals. In the case of CG&A, the content is often focused on a common theme. The articles are current, providing a snapshot of the state of the art.

The result of searching a digital library is also a collection of articles. Unlike a magazine, it varies in its visual style and editorial point of view, reflecting its original sources. Some digital collections may be current, some historical. But most significantly, what to include is often decided entirely by the reader’s ability to find and recognize articles of interest. It is a personal collection, not one created by an editor or editorial board.

I believe collections created by experts hold significant value. A wise professor told me early in my career (well before the birth of the Web) that it is easy to find published material on any topic; the important question is whether you should bother to read it. A successful magazine will be read regularly for its selection—for the editorial wisdom that decided which of the many possible things you could read are the important things
you should read, and which things are interesting to read together.

We should increase the use of collections in our digital publishing. Digital collections are easier to create than printed and bound pages and are not constrained by the economics of bulk printing and mailing. A digital collection can be as simple as a Web page with recommended links or a package of PDFs provided as study materials for a course. The hard part is defining and controlling quality and, perhaps even more important, the perception of quality within the communities we serve. One obvious package to facilitate in digital form is the existing magazine structure, which is currently hidden in the IEEE Xplore and CS Digital Libraries.

**Evolving the publication process**

The process that currently produces a high-quality, edited collection (magazine) every two months must not be lightly dismantled in the name of enhanced digital access or cost restructuring. Structure and deadlines are necessary for all creative enterprise. We need to build on our existing expertise or we will flounder. We must experiment now so we can learn and evolve. But, we must experiment carefully, as the rippling effects of changes will take time to fully appreciate.

It is possible, for example, to allow preprints of accepted articles to appear in the digital library before they are actually printed. This pleases authors as it decreases the time between acceptance and publication. It also improves the magazine’s submission-to-publication statistic. However, it may actually increase the time it takes for the article to appear in print (polished and collected) by reducing the pressure on authors to cooperate with the production staff.

Do we put controls in place to force compliance with the current process, or do we move toward a different structure that decouples the final polishing from the actual printing? The first preserves the existing process, the latter evolves it. Controls may be necessary in the short run, but the polish that expert copyediting and layout provides must ultimately be separated from the need to print pages.

At this step in our evolution, the print cycle drives our budgets, staffing, and schedule. Its structure is critical to the successful publication of *CG&A*. If we decided tomorrow to stop printing pages, we would still need the structure to maintain our standards and to keep our processes from floundering. Evolving this structure as publishing changes will take lightweight, flexible experimentation coupled with insightful analysis. Only in this way can we develop a clear understanding of the many delicate relationships between process and product.

Contact Maureen C. Stone at stone@stonesc.com.

---

**Coming Next Issue:**

**Computational Aesthetics**

Computational aesthetics is the study of computational methods for eliciting a specified emotional response from a human. Currently the field focuses on making computers better tools for creating visual artifacts that invoke an emotional response in humans when they view the artifact. For example, a digital image might be beautiful because it invokes feelings of joy. However, not all that is aesthetic is intended to be beautiful. For example, a drama might evoke feelings of sorrow by revealing a truth about the human condition. This research aims not only to maximize beauty but also to investigate what effect image creation algorithms have on a viewer, and how to modify these algorithms for a desired effect.

---

**TPCG’08**

“Theory and Practice of Computer Graphics”

University of Manchester

UK

9-11 June 2008

The 26th Conference organised by the UK Chapter of the Eurographics Society will be the sixth Theory and Practice of Computer Graphics Conference (TPCG’08).

Paper Submission Deadline

10 March 2008

Papers to be published by Eurographics

The conference focuses on theoretical and practical aspects of Computer Graphics, bringing together top practitioners, users and researchers to inspire further collaboration - particularly between academia and industry.

http://www.eguk.org.uk/TPCG08