Looking Forward

Forrest Shull

HAVING JUST RETURNED from the annual meeting of the IEEE Software boards, I thought that this would be an opportune issue in which to do something a little different: rather than use this space to discuss a technical issue, I’d like to share with you some of the priorities and plans we’ve been making to guide the next year’s work on this magazine. We would love to get feedback on how well these match the priorities and interests of our readers, so please do feel free to write me with your reactions, comments, and suggestions.

First, let me give you a little context on the board meeting itself: this is the annual face-to-face meeting of the many volunteers who put energy, creativity, and effort into the magazine. It’s our chance to review together the prior year and set the direction for the one coming. The attendees include me, members of our industry advisory board, the associate editors in chief who handle the peer review process in their areas of expertise, and the department editors who produce the columns that appear in each issue.

Transforming How Readers Get Information

As has been the case for the past several years, the data continue to show huge changes in the way that readers access our content: this last year continued a trend in which we see sharp increases in the number of electronic downloads of our content through the digital library, the number of hits on our Computing Now pages, and the number of subscribers to our digital edition. A more recent trend is that we’re also reaching more people than ever through social media sites such as Facebook and Twitter.

We’ve been very gratified to see the substantial increases in all of those metrics, and will continue to work on increasing our reach in these media. Our digital edition (www.qmags.com/ISW) has been particularly important in giving us an accessible way for people to reach our content in formats that might be more convenient for them and that work well with tablets, iPads, and the like. At the same time, we feel it’s important that print not go away because so many readers have let us know that they still find it convenient to browse through the physical magazine, especially on travel.

Successes in the digital arena bring further concerns of their own, of course. For example, one thing that we discussed extensively is what it means to have more readers accessing our content article by article instead of browsing through each issue as it arrives. No one will argue against the convenience of being able to search and find—electronically—the most relevant content for one’s current interest, regardless of when it was actually published. Yet, speaking for myself, I still enjoy the ability to flip through a print magazine because I often stumble across compelling articles in areas that I didn’t realize I would find interesting. Our boards

IEEE Software
Mission Statement:

To be the best source of reliable, useful, peer-reviewed information for leading software practitioners—the developers and managers who want to keep up with rapid technology change.
are concerned about how we can replicate that sense of serendipitous discovery even as more people access digital articles directly.

An ongoing initiative has been to take advantage of digital media to help more readers reach our content and interact with it in richer ways. One of our first experiments has been to podcast some of our departments (www.computer.org/software) so that readers can access content in an audio format that they can listen to wherever, not just in print. In addition, we’re now managing the very successful Software Engineering Radio podcast, which features in-depth interviews (typically about one hour each) that aim to keep software developers up to date on key technologies. As an inhabitant of Washington, DC, I am forever singing the praises of my Beltway commute each day. Appreciating my commute each day would otherwise be wasted time during my commute. An ongoing initiative has been to find even more ways for IEEE Software to actively engage with the software engineering community. One activity that gives me the most enjoyment is our sponsorship of best paper awards at important research and practitioner conferences. Our board members have been very active this year in serving on selection committees, alongside volunteers from the conference organization committees, to make sure that this is done as transparently and rigorously as possible. The results of our latest efforts are featured in the sidebar to this article. It’s extremely gratifying to me and our board members to highlight deserving work being done on problems and in contexts of relevance to practitioners.

But we’re never satisfied and are

**ERRATUM**

The July/August 2012 article “Social Psychology and Software Teams: Establishing Task-Effective Group Norms,” by Alvin Teh, Elisa Baniassa, Dirk van Rooy, and Clive Boughton, contained an error. In Figure 1, the description in the “Constructive norm condition” box should have read “Priming: list what they had learned in their requirements-analysis course.” The description in the “Critical norm condition” box should have read “Priming: debate and reach consensus on the statement ‘Requirements specifications should always reflect design constraints.’” These labels were switched in the printed version.

Continued Outreach

One of my goals as editor in chief has been to find even more ways for IEEE Software to actively engage with the software engineering community. One activity that gives me the most enjoyment is our sponsorship of best paper awards at important research and practitioner conferences. Our board members have been very active this year in serving on selection committees, alongside volunteers from the conference organization committees, to make sure that this is done as transparently and rigorously as possible. The results of our latest efforts are featured in the sidebar to this article. It’s extremely gratifying to me and our board members to highlight deserving work being done on problems and in contexts of relevance to practitioners.

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From the Editor

Best Paper Award Winners

This year, *IEEE Software* continued its collaboration with the Software Engineering Institute (SEI) on the SATURN conference, which was held in May. We’ve worked together since 2010 and have in previous years been able to feature articles based on some of the most practical and thought-provoking presentations at the conference. We hope that this year will be no exception. Conference attendees voted on two presentations for *IEEE Software*-sponsored awards. The Architecture in Practice Award is given to the presentation that best describes experiences, methods, and lessons learned from the implementation of architecture-centric practices. This year’s winner was Michael Keeling of Vivisimo, for his presentation entitled “Creating An Architecture Oral History: Minimalist Techniques for Describing Systems.”

The New Directions Award is given to the presentation that best describes innovative new approaches and thought leadership in the application of architecture-centric practices. This year’s winner was Arjen Uittenbogaard of Inspearit for his presentation entitled “Mythology for Architects.”

Several additional presentations at the conference were recognized for their positive feedback from conference attendees, their relevance to the *IEEE Software* audience, and their relevance to architecture practice; they’ve been invited to submit articles for consideration in Linda Rising’s Insights department. Our selection committee—a mix of people from the organizing committee as well as the magazine boards—included George Fairbanks, John Klein, Robert Nord, Ipek Ozkaya, Frances Paulisch, and Olaf Zimmermann. We’re looking forward to highlighting the best-of-the-best of this content in upcoming issues.

At ICSE’s Software Engineering in Practice (SEiP) track in June, our award went to “Characterizing and Predicting Which Bugs Get Reopened,” a paper by Thomas Zimmermann, Nachiappan Nagappan, Philip J. Guo, and Brendan Murphy. The selection committee was composed of *IEEE Software* board members Jane Huang and Frances Paulisch, and members of the organizing committee Jeff Thompson and John Penix.

Also in June, we sponsored a best paper award at SEPG Europe, a practitioner-focused conference that was held this year in Madrid, Spain. Our winner was “SPC, Six Sigma, CMMI, Integration, and Deployment Challenges,” by Radouane Oudrhiri and Fabrizio Pellizzetti (see Figure A). Our selection committee was chaired by Ana Moreno, who served on the conference organizing committee and has been an author on many occasions in *IEEE Software*; the rest of the group included Urs Andelfinger, Annie Combelles, Robert Glass, Patrick Kirwan, and Dave Zubrow.

We at *IEEE Software* are pleased to be able to work with the chairs (especially Bill Pollak, the SEI SATURN conference chair, Mike Whalen, co-chair of the SEiP track, Bob Rosenstein of SEPG Europe, and Ana Moreno, chair of our selection committee for SEPG Europe) on these awards. In each case, we had a rigorous set of selection criteria that included not only assessing the papers’ contribution and methodological rigor but also the extent to which they were interesting and significant for software engineering practice. These are the same criteria we apply to submissions to the magazine, and we’re happy to be able to further highlight exemplary work of this kind.

I personally thank our selection committees for the energy and seriousness that they brought to these tasks.

Figure A. The chair of the selection committee, Ana Moreno, presents the best paper award at SEPG Europe to authors Fabrizio Pellizzetti (on left) and Radouane Oudrhiri. Patrick Kirwan, SEPG Europe 2012 technical program chair, looks on from the podium.
currently looking for additional ways to encourage more regular interactions with the community in general and our readership in particular. If you haven’t yet friended us on Facebook (www.facebook.com/ieeesoftware) or followed us on twitter (@ieeesoftware), please take a look at our presence there. I’ve been very pleased at how our efforts in these areas have picked up over the past year or two, spearheaded by Brian Brannon, who has done a great job in highlighting interesting content and upcoming events. We’re looking for more ways to get timely information out on these channels on topics such as upcoming special issues and calls for papers—stay tuned!

We’re also trying hard to reach out to geographic areas where we’re currently under-represented. Last year, editorial board member Taku Fujii began an effort to get the word out about our content in Japan by posting translated copies of our table of contents, along with short abstracts of the technical articles. If interested, you can see some prior examples here: www.qgis-ri.co.jp/otc/hiroba/technical/IEESoftware/JulyAugust2011.html. Such translations rely on volunteers with good language skills who also care about up-to-date technical content, so we’re happy to see this Japanese project taking off and gathering additional interest! If you’re interested in volunteering for our Japanese translation project or the Chinese one that we hope to launch later this year, please let me know—ditto if you’re interested in spearheading such an effort in another language.

Special Issue Topics

A major goal at every board meeting is to produce a short list of our desired special issue topics for the coming year. Not all of these pan out, and sometimes we receive timely proposals that are even more interesting than anything that we had thought up, but this is always a useful exercise for setting future wish list priorities. (If you’re interested in submitting a special issue proposal, please visit our author center for instructions: www.computer.org/portal/web/peerreviewmagazines/pecsoftware.)

This year, our short list included topics such as the ones below. Expect these to evolve and become refined as our guest editors start working on how best to turn these into compelling special issues:

- **Green software development.** This issue plans to focus on topics related to both making software itself greener and making the world greener via software.
- **The latest in software language development.** Have important new languages been developed and in search of a niche? Are languages that have been around for a while undergoing a revitalization that makes them more relevant in today’s context?
- **The user experience.** This issue plans to focus on how the design of the user experience can be effectively incorporated into software development practice. It also intends to explore topics such as how organizations can train developers to undertake this task effectively.
- **Engineering scalability.** In many contexts, software engineers have been able to attack scalability in fairly straightforward ways that often boil down to throwing more hardware at the problem. But what can be done when adding resources is not an option? How do we specify scalability requirements? What about modeling and predicting scalability needs?
- **Big data and smart analytics.** Industries from transportation to healthcare have an abundance of data. But making meaningful use of it is a challenge. This issue will look at a range of related topics such as software products that incorporate useful data mining techniques and whether there’s a crucial skill shortage among developers for related areas of expertise.

What’s missing here? If you have a topic or two you’re really interested in reading about, let me know. And if you’d like to express your enthusiasm for one of these, be sure to let me know that as well.

The board meeting is an important event for us—software engineering is such a broad and constantly changing field that no one viewpoint or stakeholder could ever be sufficient for covering everything of importance. By having this conversation together, however, we inspire each other and do a better job at covering the landscape. Let your voice be heard as well: feel free to send me your feedback on any of the ideas described here by emailing me at fshull@computer.org.

**From the Editor**

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