



Serving Professionals

Diomidis Spinellis

IAN SOMMERVILLE'S ARTICLE in this issue's Sounding Board department raises three interesting issues:

- whether *IEEE Software's* relevance to practitioners has slipped over the past 20 years,
- what content the magazine should publish to aid professional development, and
- how the magazine should attract and present articles.

tutorials, and surveys of key research in a field is excellent. *IEEE Software* already enjoys a significant advantage in this area because it mostly publishes theme issues focusing on a leading topic. For example, upcoming issues will cover DevOps, the role of the software architect, and software engineering for the Internet of Things. We're also working on theme issue proposals dealing with actionable software analytics, large-scale agile

However, I don't think that we should publish detailed, hands-on tutorials on specific technologies, such as the tutorial Sommerville suggests for the MEAN (MongoDB, Express, AngularJS, and Node.js) stack. First, putting together the magazine is unfortunately an expensive, time-consuming process that's ill-suited for the extensive material required for such tutorials. Online wikis, content management systems, videos, collaborative system documentation efforts, and MOOCs (massive open online courses) currently seem to work better in this domain. In addition, with software technologies' rapid evolution, such hands-on tutorials would quickly become outdated.

Providing practice-focused research should indeed be our goal, and it's something with which I struggle as editor in chief. We publish (after peer review) the material that we receive, so any change must come from the members of our community who submit articles for review. However, the magazine's editorial board can help this process in the following ways.

First, we can solicit suitable research articles. Our board was recently enlarged to cover all areas of

Providing practice-focused research should be our goal.

I'm thankful to our followers who pointed out the article's earlier incarnation as a blog post, and to the department's editor, Philippe Kruchten, for hosting the expanded version. Here's my take on some of the article's points.

Practical Advice

Sommerville's proposal to explicitly seek overviews of specific fields, tu-

software development, evidence-based software engineering, reliability engineering, and automotive software. All these topics are highly relevant to professionals. We can use an issue's theme and its guest editors' connections with the corresponding community to attract tutorials and surveys. So, we're adjusting the theme issue proposal guidelines and proposal letter to explicitly ask for such material.

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the Software Engineering Body of Knowledge, so we're in a good position to get a range of such material. The publication of theme issues focused on current practice also helps in this area.

In addition, department editors can develop suitable material. Here, we enjoy a unique advantage over a pure research journal because department editors have considerable discretion over what gets published. In the past year, we launched the Practitioners Digest and the Invited Content departments to further exploit this opportunity to publish practitioner-oriented content. For example, in Invited Content in our November/December 2015 issue, Ericsson and Microsoft staff discussed the meaning of code ownership. For the same issue, the volunteers contributing to Practitioners Digest combed through the research presented at the 2015 International Conference on Software Engineering (ICSE) and reported practical findings derived from field-based research. The findings included

- the remarkable realization that bugs are concentrated in the last line of microclones,
- the techniques programmers use to reduce mobile-app energy consumption, and
- the organizational factors that make developers write bad code.

I've also modified our call for articles and the submission procedure for accepted articles to ask authors to list three actionable insights software practitioners will derive from the submitted paper. Hopefully, this will concentrate our authors' minds on their research's practical relevance and discourage the submission of overly theoretical material.

Becoming Interactive

Another excellent proposal is the ability to comment on articles, making *IEEE Software* a forum in which professionals can exchange views and ideas regarding the latest software engineering developments. At some point in the future, we'll probably see articles appear online a few days after their peer review acceptance, both on the Web and through mobile apps, tied to their authors' IEEE profiles and including an online discussion section. However, this will take time and much effort. An IEEE ad hoc committee on holistic IT is rationalizing projects against priorities and resources across the institute as part of a three- to five-year roadmap, and IEEE staff and volunteers are working hard to improve our online presence. For example, magazines are now available not only in HTML and PDF but also in eBook and Kindle formats.

To become more interactive while waiting for the big IT changes to materialize, we've introduced the *IEEE Software* blog (<http://blog.ieeesoftware.org>) and staffed it with a dedicated volunteer lead editor managing a team of area editors. The blog publishes both purpose-written pieces with a strong focus on practice and short previews of material that will appear in the magazine. The titles of the most recent original pieces at the time of writing demonstrate the blog's razor-sharp focus on practice: "Architectures for Massively Multi-User Environments," "Variability Management Using GitHub Fork-Based Development," and "Why Software Reference Architectures in Agile Projects Are More Than 'Just Templates.'" A preview of the January/February 2016 Impact column discussing the VW engine software

CORRECTIONS



In our Jan./Feb. 2016 issue, the Reviewer Thanks department (pp. 6–8) inadvertently omitted Xabier Larrucea from the list of reviewers.

Also, in the Perspectives—Brazil article (“Brazil and the Emerging Future of Software Engineering,” pp. 45–47), the reference was missing from the “From the Guest Editors” box on p. 45. The reference is *Brazil IT-BPO Book: 2010–2011*, Brasscom; www.brasscom.com.br/brasscom/upload/codigo_etica/1353956633brazil_it-bpo_book_ingl.pdf.

We apologize for these errors.

manipulation case (“When Software Crosses a Line”) also appeared there. All blog articles allow the posting of comments. So, please visit the blog and participate in the discussion.

Furthermore, we’ve strengthened our social media presence with a volunteer team that manages our updates on Twitter, Facebook, and LinkedIn. We now have thousands of followers or fans on these platforms. This offers another great possibility for short, spontaneous interactions among readers and the software engineering community. To participate in these discussions, follow the magazine on Twitter (@ieeesoftware), become a fan of *IEEE Software* on Facebook (www.facebook.com/ieeesoftware), or join the *IEEE Software* group on LinkedIn (www.linkedin.com/grp/home?gid=4944100).

In addition, we’re looking for ways to maintain important articles’ currency and value. So, we’re participating in an article-versioning experiment. Selected past articles will be collaboratively edited through a wiki mechanism, thus creating subsequent updated versions. This is a small-scale pilot, but if it succeeds it could become the norm for published articles.

I don’t agree with everything written in this issue’s Sounding Board. Commissioning paid articles would be impractical and controversial, with little upside potential. Years ago, the magazine featured material from professional writers. I found the writing exceptionally polished and attractive. However, the content was typically bland and uninteresting—lacking the edge a motivated volunteer can provide. After a while I stopped reading those articles. Also, I don’t believe that the magazine’s relevance to practitioners has slipped over time. What has happened is that avant-garde material published 20 years ago appears more relevant today than it did at the time; the same will happen over time with the articles we publish now.

Please respond to the issues raised in the magazine this month by sending letters to the editor or commenting online through the social media. Honest critique, differences in opinion, course changes, experiments, initiatives, and failures are the stuff that keeps an institution alive. I beg you all to be honestly brutal with us but also to gallantly volunteer to make *IEEE Software* the practitioner-oriented magazine we all love and cherish. 🍷

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