Editorial: JACM Redux

In an editorial of March 2010 I discussed a set of challenges for JACM in the coming decade. Chief among those was living up to our stated objective of “archiving the very best research in computer science”. This ambitious goal dates back to the launching of JACM in 1954, as the “flagship journal of the ACM”. At that time, given the incipient state of the field and publications landscape, this was an ambitious but reasonable expectation. Since then, however, the field has expanded and diversified in an explosive fashion. To keep up, starting with the *Transactions on Mathematical Software* in 1975, ACM has developed a collection of over 40 Transactions, covering most aspects of the field. The flourishing of the Transactions, which publish close to 1,000 articles per year, made it difficult to bridge the gap between the broad aspiration of JACM and its actual narrower, largely theoretical scope developed over the years. To address this gap, ACM launched a Task Force in the spring of 2011, co-chaired by Moshe Vardi and myself, to study and make recommendations on the appropriate mission and direction for JACM.

The Task Force concluded that JACM’s goal of “archiving the very best research in computer science” is simply no longer realistic. ACM has many outstanding journals that are the best in their field. It is unlikely, for example, that graphics researchers will submit their best articles to JACM rather than to *Transactions on Graphics*. Nevertheless, JACM can still have high aspirations. The Task Force affirmed JACM’s status as the premier scientific journal of the ACM and recommended that JACM “provide coverage of the most significant work on principles of computer science, broadly construed”. The revised JACM mission statement can be found at <http://jacm.acm.org>. The Task Force also recommended concrete steps for broadening the scope of JACM by further expanding the editorial board and inviting papers from top conferences in underrepresented areas. It also recommended steadily increasing the volume of articles published in JACM by broadening the scope of coverage, while retaining the very high quality.

Aside from JACM’s scope of coverage, the Task Force also addressed the broader “flagship” issue. The concepts of flagship publication and premier scholarly journal in computer science had been conflated in the early days. While this may have been appropriate at the time, the expansion and diversity of ACM’s current publication portfolio creates new requirements of a flagship publication. The flagship metaphor suggests the image of a fleet led by a ship, typically the first, largest, fastest, most heavily armed, or best known. In the Task Force’s opinion, however, ACM’s portfolio of journals and magazines (see <http://dl.acm.org/>) is not quite a “fleet”, nor does it have a real “flagship”. In fact, while ACM has an impressive collection of high-quality journals and magazines, the portfolio fails to be more than the sum of its parts. The Task Force recommended that ACM build and develop a cohesive portfolio of publications, rather than a loose collection. The flagship should not only be the most visible and widely distributed publication, but should additionally provide a broadly accessible entry point and integration vehicle for ACM’s entire publications portfolio. In this light, it is clear that the roles of flagship publication and of premier scientific journal have become quite distinct. The Task Force concluded that the publication best positioned to be ACM’s flagship is *Communications of the ACM*, the best known and most widely distributed publication of the ACM. Nevertheless, to become a real flagship, CACM must tie together ACM’s publications portfolio into a cohesive whole.

Currently, Communications' Research Highlights section performs some of this function by featuring articles selected from (mostly) ACM research conferences, but there is no organic connection between Communications and other ACM journals and magazines. Such connections will be developed in the future with all ACM publications, including JACM. The best ways of achieving this are under discussion.

While the Task Force has clarified JACM's mission, its recommendations do not represent a radical change of course. Indeed, they largely reaffirm and give new impetus to the journal's trajectory over the past few years. Since 2010, the editorial board has been considerably broadened and refreshed, with representation from new areas such as data mining, computer-aided verification, economics and computation, computer graphics and computer vision, scientific and high-performance computing, and cyber-physical, embedded and real-time systems. We now have or are in the process of making invited paper arrangements with conferences such as STOC, FOCS, CAV, LICS, PODC, PODS, POPL, PLDI, SODA, AAAI, RECOMB, SoCG and CCC. In addition, our editors are on the lookout for articles at ten other conferences, to be invited on an ad-hoc basis. With the blessing of the ACM Publications Board, we are now encouraged to grow steadily over the next few years as we progress towards more comprehensive coverage.

Reducing processing time for JACM articles remains a constant goal. JACM will continue to strive for a shorter editorial cycle for all submitted articles. For articles submitted in the past three years, the average number of days to the first decision for accepted articles was 188 and to final acceptance 455. By closer monitoring of articles and with improved reminder tools, we will attempt to reduce these averages to 120 days for first decision and 350 for final acceptance. Alternative incentive mechanisms for editors, reviewers, and authors will also be explored.

Articles that wind up being rejected are of special concern. In order to let authors know as soon as possible if their articles do not meet JACM's standards, a 3-tier filter has been in effect for some time, allowing quick rejection without detailed review by the EiC, area editor, or external reviewer. The 3-tier procedure has resulted in dramatically faster processing time for many submissions that are eventually rejected. For rejected papers submitted within the past three years, the average number of days to rejection was 70 and the median 13 days. Thus, the current process seems to be working quite well for these articles. I will continue to exercise the immediate rejection option and will encourage editors to do the same for articles that clearly do not meet JACM's standards.

I would like to conclude by expressing my gratitude to our dedicated editorial board and ACM staff, particularly our tireless editorial assistant Heidi McCormick, for making JACM work.

Victor Vianu
Editor-in-Chief