

Farewell and New EIC Introduction

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As the ball drops on New York City's Times Square to mark the end of 2022 my second term as Editor-in-Chief (EIC) of the IEEE Transactions of Visualization and Computer Graphics (TVCG) will also come to a close. It was certainly a highly rewarding experience, yet also demanding and humbling at times. Overall, there is a lot the journal can be proud of. The impact factor has grown steadily from 3.78 to 5.226 during the four years I served as EIC, continuing the strong growth trajectory set by the previous EICs. TVCG remains to be the top journal for Visualization, Visual Analytics, and Virtual and Augmented Reality by a wide margin, and a close second in Computer Graphics. At the same time, the annual number of original submissions has increased by nearly 50% to now 662, not including the three special issues. These numbers are an impressive testimonial that TVCG is ubiquitously known by researchers around the world as a highly desirable venue to publish their high impact work. And clearly, the work featured in TVCG is having a very high impact – the 5-year h-index according to Google Scholar is a whopping 85 and the median is 130.

As EIC I have read thousands of reviews over the past four years and I am always impressed by the diligence and expertise of the countless individuals who donate their time to review submissions sent to TVCG. I am well aware that not every paper is an easy read and that good ideas might be obscured by imperfect writing and presentation. Helping authors to improve their papers is the power of peer review and it distinguishes established journals like TVCG from open-access archives. I have seen many papers that seemed borderline or even doomed at first, but then blossomed through the generous advice offered by peer reviewers. Let this farewell message also be a memorial to the unknown reviewer without whom a prestige journal like TVCG could not exist.

Likewise I am also deeply indebted to the members of the TVCG editorial board, the Associate Editors, who work on the frontlines, identifying the best and most appropriate reviewers, asking them to serve, and then evaluating and summarizing their expert opinions. Since AEs serve maximally four years, over the past four years I fully renewed the entire editorial board which now stands at 70 AEs, about 15 AEs more than when I started. All are experts in one or more of the many subfields covered by TVCG, and they are indispensable in the task of assessing the highly diverse set of papers submitted to TVCG. A top journal like TVCG must constantly evolve and be open and inviting to new research trends and applications. The editorial board in

turn must reflect these new trends, and I feel that the board is well set to take on these challenges.

What I am also proud of is the strong reduction in the time from submission to decision, which decreased by 20% over the past four years. It now takes an average of 69 days to review a new submission and 26 days for a revision, 47 days overall. This review time rivals that of conferences, like IEEE VIS, VR, or ISMAR, but affords authors a major revision with the same reviewers. Since accepted TVCG authors then have the opportunity to present their work orally at one of many collaborating conferences, it can be seen as a journal-first publishing model. In fact, more than one third (69) of the 188 papers presented at IEEE VIS 2022 were papers originally published or accepted at TVCG.

In 2022, TVCG published 407 papers, distributed over 12 issues, accounting for a total of 5180 pages. This is about one third more papers and nearly 1.6 times more pages than in 2019 when I started. Just under half of these papers (43%) came to TVCG as special conference issues of the field's three most prominent conferences, IEEE VIS (110 papers), IEEE VR (29), and IEEE ISMAR (35). Moreover, five papers are the best works from the IEEE Pacific Visualization Symposium (IEEE PacificVis). All of these papers went through a rigorous two-round journal-quality review process, directly overseen by TVCG.

Next I want to further highlight the wonderful synergy that TVCG enjoys with IEEE VIS, IEEE VR, and IEEE ISMAR, which is a somewhat unique relationship between a journal and the related conference venues within the IEEE Computer Society. Paper chairs of these conferences serve as guest editors for the TVCG special issues and liaise with TVCG through four of the five TVCG Associate Editors-in-Chief Doug Bowman (VR), Jean-Daniel Fekete, Shixia Liu, and Han-Wei Shen (VIS). This partnership further elevates the papers directly accepted at the conferences to journal status which can be important for graduation and promotion decisions. At the same time, authors of papers accepted at TVCG can orally present their important work at these conferences which gives them additional recognition and the excitement of the audible applause they deserve. These papers enrich the programs of these leading conferences further and make them even more worth attending.

There are also many other conferences that partner with TVCG as venues where TVCG authors can present their work orally. These include several reputed computer graphics venues where Associate Editor-in-Chief Tao Ju serves as the liaison. Among these are also ACM SIGGRAPH and ACM SIGGRAPH Asia where TVCG pursues a different model. Each year TVCG and ACM SIGGRAPH exchange curated sessions of 6 carefully selected papers each between

the two ACM venues and IEEE VIS and VR. These sessions are typically very well attended and give the respective audiences a good glimpse into what the other community is doing to inspire new research and possibly collaborations. My deep thanks here go to Joaquim Jorge and Jian Chen who relentlessly worked to create these sessions and keeping the spirit alive.

Ensuring reproducibility and replicability of the published papers continues to form an important mission for TVCG. Reviewers are specifically instructed to comment on these aspects in their review, and there are also several mechanisms that serve these goals post-publication. These include (a) IEEE's Code Ocean Initiative where authors can upload and distribute a paper's accompanying code, (b) the IEEE DataPort where authors can upload the datasets that produced the results in their papers, and (c) the Graphics Replicability Stamp Initiative (<http://www.replicabilitystamp.org>) which is a volunteer-led initiative of the computer graphics community for enabling sharing of code and data as a community resource for non-commercial use. TVCG authors are among the top contributors to this initiative and these papers wear a dedicated badge of honor in the IEEE Computer Society digital library.

It has been a tremendous honor for me to serve as EIC of the world's leading journal in visualization and computer graphics, and one of the IEEE flagship transactions. This is clearly a job that could not be done by one individual alone. It has been the work of many, some behind the scenes. First off, I want to thank the authors who entrust to TVCG their best work, then patiently wait for the review to conclude, and diligently follow the reviewer recommendations to make the paper stronger and worthy a publication. Second I want to repeat my deep thanks for the AEs and the reviewers, and last but certainly not least, thank the five Associate Editors-in-Chief Doug Bowman, Jean-Daniel Fekete, Shixia Liu, Tao Ju, and Han-Wei Shen who were always available to support me in the search for the best AEs, liaise with the collaborating conferences, and serve as important backup and counsel with critical decisions.

I am also extremely thankful to the IEEE Computer Society and the IEEE Publications staff, especially Alison Larkin, Christine Shaughnessy, Christine Kurzawa, Natalie Cicero, Erin Pacino, Kimberly Sperka, Robin Baldwin, Jennifer Caruth, Cathy Martin, Patrick Kellenberger, Melissa Russell, and Katelyn Seyffart for their constant and invaluable support and timely response during these four years. High impact publications like TVCG don't just happen – it takes a lot of work behind the scenes. Wider audiences are often unaware of these many, often laborious efforts, partially also because they typically work quite flawlessly.

As the dust settles for me, it is now my great pleasure to introduce the new TVCG EIC, Dr. Han-Wei Shen. Dr. Shen has been involved with TVCG as an Associate EIC for the past four years and therefore will hit the ground running. Dr. Shen is a highly accomplished and regarded researcher in several core areas of TVCG, mainly in data science and visualization, visual analytics, machine learning, computer graphics, and high performance computing, and he has been a prolific author in these fields with several best paper awards to his name. He is a Professor of Computer Science and Engineering at The Ohio State University and maintains strong connections to several DOE National Labs. He has served the IEEE in many leading roles, such as a member of IEEE VIS Executive and Steering Committees as well as in IEEE VIS Paper Chair and IEEE VIS Program Chair positions. He also served as a TVCG Associate Editor from 2008-2012 and so he well understands the refined art of journal paper review management.

I have no doubt whatsoever that Han-Wei will continue the excellent traditions started by the former EICs, to steer TVCG with vision and keep it strong. Under his guidance, I expect the journal to continue to grow and to further expand. I wish him the best of luck for a rewarding but at times demanding position.

Klaus Mueller
Outgoing Editor-in-Chief
Stony Brook University

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