

State of the Journal

Ramin Zabih, Sing Bing Kang, Jiri Matas, and Max Welling

The year 2012 will mark the end of my term as Editor-in-Chief of the *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*. I believe that we have made substantial progress on one of the core challenges that *TPAMI* faces, namely, the continued growth of machine learning. As I have mentioned, the IEEE does not have a journal whose focus is modern machine learning methods, such as SVMs. Yet many papers in this area are submitted to *TPAMI*. One factor is that machine learning falls within *TPAMI*'s scope statement, but perhaps a more important reason is the journal's excellence in computer vision, an area where machine learning is having a substantial and increasing impact. There is no possibility for *TPAMI* to ignore this area and continue to thrive, so the journal out of necessity must rise to the challenge of becoming a leading publication in machine learning.

My predecessor David Kriegman saw this development clearly, and responded by appointing Zoubin Ghahramani, a famous machine learning expert, as an Associate Editor in Chief (AEIC). Zoubin served his complete 4-year term with distinction, and has now moved up to the *TPAMI* Advisory Board. Over the last few years the number of machine learning submissions has continued to grow substantially, and we have clearly needed additional help.

Machine learning is an area where *TPAMI* faces some distinct challenges. *TPAMI* has not published a body of truly fundamental papers in machine learning that is comparable to our accomplishments in computer vision, biometrics, or other areas that are closer to the journal's traditional strengths. As a result, many of the submissions we receive have fallen short of *TPAMI*'s high standards. This has posed a difficult problem because it is challenging to attract top-notch researchers in machine learning as reviewers or AEs when most of the papers they handle must be rejected, and many would, in all honesty, never be submitted to a major machine learning journal.

My primary focus throughout my term as EIC has been to address this situation, and I am pleased to report significant progress. As you know, Max Welling joined us as an AEIC. I am happy to announce that Neil Lawrence has also agreed to serve as an AEIC. Neil has served with distinction as an AE for *TPAMI*, is on the board of *JMLR*, and will be program chair for AISTATS. (I note with amusement that Max Welling also held these three roles, which suggests a simple automatic classifier to detect *TPAMI* AEICs in machine learning!) Neil has published two books in machine learning, and is primarily interested in probabilistic models.

With both Max and Neil on board as AEICs we now have sufficient manpower to address our main challenges. We have raised the bar for machine learning papers to be sent out for review by rejecting papers early on that would have eventually been rejected anyway. Hopefully, the effects of this will be clearly felt by everyone involved in the reviewing process, and the authors of high-quality submissions will benefit from the increased availability of reviewing resources. Coupled with this effort, Max and Neil are developing a number of high quality special issues on important topics in machine learning (see the call for papers on page 207 of this issue for the first such initiative).

The field of machine learning has a major advantage in its commitment to Open Access, which is an issue that the IEEE (along with most publishers) is struggling with. The top journal in machine learning (*JMLR*) is Open Access, while perhaps the best conference (NIPS) is making its proceedings available in arXiv. This has enormous benefits to the machine learning community. I personally believe that *TPAMI* will, over time, end up moving to an Open Access model, and I will hazard a guess that this will be one of the main challenges that the next EIC will face.

On the operational side, the reviewing process on the whole is fairly timely, although exceptions do occur for a variety of reasons, and I want to yet again apologize to the authors whose papers get stalled in the process for one reason or another. To provide some numbers, there were 999 submissions in 2010 (I must confess I was really hoping for one more to come in at the very end). We are on track for a similar number in 2011, with 795 received as I write. The acceptance rate for 2010 submissions so far is 14 percent, though it is important to realize this does not imply 86 percent have been rejected, since a number of such papers are still undergoing revisions. The typical time from submission to final decision is about six months, which is unchanged from last year. Approximately 30 percent of submissions are rejected without review; while this is unpleasant for the authors, it saves them time from having their paper rejected at the end of the full review process and lets them quickly revise their papers for submission to a more appropriate journal.

I am happy to report that the issue with the print queue is now under control, and papers now typically appear in print approximately 5.5 months after the final material is uploaded. Short papers are generally published even faster, and authors are urged to consider this option. Of course, papers continue to be published online quite quickly after acceptance. On the topic of online publication, *TPAMI* is now available in the IEEE Computer Society's new OnlinePlus format, at a significant discount to the print subscription price. Over time the number of subscribers to the printed journal is falling, and readers who wish to see this format continue should be sure to sign up for print subscriptions.

TPAMI will again publish a special issue on the best papers from CVPR11, just as from CVPR07, CVPR08, CVPR09, and CVPR10. In addition, as mentioned, we will publish a few special issues on selected topics in machine learning. Unfortunately, because of our limited page budget we can publish very few other special issues, and I have been forced to decline a number of otherwise appealing proposals.

A few smaller changes are finally coming to fruition. We are revising the review form to make it more similar to the ones used for CVPR in recent years, and to explicitly ask the reviewers to assess the impact of the work. We also expect to unveil a FAQ soon since there are a number of questions that are repeatedly asked.

In closing, I want to once again thank the *TPAMI* community for your ongoing support of the journal. The authors, reviewers, AEs, and AEICs continue to put in an enormous amount of work on a purely voluntary basis, and it is primarily thanks to their efforts that *TPAMI* continues to excel. I look forward to handing the job of EIC over to my successor in a year, and believe that on my watch the journal has maintained its tradition of excellence.

Ramin Zabih, *Editor-in-Chief*
Sing Bing Kang, *Associate Editor-in-Chief*
Jiri Matas, *Associate Editor-in-Chief*
Max Welling, *Associate Editor-in-Chief*



Neil Lawrence received the bachelor's degree in mechanical engineering from the University of Southampton in 1994. Following a period as a field engineer on oil rigs in the North Sea, he returned to academia to complete the PhD degree in 2000 in the Computer Lab at Cambridge University. He spent a year at Microsoft Research in Cambridge before leaving to take up a Lectureship at the University of Sheffield, where he was subsequently appointed Senior Lecturer in 2005. In January 2007, he took up a post as a Senior Research Fellow in the School of Computer Science at the University of Manchester, where he worked in the Machine Learning and Optimisation research group. In August 2010, he returned to the University of Sheffield to take up a collaborative Chair in Neuroscience and Computer Science. His main research interest is machine learning through probabilistic models. He focuses on both the algorithmic side of these models and their application. He has a particular focus on applications in computational biology, but happily dabbles in other areas such as speech, vision, and graphics. He is an Action Editor for the *Journal of Machine Learning Research*. He was the founding editor of the JMLR Workshop and Conference Proceedings and is currently series editor. He is program chair for AISTATS 2012 and has served on the program committees of several international conferences and was an area chair for the NIPS conference in 2005 and 2006. He was general chair of AISTATS in 2010 (bringing the conference to Europe for the first time) and NIPS Workshop chair, also in 2010.