Letter from the Editor-in-Chief

Changing Editors

One of the practices I inherited from Won Kim, when I became Bulletin Editor-in-Chief, was the practice of appointing four associate editors for two year terms. This provides a continuing string of issues with fresh content and enthusiastic editors. This means that every two years, I bid farewell to current editors and introduce new editors. Selecting editors is the most important part of what I do. And I am proud of my success in being able to enlist distinguished members of the database community as editors.

This issue marks the end of the terms of current editors, as each has now contributed two issues. I want to thank all of them for continuing the Bulletin's success in producing high quality, insightful, and timely issues on a compelling set of diverse topics. So thank you Juliana Freir, Paul Larson, Sharad Mehrotra, and Sudarshan for your very successful issues.

Let me now introduce the new associate editors who will be carrying the "Bulletin torch" for the next two years. They are Chris Jermaine of Rice University, Betina Kemma of McGill University, David Maier of Portland State University, and Xiaofang Zhou of the University of Queensland. I am delighted to be working with this new set of great editors- who I am confident will ensure that the Bulletin, and its readers, continue to prosper.

The Current Issue

It is now widely recognized that the underlying hardware upon which database systems are built has changed radically over the past few years. Modern processors are very different from earlier generations. And, the subject of the current issue, modern secondary storage devices are increasingly based on flash storage.

Flash is, in some respects, very different from hard disks, but in some respects it returns us to an earlier architectural age. Access latency and access rates are very substantially better than provided by hard disks. Interestingly, when juxtaposed with processor speed, flash's enhanced performance brings us back to the "relative" performance of hard disks vs older processors.

Because flash has different characteristics than hard disks, however, dropping flash into a current database system is very wide of the mark in using flash in a most effective manner. Flash writes are expensive compared to reads, and particularly random writes are very expensive. Flash also wears out, and requires strategies to extend its effective lifetime. Further, there is performance to be gained if the internal characteristics of flash solid state disks (SSDs) can be exploited.

The current issue provides a cross section of techniques being explored within the data management research community to exploit the unique properties of flash storage. It provides a very nice introduction to this increasingly important area. I want to thank Paul Larson for assembling this very timely issue, timely because flash storage will only get more important and pervasive as time goes on, whether deployed on user premises or in the cloud.

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