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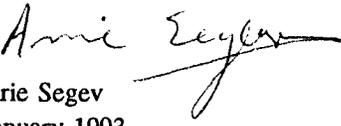
Editor's Notes

This issue is the first of 1993 and the last one before the SIGMOD elections. Won Kim's message in the following pages summarizes the achievements of SIGMOD in the last couple of years. Following the Chair's message, the section of regular articles contains five papers. The first paper, "PARDES - A Data Driven Object Active Database Model", by O. Etzion, points out that most active database models adopt an event-driven approach, while rules that are used to derive data, are usually data-driven rather than event-driven. The paper describes the PARDES language and a supporting architecture. In the second paper, "Parametric Databases: seamless integration of spatial, temporal, belief and ordinary data", S. Gadia presents a data model, algebra and SQL-like query language for parametric databases. Temporal, spatio-temporal, beliefs and ordinary data can be considered as special cases of parametric data. Next is the paper "Schema Transformation without Database Reorganization", by M. Tresch and M.H. Scholl; they argue that database reorganizations due to schema modifications in object-oriented databases are expensive processes and should be avoided. They show that data independence can help avoid reorganizations in case of capacity preserving and reducing schema transformations. The forth paper, "SIRIO: A Distributed Information System over a Heterogeneous Computer", by C.R.Costilla, M.J. Bas and J. Villamor, presents the SIRIO project. SIRIO runs over a heterogeneous local area network with a client-server architecture and uses ORACLE as the database, C as the host programming language, TCP/IP as the communication protocol and the ETHERNET toolkit for the client-server architecture. In the last regular article, "Data Management for Mobile Computing", T. Imielinksi and B.R. Badrinath argue that Mobile Computing poses many challenging Data Management problems. This paper identifies these new challenges and reviews plans to investigate their technical significance.

Following the regular papers section are a report by M.T. Ozsu, U. Dayal, and P. Valduriez on the International Workshop on Distributed Object Management, and correspondence regarding a recent ACM TODS paper by C.J. Date and R. Fagin. H.W. Buff generalizes one of the two theorems proposed in that paper to guarantee 4NF and 5NF consistency. He also asserts that theorems of this kind are not practically useful. Date and Fagin respond to those remarks by arguing that the notion of robustness proposed by Buff is not reasonable.

Bibliography section has an annotated bibliography by K.K. Al-Taha, R.T. Snodgrass, and M.D. Soo on Spatiotemporal Databases Following the bibliography are the three regular invited sections. The section on Database Research Surveys includes a paper by D. Barbara on Extending the Scope of Database Services. The author provides a brief review of database systems that can support non-traditional data and database services for data that remains under the control of autonomous systems. The section on Database Research Centers covers database research activities at AT&T's Bell Laboratories and the Computer Science Department at the University of Wisconsin. In the section on Database Funding, Marianne Winslett's report describes recent changes at ONR and NSF, and many funding announcements elsewhere.

The issue is concluded with announcements and call-for-papers, please note the change in format and authoring of the List of Database Conferences.

Arie Segev
January 1993

Chair's Message

Since this is the last issue of SIGMOD RECORD before the terms of the elected and appointed SIGMOD officers expire in June, I would like to summarize in this space SIGMOD activities and services that we have carried out during our term.

In view of the rapid expansion of our field during the recent years, I believed that I had to expand the SIGMOD umbrella to accommodate the diverity of our field, to bring our field together, and to enhance visibility of our field in the greater computer science context. The following changes to SIGMOD represent implementations of this view.

1. The SIGMOD and PODS conferences have been brought together into a single unified conference from 1991. SIGMOD has taken the financial responsibility for both conferences, and the organizers of the SIGMOD conferences have taken on the bulk of the organizational responsibilities, while PODS retains its identity through an independent Program Committee, Business Meeting, and a separate Proceedings. Under this arrangement, both the theory and systems segments of the database research community will have a common forum for personal and professional contacts and collaboration.

2. Some important changes have been made to the organization of the SIGMOD conferences. I have worked with the Program Committee chair of each SIGMOD conference from 1991 to take a form of affirmative action in the composition of the Program Committee, by including about 6-8 European researchers, 2-3 Asian researchers, 2-3 young researchers, and 2-3 female researchers. Further, the SIGMOD conference since 1991 has included Industrial Sessions, where industry speakers without papers would make presentations on selected topics of interest to database industry and vendors. Further, since the 1991 SIGMOD/PODS conference, all social functions (lunches and banquet) have been included in student registrations.

3. Three new regular features have been added to SIGMOD RECORD, including a research directions section, an institutional research status summary section, and a database funding opportunities section. I believe these new features have enhanced the usefulness of SIGMOD RECORD to SIGMOD members.

4. The corporate sponsorship program was initiated, whereby each sponsor makes an annual contribution of $1,000 to SIGMOD. Since its inception, we have had between five and eight sponsors each year.

5. The Annual SIGMOD Awards Program was initiated in 1992. The Program includes the Innovation Award and Contribution (Service) Award. The Award Program is administered by the SIGMOD Awards Committee, which determines winners by evaluating nominations from our community. The receeipients of the first awards were Prof. Michael Stonebraker (Innovation Award), and Dr. Maria Zemankova (Contribution Award). Some other SIGs have had their Awards Programs for several years already, and I feel that our Awards Program should enhance visibility of our field in the larger computer science arena.

6. Four overseas local chapters of SIGMOD have been organized, including Bulgaria, Kiev, Moscow, and Japan. Local chapters are an effective means of promoting active interests in our field in developing countries. I believe the activities of the local chapters will also enhance visibility of our field.

7. In 1991, I responded to a request from ACM's Lectureship Committee for nominations for candidates to fill 10-12 new slots for ACM's National Lecturers. I nominated 10 candidates, expecting that the Lectureship Committee would select only 1 or 2 of my candidates. However, only 1 other SIG chair bothered to respond to the request (with 2 candidates). As a result, the Lectureship Committee accepted all 10 candidates from our field!

In 1989 I created the Chair's Advisory Committee in compliance with the SIGMOD Bylaws, and in 1991 the Awards Committee to administer the new SIGMOD Awards Program. Further, Arie Segev added additional associate editors to the RECORD editorial board to manage the additional regular features of SIGMOD RECORD.

Each of the SIGMOD/PODS conference since 1990 has resulted in profits. Although in principle the SIGMOD/PODS conference needs to only break even, given the very low membership fee SIGMOD charges, and the very high cost of printing and distributing three issues of SIGMOD RECORD and the SIGMOD conference proceedings, the profits from the SIGMOD/PODS conference, and the donations from corporate sponsors, have been very helpful in maintaining a healthy fund balance for SIGMOD.

I reported the SIGMOD activities at the SIG Viability Review meeting in March 92 in Kansas City. Viability of each SIG is reviewed every four years. The minimum requirements for viability of a SIG include reasonable fund balance, annual convening of its conference, regular publication of its newsletter, and filing of ACM-required reports (annual report, and annual budget). The SIG Board unanimously ruled that SIGMOD is viable.

There have been the following lesser changes/activities.

A conference receiving the "SIGMOD in-cooperation" support receives the rights to use the SIGMOD name and SIGMOD members list in its promotion at a cost to SIGMOD of about $1,000. Because of the cost involved, I have consented to providing SIGMOD in-cooperation support only to workshops on specific worthy database topics (e.g., Distributed Object Management, Multmedia Databases, Scientific Databases, etc.), to worthy regional database conferences (e.g., EDBT in Europe, and DASFAA in the Pan Pacific Rim), conferences that represent a consolidation of a few independent conferences/workshops (e.g. PDIS), and a worthy major database conference (i.e. VLDB).

The postage for the mailing of SIGMOD RECORD has been upgraded from third-class to second class, because for some strange reason that I didn't care to explore, second-class mailing will save SIGMOD about $10,000 a year. SIGMOD's record (no pun intended) of on-time publication of each issue of SIGMOD RECORD made the postal class upgrade, and cost savings, possible.

SIGMOD has offered free SIGMOD memberships to the libraries of universities in developing countries since 1990. However, due to a lack of promotion of this offer, there have been only about a dozen takers to date.

In an effort to find ways for SIGMOD and IEEE to do some things of mutual interest together, I edited a special joint issue of IEEE Database Engineering Bulletin and SIGMOD RECORD in December 1990 on Directions for Future DBMS Research and Development. But there have been no followup joint efforts between the two societies.

I believe that the expanded SIGMOD umbrella should be maintained, and SIGMOD should serve as the magnet for pulling our field together. I feel that the unification of the SIGMOD and PODS conferences will go a long way towards bringing together the theory and systems segments of the database research community. Although the Industrial Sessions are a step in the right direction for bridging the research and commercial segments of our field, I feel that more ideas need to be developed and implemented to bring about an effective synergy between them.

One year into serving my term, I founded UniSQL, Inc. to develop a suite of next-generation database products. During the following three years, there have been many very busy periods, but I have been able to carry out my commitment to SIGMOD members and have enjoyed doing it. The following colleagues have made it possible for me to carry out my duties and made it an enjoyable and privileged experience for me.

Executive Committee:
Laura Haas (vice chair of SIGMOD)
Michael Carey (treasurer of SIGMOD)

Arie Segev (editor-in-chief, SIGMOD RECORD)

Chair's Advisory Committee (in alphabetic ordering):
  Francois Bancilhon, Michael Brodie, David DeWitt,
  Yahiko Kambayashi, Michael Stonebraker, Jeff Ullman, Maria Zemankova

RECORD Assoiate Editors (in alphabetic ordering):
  Hank Korth, Marguerite Murphy, Timos Sellis,
  Amit Sheth, Fred Springsteel, Marianne Winslett

Awards Committee (in alphabetic ordering):
  Hector Garcia-Molina, Dennis McLeod, Peter Scheuermann

Of all the above colleagues, I would like to single out Michael Stonebaker and David DeWitt in extending my deepest thanks for being ever ready to help me on any issues concerning SIGMOD. The ideas for the SIG-MOD Industrial Sessions came from them. They also advised me to change the venue of the 1991 SIGMOD/PODS conference from Boulder to Denver, given the PODS agreement for a trial unification of the SIG-MOD and PODS conferences starting in 1991. They always think about the technical contents of the SIGMOD conference, financial health of SIGMOD, future conference sites, and so on, and have responded right away to all my email enquires and solications for advice. I do not believe there is anyone who cares more about SIGMOD than they do, and I think our field in general, and SIGMOD in particular, is fortunate to have them.

I have worked closely with the Executive Committee and Advisory Committee on all major issues on which I had to make decisions, including the site, date, and selection of the general chair and program committee chair of each SIGMOD conference; details of the SIGMOD Awards; and so forth.

I would like to extend special thanks to Arie Segev for ensuring regular publication of SIGMOD RECORD and accommodating the three new regular features of SIGMOD RECORD, and his timely reminder to me to write the Chair's Message; Michael Carey for implementing the corporate sponsorship program and doing the ground-laying work on the Awards Program; Michael Brodie for the active role he played in the formation of the Kiev and Moscow chapters of SIGMOD; Yahiko Kambayashi for his very active role in the formation of the Japan chapter of SIGMOD (and Japan chapter of ACM as well); and David DeWitt for agreeing to serve as the Nomination Chair to put together a slate of candidates for the election of SIGMOD officers that must take place in the spring of 1993.

I would like to thank the organizers of the SIGMOD and PODS conferences from 1990 until 1993. The general chairs and program committee chairs of the SIGMOD conferences since 1991 (Dan Moore, Roger King, Victor Vianu, Michael Stonebraker, Larry Kerschberg, Peter Buneman) worked especially closely with me. (David DeWitt, my predecessor, had arranged the organization of SIGMOD-90 to ensure successful organization of the SIGMOD conference during the changing of the guard in 1989. I might note that SIGMOD-90 was the most profitable of all the SIGMOD(/PODS) conferences that have been held during my term.)

I also would like to thank the 1990 executive committee of PODS (Ashok Chandra, Pat Fischer, Dan Rosen-krantz, Yehoshua Sagiv, Avi Silberschatz, Mahalis Yannakakis) for agreeing to put tha proposal for a SIGMOD/PODS merger experiment to a debate and vote at the PODS Business Meeting. Avi and I, with lots of input from the SIGMOD Executive Committee and Advisory Committee, worked out the proposal. I am grateful to Yehoshua (Shuky) Sagiv for his eloquent support of the proposal during the debate. In the PODS Business Meeting at the 1992 SIGMOD/PODS conference, it was decided that the unification of the SIGMOD and PODS conferences should become permanent. I appreciate the fair and professional manner in which Moshe Vardi and

Paris Kanellakis put the proposal to a debate and vote at the Business Meeting.

Finally, I would like to extend my thanks to Pat McCarren, a Program Director at ACM, for all his help to the SIGMOD executive committee on SIGMOD matters. I also would like to thank Pegotty Cooper, Director of SIG Services at ACM, for putting together a very nice (and totally unexpected) article in the September 92 issue of Membernet (supplement to CACM) summarizing SIGMOD activities.

Sincerely,

Won Kim
Austin, Texas
January 1993