

SIGMOD FY'05 ANNUAL REPORT (Draft)
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1 Mission

The ACM SIGMOD (Special Interest Group on Management of Data) is concerned with the principles, techniques and applications of database management systems and data management technology. This year, the SIGMOD Executive Committee redefined the scope of SIGMOD as follows: "The scope of SIGMOD is to be the premier international community for innovative dissemination of knowledge concerning management of data, broadly defined, including the aspects of data description, storage, querying, analysis, security and privacy." SIGMOD operations are conducted under the following long-standing guidelines:

- SIGMOD should be careful not to stretch itself too thinly. The current community that SIGMOD serves is the "database research and development community": those producing the research results (academicians and research lab members), those utilizing the research results (DBMS, middleware, and tool vendors), and those interested in where the field is going (forward-looking users and consultants). At the present time, conventional database application developers and users of such applications are not SIGMOD's primary focus.
- The area of relevance of SIGMOD is "data management technology." SIGMOD should focus on concepts and systems that manage data.
- As SIGMOD's membership fee is so low (\$25 per year), SIGMOD should focus first on providing member benefits, and secondarily on providing benefits to non-members.

2 SIGMOD Member Benefits

SIGMOD has a very rich set of member benefits. As analyzed in last year's report, these include the following:

SIGMOD Online —The online component (www.acm.org/sigmod) continues to grow and now includes:

- digitized papers of the SIGMOD and PODS conference proceedings (now released simultaneously in print and electronically),
- SIGMOD Record, also released simultaneously in print and electronically; available in html/PDF and XML versions
- full video of the four one-hour plenary talks at the SIGMOD conference,
- dbworld, a very popular mailing list with web-based posting and archives,
- web-based repositories of information on graduating database students, database events, database research groups, database publications servers, and free/publicdomain software.
- links to commercial journal publications that are available to SIGMOD members at special rates.

SIGMOD Anthology —This is a collection of over 130,000 digitized pages of the database research literature, including back issues of three journals (IEEE TKDE, ACM TODS and VLDBJ), 27 conferences (ADBIS, CIKM, CoopIS, DASFAA, DBPL, DL, DOLAP, EDBT, ER, GIS, Hypertext, ICDE, ICDT, KRDB, MFDBS, MobiDE, NPIV, PDIS, PODS, SIGBDP, SIGIR, SIGMOD, SIS&R, SSDBM, VLDB, WIDM and WorkshopOODS) five newsletters (SIGBDP DATA BASE, SIGFIDET Newsletter, SIGKDD Explorations, SIGMOD Record and IEEE Data Engineering), several books, and meta-data (DBLP). The Fifth Volume of the Anthology, consisting of two CDs was produced in 2002; work is ongoing on Volume 6. After producing over 20 CDs, the decision has been made to move to DVD technology for the upcoming volumes of the Anthology.

Anthology Silver Edition —In 2002, we produced a set of two DVDs that incorporate all volumes of the Anthology as well as the first two volumes of DiSC (see below). This collection is called the Silver Edition and is now available to members at a price of \$20.

SIGMOD Digital Symposium Collection (DiSC) — This is an annual electronic publication containing the proceedings for that year for a dozen conferences, several newsletters, as well as

ancillary material from those conferences, such as Powerpoint slides, demoed software, and video of plenary sessions. It started out as a CDROM publication, and in 2003 we moved to DVD technology, since the content has grown significantly.

We have been working on putting DiSC release on a more reliable schedule with production as soon after the end of the year as possible. Our target is to ship the DiSC to members with the March issue of SIGMOD Record in the following year (i.e., within 3 months of the end of the year.) DiSC 06 has been released, with Prof. Shahram Ghandaharizadeh as the editor. He has now stepped down and Prof. Joachim Hammer has taken over; Prof. Hammer will be in charge for DiSC 07.

SIGMOD Record —SIGMOD Record continues to be a high quality newsletter and its coverage has been growing. In recent years, several columns were added (influential papers, database principles, systems and prototypes, and standards). Over the last few years, we introduced the following columns that have been very well received by our members:

- Interviews with important database researchers and practitioners (in its fifth year);
- Book reviews (in its fourth year).

SIGMOD/PODS Conferences —These continue to be very successful and highly regarded events. As discussed in Section 4, we have taken steps to periodically (roughly every three to four years) hold these events outside North America. We have also created a Conference Coordinator position to provide continuity in the organization of the conference from year-to-year. Dr. Jianwen Su, (University of California, Santa Barbara), who was the General Chair of the 2001 SIGMOD Conference is currently holding this position. He has put together a Conference Organization Guideline document that has proven to be very helpful for the conference organizers. We are also working on a similar document for PC Chairs.

Starting in 2005, we have stopped production of hard copy proceedings for conference attendees (we had stopped shipping hard copies to members some years ago). Instead, we have produced electronic proceedings that were distributed to the attendees on USB keys.

CD Proceedings — Starting in 2004, we have started producing CD versions of the annual SIGMOD/PODS Proceedings, which are sent to members free of charge (with the June issue of SIGMOD Record).

Book donation program —Each year conference attendees are encouraged to donate a like-new copy of a database textbook, which are collected at the conference and sent to a deserving country, for distribution to schools and libraries. We have been running this program since 1998.

Although all of these benefits have been valuable to our members, there had never been an actual study of which of these are really important and which are not so critical. Furthermore, as we plan to initiate a membership drive to increase the size of the SIGMOD organization, several other benefits have been conceived, whose actual value to our current and prospective members is unknown. As a first attempt to quantify this value, we have conducted a survey among the participants of this year's SIGMOD/PODS conference where we posed seven important questions regarding members' benefits. We received over 140 responses, which gave some surprising results. The questions together with their score (on a scale from 1 (not important at all) to 5 (extremely important)) are as follows:

1. Printed SIGMOD Record	2.46
2. Annual DISC attached to the Record	2.95
3. Sigmod Anthology	3.57
4. Content currently available on website	4.35
5. Discounts at conferences and the Silver Edition	4.07
6. CD proceedings at SIGMOD/PODS conferences	3.58
7. DISC content available through the website	4.48

These will be taken seriously into account as we proceed with our membership changes in the near future. Furthermore, we intend to continue surveying our members with a similar questionnaire on the website as well.

3 New Initiatives

The following are some of the new initiatives:

1. We expanded videotaping of the tutorials and the panel sessions at the SIGMOD and PODS conferences in addition to keynotes. These videos will be included in the annual DiSC.
2. This year we launched a new award, the SIGMOD Doctoral Dissertation Award, which, as its name implies, will be given to one dissertation each year, starting in 2006. This award is supported by Microsoft Research (thanks to Jim Gray). The selection committee consists of Prof. Hans-Joerg Schek (Austria, Chair), Dr. Sophie Cluet (France), Dr. Jim Gray (USA), Dr. Gail Mitchell (USA), Prof. Beng Chin Ooi (Singapore), Prof. Masaru Kitsuregawa (Japan), Prof. Ricardo Baeza-Yates (Chile). The winner was Gerome Miklau, who received his PhD from the University of Washington and is now at the University of Massachusetts at Amherst.
3. This was the first year of the "roll-over" review process between the SIGMOD and VLDB conferences in which papers were both received by SIGMOD and forwarded to the next VLDB conference.

4 International Efforts

SIGMOD (and indeed, ACM) is generally considered to be primarily a US-based organization. SIGMOD has been attempting to be more international by undertaking a number of initiatives. We have established close relationships with societies in Europe (EDBT, ICDT, Moscow ACM SIGMOD Chapter) and the far east (China CCF DBS, SIGMOD Japan Chapter). There is an ongoing library donation program that is international in scope. In 2004, we have taken our annual conference out of North America for the first time (since its inception in 1975, the conference has been out of US only twice: Toronto in 1977 and Montreal in 1996). The 2004 SIGMOD/PODS Conference was held in Paris, France with Patrick Valduriez (INRIA and University of Nantes, France) as the General Chair and Gerhard Weikum (University of Saarlands, Germany) as the Program Committee Chair. The Conference was very successful, with attendance of about 525 participants (about the same as last year) including about 110 from France. For many of these colleagues, this was the first SIGMOD/PODS Conference that they attended.

The 2008 conference will be held in Vancouver, with Profs. Raymond Ng and Laks Lakshmanan (University of British Columbia) as the joint General Chairs, and with Prof. Dennis Shasha (NYU) as the Program Committee Chair. The 2007 conference will be held in Beijing, China. Prof. Lizhu Zhou (Tsinghua University, China) and Prof. Tok Wang Ling (National University of Singapore) are the General Chairs. The PC Chair is Prof. Bengchin Ooi. We will continue to take SIGMOD/PODS out of North America every three to four years. We are planning on having it again outside of North America in 2010 and are currently discussing possible cities to host it. In parallel, we are coordinating with two of our European sister societies (EDBT and ICDT), which are moving from a biannual to an annual joint conference, so that they start holding their joint conference in North America the years that SIGMOD/PODS move outside. This way, under the leadership of SIGMOD, it is ensured that the database field will have a balanced representation around the world every year.

5 Educational, Conference, and Membership Activities

The primary educational materials are the SIGMOD Anthology, bringing an entire library of database literature to students at a very low price (students can join SIGMOD for only \$13 per year) and the SIGMOD DiSC, which brings to them the proceedings of a dozen conferences, as well as much ancillary material from those conferences. We have recently entered an agreement with VLDB Endowment to establish the "SIGMOD/VLDB Digital Library Donation Program" whereby VLDB Endowment will purchase up to \$25,000 worth of SIGMOD Anthology Silver Edition to be distributed to developing countries. A joint committee has been formed to run this program. This should allow us to assist 1,000 institutions. To date, around 350 copies have been distributed.

The SIGMOD conference continues to be very well attended. The paid attendance this year was around 550, and we seem to be experiencing fairly stable attendance around this number. It is highly prestigious. In a list of the most referenced papers (<http://www.informatik.uni->

trier.de/~ley/db/about/top.html) papers from the SIGMOD conference appeared more often than any other conference, and other studies have reported similar results. SIGMOD Conference papers continue to be among the most popular downloads from ACM Digital Library. The SIGMOD conference continues to be co-located with the Principles of Database Systems (PODS) conference, bringing together theoreticians and experimentalists. We have an ongoing Undergraduate Scholarship Program that subsidizes four to six undergraduate students from various institutions around the world to attend the annual conference. This year we awarded six scholarships to students from four countries. SIGMOD, like most other SIGs, has experienced a slow decline in membership in the first part of the 1990s. We've worked hard to reverse this trend. Our membership numbers seem to be holding (almost) steady, although there are occasional movements in the numbers.

6 Collaborative Efforts

We've already mentioned our sister societies. Most have given permission for significant amounts of technical material to appear in the SIGMOD Digital Library. We've also cooperated closely with SIGIR in the DL, and, as mentioned, with SIGKDD in membership promotions. As indicated above, we are collaborating with the VLDB Endowment to jointly sponsor the distribution of SIGMOD Silver Edition to international institutions and researchers. Our collaboration with VLDB Endowment has now extended to cooperation in the running of our conferences. The SIGMOD and VLDB Conferences now coordinate the resubmission of papers from one conference to the next. In a sequence of conferences, authors of a rejected submission to one conference (say conference n) who revise their paper, successfully address the critical comments of the reviewers, and submit the revised paper to the next conference (say conference $n + 1$), will be given the option to explicitly flag their new submission as a resubmission with a request-for-using-the-previous-reviewers and an attachment that explains how the previous reviewers' comments have been addressed. The re-submission to $n+1$ will be considered similar to a second round submission to a journal. As noted earlier, this was the first year of the "roll-over" review process between the SIGMOD and VLDB conferences in which papers were both received by SIGMOD and forwarded to the next VLDB conference. From VLDB05, 5 rollover papers were submitted. One of the 5 papers was withdrawn by the authors; of the remaining 4, 2 were accepted. The SIGMOD06 PC recommended 11 rollover papers to VLDB06. Of these, 7 were eventually submitted to VLDB06.

This experiment between SIGMOD and VLDB conferences will be conducted for two years and, after necessary adjustments, will be extended to include IEEE International Conference on Data Engineering (ICDE), if this is deemed appropriate.

7 Leadership Development

The activities listed in Section 2 all require volunteers to accomplish, and leaders to organize. The number of people leading efforts, and the number of people in standing committees and editorial boards, have been increasing. Currently, over 300 volunteers are actively helping with SIGMOD activities and deliverables. A regular program at the annual SIGMOD conference is a "Life after Graduation" panel, which is widely attended. This is designed as an informal forum in which recent graduates who have taken up positions within research organizations or academia can get support and advice from peers and senior colleagues.

One of the major efforts over the last few years has been to institutionalize many of the operations of SIGMOD. We have created a number of new positions and found volunteers to fill them. The objective was to achieve a state where the Chair is not involved in the minute details of every operation of the organization. We have now achieved this goal. Following elections, a new set of officers took over this year.

Chair: Raghu Ramakrishnan (University of Wisconsin, USA),

Vice Chair: Yannis Ioannidis (University of Athens, Greece)

Secretary-Treasurer: Mary Fernandez (AT&T Research, USA).

8 Self Assessment

SIGMOD is a thriving, very active SIG which is among the top six largest SIGs. SIGMOD has worked hard to reverse the trend of decreasing membership by means of superior membership

benefits. Our membership numbers are now (almost) stable and our post-first-year retention rate is among the highest of all the SIGs (around 76%). However, our first year retention rate is low (in the mid-50% range). We recognize that we need to mount a well-organized membership drive. SIGMOD also has been aggressive in putting its materials on the Web; at this time all of SIGMOD's materials: almost 30 years of conference proceedings and newsletter issues, and video from the last few plenary sessions, are on the Web.

A third source of pride is the involvement of all of the major database societies in the SIGMOD Digital Library. This involvement was critical, for two reasons. One, we could include material only if we had permission. And two, SIGMOD could not afford to digitize all that material alone; we relied on the copyright owners to pay for the digitization. We now look forward to these organizations to put this material, which now exists in digital form, on the web, either on their web site, or, if they prefer, on ours.

9 Concerns for the Future

The fundamental concern is with respect to SIGMOD's fund balance. Over the last four years, we have spent significant effort to streamline our activities and re-organize them with the objective of maintaining a fund balance of about \$50,000 above the required level. We achieved that level three years ago. Unfortunately, the recent changes in ACM rules regarding SIG fund balances has pushed us very close to the fund balance. Currently, our estimated closing fund balance for 2006 is \$170,000, which is just above the required \$165,000. Although we remain above the required fund balance, we are now short of our goal of having a reasonable "cushion". Given the cost of our current membership benefits and the fact that we raised the membership fee only last year, there is no clear set of steps that can be taken to get our fund balance to the level that we had set for ourselves. This will require more attention.

Another issue that requires our attention is membership. With the recent adjustment of our membership fee, we are now in a position to start a membership drive to increase new members. Our membership retention rates after first year are one of the highest among the active SIGs, but our first year renewal requires some improvement. This will be an issue that will be addressed this year.

While these concerns are real, we feel that SIGMOD is a strong organization, and we have every expectation of it continuing to provide useful benefits to its members, and thereby to thrive and indeed continue to grow.

