ACM History Initiative

Presidential Ad Hoc Committee on ACM History

February 13, 2004

There is no doubt that computing and computing research has had a major impact on science, industry, and society in general. There is also a shared realization among many of the participants that ACM itself played a large role in those developments. However, that story hasn't yet been told. Neither the history of the role of ACM in computing research and practice nor the organizational history of ACM has been written, in large part because the source material for such historical analysis is hidden away in files at ACM HQ or in storage boxes, or is solely in the memory of ACM staff and volunteers. This is in contrast to many of the other organizations that also played a role, e.g., IEEE, NSF, DARPA, which have had their organizational histories documented[1].

1 Progress to Date

The ACM Executive Committee formed the Presidential Ad Hoc Committee on ACM History in Fall 2003 (see Section 5 for the list of members) with the charge to make recommendations on how to create an archive of ACM's documents and how deposit future materials into this archive, with an emphasis of process over products. This Committee, which included an archivist, three practicing historians of computing, and several representatives from ACM's functional units, had a very productive meeting at ACM Headquarters on January 30–31, 2004.

The Committee's central conclusion was that ACM as a premier scientific association has an imperative to maintain a physical Archive of its material and to make this Archive accessible to historians. The Committee also felt that the ACM should promote the historical analysis of computing in specific ways, and should encourage an organizational history of ACM to be written. At the same time, the Committee was cognizant of the constrained resources of the Association and so was ever mindful that efforts must be cost-effective and efficient in achieving these goals.

2 FY'05 Activities

The Committee came up with several approaches and specific tasks that should be considered by ACM over the next several years. These efforts, which are listed at the end of this document and which will be elaborated upon in a report to Council in March, 2004, are predicated on five critical activities that the Committee strongly recommends be undertaken in FY2005.

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[1]Michael Mahoney has previously written, "We still find it easier to talk about hardware than about software, despite the shared sense that much of the history of computing is somehow wrapped up in the famous inversion curve of hardware/software costs from 1960 to 1990." (Michael Mahoney, "Issues in the History of Computing," presented at the Forum on History of Computing at the ACM/SIGPLAN Second History of Programming Languages Conference, Cambridge, MA April 1993, http://www.princeton.edu/%7Emike/articles/issues/issuesfr.htm). Perhaps this misplaced emphasis came about partially because IEEE has been much more active in the history of computing to date than has ACM.

1. *Form a Standing History Committee*

   It was clear to the Ad Hoc Committee that a four- to five-year effort was required to complete the Archive and the other initiatives and tasks that it considered important for the Association. Careful planning to achieve a cost-efficient approach for each task is critical.

   We recommend that a standing History Committee under Council be formed with the charge to direct ACM's efforts in achieving an Archive of its historical files and in furthering the other activities relevant to capturing and documenting ACM's organizational history and understanding the role ACM has played in the history of computing.

   We recommend that this committee include several active historians of computing, at least one archivist, and representatives from ACM's primary functional units, including HQ staff, Awards Committee, SGB, Publications Board, and Education Board, and have assigned to it a staff support person.

2. *Start an Oral History Project*

   The committee arrived at an initial list of those who contributed significantly to ACM's organizational history or to ACM's impact upon computing; these include ACM founders (several), Presidents (around 18), CEOs and Executive Directors (4), Turing Awardees (25), SIG founders (around 20), and a few staff, or a total of about 50 people who are still alive. Some of these are quite frail and should be interviewed soon; this is task that simply cannot be put off. We recommend that five oral interviews be undertaken over the next year. A further objective of getting started now is to get experience with such interviews, so that the History Committee could draw up a more focused list of interviewees and a procedure and schedule for conducting these interviews.

3. *Perform an Archive Audit and Plan the Archive*

   At the January meeting, Pat Ryan summarized the contents of file cabinets databases, and electronic files for each of the functional units as well as some of the historical archives. (As an example, she encountered a letter written by John von Neumann stating his opinion that there was not yet (in 1947) a need for an association of computing machinery(!)) While there is a manifest of the boxes in storage, none of these files have yet been examined by a professional archivist to determine what should be archived. The step is important, for it is impossible to gauge the effort and expense required to set up an archive until it is known roughly what is there.

   We recommend that an archivist perform three tasks.

   (a) An initial analysis of the descriptive information currently available about materials at HQ and in remote storage in New Jersey, just across the river from HQ.

   (b) An on-site survey of materials in storage at HQ to gather information about their physical condition, the approximate volume, the accuracy of the descriptive information currently available, and the level and accuracy of any identifying descriptive information on the materials themselves (e.g., labels on boxes and folders). This would involve paper records only.

   (c) A report to the committee and board with recommendations, including various options for next steps.

   A fourth task would result in draft archival retention guidelines for future records, taking into account legal, administrative, ethical, and archival considerations, for discussion and refinement by

the newly-formed ACM History Committee and subsequently by Council. Input from professional records managers and then from ACM's attorneys would be needed.

Once these tasks have been done, the ACM History Committee could develop a plan and needed funding for the archival effort itself, which would involve a careful sorting and packing of the materials; shipping to a physical archive (the Charles Babbage Institute in Minneapolis is a possibility); and then processing.

4. *Expand the Turing Award Web Site*

The Turing Award was recently increased to $100,000, rendering it even more the "Nobel Prize of Computing." However, one would not come to that conclusion when browsing the Turing Award web site[2]. In part as thanks to Intel for underwriting this award, in part to communicate the import of this award to the research community, and in part as outreach to non-experts, the web site should be significantly enhanced.

There was much discussion within the committee about a follow-up to the 1991 book "Turing Award Lectures: The First Twenty Years 1966–1985". The original proposal[3] had suggested "The Second Twenty Years 1986–2005". But it seemed to the Committee that in this Internet age the web site is perhaps more appropriate than a published book and in any case should be a precursor to a published book.

The book will be considered for later, but the Committee recommended that in the near term the web site be improved to make a site that reflected the prestige of this award. We recommend that the Awards Committee appoints a volunteer Editor of the Turing Award site, to coordinate the redesign and augmentation of this site with material to include (1) a several-page biography of each awardee, (2) a more comprehensive description of the contribution (or perhaps two descriptions, one for a sophisticated audience and one for a lay audience, the latter explaining in understandable terms what the contribution means to everyone), (3) a good picture of the recipient, and (4) for the site itself, a more complete description of the award, along with a nice picture of the bowl that is awarded.

5. *Include Ancillary Material in the DL*

In addition to planning for the ACM Archive, which will be a *physical* collection, the Committee also considered ancillary material from ACM magazines (e.g., ads, letters to the editor), transactions (e.g., editorials), conferences (e.g., front material listing the program committee, number of papers accepted versus number submitted, single versus parallel sessions), and newsletters. Such material is often of more interest to historians of computing than the technical papers themselves. The Committee strongly recommend that this ancillary material be added to the ACM DL, augmenting the articles already there, so that ACM could rightly claim that *all* ACM publications were in the DL. We understand that the Publications Board was working on that already; the Committee encourages that effort.

Also mentioned at the January meeting was that there was a printed publication, called the ACM Headquarters Newsleter, that predated MemberNet; the Committee felt that this newsletter should be scanned and added to the DL, though completion of existing magazines and transactions, especially *CACM*, probably takes precedence.

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[2] http://www.acm.org/awards/taward.html
[3] "Our Past as a Prelude to our Future," http://www.acm.org/about_acm/adhocacmhistory/history.pdf

While the other activities and projects listed later are equally important, they all to some extent rely on the above five tasks; it is those that the Committee feels are most relevant for FY'05.

3 FY'05 Budget

We now turn to the budget for each of these activities.

1. *Standing History Committee*

   This committee will meet once a year in person, with monthly conference calls the rest of the year. The in-person meeting will cost $9K; the conference calls are funded at $1K.

2. *Oral History Project*

   The very rough plan is to perform ten oral histories a year for five years, to cover the 50-odd people already identified, then continue on an infrequent basis after that.

   The Committee discussed in detail what was involved for a serious, historical-quality interview. These interviews should be done correctly, for them to have lasting value. This requires that the interviewer do significant reading in preparation for the interview. Those who have been interviewed extensively have developed a version of the history that might not entirely be in accord with other recollections; the interviewer needs to understand the context of that person's involvement to recognize such inconsistencies, to anticipate some, and to explore them in the interview. For such careful background work, the interviewer should be compensated. Then there is travel for the interviewer and work to enter and edit the transcript.

   There are three objectives: get a quality interview (as just discussed), cluster the interviews to reduce preparation and travel costs, and interview frail persons first. Initially, the first and third objectives will dominate; efficiencies can increase in later years and as experience is gained. We budget $25K per year, for at least five interviews the first year (more if possible). The expectation is that over time the cost per interview will go down and the number of interviews per year will increase.

3. *Records Survey and Recommendations for Historical Archives and Retention Policy*

   The mechanism for this was discussed at length. This project—analysis and recommendations—should be done by a professional with experience in organizational archives. Three possibilities were considered: a student with a local adviser, a local archivist who would do it as a consulting project, and the Charles Babbage Institute doing it as a consulting project. The last was viewed as the most efficient approach for the pilot.

   Consulting costs for CBI's service was set at $5,000 plus travel and hotel, etc. for two people for one week (totaling $3,000). The work would be done by Elisabeth Kaplan along with one of CBI's assistant archivists. On the analysis piece, both would come to NY for the survey and Beth would write the follow-up report and recommendations.

   For the archival retention guidelines, Beth would research and draft initial guidelines, on a retainer of $2,000 for the period of now through June 2005.

   Once this audit was completed (by September 2004 at the latest), the History Committee could then plan the next steps, sorting and packing the materials and shipping to a physical archive, which could begin in late 2004. We allocate $10K for the FY'05 portion of this effort, with an expectation that

somewhere between $10K and $40K more will need to be funded in FY'06, an amount not to be estimated until the audit has been finished. It is hoped that this portion of the project can be completed in FY'06 and thus may not require substantial funding beyond that point. (We include $5K a year for maintenance, but this is really a placeholder, as the exact amount will again be determined by the amount of material.)

4. *Expand the Turing Award Site*

This will be an activity managed by the Awards Committee in conjunction with the Publications Board. Our hope is that the Awards Committee can work with knowledgeable volunteers within the SIGs to gather much of the material to be added to the Turing Award site.

5. *Include Ancillary Material in the DL*

This effort will involve some scanning as well as refining the meta-data model to allow inclusion of ancillary material. This work should be included in the on-going DL effort and hence does not require separate line-item funding.

The following table summarizes the budget. As some of this work pertains directly to the SIGs, and as the story of ACM includes as a major component the story of the SIGs, the Committee felt that the SGB should participate in funding this effort. For the FY06 budget, it is hoped that the SIGs can participate in the archiving, in the oral history, and in the Turing web site. Conversations with the SIGs are ongoing, with detailed discussions on the budget planned for the Fall 2004 SGB in-person meeting.

It should be emphasized that the follow-on years are estimated and do not include the later projects that will most likely be proposed by History Committee. The asterisk for the Turning Award web site is a placeholder; the amount and responsible committee are to be determined.

Component	(proposed)	(estimated)	
	FY'05	*FY'06*	*FY'07–'09*
ACM History Committee	$10K	$10K	$10K
ACM Archive	$20K	TBD	$5K
Oral History Project	$25K	$25K	$25K
Turing Award Web Site	*	*	*
Total	$55K	$35K + TBD	$40K

4   Later Projects

As mentioned before, the Committee felt that it was important that ACM do more to encourage its story to be told. The following is just an initial list of projects that the Committee felt could be helpful, consistent with ACM's mission and resources. The March 2004 report to Council will elaborate on these potential projects. The Standing History Committee will determine strategy, priorities, and funding alternatives.

- Encourage more historical analysis of the history of computing, such as endowing an annual award for Best Paper in History of Computing, partnering with the IEEE *Annals of the History of Computing*, and encouraging SIGs to document the history of their slice of computing.

- Realize the ACM Archive and possibly put scanned versions of especially important artifacts on the web, possibly as part of the ACM DL or Portal.

- Improve the ACM and SIGs Awards sites.

- Encourage an organizational history of ACM, such as by offering cooperation to historians interested in such questions, funding historians to use the ACM Archive, perhaps even commissioning an organizational history, and encouraging SIGs to write their individual histories.

- Producing a follow-up of the Turing Award lectures book.

- Encourage and provide training to SIGs that want to do their own oral history project or History conference series.

- Complete the ACM DL with ancillary material and fill holes in ACM DL with material already in the ACM materials stored at the Charles Babbage Institute and elsewhere.

All will have to be carefully planned to be as cost-effective as possible.

5   Members of the Presidential Ad Hoc Committee on ACM History

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