My view of *Computer Communication Review*, 1969–1976

David Walden
dave@walden-family.com

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ABSTRACT

Brief notes relating to the *Computer Communication Review* in 1975–1976.

CCS CONCEPTS

• **General and reference**;

KEYWORDS

History, ACM SIGCOMM

1 INTRODUCTION

It is too big a coincidence not to note—that 2019 is the 50th anniversary of both SIGCOMM and the installation of the ARPANET's original four sites. I don't claim to see cause and effect. I do claim that the time was ripe in 1969 for a revolution in computer communication and for a new SIG and a new journal.

In its early years, *Computer Communication Review* (CCR) issues were sometimes irregular and not so thick and that bothered me. By 1975 I had already gotten to know a lot of people in my part of the computer communication world (I was an original member of Bolt Beranek and Newman's development team for the ARPANET packet switch). I felt I might contribute to CRR. I asked chair Wes Chu if there was anything I could do to help. My theory of a journal to which people would want to make submissions had two parts: (1) issues must come out on a regular schedule; (2) the editor has to solicit high quality content if it is not arriving voluntarily. Wes agreed and arranged for me to me to become CCR co-editor with the then editor Walter Bond (who was serving as Treasurer as well as Editor, perhaps indicating that he was doing the editor's job because no one else had volunteered). For the first couple of issues Walter last listed as "Editor (Communications)" and I was listed as "Editor (Networks)"; Wes's announcement of my involvement justified adding me because of SIGCOMM's "recent emphasis in computer network activities". Seven of the eight papers in those first two issues related to networks. At that point, Walter turned the editorship fully over to me. Craig Partridge has described this in his "An Informal History of ACM SIGCOMM *Computer Communication Review* 1970–2012" [9]. During my editorship, the issues weren't always long; they were always on time.

Lots was already changing in the computer communications world by 1975–76. The ARPANET was expanding and being improved and host computers had learned to talk to each other [11]. R&D presentation and publication opportunities were everywhere for both researchers and implementors, with international sharing of new ideas and some hopes for compatibility. Shared channel packet switching was emerging using satellites [4] and radios [6]
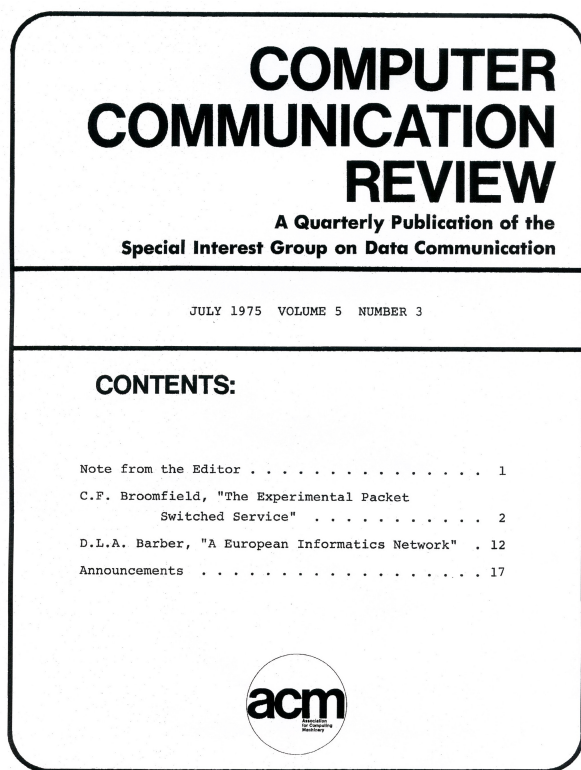
and Ethernet was running in a Xerox laboratory [7]. Distributed computation and operating systems were being investigated [5]; a variety of networked email clients were being tried out [8]. National governments were experimenting with their own packet networks [2]. New kinds of communication carriers such as Telenet [1] were starting up. The phone companies were fighting back against new forms of computer communications, computer vendors were pushing their proprietary network architectures, and other companies were pushing packet-based networking for commercial clients. I was in the thick of lots of this which provided opportunities for collecting material for CCR.

During 1975–76 CCR served (as it had since its inception) as a newsletter for all of SIGCOMM with announcements of SIGCOMM activities, SIGCOMM meeting reports, the SIG's financial statement, announcements of non-SIG events in the computer communication area, and announcements from other parts of the ACM. There was a mix of European and North American authors of technical papers and one paper from Japan. Several different network development efforts were described. One issue (volume 6, number 1, January 1976) was focused on hardware. Some of the papers were published to give wider distribution to interesting notes from various working groups, such as IFIP Working Group 6.1 and a couple of ARPA sponsored study efforts. Two examples are:

- Lawrence Roberts 1975 CCR paper "ALOHA packet system with and without slots and capture" [10] had previously been circulated as ARPA Satellite System Note 8 on June 26, 1972; it deserved much wider circulation which it got through CCR, and I suspect it is still referenced and cited today. It was preserved by publication in CCR. I don't know if the ARPANET Satellite System note collection has survived anywhere.
- V. Cerf, A. McKenzie, R. Scantlebury, and H. Zimmerman's 1976 CCR paper "Proposal for an international end to end protocol" [3] was an effort by people out of the ARPANET, Cyclades, and U.K. National Physical Laboratory networking efforts to put forth a "consensus position on a 'datagram' protocol". CCR's goal was to give the document distribution beyond IFIP Working Group 6.1. In time the paper became widely available beyond CCR.

There were still a few papers on more traditional communications topics, but networks were the hot area at the time. The two papers listed in the example CCR cover on the next page describe the Experimental Packet Switched Service that being developed by the United Kingdom Post Office [2] and the multi-national European

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[1]See https://en.wikipedia.org/wiki/Telenet

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Informatics Network that was being developed by the European Economic Community [1].

In addition to soliciting submission of papers, as CCR editor I also wrote sometimes lengthy editor's notes providing context for the papers and where they came from and giving news and announcements. I also had another job. I used a primitive (but then typical) form of "desktop publishing". I typed page numbers on blank pages using a Selectric typewriter and pasted the actual papers as they came from authors on successive pages. I am sure there was some work with an exacto knife or paper cutter as well. I assume I also typed the table of contents and issue date, etc., information and somehow provided it to the ACM for CCR's front cover. (I don't remember having any say about cover style.) I sent the package of numbered CCR pages to the ACM for printing and distribution.

I notice some of my editor's notes were apparently done with RUNOFF, the early text formatting program from MIT, a version of which was running on the PDP-10 TENEX system I used. The CCR issues certainly would have looked more professionally published if we had the resources to convert the text of author's papers to the RUNOFF, troff or Pub digital desktop publishing tools that already existed in 1975.

The Proceeding of the 1975 SIGCOMM/SIGOPS Interprocess Communications Workshop was effectively an additional 1975 publication of CCR, as it went to all SIGCOMM members and that quarter's CCR was allowed to be short.

There previously had been a preliminary announcement in the third CCR issue of 1974 and then an official looking announcement in the fourth issue of 1974. The workshop was held March 24–25, 1975, in Santa Monica, California. Wes Chu was chair for the workshop. Wes as well as Vint Cerf, T.C. Chen, R. Stockton Gains, and Butler Lampson were session chairs. A 230 page volume of "Preprints of Working Papers" was given out; there are 34 working-paper titles in the table of contents. According to Wes's post workshop note in CCR, about 45 working papers had been received and attendance was capped at 50. After the workshop, a 101 page proceedings was compiled and published containing 16 papers and listing titles of 26 "working papers not included in the proceedings". As I remember, I used the same paste-up-pages-type-page-numbers-and-mail-to-ACM" technique for the proceedings that I used for issues of CCR.

As of the end of 1976, I turned the editorship of CCR over to Alex McKenzie, feeling that CCR had become a better journal.

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