

A Long-Term Policy Framework for ACM Publications

Prologue

In January of this year, the ACM Publications Planning Committee submitted to the ACM Council a draft report entitled "A Long Term Policy Framework for ACM Publications." The current Committee members are Robert L. Ashenurst, Michael D. Cooper, M. Stuart Lynn (Chairman), Raymond E. Miller, Christine Montgomery, Joel Moses, Thomas E. Murray, and Evelyn A. Swan. Former members of the Committee include Richard Canning (through December 1977), Peter Denning (through September 1977), and Jean E. Sammet (through October 1977).

The purpose of this Framework is to serve as a policy document to guide ACM publications planning over the foreseeable future. It is not a blueprint for change, but rather a framework within which such blueprints can be developed in a coherent manner. The Committee is currently working on a first three-year implementation plan based on the policy Framework, intending to submit a draft of it to the ACM Council in June 1978 at Anaheim.

In developing the Framework, the Committee examined the extent to which ACM publications presently meet the needs of the Association and attempted to define unmet needs. Based upon these needs, the Committee then defined and prioritized long-term objectives and developed a strategy that would produce a useful publications planning policy. The

Committee welcomes comments on the Framework from members of ACM. Following is a condensed version of that report.

It should be emphasized that the Committee's report is a relatively lengthy and complex document that is difficult to summarize succinctly. Full understanding of the report depends upon knowledge of definitions and classifications that are extensively discussed in the original. For this reason, the Committee stresses the importance of referring to the full-text document for a complete, well documented discussion of processes and conclusions. For convenience in transferring attention from the shortened version to the full text, parts of both are divided and numbered in the same manner through Part VII. Part VIII in the shortened version corresponds to Part XI in the full text version.

Arrangement of the Full Report

Part I of the report defines its purposes and scope. Part II discusses the historical background and outlines the present status of ACM publications. Part III discusses the projected future environment for publications and in particular considers future constituencies to whom publications will be directed.

Future publications needs are defined in Part IV. It is important to note that the document considers only those needs unmet at this time. The Committee assumes that pres-

ently met needs will continue to be satisfied, and so the Framework builds upon present strengths of ACM publications.

In particular, this section outlines factors that have affected the Committee's thinking and carefully defines the terms and data elements that are building blocks for the remainder of the document. Section V.4 in Part V analyzes present ACM publications with respect to how well they approach the unmet needs enumerated in Part IV.

Part VI proposes long-term publications objectives. Since these objectives are based on needs and since some needs are more important than others, the Committee prioritizes objectives here.

The central structure of the Framework is contained in Section VII, which proposes five major directions for ACM publications.

In the full text version, Part VIII defines planning targets and recommends options that best satisfy needs with minimum financial impact on members. Since the Framework is not a plan *per se*, resource implications are difficult to assess, but Part IX discusses interrelationships between the Framework and possible resource implications. Part X concerns itself with how publications and publications planning should be managed in the future.

Parts VIII, IX, and X of the full text version are not summarized in the shorter version, so it is particu-

larly important to consult the original document on matters discussed in these parts.

Part X in the full text document and VIII in the summary version review alternatives that might have been chosen and discuss reasons the Committee thought it best to reject them.

The summary version of the report follows. Although some pointers to the original text have been inserted and an outline appears above, it is again stressed that this extract contains many gaps and is only a selective version of the original larger report.

I. Purpose and Scope

The purpose of this document is to define a long-term policy framework for ACM publications. It is not intended to set forth a long-term plan but rather to describe ideal achievements that could be pursued if ACM were freed from resource restrictions, transition constraints, and other limitations. It is our view that ACM should attempt to develop plans consistent with this Framework but be prepared to change the Framework if it becomes no longer workable or no longer desirable.

II. Historical Synopsis¹

The desire to change ACM publications does not stem from financial considerations or from any feeling that the publications are not of sufficient value to the profession. Most members, whether or not they feel that ACM publications are of value to them individually, do perceive the publications as being of value to the profession as a whole. In general, the mood for change stems from the fact that a substantial number of members feel the material they receive is too specialized, too narrowly directed and primarily of research interest, rather than being more

¹A history of ACM publications from 1947-1972 may be found in an article by Eric Weiss which appears in Vol. B, Appendix 1 of the full text version. Refer to the full text, Part II.1-II.3 for a synopsis of recent developments and status report and to Table 1 for information on the number of subscriptions to ACM publications from 1975-1977.

broadly directed to readers outside the area of specialty. Although the majority (59%) of ACM members who responded to the 1977 Publications Survey are moderately or highly satisfied with ACM publications (including SIG publications) the Committee does not think this implies that the majority wants no improvement.

ACM publications do an excellent job of publishing research-oriented material, and those members whose primary interest lie in this direction generally appear to be well satisfied. It is generally perceived that there is a weakness in publication of practitioner-oriented material. Naturally, for those members to whom such material is important, concern about this weakness is primarily directed toward *Communications*, the one publication that every member receives. Many ACM members view *Communications* as the embodiment of their dues. Even though they receive many other benefits from ACM for their dues, *Communications* is the flag that is waved in front of their eyes each month. Many, it appears, do not even open *Communications*, which may mean that a large number of members are not aware of its recent changes.

III. Future Environment for ACM Publications

III.1 Internal. A long-term framework can only be useful if assumptions made about the future turn out to be correct. For planning purposes, it is often safest to assume the future to be a modified extension of the present. Therefore we will not assume any major changes in ACM membership; we will assume that the constituencies of ACM's members—at least as expressed in their publications preferences—will remain essentially the same.

We also assume that ACM's present structure and fiscal environment will remain essentially the same, implying that ACM will have sufficient funds to make substantial changes in publications but probably not have sufficient funds to embark on massive or risky undertakings like the proposed *Abacus* publication of AFIPS.

III.2 External. The future of the external environment is more difficult to assess than the future of ACM's

internal environment. Recent years have seen a number of computing publications issued by commercial (profit-making) publishers; we expect this trend to continue.

More important in projecting the future external environment for ACM publications is technology like computer typesetting and information retrieval, and changes in the way published material can be delivered to readers. Although we cannot predict exact trends in technologies, we assume that increasingly selective dissemination of material will be facilitated, and that ultimately readers will only receive material in which they have expressed an interest.

III.3 ACM's Constituency. Any discussion of publications planning would be incomplete without more complete discussion of the audiences that such publications are intended to address.

The classification of audiences most appropriate to this Framework is contained in Section II.2 of the final report (November 1974) of the Long Range Planning Committee (LRPC): "Recommended Future Direction for ACM." As a working definition of ACM's constituency, the LRPC report suggests:

"ACM's constituency includes all those people who believe that the conduct of their jobs is, to some extent, improved by the acquisition and use of technical knowledge about computers and their applications. ACM should provide for each such person the degree of technical knowledge he seeks insofar as resources and member interests permit."

The report further states that:

"This definition makes no distinction between specialists, professionals with general interests, or people with only tangential interests in computers. By accepting (the above) definition, we accept a responsibility to be concerned about them all."

The key point is diversity of audience. ACM's present publications structure is primarily directed toward computer science and technology, and gives only secondary representation to the uses and effects of the computer, computer management and personnel, and computer education. Members of ACM who might characterize themselves as "practitioners" are not well served. The Framework must reflect this situation, and suggest some means of dealing with it.

IV. Future Publications Needs

The Publications Planning Committee has identified several major areas of needs which are partially or wholly unmet at the present time. A long-term framework should take into account these needs and be responsive to them.

In essence, the goals of ACM's publications planning activities should be—as far as practically possible—to develop publication plans which are responsive to these needs. *These needs are beyond those needs which are in fact presently being satisfied by ACM's publications, and therefore represent needs which are partially or wholly unmet at the present time.* For example, the Publications Planning Committee feels that ACM is doing a superior job of publishing refereed technical literature, as far as *quality* is concerned, and thus there is no urgency to take steps to improve the quality of such material. However, there are considerable problems with the way such material is disseminated and the *speed* with which it is published. In Section V we identify ways of measuring the needs listed below and assess where present ACM publications stand with respect to these measurements. For convenience, needs are classified into three groups:²

- (1) Needs which are primarily a reflection of the publication requirements for the profession as a whole;
- (2) Needs which are primarily a reflection of publication requirements of individual users³ within the profession (members, subscribers, readers);
- (3) Needs which are a reflection of publication requirements of both the profession and users.

Needs of the Profession

1. *Unification of Profession:* To encourage unification of the computing profession through its body of literature.
2. *Breeding Ground for New Areas:* To nurture the development of new

²Section IV, pp. 28-35 of the full report comprehensively discusses the needs and comments on their importance.

³The term "users" refers in this Framework to users of *publications*, as opposed to end-users of computer systems or applications.

technical areas in the computing field.

Needs of Users

3. *Audience Satisfaction:* To be as responsive as possible to the individual and collective information requirements of ACM members.
4. *Serendipity:* To encourage serendipitous exploration by readers.
5. *Selective Dissemination:* To have members ultimately receive only material in which they have expressed interest.
6. *Selective Retrieval:* To facilitate selective retrieval of information by the professional.
7. *Problem-Solving Assistance:* To allow for the publication of material which is directed toward assisting practitioners and others in the solution of specific problems.

Needs of the Profession and Users

8. *Synthesis of Information:* To allow information to be synthesized in ways appropriate to the heterogeneous interests and requirements of ACM members in particular and the computing profession as a whole.
9. *Consistency of Communication:* To encourage consistency, cohesiveness, and comprehensiveness in communication within the profession and with external milieu.
10. *Rational Framework:* To be allowed to develop within a pre-constructed rational framework a publications structure that encourages orderly growth and considers the needs of all.
11. *Responsiveness to Changing Fields:* The publications structure and the Framework under which it develops must be sufficiently flexible to be responsive to changing fields of computing and to their changing interrelationships.
12. *Rapid Publication:* To encourage rapid publication and dissemination of new results and ideas within the field.

It would be most desirable to satisfy the above needs at minimum cost to members, but achieving maximum satisfaction will be expensive. Costs can be recovered in a variety of ways, including:

- (a) *By selectively passing on to members costs associated with choices or options they select.* This represents the principle of unbundling (a principle which this Committee recom-

mends) in which a member only pays for that material that is of most interest to him. However, Council has directed—and this Committee concurs—that every member of the Association receive some technical material as part of the dues payment, although members may receive different materials.

(b) *By subsidizing publications out of general member dues.* The word "subsidy" is somewhat misleading, since members receive benefits in the form of publications for dues paid. This principle implies that all members should pay for certain publications, whether they want to receive them or not. Insofar as members presently receive two publications as part of their dues (one of which is not necessarily by choice) this approach tends to dominate much of the present packaging of ACM publications.

(c) *By diverting resources from other areas of the Association's activities.* Member dues being used to subsidize other ACM activities may be partially diverted to publications, or surplus funds that are created by another activity may be diverted into publications.

In general, the more narrowly one directs a publication, and the greater the emphasis on unbundling and selective dissemination, the higher the average and incremental costs of the units being disseminated. Thus, in order to achieve maximum satisfaction, members may end up paying more for individual publications, but could pay less in total by not being required to receive material of no interest to them. Some compromise between completely selective dissemination and publication packaging may be necessary for reasons of economy.

V. Measurement of Needs

V.1 Classification of Subject Matter. We find it meaningful to divide the field of computing into five major categories: Theory of Computations, Systems and Programming, Computing Methodologies, Computer Applications, and Computing Milieu. [These categories derive from the Long Range Planning Committee Report cited in Section III.3.] There is some overlap in these categories.

They are, in outline, defined as follows:

(a) *Theory of Computation*: This category includes basic theoretical material of the kind usually found in the *Journal of the ACM*. While much of this is of a relatively general nature, it includes material that directly addresses theoretical issues underlying computing methodologies or applications.

(b) *Systems and Programming*: This category includes much of the "core" of computer science, and concerns general issues such as architecture, communications, languages, and operating systems. These are considered at a level independent of particular applications.

(c) *Computing Methodologies*: This category includes areas of computing and computer science which are more specialized than Systems and Programming, yet more general than particular end-user application areas. Examples are mathematical algorithms and software (numerical analysis, symbolic analysis, mathematical programming, and simulation), artificial intelligence, graphics systems, and computer-aided instruction. Relatively general material on databases is also included, although what is often termed "programming methodology" would be included under Systems and Programming.

(d) *Computer Applications*: This category is comprised of material such as banking or process control that is directed toward end-user applications. Traditionally, such applications have been grouped into either business or scientific applications, but this grouping may be too simplistic for future use.

(e) *Computing Milieu*: This category is concerned with the larger context of computing including computer science education, management of computer services, the societal effects of computers, public policy matters related to computing, and computer personnel research.

V.2 Characteristics of Published Material. Defining objectives for ACM publications requires discussion of the type of control to be exercised over material ACM considers for publication and some comments on the form of distribution of such material.

In Table 2 of the full text report, we list 33 "data elements" or classifi-

cations of material to be published by ACM. Examples of data elements include material classified as articles (e.g. research papers, tutorials, surveys, conference papers, algorithms), feature material (e.g. ACM news, letters to the editor, news of the professions, key lectures), and reference material (e.g. bibliographies, calendar/calls for papers, and curricula).

Each data element is annotated according to level of review, importance for ACM distribution, and range of ACM distribution. The *level of review* is broken down into:

Refereed, that is, detailed peer review following a defined, formal process which is uniformly applied. This sort of review is usually given scholarly material to ascertain originality, correctness, novelty, importance, and clarity of exposition. ("Novelty" may refer to the method of exposition—for example, a good survey article—rather than to the content of the material.) With refereed material, the editor and the publication assume responsibility for these characteristics; in practice, referees with technical specialization assist.

Formally Reviewed, that is, a structured evaluation and critiquing procedure following a defined process uniformly applied as with refereeing, but without requiring that the tests of scholarly originality, novelty, and importance be applied.

Reviewed, that is, a more informal and not necessarily uniform process of volunteer review, with standards dependent upon the publication and the type of material. This level of review gives an independent assessment of the importance of the material and of the methods of exposition.

Edited, that is, professionally edited, usually by paid staff, with primary emphasis on exposition, editorial standards and style, and graphic presentation, rather than on content and substance.

No Review, that is, material which is published just as submitted.

Different types of material will have appropriately different levels of review and the particular level of review used will depend upon particular circumstances.

Importance for ACM Distribution defines whether material must, in the Committee's view, be available

for distribution to ACM members, whether such availability is simply desirable, or whether such availability is questionable.

Range of ACM Distribution defines whether, in the Committee's view, the indicated data element must be distributed to all ACM members, whether it is highly desirable that it should be distributed to all ACM members, or whether it should simply be available on an optional basis. Materials that fall within the first two categories are primary candidates for inclusion in any "flagship" publication.

There are many other factors that must be considered when publications are created and which are not readily categorized, namely those that reflect most of the criteria defined in the previous paragraphs. In particular, the Committee has found the following criteria useful in evaluating ACM's publications with respect to the unmet needs of Part IV:

1. *Depth of Coverage*: An evaluation of publications with respect to the level at which they are written. Here we will consider, at one extreme, esoteric research articles directed to a narrow area and, at the other extreme, broad interest reports and articles.

2. *Length*: The length of individual articles ranging from less than a column to full-length papers of twenty pages or more.

3. *Audience*: To which classes of readers is the material directed? Classes will contain those engaged in research in a very narrow area, practitioners involved with applications, and educators, managers, or historians.

4. *Novelty*: Is the material a new result or concept, a synthesis of known results to produce new insight, or a description of known information for survey or tutorial purposes?

5. *Relation to the State of the Art*: Does the published matter, irrespective of its novelty, relate to subject areas which are at the forefront of computing activity, or—at the other extreme—does it relate to some relatively unimportant backwater?

6. *Permanence*: Is the material of transitory interest only; is it of semi-permanent interest in that it will be of use over some limited number of years; or is it of archival importance

in that continued reference to it over an extended number of years should be provided for?

7. *Influence*: To what extent does the material influence the future development of the computing field? Citation indexing might be used to measure this.

8. *Contributed vs. Solicited*: To what extent are the articles actively solicited by editors in accordance with prescribed editorial policies, rather than being unsolicited contributions that are passively considered?

V.3 Horizontal and Vertical Publications. Horizontality and verticality are of importance in assessing publications:

Horizontal publications are publications which are packaged to enhance consistency of style as measured by depth of coverage of review, degree of novelty, and intended degree of permanence across essentially all subject areas. A given horizontal publication may present material at different depths, but it is intended that, essentially, it should do so *uniformly* across all subject areas. This does not necessarily have to be accomplished in a single issue (cf: *Surveys*).

With this definition in mind the following are all considered horizontal publications: *Communications*, the *Journal*, *Computing Surveys*, *Computing Reviews*, and the proposed AFIPS publication, *Abacus*. On the other hand, *Transactions on Mathematical Software*, *Transactions on Database Systems*, and SIG Newsletters are not horizontal.

Vertical publications emphasize specific technical or functional areas but may contain material at varying levels of depth, prepublication review, and so forth. In its most extreme form, a vertical publication would contain all data elements relevant to a given technical area, including research papers, informal technical papers, abstracts, and reviews. The advantage here is that an individual interested in a certain technical area could receive all relevant published material in a single package.

If we more loosely define the term, any subset of the data elements directed only to a particular technical area would be considered vertical. We use this less stringent definition

so that TOMS and TODS are vertical publications. This would suggest that the narrowly focused reader might still have to subscribe to several packages (perhaps all vertical).

There is always some conflict between horizontality and verticality. With reference to the needs discussed in Part IV, horizontal publications tend to foster unification, consistency, responsiveness, new areas, and serendipity. On the minus side, they tend to inhibit selective dissemination, rapid publication, and selective retrieval. Vertical publications are apt to have the reverse effect. Consequently, no single approach is likely to be entirely correct, and a combination of horizontal and vertical publications will probably always be necessary if all needs are to be met adequately.

The following is a list of types of material (data elements) that might naturally appear in either a horizontal or a vertical publication. It should be emphasized that this is not an exclusionary breakdown. Depending upon changing factors, certain elements could appear in either list.

Horizontal

Broad interest technical material, Tutorial, Survey (including history), Public policy, Management, Selected reprints, ACM News, Committee reports, Key lectures, Letters to Editor (e.g. ACM Forum), Industry news, Government news, News of profession, Standards (proposed), Meeting reports, Key book reviews, Critical reviews, Abstracts, Summaries of articles, Titles/contents, Indexes (e.g. ACM Guide), Calendar/calls for papers.

Vertical

Research papers, Specialized technical material, Informal technical material, Education, Conference papers, Algorithms, Work in progress, "How to" features, Bibliographies, Curricula.

There are strong reasons for maintaining an ACM research publication that is horizontal. A horizontal publication is an important vehicle for attracting high quality papers of importance because of the potentially wide audience such papers could reach; it enhances interdisciplinary communication and serendipity; it provides for the publication of research material in new and emerging fields for which no vertical publica-

tions yet exist; and it provides for the publication of those research results which have widespread implications. These are present strengths of ACM publications which should not be lost in restructuring.

VI. Long-Term Publication Objectives

In this Section we summarize long-term objectives for ACM publications that will guide our decisions over the next five to fifteen years. This, in one sense, represents the outcome of our requirements analysis.

The Committee has established long-term objectives for ACM publications by prioritizing the unmet needs. This prioritization is based on Committee consensus, utilizing such factors as the analysis of the status of ACM's publications, the possibility for improvement, perception of membership desires and needs, urgency of need for change, and personal prejudice.

The objectives for ACM in its publications planning are:

A. Extremely High Priority Objectives

- Allow for the publication of practitioner-oriented material directed toward assisting in the solution of specific problems (Need 7).
- Ensure that the publications structure allows for information to be presented, synthesized, and disseminated in a variety of ways reflecting the heterogeneous interests and requirements of ACM members as a whole (Need 8).
- Focus on the development of a rational framework for publications and take steps to develop publications within that framework (Need 10).

B. Very High Priority Objectives

- Attempt to encourage the unification of the computing profession as expressed through its body of literature (Need 1).
- Ensure that publications planning can nurture the development of new technical areas within the computing field (Need 2).
- Attempt to measure and assess the publications requirements of ACM members and take active steps to re-

spond to these requirements in a manner consistent with other objectives and constraints (Need 3).

- Place emphasis on developing structures whereby members select only that material of most interest to them (Need 5).

- Ensure that publications are sufficiently responsive to the changing fields of computing and flexible to their changing interrelationships (Need 11).

- Ensure rapid publication and dissemination of new results and ideas in the field (Need 12).

C. High Priority Objectives

- Attempt to foster serendipitous exploration by readers of ACM publications (Need 4).

- Strive to facilitate the development of means whereby members of the profession can selectively retrieve information upon demand (Need 6).

- Attempt to encourage consistency and cohesiveness in communication within the profession and with those outside the profession (Need 9).

VII. Strategic Directions

The committee has defined five broad strategic directions for ACM publications planning in support of needs and objectives:

1. *A Horizontal/Vertical Publication Structure should be established for ACM publications and this structure should include the following:*

- (a) *Horizontal Publications* (supports Needs 1, 2, 3, 4, 7, 8, 9, 10, 11)

It is thought that ACM should always publish one or more horizontal publications (see V. 3 for full discussion). At this point, the Committee leaves open the question of whether there should always be a single "flagship" publication—that is, one publication that all ACM members receive—as opposed to a series of optional horizontal publications containing technical material. In the long term, the Committee feels that such a "flagship" is probably desirable, although it recognizes the difficulty of satisfying all ACM's constituencies with a single publication. Different horizontal publications would be appropriate to different audiences. [For further discussion on this issue see M. Stuart Lynn's letter "Does ACM Need a 'Flagship'?" in

the *Communications of the ACM*, November 1977, pp. 783-784.]

Since serendipity is one of the principal needs satisfied by horizontal publications, the Committee feels that ideally horizontal publications should not be so deep as to jeopardize serendipity.⁴

- (b) *Vertical Publications* (supports Needs 3, 5, 6, 7, 8, 9, 10, 12)

It is thought that ACM should publish vertical publications classified according to the following major subject areas:

ACM Series on the Theory of Computation

ACM Series on Systems and Programming

ACM Series on Computing Methodologies

ACM Series on Computer Applications

ACM Series on the Computing Milieu⁵

The schema suggests that there should be related to any given subject area at most one Journal, several Transactions, and a multitude of Special Publications including, for example, SIG Newsletters, conference proceedings, and informal reports.

Thus, for example, we could conceive of an *ACM Journal for the Theory of Computation*, an *ACM Journal for Systems and Programming*, or an *ACM Journal on Computing Methodologies*, but consider it unlikely that there should be an *ACM Journal of Computer Applications* or *Computing Milieu*. (Incidentally, the first three Journals are currently contained in JACM and possibly augmented by many research papers published in CACM or in TODS. If this combined packaging is to continue, we would suggest that the three parts of this combined journal be separately identified.)

With Transactions there is more flexibility and more room for growth. Examples of Transactions presently exist and could be renamed as:

ACM Series on Computing Methodologies:
ACM Transactions on Mathematical Software (TOMS)

ACM Series on Computing Methodologies:
ACM Transactions on Database Systems (TODS)

⁴See Table 3 in the full text for a list of ACM horizontal publications and examples of kinds of materials found in them. Refer to the full text Part VII, for a discussion of the importance and priority of including different classifications of material in ACM horizontal publications.

⁵Refer to Table 4 in the full report for a classification of vertical publications according to type of publication and typical data elements contained.

There are many other possibilities, depending upon technical viability, financial viability, and potential audience:

ACM Series on Systems and Programming:
ACM Transactions on Operating Systems (TOPS)

ACM Series on the Theory of Computation:
ACM Transactions on Complexity Theory (TOCT)

ACM Series on Computing Methodologies:
ACM Transactions on Graphics Systems (TOGS)

ACM Series on Computer Applications:
ACM Transactions on Commercial Applications (TOCAS)

- (c) *Monographs*

To complete our argument, we note that monographs are not covered by the above. This is partly because they are not directed toward any *unmet* need. They do not fit specifically into the above structure. The Committee emphasizes, however, that it sees a continuing role for a preeminent monograph series following standards already maintained. Conceivably, there is room for an expanded monograph program.⁶

2. *ACM should strive to increase the proportion of material published which is editor-planned rather than author-driven* (supports Needs 3, 6, 8).

Most of the material ACM now publishes is author-driven. Although Editors-in-Chief structure the publications in broad outline, what ultimately gets published depends to a large extent upon what authors submit. Editors tend not to play an active role in seeking out papers dealing with very specific topics. The primary exception to this is when guest editors are appointed for special issues, as is occasionally done with *Surveys*.

In order to publish much material encompassed by the horizontal/vertical structure, a much more active editorial stance will be required. This is particularly true of nonresearch, practitioner-oriented material such as "Computing Practices." Whether or not this can be accomplished within an entirely volunteer editorial structure is unclear, but it is not likely. Indeed, there is the real possibility that ACM will need to expand the size and role of its paid edi-

⁶See Figure 2 of the full text for an illustration of the Committee's proposed horizontal/vertical publications structure.

torial staff to implement such a concept.

We emphasize that the thrust for more editor-planned content will certainly not apply to all publications; research publications in particular are expected to remain author-driven.

3. *The ACM publications structure should ultimately provide for two-tiered publication methodologies* (supports Needs 2, 5, 6, 8, 11, 12).

Two-tiered publication is the concept whereby material is not necessarily published in full. Carefully edited abstracts, ideally accompanied by critical reviews, are published instead and readers are provided with facilities for obtaining full text material not necessarily in completely published format. Full text material may undergo different levels of review. It may be provided in a variety of physical forms (typed report, computer-generated, microfiche, etc.), possibly depending on reader choice. Two-tiered publication fosters:

- rapid dissemination of results;
- selective dissemination of material
- more efficient use of printed pages;
- wider understanding of key results.

In essence, a *CR* expanded in concept and published *before* not after the fact, becomes a series of pointers to the full text material. One might envision a "Computing Abstracts" periodical which would rapidly publish short abstracts as submitted; later in *CR* the review of the full article could point back to the appropriate abstract.

4. *ACM should attempt to provide an information dissemination and retrieval environment whereby members could selectively request material of defined interest to them* (supports Needs 5, 6, 11, 12).

This recommendation is a logical extension of the previous one. Retrieval and dissemination systems are becoming universally available. To our knowledge, no universally accessible system exists for the computing field. The Committee remains open-minded about whether ACM should provide its own service directly or contract with a commercial organization in order to initiate such a service. The Committee also declines to prejudge technical methods for implementing the service. Rather, we simply encourage that such a program be actively pursued.

5. *ACM should financially package its publications so as to provide as much freedom of choice as possible to its members* (supports Needs 3, 5, 6, 8, 11).

This embodies the concept of unbundling, that is, subject to limitations stated below, ACM should not include publications as part of a member's dues.

It should be emphasized, however, that consistent with the overall purposes of ACM, with Council directive, and with this Committee's recommendations, unbundling should not extend to the point where it would be possible for a member to receive no technical material whatsoever. The Committee feels that every member should receive at least one technical publication. We are open-minded about whether we should strive for a situation where a "flagship" goes to all members, but we certainly feel a "flagship" may not be necessary in the short and medium term. Indeed, it may be preferable not to insist on such a publication in the long term either, depending upon member preferences.

VIII. Rejected Alternatives⁷

In many respects, the structure in Part VII is more important for what it excludes than what it includes. Excluded, for example, by this Framework are the following:

- only horizontal publications;
- only vertical publications;
- an uneven set of publications, e.g. one horizontal publication, a *Transactions on Database Systems*, and a *Journal for the Theory of Computation*;
- only pseudo-horizontal publications like *CACM* or *JACM* which are not predominant in the type of material detailed in V.3 as being conducive to horizontal publications;
- a single flagship publication, with all other material being forced into vertical publications;
- single-tiered publications only;
- bundled packaging of publications;
- only author-driven material.

⁷Part VIII in this extract corresponds to Part XI in the full text document. Refer to the full text for its Part VIII, Planning Targets; Part IX, Resource Implications; Part X, Publications Management. These Parts have been omitted from the summary.

Committee Appointment. President Grosch has appointed George G. Dodd Chairman of the Ad Hoc Committee on Nomination and Election Procedures under the ACM Management Board. The members of the committee are to be announced.

Foreign Airmail Option. Beginning July 1, 1978, ACM members and subscribers who reside outside the United States and Canada may elect to receive *Communications* and other major ACM periodicals by airmail. The service will also be available to residents of Hawaii and Alaska. Members and subscribers who reside in the European Region will continue to receive their publications via air freight to Amsterdam and surface delivery from Amsterdam at no extra charge although optional airmail delivery from Amsterdam will be available.

The airmail service should be ordered at the time of membership or subscription renewal. Information on ordering and a schedule of postage fees will be sent to all eligible persons at the time their next renewal invoice is mailed from ACM Headquarters.

Computers and Society Educational Workshop. ACM, with support from the National Science Foundation, is sponsoring an invitational workshop July 16-19, 1978, in Williamsburg, Virginia, to address a variety of issues involving computers and society educational courses and materials.

The workshop is part of the second phase of a two-phase program in the area. In phase one a comprehensive annotated bibliography of reference materials for such courses was developed, and minimum course objectives for the courses were specified. In phase two of the program, a series of forward looking position