

ACM THREE-YEAR PUBLICATIONS

IMPLEMENTATION PLAN

FY 80 - FY 82

Prepared for ACM Council by the
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1. INTRODUCTION

This document represents the first Three-Year Implementation Plan for ACM Publications. Such plans are called for by the "Long-Term Policy Framework for ACM Publications" which was approved by Council in June, 1978 and which provides long-term policy guidance to the Association on its publications.

An early draft of this Plan was also presented to Council in June, 1978. This final version has been revised in accordance with feedback received at that meeting, and comments received from many members.

No financial analysis was presented to Council at that meeting; such an analysis is contained in this document. At that meeting, however, Council did endorse in principle (subject to the financial analysis), two of the main early actions contained in this Plan - unbundling, and the establishment of the Transactions on Programming Languages and Systems (TOPLAS).

The scope of this Plan only encompasses those items that involve major changes to editorial or management policy for ACM's publications. It does not include operational matters that fit within existing policies where major change is not contemplated - for example, outside of the scope would be improvements to a continuing publication to bring it up to already approved standards, or speeding up a refereeing process that may be operating slower than Publications Board standards allow.

Such major changes to editorial or management policy are described in Section 2. This involves both immediate actions proposed for FY'79 and future directions likely to be recommended for FY'80 or FY'81. The financial implications of these changes are discussed in Section 3; Section 3.4 in fact contains the PPC's specific recommendations.

The relationships between this Plan and the Policy Framework are summarized in Section 4. Finally, Section 5 contains a brief discussion of some of the major alternatives that have been considered and rejected by the Committee.

2. OUTLINE OF EDITORIAL PLAN

2.1 OVERVIEW:

In this section we outline the editorial implications of the proposed Plan, in particular the actions to be taken over the next three years. The Plan, however, is evolutionary, with later actions dependent upon the effects of earlier ones. In particular, the precise steps to be taken in FY 80 and FY 81 will depend upon the results of the actions proposed for FY 79. These results cannot be predicted with certainty at this time, and thus at this stage the Plan can only indicate a possible range of alternatives for these years, and suggest which is considered to be the most probable alternative.

The proposed steps are consistent with the Strategic Directions of the "Long-Term Policy Framework for ACM Publications", adopted by Council in June, 1978. Indeed, much of the rationale for the actions proposed is in fact contained in that document, and we do not repeat it in this Plan. Those Strategic Directions embraced the following concepts:

- (1) The establishment of a horizontal/vertical publication structure for ACM publications, as defined in the Policy Framework.
- (2) An increase in the proportion of material published which is editor-driven rather than author-driven.
- (3) The ultimate provision of two-tiered publication methodologies in ACM publications.
- (4) The provision of an information dissemination environment whereby members could selectively request material of defined interest to them.
- (5) The financial packaging of ACM's publications to provide as much freedom of choice as possible to members.

These Strategic Directions supported a number of perceived Future Needs for ACM's publications. The actions proposed below reflect those Strategic Direction and Needs (see Section 4).

2.2 IMMEDIATE ACTIONS (FY 79):

There are three main new editorial directions proposed for FY 79:

- ◆ Unbundling of the second publication from the basic ACM dues;
- ◆ The creation of a new Transactions on Programming Languages and Systems (TOPLAS);
- ◆ The initiation of a new section in Communications to be called "Computing Practices".

- (i) Unbundling: At present each member receives Communications and a second publication (JACM, CSUR or CR - with an extra \$5.50 being charged for the latter) as part of his \$35 dues. The Plan recommends that the second publication become optional, with an appropriate adjustment in the basic dues (see Section 3). This step would take effect in July 79. Consistent with the Council resolution of June 78 approving unbundling in principle subject to the financial analysis presented in this Plan, ACM Headquarters has taken the necessary steps to ensure that unbundling can indeed be implemented in July 79 should this Plan be finally approved.

Under this concept, members could choose to take no second publication (that is, take Communications only), or choose equally for additional publications from among CSUR, JACM, CR, TOMS, TODS or TOPLAS at the appropriate member subscription price (see Section 3). Unbundling therefore provides much greater freedom of choice to members; it is a step in the direction of providing each member only with that technical material likely to be of most interest to him, while ensuring that every member necessarily receives at least one technical publication as part of his dues - this latter point has been repeatedly stated by Council to be a fundamental requirement of any ACM publication structure (this does not preclude the possibility that, ultimately, the bundled technical publication may be different for different members).

Unbundling is also a prerequisite to other publication changes. In particular, it provides for a more rational dues structure in the direction of members only paying for material they want to receive. This "free market" environment would make changes in publications less emotive issues; no single constituency of ACM would be taking advantage of other constituencies by having their

particular publication requirements bundled into the dues. The "free market" also provides important member feedback information to the Publication Board on the relative popularity of individual publications.

- (ii) Transactions on Programming Languages and Systems (TOPLAS): The Plan also endorses the proposal of the Zilles Subcommittee of the PPC to start a new quarterly Transactions on Programming Languages and Systems (TOPLAS): The detailed proposal is contained in Appendix C to this Plan.

The approximate scope of TOPLAS would be that material presently contained in the "Programming Languages" and "Programming Techniques" departments of Communications. TOPLAS would also contain papers on computer and operating systems which relate directly to programming languages. TOPLAS would also overlap JACM to some extent. In general, TOPLAS would contain papers on languages (complete or features thereof), compiling, compiling algorithms, experience with and analysis of languages and compilers, and various aspects of programming methods.

Communications publishes around 350 pages per year in this area, and can no longer accommodate the growing backlog. The pressure on pages has resulted in continued substantial growth in Communications over the past few years, but with insufficient editorial flexibility possible to allow for the publication of technical material of a totally different character (see "Computing Practices" discussion, below). Furthermore, research workers in this field emphasize the need for a separate publication devoted to their area, as partly evidenced by the strong SIGPLAN and SIGSOFT involvement in the TOPLAS sub-committee; ACM's successful experiences with TOMS and TODS suggests that such people would be willing to pay for a TOPLAS, provided the overall dues structure were established rationally along with the step of unbundling.

Papers in "Programming Languages" and "Programming Techniques" would continue to be published in Communications, but only those papers considered to be of broad research significance as opposed to being more narrowly-directed. This is in contrast to the decision taken when TOMS and TODS were first established, which was to exclude from Communications research papers on mathematical software or database systems. In future, however, papers of broad research significance in these areas, too, will be

published in Communications

- (iii) Computing Practices: ACM publications in general, and Communications in particular, have for long been criticized by many members for not containing sufficient material of interest to computing practitioners (see Survey Results in July, 1978 Communications The Policy Framework emphasized this point.

In response to this need, this Plan calls for a substantial part of Communications to be devoted to an area which we call "Computing Practices". In Appendix D, we attempt a more detailed editorial definition of this area.

Its general scope would be:

- ⊕ articles on the design and construction of application systems;
- ⊕ articles on computer systems, tools and techniques as they relate application systems to the computing environments within which such application system function;
- ⊕ articles on methodologies, tools and techniques for the management of the data processing function.

"Computing Practices" would be quite distinct from the existing departments in Communications for contributed research papers. It would be a separate section with different acceptance criteria for the papers published - such papers would be "formally reviewed"¹ and not refereed²

The difficulty with this kind of section is that it is hard to attract good papers. Such papers are generally not volunteered, since there is not the stimulus of academic recognition normally associated with refereed research papers. The section will, therefore, have to be "editor-driven"³ rather than "author-driven."⁴ There will be a need for a full-time staff editor with an appropriate background in and understanding of the computing field. The editor would give impetus to the section and ferret out worthwhile papers, rather than rely on the usual mechanisms of research papers volunteered by authors to volunteer editors.

1. See "Policy Framework" for definitions.
 2. *ibid*
 3. *ibid.*
 4. *ibid.*

The emphasis would be on broad-interest, practical, "how-to" articles which are nevertheless of sufficient depth and integrity to warrant publication in an ACM publication. Papers would still be carefully reviewed; however, definitiveness, interest and importance to the practice of computing would be emphasized rather than scholastic originality.

"Computing Practices" should serve as a bridge between theory and practice, and be of interest to all those whose professional activities require them to stay close to both sides of this bridge.

It will be difficult to start this section. It is far from clear that sufficient worthwhile papers can be obtained, even with full-time editorial support. However, it is clearly time for ACM to try.

After the above actions have been completed, Communications will have evolved into a publication containing the same non-technical material as it now contains (ACM news, etc.); "Computing Practices"; and technical research papers as at present - however, papers in areas covered by TOMS, TODS or TOPLAS would be restricted to those of broad research significance. Communications would also contain papers of more general interest, such as have been published in the "Reports and Articles" department.

2.3 FUTURE DIRECTIONS:

The PPC believes the above actions to be the correct first steps in the Plan. However, these steps do not complete the transition to the point where all members are essentially only receiving that technical material of interest to them and for which they are willing to pay, provided only that each member receives at least one technical publication.

By the end of the three-year period of this Plan, the PPC believes there should be a change in the character of the publication all members receive. This bundled publication should contain the lowest common denominator of material appropriate to all members (see Table 4 of Policy Framework). At a minimum, this would consist primarily of the present non-technical parts of Communications, together with select technical papers of broad interest and significance.

Bulletin:

We give this bundled publication the working title of Bulletin. We emphasize this is a working title only. In fact, it could be called Communications, unless that name were preempted for some other purpose (see below); or it could be called something else. There is no need to settle on the name at this time.

A possible schematic outline of the Bulletin is given in Figure 2.1. In format, it would be "editor-driven" and graphically well-produced, sufficiently appealing to attract both readers and advertising. It would be more than a newsletter, but less than a full technical publication.

In its early issues, the Bulletin may not be sufficiently substantive to qualify as a technical publication. In that case, members would have to receive a second publication of their choice from among an approved set. It would be much more desirable for the Bulletin to have sufficient substance to qualify as a technical publication, thus relieving any need to effectively "rebundled" publications in the dues. This, of course, would depend partly upon whether it would be possible to attract sufficient general interest articles of high editorial quality within the financial resources available to ACM (the PPC regards, for example, the proposed AFIPS publication, ABACUS, as being beyond the financial capabilities of ACM).

There are other questions that must be answered before a precise plan can be developed for such a publication:

- ⊕ What will member publication and spending preferences be in an unbundled environment? Obviously, this will have a direct bearing upon future publications planning and upon the financial freedom ACM may or may not have to make further radical changes.
- ⊕ Would it be possible at some point in the future to spin Computing Practices off from Communications into a separate optional publication? Although the PPC would like to see this happen, it is too early to tell if such a publication could stand on its own feet, either editorially or financially.
- ⊕ Is there a place for a horizontal¹ research publication generally of the character of the technical departments of Communications, but where mainly papers of broad research significance are published? We give such a publication the working title only of Modified Communications.

As ACM embarks upon the publication of more Transactions, research departments of Communications are likely to emphasize papers of this type. Whether there should be such a free-standing publication must be an open question at this time. Indeed there are other alternatives, such as combining such papers with JACM.

The PPC does not recommend starting the Bulletin until these questions have been resolved. We do believe, however, that the short-term changes to Communications and to the dues structure will indeed provide the proper framework in which these questions can be resolved. We further believe that the transition to the Bulletin can be made within the three year period of this Plan.

Recommended Long-Term Direction:

Ideally, if Computing Practices and the Modified Communications outlined above were viable as stand-alone publications, the PPC would recommend the following long-term structure to ACM's publications:

1. The Bulletin (possibly called Communications or something else) to go to every member bundled in with the dues.
2. The Bulletin would hopefully qualify as a technical publication in the long-term. Until then, a member would have to choose to receive at least one of the following publications in addition to the Bulletin received with basic dues:

1. ibid

(a) Horizontal Publications:

- Modified Communications (possible called Communications or something else)
- ACM Computing Practices
- Journal of the ACM
- Computing Surveys
- Computing Reviews

(b) Vertical Publications:

- TOMS
- TODS
- TOPLAS
- Other Transactions to be formed following the same pattern as TOMS, TODS and TOPLAS

In essence, characteristic material in Modified Communications would be:

- ⊕ Refereed technical papers as in Communications. However, papers in areas where Transactions exist would only be those of broad research significance;
- ⊕ Other research papers of broad significance and impact;
- ⊕ Short technical communications
- ⊕ Formally reviewed material such as that presently appearing in the "Reports and Articles" section, but excluding that appropriate to Computing Practices. Furthermore, certain material presently published in Communications as "refereed" material would in the future have been labelled "formally reviewed".
- ⊕ Refereed and formally reviewed papers associated with emerging fields.
- ⊕ Special issues of refereed and/or formally reviewed papers in areas where there are no Transactions.
- ⊕ Reports of important papers from SIG publications
- ⊕ In-depth key book reviews.

Alternatives: The above scenario depends upon the future ability to spin Computing Practices and Modified Communications off into separate stand-alone publications. However, one or both of these may not develop into editorially or financially viable publications. The following outlined alternatives could occur in such situations:

- (i) Modified Communications viable, but Computing Practices not viable:

- ⊕ Start the Bulletin to go to all members and transfer to it the "Computing Practices" section from Communications -however, there should not (almost by definition of this alternative) be so much "Computing Practices" material as to overwhelm the Bulletin
- ⊕ Start Modified Communications (member option).

Alternatively, "Computing Practices" , could stay in the Modified Communications

(ii) Computing Practices viable, but Modified Communications not viable:

- ⊕ Start the Bulletin to go to all members
- ⊕ Initiate Computing Practices (member option)
- ⊕ Combine the remaining technical research papers in Communications with JACM.

(iii) Neither Computing Practices nor Modified Communications viable: The status quo would be maintained, but perhaps additional broad interest material would be introduced into Communications.

Additional Actions:

- ⊕ We have already referred in the above to launching additional Transactions beyond TOPLAS , as and when appropriate proposals are developed. We expect that, on the average, a new Transactions would be launched every 15-24 months.
- ⊕ As soon as an adequate volunteer proposal can be developed, the PPC favors launching a low-cost, work-in-progress abstracts publication, ACM Computing Notices , somewhat analogous to the Notices of the American Mathematical Society. This is defined in greater detail in Appendix F.
- ⊕ Consistent with the Policy Framework, SIG's can be expected to initiate "formally reviewed" sections or issues of their publications.
- ⊕ Consistent with the Policy Framework, the financial structure and management control of Publications Board enterprises should be reviewed, and a specific proposal brought to Council involving greater delegation of financial authority to the Publications Board.

- All Transactions and the department structure of Com-
munications will be labelled to fit within the naming
conventions established in Part VII of the Policy
Framework.

2.4 CONTINUING ACTIVITIES

The foregoing only relates to new editorial directions for ACM. Editorially, all other publications (JACM, CSUR, CR, TOMS, TODS) will not change. However, several of them can be expected to grow steadily in size, although it cannot be predicted with certainty which particular publications will be growing at any particular point in time. This steady growth is emphasized, since it has bearing on the financial analysis.

Further, CR must be brought up to the quality appropriate to a reviews publication of this type. This is in terms of both review quality and in coverage of the field. Again, however, this is not a change in editorial direction for ACM, but an operational matter which is being dealt with by the Publications Board outside the scope of this Plan. However, a thriving CR may, as indicated above, have financial implications also.

ACM research publications have always been preeminent in the field of computer science. This position must be maintained. The changes proposed should make this possible by providing a greater number of outlets for quality research papers; most such material, however, is ultimately only provided to those who want to pay for it.

3. FINANCIAL IMPLICATIONS

3.1 Overview

In this section, we present the financial analysis of the effects of the immediate actions proposed for FY 79 (see Section 2.2). This is presented for the transition year, FY 79, and FY 80, which represents a closer approximation to the steady state under the given assumptions. Since the precise nature of the longer term transition to the Bulletin is not clear at this time (see Section 2.3), a detailed financial long-term analysis is not possible.

This analysis was completed for the Publication Planning Committee by ACM Headquarters staff based upon assumptions developed by the PPC. The PPC is indebted to John McKegney, Alan Corneretto and their staffs for the outstanding job they did in an extremely short time-frame. In this section, we only summarize the principal results of this analysis; the detailed backup material is contained in Appendix A.

Conservative planning assumptions have been used throughout. Thus, for example, no allowance is made for increased ACM membership, which may well be a probable result of this Plan.

3.2 ASSUMPTIONS

The detailed assumptions underlying the analysis are attached in Appendix A. Here we only present the key points. The scope of the Analysis is (i) starting TOPLAS (ii) starting the new "Computing Practices" section in Communications, and (iii) unbundling.

(i) TOPLAS Assumptions:

It assumed that TOPLAS will contain 700 pages in each of FY 80 and FY 81 (first issue: July 79, derived from the POPL Conference). This compares with 400 pages budgeted for TOMS and TODS. However, of these 700 pages, 600 pages will come in each year from cutting out 300 pages from Communications (with a 2 to 1 conversion ratio). Additionally, a natural growth of 50 pages in Communications is allowed in FY 81 in various departments.

Circulation is projected at 2400 members and 300 non-members in FY 80; 4000 members and 600 non-members in FY 81; 4800 members and 600 non-members in FY 82. Comparable data for TOMS and TODS is given in Table 3.1.

		First	Second	Third
		Year	Year	Year
		(Members/Non-Members)		
<u>TOMS</u>	(actual)	1265/536	1329/648	1304/730
<u>TODS</u>	(actual)	2673/486	3394/671	3850/750 ¹
<u>TOPLAS</u>	(projected)	2400/300	4000/600	4800/600

Table 3.1 Actual/Projected Transactions Circulation Figures

These circulation assumption can be seen to be extremely conservative, if one notes that SIGPLAN membership is around 8,000 as compared with around 1,200 for SIGNUM and 4,000 in SIGMOD; these are the largest individual SIG's involved in TOPLAS, TOMS and TODS respectively.

The price of TOPLAS is assumed to be the same as that of TOMS and TODS. This would be \$15 for members unless the prices of all Transactions are reduced (see later discussion on Transactions pricing).

1. Estimated

(ii) Computing Practices:

It is assumed that Communications will publish 160 pages in FY 80 in the new "Computing Practices" section of Communications, with steady growth over the year (note: 250 pages of technical departments will have been transferred to TOPLAS); and 320 pages in FY 81 evenly spread over the year.

It is further assumed that a full-time editor will need to be hired in FY 79 (see Section 2.2), as soon as possible after January, and that money will need to be expended to develop and maintain a distinctive graphic style for this section (see Appendix a, Exhibit V).

(iii) Unbundling:

The key parameters affecting the unbundling analysis are the basic dues, the prices charged members for additional publications and Transactions, non-member subscriptions and circulations, and the assumed circulation drop-offs for optional publications.

- ⊕ Dues: The analysis has been completed for the basic member dues set at \$28, \$31 and \$35 for Communications only, as compared with the present dues of \$35 for Communications plus either JACM or CSUR, and \$40.50 for Communications plus CR. Student dues are correspondingly set at \$9, 10 and 11, the latter being the present student dues; however, see below concerning additional student credit.
- ⊕ Additional Publications: We assume no change in member prices for additional publications in the unbundled world for JACM, CSUR or CR that is, a member would be charged an additional \$7 for JACM and CSUR, and an additional \$12.50 for CR. Thus, if the basic dues were set at \$31, a member would have to pay \$38 for Communications plus JACM, compared with the present dues structure of \$35, that is, there would be an effective dues increase: if the basic dues were \$28, he would still only pay \$35 in the unbundled world.
- ⊕ Student Credit: Without any further adjustment, a student who had previously paid \$11 for Communications plus, say, CSUR would in future have to pay \$16, 17 or 18 (corresponding to the basic student dues of \$9, 10 or 11 for Communications only) for the same combination. The PPC therefore recommends that a \$5 credit be given to every student who subscribes to CSUR, CR or JACM in order to restore equity. This credit has been factored into the assumptions.

- ⊕ Transactions: TOMS, TODS or TOPLAS member subscription prices have been tied, in the analysis, to the basic dues, so that the price to members of Communications plus a single Transactions is always \$43 (\$28 + 15; \$31 + 12; or \$35 + 8). This is for the following reasons
 - in order that there be no dues increase to members presently subscribing to Communications; one of JACM, CSUR or CR; and TOMS and/or TODS. Members interested in TOMS or TODS already experienced an effective dues increase when these publications were started, since they had to pay an additional \$15 for material much of which had previously been published in Communications.
 - in order that members interested in TOPLAS and who also want Communications dues/pricing rearrangement. Whereas the PPC feels that most such members would be prepared to suffer the same fate as TOMS/TODS devotees in exchange for a publication devoted to their area of interest, we feel such double jeopardy would be unfair and could affect circulation assumptions. This concept is illustrated in Table 3.1(a).

No change is assumed in the circulation of TOMS or TODS. This is a conservative assumption in the unbundled world even at a \$15 subscription prices, and most conservative if the price were dropped to \$8 or \$12. Further comments on Transactions pricing are made in Section 3.3.

- ⊕ Non-member subscriptions: No change is assumed in non-members subscription prices and circulation.
- ⊕ Circulation drop-offs: The key unknown is what the drop-off in circulation of JACM, CSUR and CR would be once each of these publications become optional. This drop-off will certainly be affected by the dues level (\$28, 31 or 35), but it is not known precisely how, since there is no information available on the price elasticity of ACM's publications.

It was decided, therefore, to ignore price elasticity, and to develop low, medium and high drop-offs for each publication independent of the dues changes - the assumption is that this would define a range which is sufficiently broad to encompass circulation drop-off at any of the dues structures analyzed.

These low, medium, high drop-off assumptions were derived from the July 1977 Publications Survey. In particular, the data was derived from Table 6B of the Report on that Survey (see July 78 Communications or Appendix G) concerning the degree of value of each ACM publication to those member who claimed to received a personal copy of that publication.

MEMBER'S BILL:

NOW

FUTURE

Member takes:

	<u>NOW</u>	<u>FUTURE</u>
CACM (including TOPLAS type material)	\$35	\$31
CSUR	-	7
TOPLAS	-	15
Total	\$35	\$50

Case 1: Member interested in TOPLAS-type material ($\Delta = \$15$)

CACM	\$35	\$28	\$31	\$35
CSUR	-	7	7	7
TOMS/TODS	15	15	12	8
Total	\$50	\$50	\$50	\$50

Case 2: Member interested in TOMS/TODS-type material ($\Delta = \$0$)

Table 3.1(a): Case studies showing "net bill increase" for various type of members

The drop-off analysis assumes that, at the low-end, only such members (extrapolated from the survey respondent sample to the entire membership) who perceived a publication as being of "no" or "little value" would no longer subscribe to the publication in an unbundled environment, that is, once he had the choice of paying or not paying for that publication. At the high-end, it was additionally assumed that members who perceived the publication as having "some value" would also no longer subscribe. The medium-end was assumed half-way between low and high.

With these assumptions, the range of projected member subscriptions to JACM, CSUR and CR are indicated in Table 3.2 (see also Appendix A, Exhibit I-C). The projected member count is the number budgeted for FY 79, which is again a conservative assumption considering recent membership growth trends.

It is further assumed that the circulation drop-off will occur in equal monthly intervals in FY 80 and stabilize by FY 81. All members renewing before July 1, 1979 will remain bundled until subsequent dues renewal.

Circulation drop-offs are calculated separately for regular/associate members and student members (not shown in Table 3.1, but see Appendix A), since the student drop-off calculations affect the calculations for the application of the \$5 student credit.

Financial calculations take into account the change in per copy production costs at the reduced circulation levels.

The combined effect of the assumption will be presented in Section 3.3.

(iv) Other:

In the detailed analysis prepared by the ACM Headquarters all other publications (JACM, CSUR, CR, TOMS and TODS) are assumed to remain at their present budgeted page levels (704, 445, 528, 400, 400, respectively). This, however, is unrealistic, since there is a developing backlog in these publications. In fact, the Publications Board already plans for TODS to publish 100 pages over budget in FY 79, and in December will consider a similar request from the TOMS Editor-in-Chief (this it can do within its 5% discretionary over spending allowance). Beyond normal slow growth in the above publications, there is bound to be some growth in the residual departments of Communications.

The PPC therefore wished to make clear to Council that, as part of The Publications Board normal annual budget

PUBLICATION	Present Circulation		Assumed Percentage Circulation Drop-off			Projected Member Subscriptions			
	AS OPTION	MEMBER SUBSCRIPTION	TOTAL MEMBER CIRCULATION	LOW	MEDIUM	HIGH	LOW DROP-OFF	MEDIUM DROP-OFF	HIGH DROP-OFF
<u>JACM</u>	10850	1936	12786	38%	57%	75%	7851	5471	3107
<u>CSUR</u>	25317	4645	29962	12%	27%	42%	26637	21782	17258
<u>CR</u>	4018	2419	6437	17%	34%	50%	5317	4261	3199

Table 3.2: Projected Member Subscriptions (including Student Member Subscriptions) After Unbundling Under Low, Medium, High Circulation Drop-Off Assumptions

(see text for explanation of assumptions)

requests (as opposed to being specifically part of this Plan), the Board is likely to be requesting a programmatic budget increase for such additional publications pages. and that this will be in addition to the financial implications of this Plan itself. Whereas the size of these additional requests cannot be predicted with certainty, for FY 80 it is likely to go as high as \$25,000, and in FY 81 a further \$25,000 increase may be required.

No financial projections are made in Section 3.3 for Computing Notices or the Bulletin. A separate budget will be developed for the former whenever a formal proposal is developed some comments on the costs of starting the letter are presented in separate discussion in Section 3.5.

3.3 FINDINGS:

The combined effect of all the assumptions contained in the previous section is summarized in Table 3.3. The detailed back-up calculations are contained in the ACM Headquarters analysis in Appendix A.

The figures indicated are, under the stated assumptions, the financial impact of the proposed Plan on ACM's net income in FY 80 and FY 81, assuming all other expenditures and revenues were held constant. Inflationary effects have been taken into account throughout.

Readers will have to draw their own conclusions as to which circulation drop-off projections to use at the different dues rates. Certainly there should be some price elasticity - thus, for example, it is highly unlikely that the high-drop off figure would be reached at the \$28 dues rate, since this represents absolutely no dues increase to members (except for assumed TOPLAS subscribers).

The contribution to these figures of TOPLAS is minimal, and is of course independent of the assumed circulation drop-offs. TOPLAS essentially is projected as a breakeven publication (see Table 3.4), whereas TOMS and TODS are highly profitable - the difference is essentially due to the higher page counts for TOPLAS (700 pages versus 400 for TOMS/TODS). The figures for TOPLAS, however, seems conservative, even given the higher page counts. Table 3.4 underscores the Publication Board belief that ultimately TOMS/TODS Transactions prices should be reduced, irrespective of the actions recommended in this Plan; the net income per member to TOMS or TODS subscriber is presently running at \$8 - \$10, allowing considerable room for a price reduction. Indeed, consistent with its authorities, the PB reserves the right to lower all transactions prices in the future, provided this has no effect on budgeted ACM net income. However, it does not plan to do this until at least the effects of unbundling are better understood with experience.

YEAR	FY 79			FY 80			FY 81			CUMULATIVE			
	N.A.	Low	Medium	High	Low	Medium	High	Low	Medium	High	Low	Medium	High
Circulation													
Drop-off ²													
Dues													
\$35	(54.6)	23.8	9.1	(4.4)	87.5	60.8	34.4	56.7	15.3	(24.6)			
\$31	(54.6)	(26.5)	(41.2)	(54.7)	(14.7)	(41.4)	(67.8)	(95.8)	(137.2)	(177.1)			
\$28	(54.6)	(65.2)	(79.9)	(93.4)	(93.4)	(120.1)	(146.5)	(213.2)	(254.6)	(294.5)			

Table 3.3: Total¹ Financial Impact on ACM Net Income of Unbundling, Computing Practices in CACM, and TOPLAS.

¹FY 80 represents a "transitional" year; FY 81 essentially represents a "steady-state" year

²See Figure 3.2

	19b		
	TOMS ³	TODS ³	TOPLAS ²
Start-Up Costs	(4.9)	(4.5)	(8.2)
First Year			
Total Income	65.9	56.9	43.0
Total Expense	43.4	36.0	51.2
Net Income	22.5	20.9	(8.2)
Second Year			
Total Income	62.6	86.3	75.0
Total Expense	39.3	45.7	73.9
Net Income	23.3	40.6	1.1
Third Year			
Total Income	62.8	91.0 ¹	102.0
Total Expense	46.5	49.0	95.7
Net Income	16.3	42.0	6.3
Three-Year Cumulative			
Total Income	191.3	234.2	220.0
Total Expense	134.1	130.7	207.5
Net Income	57.2	103.5	(9.0)

Table 3.4: Compare Net Income of TOMS, TODS and TOPLAS

¹Estimated

²Projected

³Actual

3.4 RECOMENDATIONS

Based upon the above analysis, the PPC recommends:

- (1) That Council approve the steps proposed for FY 79 in this Plan (see Section 2.2), namely: unbundling; founding TOPLAS, and starting the "Computing Practices" section in Communications. It should be noted that the initiation of "Computing Practices" itself does not require Council approval except insofar as it has budget implications.
- (2) That the basic ACM member dues be set at \$28 (\$9 for students) for which a member receives Communications only (see "Discussion" below). Additional¹ publications should be charged as at present: \$7 for JACM or CSUR, \$12.50 for CR, and \$15 for TOMS, TODS or TOPLAS. Students who subscribe to at least one of JACM, CR or CSUR should receive an additional "student credit" of \$5 (see Section 3.2 (iii)). Non-member subscription prices should remain unchanged.
- (3) That Transactions² member subscription prices should not be changed.³ However, the PB may lower Transactions prices at some point in the future, if it appears this will have no effect on budgeted net income.
- (4) That the budgetary actions implied by the above be approved. In particular:
 - (i) The FY 79 budget be modified by transferring the balance of the \$50K presently in specified retained earnings to the Publications Board budget (\$17K was already transferred by Council action in June, 1978 anticipating unbundling); the balance of \$4.6K needed to finance the Plan in FY 79 can be found from within present Publications Board resources. This budget modification would implicitly also authorize ACM Headquarters and the Publications Board to proceed with the necessary staffing increases defined in the Plan.

1. It should be emphasized that the Publications Board has the authority to set all subscription prices without Council approval, provided in any given year this does not reduce budgeted net income for the Association.

2. *ibid*

3. If, however, the dues are set higher than \$28 by some amount, then Transactions prices should be reduced correspondingly by that amount (see Section 3.2 (iii)).

- (ii) \$200K be transferred from retained earnings into specified retained earnings for the sole purpose of financing this Plan in FY 80 and FY 81, that is, for financing those actions defined in Section 2.2. The figure of \$200K is the cumulative financial impact on net income of this Plan in FY 80 and FY 81 assuming the \$28 dues figure and assuming medium drop-offs in circulation (see Table 3.3). In FY 80 and FY 81, these specified retained earnings would be appropriately transferred into the Publications Board operating budget for the sole purpose of financing the Plan. The purpose of transferring these funds into specified retained earnings is to provide the necessary long-term financing essential to the implementation of this Plan.
- (5) That Council recognize that the Publications Board will, in addition to the above, be requesting budget support in FY 80 and FY 81 for additional pages in publications not specifically covered in this Plan (see Section 2.4). The size of these requests cannot be predicted with certainty, but for FY 80 it is likely to go as high as \$25,000, and in FY 81 a further \$25,000 expansion may be requested; the two-year cumulative effect, therefore, may go as high as \$75,000. Whereas these requests will be part of the normal budgetary process and justification in each of those years, the Publications Planning Committee stresses that favorable or unfavorable consideration of these requests can have a direct bearing on the success or failure of this Plan itself.

Discussion: Can ACM afford this step? The PPC certainly believes it can.

The ACM actual net income for the past five years compared with budgeted net income is indicated in Table 3.5a. The level of retained earnings is over \$1,220K, the unspecified portion being over \$787K. This is over \$608K in excess of our conservative Guidelines for Measures of Financial Stability. ACM can well afford the risk of committing a portion of these reserves (\$200K is being requested) to an investment in its future, and at the worst returning this portion to the benefit of its members and the profession as a whole, instead of hoarding it in the bank.

Furthermore, the proposed two-year budgeted reduction in Publications Board net income of \$200K can be compared with the following:

	FY 75	FY 76	FY 77	FY 78	FY 79
ACM Net Income:					
Budgeted	N.A.	25.7	(32.3)	12.0	(137.0) ¹
Actual	333.8	292.0	391.6	347.7	?
ACM Year-End Retained Earnings (Actual)	118.3	410.3	801.9	1149.6	1012.6 ¹

Table 3.5a: ACM Net Income and Retained Earnings, FY 75 - 79
(thousands of dollars)

¹Budgeted

	<u>FY 77 Actual</u>	<u>FY 78 Actual</u>	<u>FY 79 Budget</u>
<u>Publications:</u>			
Income ¹	1488.4	1609.7	1752.0
<u>Direct Expense</u>	<u>1041.4</u>	<u>1151.1</u>	<u>1393.0</u>
Net Income Before			
Overhead Alloc.	447.0	458.6	359.0
Overhead Alloc.	<u>(160.5)</u>	<u>(183.0)</u>	<u>(150.0)</u>
Actual Publications Net Income	286.5	275.6	209.0
% of ACM Net Income	73.1%	79.2%	

Table 3.5b: Publications Board Financial Performance (thousands of dollars)

¹Includes credit of dues income of \$498.4K and \$561.6K in FY 77 and FY 78, respectively

- ⊕ The cumulative comparable two-year budgeted programmatic expansion in PB expenses in FY 78 and FY 79 was \$198K. This excludes allowances for inflation. It is certainly highly probable that PB programmatic expansion would continue at this rate independent of the plan. This figure of \$198K should be compared with the sum of \$200K being requested to finance this Plan in FY 80 and FY 81 plus the two-year cumulative expansion in other publications pages of about \$75K which will probably also be requested as part of the normal budget process.
- ⊕ The 200K represents about 14% of total Publications Board expenses for a single year.
- ⊕ The \$200K can be compared with the total two-year budgeted programmatic expansion for all ACM activities in FY 78 and FY 79 of \$638K, a figure which was well-contained within operating budgets i.e., there was in fact no need to dip into the reserves. In fact, ACM over the past two few years has consistently earned a surplus far in excess of what was budgeted (see Table 3.5a). This programmatic expansion was largely financed from the Publications Board net income (see Table 3.5b), which was about 75% of ACM's total net income. The PPC is not suggesting that all other programmatic increases would need to be curtailed in FY 80 and FY 81, only that the Publications Board should be given first priority on the use of a portion the funds it has already earned so that it may put its own house in order.
- ⊕ The \$200K is less than the actual net income earned by the Publications Board in either FY 77 or FY 78 (see Table 3.5b).
- ⊕ Although in, say, FY 78 the Publications Board received an average credit of \$19.54 from every members \$35 dues in exchange for Communications and a second publication, the Publications Board returned an average of \$9.59 to ACM in net income (after overhead deduction). Thus, on the average, of a member's \$35 dues, less than \$10 represented the net cost of that member of Communications and second publication. Similar figures apply to FY 77.

Some have suggested that ACM should combine unbundling with an effective dues increase - in our Plan, this would be accomplished by charging a basic dues of, say, \$31 or even \$35. It is argued that ACM has not had a dues increase for seven years, in spite of the heavy inflation of those years, and that unbundling would be a useful way of disguising a dues increase which is going to be needed sooner or later anyway.

The PPC firmly disagrees with this notion for the following reasons:

- ACM has operated at a solid surplus over the last five years, far beyond its budgeted surplus. It has accumulated retained earnings as of 8/31/78 of over \$ 1,220K, and has over \$ 2,390K in cash or negotiable securities. It has achieved this position in spite of inflation by increasing its membership and by successfully managing its primary sources of revenues-producing activities (publications, SIG's and even, indirectly, the NCC). ACM should continue this pattern as long as it can - there is no financial reason for a dues increase at this time even with unbundling.
- If a dues increase were combined with unbundling, it would be impossible to separate one from the other in understanding member preferences and behavior. In other words, in order to help guide us in future actions, we need to study the effects of unbundling in a controlled environment.
- One effect of the proposed Plan may well be to attract more members (not factored into the financial assumptions). Since the marginal revenue from new members far exceeds the marginal cost, this new source of net revenue can again blunt the need for a dues increase.
- We have time and money on our side. If in fact the worst happens, and a year after unbundling we find that the most pessimistic nightmares have come true, we can correct and raise the dues at that time. The level of our present reserves is more than sufficient to allow us to take this delayed approach. If this situation does occur, all that will have happened will be that we will have returned some of our excess reserves in the form of benefits to members who paid us the money in the first place.

The PPC, however, does not believe that will happen. In fact we strongly believe that the financial analysis given in Section 3.3 is extremely conservative.

3.5 BULLETIN ANALYSIS

As discussed in Section 2.2, the PPC does not recommend starting the Bulletin at this time, since there are still too many uncertainties involved with this concept, and questions that need to be answered. There are also financial implications. Explicit Council action would be requested to start the Bulletin at any time.

Since some Council members may disagree with the Committee's position on delaying the Bulletin concept, in this section we outline the financial implications of starting the Bulletin at this time. We suggest there are two main approaches:

Approach A: in this approach, ACM would start the Bulletin as soon as possible after unbundling, but before (as opposed to the Committee's recommendation) splitting off Computing Practices and Modified Communications.

We assume the Bulletin would be mailed to all members for free along with Communications. All technical material (including "Computing Practices") would remain in Communications (about 600 pages in first year, 870 pages in second year). All non-technical material, including advertising, would be transferred from Communications to the Bulletin. In addition the Bulletin would publish about 96 pages of new technical material in the first year and 192 pages in the second year. The latter would be heavily editor-driven, requiring additional staff support. Graphics would also be emphasized.

The net increase to the ACM bottom-line of the above combined actions (see Exhibit VIII, Appendix A for details) beyond those already contemplated in Section 3.3 would be as follows:

Start-up Costs	First Year	Second Year	Cumulative
\$14.2K	\$99.1K	\$159.K	\$272.3K

Table 3.6 Net Costs of Bulletin Approach A

The figures are shown relative to an arbitrary start time, but in fact relate to costs assuming FY 79 were the start-up year. A later start-up would require inflationary adjustments.

Approach B: The assumptions for Approach B are the same as those for Approach A, except that the Bulletin would not be issued as a separate publication, but would be combined with Communications until such time as Modified Communications and Computing Practices were split off. The net increase to the ACM bottom line (see Exhibit VII, Appendix A), of the effect of Approach B beyond the effects of Section 3.3 would be as follows:

Start-up Costs	First Year	Second Year	Cumulative
\$14..2K	\$70.1K	\$127.3K	\$211.6K

Table 3.7. Net Costs of Bulletin, Approach B

Discussion: Apart from the above financial implications, which cannot be ignored, the PPC does not recommend following either approach at this time. The questions discussed in Section 2.2 must be resolved first.

Besides which, there is enough change taking place, and it is not clear that ACM can or should accommodate more change before some stability is achieved - only so much can be done at one time within the limits of volunteer activity. The PPC believes we should get the first steps firmly behind us before we embark on further radical change.

However, the PPC will monitor the situation closely. At the appropriate time it will bring a specific Bulletin proposal to Council for consideration.

Between the two approaches, PPC firmly favors Approach A and equally firmly opposes Approach B. If the Bulletin is to succeed, it must be given clear focus, character and editorial direction from the start; combining it with Communications would make this extremely difficult, if not impossible. Furthermore, Communications would look like a mish-mash of everything - in trying to satisfy everyone it would in fact please few. Instead of enhancing and nurturing the various types of material involved (particularly the new types such as "Computing Practices" and the broad-interest material contained in the Bulletin), a continuing confusion of priorities would probably result in such material withering on the vine.

Splitting Communications into separate publications at

some future date would be more difficult - thus inhibiting the principle of selective dissemination embodied in the Policy Framework.

In any event, relative to the total amounts involved, the difference in costs between the two approaches is small: \$61K cumulatively over two years.

4. RELATIONSHIP TO POLICY FRAMEWORK

The "Long-Term Policy Framework for the ACM Publications" referred to in Section 2.1 is the driving force behind this first three-year Implementation Plan. It is important, therefore, to tie down the relationship of the Plan to the Policy Framework.

In the Policy Framework, twelve unfulfilled publication Needs for ACM were defined and prioritized. Five Strategic Directions were then formulated, which, if followed, would move ACM publications in the direction of satisfying these Needs. Which Strategic Direction supported which Needs was defined in Part VII of the Policy Framework, and will not be repeated here.

The relationship of the Plan to the Strategic Directions can be outlined as follows:

(i) Horizontal/Vertical Structure:

The policy Framework called for the establishment of a horizontal/vertical structure for ACM's publications (see Part VII of Policy Framework for details).

In the Plan, the establishment in FY'79 of TOPLAS; the re-establishment of Communications as a truly horizontal Publication; the establishment of "Computing Practices"; are all supportive of this requirement. So is the proposed labelling of the various Transactions to be produced and the re-labelling of the Communications department structure.

Beyond this, in the longer term, the establishment of the Bulletin, Modified Communications and Computing Practices as horizontal publications are also supportive. The intent to establish additional vertically oriented Transactions and Computing Notices (horizontal) should also be viewed in this light.

By the end of the three-year period, there should be a much more apparent and consistent horizontal/vertical structure to ACM's publications.

(ii) Editor-Driven Material

The Policy Framework called for a substantial increase in the proportion of editor-driven material produced by ACM, as opposed to author-

driven material. Clearly, in the short-term, the whole thrust of "Computing Practices" is directly in support of this requirement. This would be reinforced if Computing Practices became a stand-alone publication. Beyond this, broad-interest material in the Bulletin would be highly editor-driven.

(iii) Two-Tiered Publications Methodologies:

The Policy Framework called for, in the long-term, the provision of two-tiered publication methodologies for the ACM publications. In its usual manifestation, this would imply that members might only see abstracts of certain classes of papers, and only receive the full text upon specific request, or according to some predetermined individual profile.

In this Three-Year Plan, we do not propose to move rapidly in support of this requirement. We do not believe ACM members require this at this time - there are other problems to be solved first. However, Computing Notices and the strengthening of Computing Reviews (although the latter is a Publications Board operational matter outside the scope of this Plan) can be viewed as reasonable preparatory steps.

(iv) Selective Dissemination:

The Policy Framework imposed the requirement that a publications environment be encouraged whereby members could selectively receive only that material of most interest to them.

The splitting off of TOPLAS from Communications supports this direction, as does the establishment of other Transactions. Unbundling (see below) is also a facilitating move in this regard.

In the longer term, the splitting off of Modified Communications and Computing Practices, and the establishment of the Bulletin as the lowest common denominator of material that all members receive, are all major moves in support of this principle of selective dissemination.

(v) Financial Packaging:

The Policy Framework required that ACM publications should be financially packaged so as to provide as much freedom of choice to members as possible. Obviously, unbundling is aimed right at the heart

of this requirement. Appropriate adjustment of the dues and a more rational pricing structure for other publications (particularly Transactions) should also be viewed in this light.

5. ALTERNATIVES

There are obviously many possible alternatives to the proposed Plan. Two, involving the Bulletin concept, have already been discussed in Section 3.5. Indeed, based upon the PPC's communications with many members, we suggest there are about as many possible alternatives as there are members of ACM, and obviously a discussion of alternatives cannot be exhaustive. Some of the principal lines of thinking that have been discussed are as follows:

(i) Rejected "Newsletter" Alternative:

The Publications Planning Committee has rejected the concept of an ACM Newsletter, with all other publications being optional. It feels a Newsletter, unlike the Bulletin, could never grow into a flagship¹ feel would be desirable in some form, even one that only contained limited technical material, such as the Bulletin. The Bulletin approach leaves ACM's options open; the Newsletter would foreclose them.

(ii) Rejected Surveys Alternative:

The Publications Planning Committee has considered the option suggested by several individuals of creating a flagship by effectively combining Newsletter (and perhaps other) material with CSUR. The Publications Planning Committee does not favor this alternative for the following reasons:

- ⊕ CSUR is a viable, popular publication with a character in its own right. It encourages a specific kind of material. Its character could easily become submerged and confused in such a "merger."
- ⊕ CSUR is financially most important to ACM in its present format.
- ⊕ CSUR publishes approximately 15 manuscripts per year as a quarterly publication. Editors have extreme difficulty attracting even that much material. To dissipate this material into a monthly publication would submerge it to a point where it is doubtful that even 12 manuscripts per year could be attracted.

1. A flagship is a publication containing technical material which is received by every ACM member as part of his dues. At present, Communications is such a flagship.

- Above all, the Publications Planning Committee believes there is a proper place for a CSUR as a stand-alone publication giving substance and meaning to the concept of tutorials and surveys.

(iii) Rejected "Combination" Alternative:

This is similar to the Bulletin Approach B dismissed in Section 3.5, namely the concept of expanding Communications to include both "Computing Practices" and the kind of broad-interest material envisaged for the Bulletin. However, in this instance, there would be no intention to spin off publication either in the form of Transactions, Modified Communications, or Computing Practices. The Committee is extremely unenthusiastic about this approach (it voted 0 for, 1 opposed, 6 abstentions) for all the reasons advanced in Section 3.5. The various kinds of material are only of interest to certain groups of members. The material does not fit well together. The fusion of such material into a single publication contravenes the Policy Framework Objective (designated there as Very High Priority) of Selective Dissemination. If there were no better alternatives, this combination would perhaps be acceptable, but the PPC sees no reason to pursue it when we believe that better alternatives do indeed exist.

(iv) Rejected "ABACUS" Alternative:

The PPC rejects the idea of ACM alone launching a magazine such as the proposed AFIPS magazine, ABACUS, if indeed AFIPS does not do so itself. We believe it to be too expensive an undertaking for ACM, and in any event, ABACUS should not be initiated with the active involvement of other professional computing societies. In the long-term, some of the features of the Bulletin may resemble parts of ABACUS to some extent, but it is unlikely that the Bulletin will ever contain the expensively edited and graphically-produced articles envisaged for ABACUS. Besides which, the Bulletin will be editorially directed inside our profession, whereas ABACUS is also editorially directed outside.