

Telecom 2000:  
Canada's Communication Future  
T.L. McPhail, and B.M. McPhail  
The University of Calgary, 1985

Telecom 2000 is a report prepared under contract for the Federal Department of Communication. In the report, the McPhails identify different possible relationships among telecommunications technologies, market structures, and regulatory frameworks in Canada. One chapter of the book, written by William Melody, addresses the implications for Canada of increased competition in the United States. Data for the report were collected through a literature review that concentrated on government and corporate reports and interviews with executives in the telecommunications industry.

The report is organized around discussion of what the authors call "the emerging telecommunications environment" in technology, markets, and regulation. The chapter on technology identifies two development paths, conservative and innovative. The paths differ chiefly in expectations about user demand, which in turn is influenced by such factors as ease of use and cost. The discussion of market structure generates three configurations: minimal competition, open competition nationally, and full international competition, or free trade in telecommunications. Finally, the McPhails generate four lines of development in regulation: little change from the status quo, joint federal-provincial regulation, federal control, and minimal or deregulation.

The report combines potential developments in technology, market structure and regulation into four scenarios which "reflect the predominant views expressed in the literature and by the respondents to this study" (p. 48). The first sees an incremental extension of the present structure featuring conservative development of technology and services, minimal competition and little change in regulation. The second offers a change to national competition overseen by a joint

federal-provincial regulatory board. Scenario three extends competition by incorporating more innovative development in technology and services, national competition, and federal control of a detailed pro-competitive agenda. The last view extends competition to the international level with many new entrants stimulating innovative development in technology within the existing regulatory structure, though one stripped of its powers to control competition and prices.

The report concludes that technological developments are propelling major changes in telecommunications. Specifically, "technological change is increasing the scope of consumer choice, competition is inevitable" (p. 83). The report calls for the establishment of a "national telecommunications framework" based on a joint "Federal-Provincial regulatory authority." Such a body would guide Canadian industry into an era of full competition and meet these Canadian policy goals: sovereignty, privacy, universal access, regional development, and employment opportunity. Clearly, however, the emphasis is on implementing competition. There is little discussion of the others as goals or as interests in conflict with a pro-competitive policy.

Telecom 2000 is a useful introduction to leading issues in Canadian telecommunications policy. It provides some insight into the views of Canadian corporate executives and an interesting perspective on the U.S. experience.

Nevertheless, there are substantial problems here. The report makes more of its methodology than it deserves. The Executive Summary touts "an extensive computer-based literature search and review" and "interviews with senior telecommunications decision makers from all sectors, including public and private enterprises." The literature review is adequate, though by no means comprehensive. For example there is no reference to detailed reports and submissions offered by the Communications Workers of Canada or the Telephone Workers Union of B.C. In the first chapter we learn that "approximately 40% of the selected subjects responded to the request for

input...All respondents were senior executives from the telecommunications industry." What the authors mean by telecommunications decisionmakers from all sectors is all sectors of Canadian business. Moreover there is no information on how the group was selected, only that "more than seventy individuals or companies were approached." Furthermore we don't know how many responded, nor the distribution, by company, type of company, etc. of the respondents. The best we can surmise is that if 40% of 70 individuals or companies responded, then the report reflects discussions with about 30 corporate executives. This is a serious shortcoming because the authors present tables featuring detailed percentage distributions of respondents who favored different scenarios. So, puffery aside, we have a 110-page book that draws on policy literature and reflects the views of some senior executives in Canadian telecommunications.

The book is not helped by frequent errors in detail and editing and excessive jargon. For example, how can a section on ownership, complete with a table that lists the major companies, not mention the fact that B.C. Tel is owned by the U.S. company General Telephone and Electronics (GTE)? The table describing the survey results lists the scenarios and offers data in a column entitled "Most Likely/Most Preferred." Surely not everyone who prefers a scenario finds it most likely. There are numerous typos and a missing footnote in Chapter 2. There are too many references to things like "NABU type services," "LANs," and others, without the barest of description for the non-expert reader.

A major problem with the substance of the report is that the evidence seems to confound the conclusions. Despite the finding that technology is driving us to inevitable competition, the evidence suggests little support for competition among these senior executives. Taking into account the ambiguity in data contained in a Most Likely/Most Preferred column, it appears that as many identified with the conservative development of technology as with the innovative.

Thirty-eight per cent chose the least competition option; though 47% opted for national competition, only 15% foresaw international competition. Under the regulatory options, only 24% chose minimal regulation, the remainder selected variations on the status quo, federal-provincial regulation, and federal control.

Among the complete scenarios for the year 2000 selected, the most popular were the status quo, the status quo with more provincial regulation, and some national competition. Almost no one--(we receive percentages, but no Ns and a large "other" category, so what does 39% mean?)--chooses a scenario featuring international competition. What can we conclude? Well, the sample size is very small, and we have no information on what specific interests the respondents represent, but supporters of competition will find very little to comfort them in these responses. When Canadian telecommunications executives look to the year 2000, they expect and prefer slight variations on 1985, rather than a deregulated international marketplace. In sum, there is little here to justify conclusions about technology propelling inevitable competition.

The chapter on "Implications of U.S. Competition" offers a good bibliography, a number of what are at best oversimplifications, and some concrete information. The chapter either was not very well written, or it is a poorly-edited version of a larger work. One suspects the latter because paragraphs do not follow logically--(for instance, a section on Canadian policy jumps abruptly to a history of FCC action in the U.S.)--and often start in the middle, as if a sentence or two introducing the thought were chopped off. More significant is the tendency to oversimplify, of which this description of the U.S. case is an example:

All parties have accepted the fact that the new competition has established itself, and there is no turning back to the nostalgic days of government protected monopoly (p. 62).

Millions of individual consumers who have seen their local phone rates jump substantially would welcome a return to the days when their access to a telephone was protected. Many of these have protested sufficiently to slow the implementation of what Melody refers to as competition. Moreover the "competitors" themselves are acting more like the "nostalgic" days never left. And with good reason. For AT&T, now shorn of its low profit operations, can continue to dominate most telecommunications markets, and move into new markets in the computer industry without the stigma of formal monopoly status.

Here is another example:

The benefits of U.S. competition for Canadians would be in the significantly lower rates and more diversified service offerings available. Ironically, the major beneficiaries are likely to be smaller business users and residential users (p. 64).

There is no indication of what rates Melody is talking about, long-distance, local, or both? Nevertheless, even if this means long-distance rates, the conclusion is at best premature. The economic logic is that large users now benefit from discriminatory pricing policies that would end in a fully competitive world. Smaller users would be relatively better off, at least in long distance costs. But this economic logic presumes a political world in which the disproportionate benefits to large users would end. There is little evidence to suggest we are moving any closer to that world. The real danger for small users is that free market economic arguments like these will be used to wring more of the total telecommunications bill from those small business people and residential users who are least able to do anything about it.

Melody recognizes that this will be the case for local rates in Canada. He forecasts that "the probable result of the introduction of aggressive competition for long distances will be drastic increases in local rates" (p. 64). Thanks to the U.S. example, most Canadians now

recognize the consequences. Since it is residential users and small business that make most of these calls, aggressive competition is a euphemism for a massive redistribution of income up the class ladder and an end to universal telephone service in Canada. Additionally, as Melody mentions, full competition will provide an added incentive for Northern Telecom to move its headquarters to the U.S. (p. 65). But how does one reconcile this hard dose of reality with the following conclusion on the next page:

Why not turn the Canadian entrepreneurs loose to improve the efficiency of the telecommunications industry in Canada? Then Canadians will benefit in all respects (p. 66).

This statement reflects a major problem with the book as a whole. It would like to say, and does, that large scale technological change is inevitable, that competition, deregulation and privatization are foregone conclusions and that all Canadians would benefit. One gets the impression from time to time that the authors recognize these as technicist and economic arguments, if not just wishful thinking. This is particularly the case when they confront their data directly. For the data indicate a far more complex picture in both the U.S. and Canada, about what people want and need, about who benefits from technological change, and about the differential impacts of public and private control on such critical issues as income distribution, universal service and, in the case of Canada, sovereignty.

In essence, the problems of telecommunications are political, having to do with who gets to control the production, distribution and use of valuable resources. As I think most Canadians and Americans recognize, such problems are not resolved by new technologies, nor by turning loose eager entrepreneurs. Their resolution comes down to the power of various groups in society to realize their conflicting interests.

The book would have benefitted immensely from a clear sense of these conflicting forces. In any case, the Mulroney government

appears to recognize the political significance of conflicts over telecommunications. Rather than turn loose technologies or entrepreneurs, it is investing \$2 million in a public relations campaign to sell deregulation to a very skeptical public. Telecom 2000 would be a better book if it helped us to understand the conflicting interests that make such actions necessary.

Reviewed by: Vincent Mosco  
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The Electronic Scholar:  
A Guide to Academic Microcomputing  
John Shelton Lawrence  
Ablex Publishing Corporation, 1984  
Norwood, New Jersey

This is a useful guide to academic uses of the microcomputer. It will be of value both to those already owning one and wondering how to use it better, and to those contemplating a purchase. **The author's stated** biases come from his experience as a teacher, scholar and administrator in the humanities and social sciences, a welcome "bias" to anyone who has tried to struggle through books on microcomputing written by authors of a different background.

**The book is not a guide to hardware or software, however,** There are other books and guides available on that topic. Lawrence's book discusses, in a general way, the various uses of a microcomputer. Specifically in the major chapter segments it discusses: word processing, co-operative writing and revision, research and filing, publication, administrative uses, legal and social issues. There's also a concluding reflection on "computopia."

While Lawrence presupposes a minimal level of familiarity with microcomputer operation, his work is relatively free of technical jargon,