HISTORY OF NORDIC COMPUTING

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3. EARLY DREAMS ABOUT A SWEDISH MAINFRAME COMPUTER INDUSTRY
by Tomas Ohlin

The Swedish ICT market appearance in the sixties was very different from that of today. IBM was an extremely dominant market part, and Televerket was the only telecom provider. The market was biased.

It seemed impossible to introduce competition on the computer market. The dependence on one provider was almost total back up. It unified and streamlined systems service to a degree that would show to be unhealthy, at least in a crisis. The thought of national technological dependence was a view considered unhealthy for a country like Sweden.

Could a small country develop market alternatives by itself? What type of ICT policy would then be relevant? A natural thought was to ask for state support of some kind.

What type of systems would then be of concern? Would hardware and software services have application? At the time, computer systems for many analysers conceptually were hardware oriented. They considered relevant to count and compare speed and memory sizes. Telecommunication connectiveness was also relevant, but not crucial. We should remember that the 1960s was the era before time-sharing and multiprogramming. The systems structures were star shaped, software systems were block oriented, with fixed-type operating systems, well-defined compilers, and application packages that were only beginning to show structural similarities. With regard to developing computer services, these were relevant for ICT policy making only to an astonishingly limited extent.

So, what was Sweden's capacity as a computer developer and provider? Moreover, which was its market strength? It was relevant to develop further the position of SAAB. Its computer division, DataSAAB, had been successful with model D21, and D23 was in the mind of some planners. FACIT was developing certain types of office systems. On the software side, many Nordic computer users accepted Algol as an able competitor to FORTRAN and COBOL; DataSAAB had active software development in this domain. Algol Genius was a Swedish invention, with the impressive Norwegian Simula development nearby (1967). What could Sweden do to support all this?

Swedish public ICT policy just came into being, but there was already a strong tradition of state support to other industrial branches. It was not difficult for leading industrial politicians to extrapolate into the computer field. They formed a broad public committee, *Dataindustriutredningen*, in 1971. Harry Brynielsson was the chair and this author took part in the work.

The committee mapped the computer system development and market situations, and asked itself about possible public measures. Naturally, they expected some type of DataSAAB support, but how would they formulate this? Moreover, what would this look like as seen from a political perspective? Certain general public reforms were suggested, with educational measures, general research expansion, usage related measures, standardization and structural support. They invented a new form called the "national projects". This would include large projects of social importance, with national equipment and software suppliers. The added additional

research support aimed directly toward the Swedish computer manufacturers by certain committee members.

Government showed thoughtfulness when it received these proposals for public support proposals in 1974. Would such measures be effective? IBM was eager to ensure that they would not. After public consideration, only few of the proposals materialized. In retrospect, those proposals for public ICT support now seem fair and relevant. However, it turned out to be a difficult task to develop a national alternative to the computer market situation of that time. The international forces turned out to be much stronger than expected.

Yet, the almost total IBM market dominance of that time later met with successful challenges. IBM abandoned the de facto monopoly strategy with its dependence. Did this relate to certain measures outside of the market? Did public policy play a role? To some extent, it is true. We must remember, though, that IBM made a mistake by not realizing the phenomenal force in the expansion of the personal computer. Nevertheless, this was fifteen years later. The Swedish public ICT measures of the1970s were not directly successful. However, they did establish a foundation. Can we do all this again? Perhaps we can.

CONCLUDING REMARKS

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Abstract: This is a summary of the First Conference on the History of Nordic
              Computing. The summary highlights some of the remarks made by panelists
              and audience participants. Prospects for a second conference on the same
              theme look promising.

Key words: Nordic computing, history, HiNC1

In a final panel session chaired by Tomas Ohlin at the end of the HINC Conference, concluding remarks came from three different perspectives. The participants (mentioned above) commented from the historic perspective, from the industrial perspective and from the academic perspective, with comments stemming from what participants experienced during the conference.

The comments were brief. It became evident that the broad material and the discussions delivered earlier during the conference sessions could have quite different interpretations. This also did not come as a surprise to the participants. On the contrary, people stressed that history is born from descriptions that emerge from different perspectives.

At the end of the discussion, the audience suggested that the Trondheim HINC conference should be the first in a series of conferences and therefore, followed by other Nordic computing conferences. In this discussion, it was mentioned possible organizational updates concerning invitations, refereeing of contributions, and conference marketing. Future organizers should be mindful of conference economics and the possibilities of external support.

A second HINC conference would naturally concern itself with the development of telecommunications, which the Trondheim HINC did not, since it covered the time up to 1985. A second HINC could also stress historically important applications, education, and information society development to an increased degree. Participants discussed the possible time scope that such a conference would have. Noting the importance of cooperation among all partners with computing history interests, including many US concerns, participants stressed the importance of building active archives, backed by a living website.

The audience was quite active, forming a living dialogue with the panel participants. However, at the time of the Trondheim HINC conference, no plan existed for succeeding conferences. Further organizational efforts would address that issue.