

## **Reflections on my Final Days at Nabu by Don Sawyer**

My employment at NABU began on Aug 10, 1981 and terminated some 28 months later on Nov 11, 1983. Below are some of my recollections of that time.

My first assignment was as Director of Product Planning. At that time the technology was still under development and the company was being assembled from several other companies including Computer Innovations, Bruce Hempell's Cable Converter business in Almonte and others whose names I cannot recollect. This experience was my first exposure to the challenge of amalgamating companies where there is a duplication of executive positions (e.g. CFO or CTO) with the reality that there will only be one executive in each of the senior positions and at least one must go. My recollection is poor from much of that period but we did have working prototypes of the NABU PC and several skilled game programmers working very hard on the initial software offerings.

Once we had a working head-end combiner and NABU computer with its adaptor we moved to the marketing phase with booths at several cable TV conferences (Anaheim, Calgary and Vancouver) and at the 1982 and 1983 Consumer Electronic Shows in Las Vegas.

At some time in late 1982 or early 1983 we had a working system we could demonstrate at the trade show booths and a satellite link delivering the NABU broadcast cycle from Ottawa to the 1983 CES (please note that my recollections are pretty dim here. There are probably references to this in some of the material I gave you at the NABU event in Ottawa this November). In 1983 many of us had working NABU computers in our homes in Ottawa.

My concern about the viability of the NABU enterprise arose in late 1982 and was reinforced in January 1983 when we attended the CES and observed what the personal computer industry was doing. There were many personal computer vendors at the show the most relevant of which were those targeting the home market. These included Atari (1200 PC, VCS), Mattel (Intellivision-S, Aquarius), Texas Instruments (TI99/2, TI99/4), Panasonic (JR-200U), Magnavox (Odyssey) and Commodore (Commodore 64 and VIC-20) among others. Commodore had on display their 1 millionth VIC-20 and indicated that it was now sold through 12,000 retail outlets.

In reflecting on NABU's challenge of producing the home computer, adaptor, application software, and the software delivery and administration mechanisms (application packaging system, data broadcast system, head-end content combiner and subscriber base administration system) I realized that it far exceeded the reach of all the other home PC vendors who could get off-the-shelf modem technology and software from multiple suppliers.

It was shortly after the CES that I realized that NABU had far too much on their plate. A few of us wrote recommendations to the company that we should forgo the personal computer development aspect of our company and focus instead on making a universal adaptor to allow all computer vendors to receive data broadcasting from cable TV networks.

Some of the challenges NABU faced, as I saw it, were:

1. The value proposition for the sale of the NABU PC depended on a participating cable operator and payment of a fee to the operator for the software delivery. If the operator did not cover an entire marketing region then the subscriber would be faced with limited presence of the computer at retailers and would be vulnerable to a future relocation to another region that did not provide the NABU software delivery service. This was the case in Ottawa where Ottawa Cablevision did not serve the entire city of Ottawa. The fact that the NABU computer could be used only in areas served by a particular cable operator made mass media advertising of the computer very challenging.
2. Along the same vein of subscriber relocation or cable service termination the subscriber was faced with the loss of most of the value of his NABU computer purchase. This was not the case with other PCs which only relied only on the universality of dial-up phone connections for communications. The software for these computers was on floppy disc or tape and could move with the user once purchased.
3. Although data broadcasting has the property of allowing nearly unlimited receivers it is restricted by a limited broadcast database. On the other hand, bidirectional communication with technology such as in-band telephone modems is restricted on the number of concurrent users but can have an unlimited database for all users to access. It was clear that NABU needed an upstream communication capability other than the clumsy solution of a cable/telephone hybrid solution to provide large database access or transactional services.

In May of 1993 Avin Chitnis and I co-authored a paper "Cable Computing Comes of Age" which I presented at the Canadian Cable TV Association's 26<sup>th</sup> Annual Convention in Calgary. The paper gave a technical overview of the whole NABU system and its features and closed with a paragraph noting that the NABU broadcast technology could be used in the future to deliver software to other personal computers in addition to the NABU computer. Apparently I, and others in NABU, had proposed this to management but there had been little commitment to that direction. My concern with the direction of NABU in not supporting the broad PC industry led me to the conclusion that NABU had little hope of succeeding on their chosen path and I decided I would leave NABU and return to Bell-Northern Research.

On the day I met with John Kelly to inform him of my intention to resign I remember seeing on a desk in NABU, Apple's new Lisa computer with its bit-mapped display and window based interface. This reinforced my opinion that we had little hope of succeeding with our current direction. I have included below the verbatim paragraph expressing my concerns, that was in my letter of resignation.

*"It has been my observation that the personal computer market has changed radically since the company was founded making the marketing of a new personal computer extremely difficult. I, and others, attempted to alert the company to this problem with a proposal submitted in January for a different concept based on the delivery of software and promotional material to all personal computers via a 'universal adaptor'. Since that time, I have seen little progress in that direction and fear it may already be too late for the company to address this new opportunity".*

As far as characterizing the corporate and intellectual environment of NABU I would like to say that the intellectual environment was good although it was sometimes difficult to modify the direction of some of the early decisions that had been made on the company's product lines. With regard to the corporate environment, as I mentioned at the beginning, one of the most stressful aspects was a consequences of merging several companies into NABU with the inevitable conflict between duplicated roles in the merged company. It was a good lesson that should be taught in MBA programs when companies are anticipating mergers (perhaps it is already taught?).

I enjoyed my time at NABU and the intellectual stimulation of a wide range of talents from games designers to marketers. John Kelly was a great leader and an inspiration to us all.

Don Sawyer