

# My personal story of Aleph-Yissum (Ex Libris)

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## Abstract

*I recall how I came on the board of Aleph-Yissum at the request of Yissum. I became Chairman of the Board to help develop the company and represent the interests of the Hebrew University. I had to impact on the management in order to have a real "start-up" . I negotiated our relations with Ex Libris. Unix was introduced at my request, a decision that would have dramatic influence on the market. I also led to the merger of Aleph-Yissum and Ex Libris while facing a near revolt of the other Israeli Universities libraries. In an appendix I give some details on our adventure with the French National Library.*

## Introduction

Two and half year ago appeared in the Calcalist an article with a typically journalistic dramatic header <sup>1</sup> :

**כך האוניברסיטה העברית הפסידה 500 מיליון דולר**

(*Déjà vu* no? remember the titles about the Mobileye-Intel deal?)

Having my name quoted in this article with a (common) false spelling (ברקובייה instead of ברקוביאר) <sup>2</sup> I find myself compelled to tell *my* part in the creation and growth of what would become Ex Libris. The story of this company is well documented and apart from the (not always) exact interview of Yohanan Spruch in the above cited article, the reader can get some details in [http://jspecht.org/ExLibris\\_history/avner\\_navin.history.pdf](http://jspecht.org/ExLibris_history/avner_navin.history.pdf), and a librarian perspective account by Judy Levi who was the first (and for some times only) librarian in the development team <http://docplayer.net/amp/59565602-Judy-levi-answers-questions-about-early-aleph-history-january-2017-the-questions-are-in-red.html> . So I will give my own personal account and ask for forgiveness if some dates are not exact to the day, some names are missing, and many companies are unknown to the present generation, but I will tell exactly how I lived this adventure.

## My beginning at Aleph-Yissum

I came in contact with Aleph-Yissum (AY) at the end of 1983. AY(2 ½ employees who were still officially on the Hebrew University (HU) payroll!) was developing the Aleph library management software to be integrated in all campuses libraries. Having had some sales through [Control Data Corporation](#) (CDC), AY was discussing a distribution agreement with [Aurec](#) ( Amdocs today). I was called by Moshe Vidor , then head of Yissum ( which owned the company) , to help in the negotiation with Aurec. I had some experience in software start ups (the name did not exist yet), and in software distribution. In my lab, at the School of Applied Science (Computer Science would become a department in 1985 only..) I was distributing for a fee and with success, through Yissum, a library we were developing. I was advising one of my PhD students who started a software company in the US, and part of the lab was financed by none less than Michelin <sup>3</sup>.

Once the agreement with Aurec signed, a Board of Directors was created for AY, the chairman being Haim Bassan, the University chief accountant, and the members were Avner Navin who was the CEO and myself (January 1984). We had an agreement with CDC and were negotiating one with Digital Equipment ([DEC](#)) .The rapid conversion of the young Aleph software from CDC Cyber to the Vax780 showed that the system had great potential thanks to Yohanan.( Only problem : internal documentation and quality control were inexistent.)

## Getting involved

In those times software companies were considered *services company*. Sales of software abroad had an export tax of 25%. We went, Avner and I, to the Ministry of Commerce and Industry and convinced its director that software was indeed an industry and as such was to benefit from all subsidies ( export companies, employment creation in Jerusalem etc.) and be cleared from this archaic export tax.

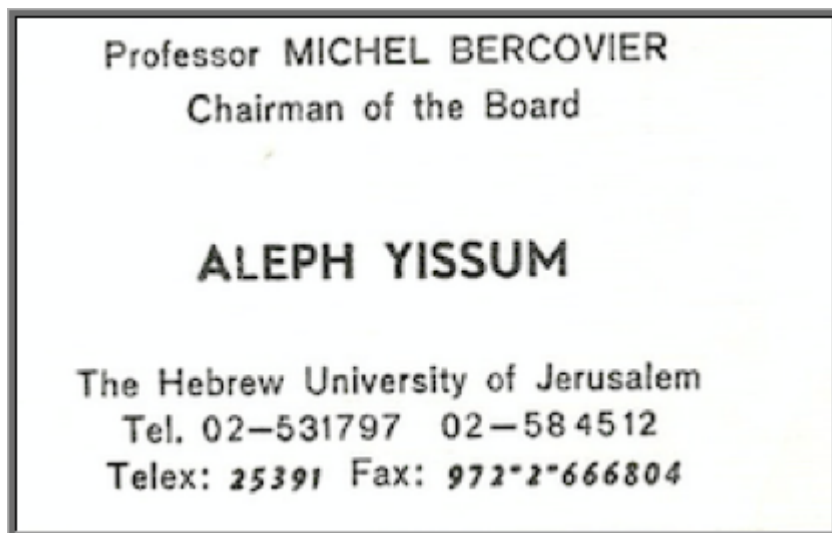
Things grew (slowly, cautiously but steadily). There were a few international sales (mainly by CDC and DEC). Aleph usage was generalized to all the HU libraries (except the Math and CS one, rebel to any automation!) An important push was given by VATAT's<sup>4</sup> decision to fund Aleph as the unique library software for the Israeli Universities with an inter-university catalog, a world wide premiere. There was a separate software library project in Haifa University which they had to stop, this would cause us a slight disagreement years later ( see below).

The company was doing well in Europe and in Israel, but making profits meant heavy taxes! I found a solution for that. The development of software had been previously entirely funded by HU. So the fact that all rights on the system were given to Aleph-Yissum had a capital value. And this value could be depreciated over a few years: that meant that we could build cash reserve and invest in development!

There was an annoying habit that came from having a team originally recruited as “ HU administration workers”. The offices were empty at 3PM! I remember having some students whom we employed for summer projects being very surprised. This was not yet the “Start Up” country, but there were already some developing companies working around the clock! Of course Yohanan and one or two others had their own mini VAX at home. But still , it was a bizarre feeling.

### **In Comes Ex Libris**

With the election of Prof. [Amnon Pazy](#) in 1986 as President of the Hebrew University things did really move. At the request of Prof. Pazy I became the chairman of AY's board. The AY employees were not part of the HU workforce anymore but full time in the company, a salesman was recruited for the local market, quality control introduced.



My 1st Visit Card

Moreover it was clear that we were too small a fish for the fast growing Aurec, so we looked for another partner for sales abroad. We came in contact with Azriel Morag who just successfully sold a small GIS software company. His plan was to create a company (Ex Libris) for the distribution of Aleph world wide, maintenance and installation being done by AY. Librarians were a very conservative crowd! The decision time for acquiring a Library system was around 3 years. It was clear that Morag did not know where he was stepping in, but it was also clear that he and his associate were very good salesmen! So we agreed easily to work together, except for the retainers. Morag wanted 85%, for every new sale while my guys at AY thought that it was pure theft, the normal practice being 75% for the sales force and 25% for the developers. I

convinced my team that they we were discussing about a percentage of zero revenue at this stage, so we should agree.

Yet I fought to insert a clause that would prove important for the future! I insisted that the exclusivity DID NOT include sales under [Unix](#). Ex Libris accepted “to please the professor”, since anyway all the competing Library integration software were running on OS that were proprietary to the respective hardware companies, none on Unix.

I immediately told the AY team that we needed a Unix version. (Working with DEC I had noticed a poster at their headquarters mentioning that 50% of their VAX hardware ran on Unix systems, and having spend a year at IBM I witnessed their effort to swallow Unix on their workstations.) Aleph was a table driven software, with a hierarchical database, all that written in [COBOL](#)! We found a software that could run COBOL on Unix at [Microfocus](#) and Yochanan’s team started to work on the conversion of Aleph to Unix.

### **Hand in Hand with Ex Libris**

For the next few years A. Morag kept on complaining that we were wasting our small programmer’s force on useless developments for Unix. I wanted more but did not succeed in convincing Avner and Yohanan that using the [PC](#) was the future, we were in 1986. An Aleph PC was developed in 1993, more as a terminal emulator than an application. And years later Ex Libris bought a company for that sector. Sales where progressing nicely, so were the developments of Aleph.

By 1988 AY and Yissum were fully separated: the University took all the shares but one from Yissum. I got a nicer visit card, since I was often visiting existing potential customers, while travelling for my own research.



My 2nd Visit Card

### **Going Unix**

By 1990 it was clear that Unix would be part of most modern Library requests. Morag was answering several tender including Unix. Avner and I gently reminded him that he had no exclusivity on that version. He said he could not go on without it. So we reopened our agreement. We would grant him exclusivity provided we changed our revenue model to 75-25. He had no choice but to agree. Now we were real partners and revenues from sales jumped by 2/3 without any extra investment.

With the BNF tender coming (see Annex), the British Library at the horizon and several important new prospects, Unix proved to be an advantage over competition! Moreover Aleph was always up to date with the latest software progress: Client Server architecture, [Mosaic](#) (on DEC) client interface, integration of latest Library standards in Aleph3, thanks to its developers’ team and notwithstanding the COBOL layer.

AY and Ex Libris were nicely growing together, it became clear that on the long run the two companies will have to merge. Moreover HU was not build to be co-owner and co-responsible of a company that was becoming important.

In 1993 Morag made a ridiculous offer (I still have his fax) to buy AY for 1M dollars. I easily convinced the HU directorial board that this was no deal. We had a large cash reserve. If HU needed 1M we could pay a one-time dividend of about that size!

## **Towards a merger**

With rumors of a strong link between AY and Ex Libris, the other Israeli Universities Librarians were becoming a little jealous and had asked VATAT for a share in running AY. They did not propose money, just contended that since part of the development came from VATAT, they were de facto shareholders! In fact from 1988 to 1994 VATAT contributed exactly to 2.5% of the development budget.

They simply forgot that the resulting low price of Aleph in Israel and the service due to proximity had a real value!

Shmuel Sever, director of the Haifa University Library had tried to develop his own system in the 80's but VATAT had imposed Aleph as the unique networked system. He never really accepted this decision! In October 94 he wrote a vicious libel to Aleph users worldwide! I went to Haifa to meet Gil Weiser, chairman of the Haifa U board of directors, whom I knew well as CEO of DEC Israel, and we agreed that this libel was a mistake that should be ignored.

By 1994 we started to negotiate the merger of AY and Ex Libris. There were some legal issues to solve: HU was directly involved in some earlier contracts (Haifa, Bar Ilan and Weizmann); HU was the IP owner of the software; who would run the new company? It took some time to solve all issues and the merger became effective by September 1996. 5% of AY shares were attributed to the heads of the development team (mainly Yohanan). It was agreed that Morag would be the Chairman of the Board, Yohanan CTO, Navin stepped down to be administrative director and Udi Arad from Ex Libris was named CEO. Going abroad for two years to open a new CS department, I left the board, having spent all this time as an unpaid volunteer for the sake of HU and knowing that I had quite a positive influence. (I would come back as board member, for two more years, just before and in view of the coming sale). The company moved out of the campus to where its Jerusalem offices are now.

## **Conclusion**

There are other less important (?) anecdotes, like how we missed the occasion to put Hebrew in Mosaic and be pioneers on the World Wide Web, why the CERN library bought Aleph against IBM, how we had trouble setting up a university network under Bezeq monopoly etc..

I can take pride in the fact that when finally Ex Libris was sold as Morag retired, the Hebrew University got, I think, more than 30M \$, if we include dividends.

How it went to be valued 500M \$ would be the work of the then new CEO Matti Shem-Tov, today CEO of the Pro-Quest group ( Ex Libris being one of the subsidiaries, with a large development group in Jerusalem), and the HU did not have any part in that nor any reason to regret the sale.

## **NOTES**

- 1) [This is how the Hebrew University lost 500 Millions \\$](#)
- 2) Why I chose this bizarre spelling is another story.
- 3) Proceedings of the Second European Symposium on Mathematics in Industry ESMI II, 1987, Oberwolfach  
[https://link.springer.com/chapter/10.1007/978-94-009-2979-1\\_17](https://link.springer.com/chapter/10.1007/978-94-009-2979-1_17)
- 4) VATAT (in English PBC) <http://che.org.il/en/>

## **APPENDIX**

## The French National Library episode (Bibliothèque Nationale de France, BNF)

In 1989 the French President, Francois Mitterand, decided to build the largest and most modern library in the world. Of course it would have the most up to date information system! The whole project was conducted in a very bizarre way. One of the employee of the not yet BNF went on leave to work for a consulting firm that would prepare the system specifications. This consulting firm was the subsidiary of the largest French software services company [Capgemini](#) (for which the project was clearly intended). Once the specifications ready, spring 1993, (and globally unrealistic as it would prove), came the tender call. The above mentioned employee returned to the BNF to be in charge of the tender administration!

The public tender was tailored so that the main winners would be [Bull](#) (a French company) for the hardware and Capgemini for the software. Estimated budget was 3 to 400M francs (1/2 M euros) for the software alone. I was sure we did not have any chance there since we had only a very partial solution with Aleph and no hardware to offer, so I told AY and Ex Libris to forget it. But IBM was interested in getting its share (at least of hardware since their out-dated Library software system [DOBIS/LIBIS](#) had no chance.) Early 1993 they contacted AY and Morag and proposed us to answer together to the tender. IBM even financed extra developments we had to do! It was a wonderful occasion to extend our Unix based system, to introduce a relational data basis capability in Aleph etc., all this paid by IBM, so Morag could not complain anymore!

As the Chairman with a French Doctorat ès Science, I had to participate to all the meetings with the BNF. By 1994 live demos were successfully ran by Yohanan. Of course we could not yet provide all requirements, but the other consortium did not have a single demo running, and may be not a single line written, on any aspect of the tender. So the tandem IBM-AY came ahead and won , it was autumn 1994. By a legal trick the French administration declared the tender “inconclusive” (*infructueux* in French), and ran direct negotiations with the partners of their choice, including IBM for a piece of the hardware cake: IBM did get in. We were told to go home since the BNF wanted an original in-house system. Morag asked me if we should sue the BNF. I explained to him that if we did that, it was equivalent to suing the French State and we would loose all chances to sell to research institutes and universities in France. Ex Libris was making nice inroads there, beating Elsevier’s Endeavour IS and IBM DOBIS/LIBIS, so we kept quite. This adventure gave a push to our development and definitively convinced Morag that Unix was very important.

As a side story, encouraged by A. Pazy, I approached Capgemini to check if they would buy AY, since we had proven that many items of the tender requests were ready. The VP in charge of public markets answered that his aim was to develop software and thus create jobs , he had no use for ready-made solutions...these so called developments did cost them a lot, delayed the opening of the BNF by several years and created some legal problems between the partners!

Details are buried in the French “General Comptroller’s report”

<https://www.ccomptes.fr/sites/default/files/EzPublish/Rp1998-complet.pdf> chap 3 paragraph 6 part2 sub part2  
“la mise en oeuvre des systemes d’information”

and the French Senat report :

<https://www.senat.fr/rap/r99-451/r99-4511.html>