

ZONAR's Information Technology History

When Dave Sullivan graduated from the Massachusetts Institute of Technology in 1964, Information Technology was in its infancy. Both software, but especially hardware, were poised to develop exponentially. The IBM 360 had just introduced the age of the “byte”, the PDP11 was about to popularize minicomputers, and Intel was almost ready to introduce its “4004” – the first microcomputer.

The Beginning – RCA Computer

Meanwhile, computer companies like RCA were trying to sell their existing second-generation hardware. This created a challenge for Systems Engineers like Dave to implement highly creative software that could overcome the memory and speed limitations of the current product lines. As a “real” engineer, Dave recognized the potential for software to enhance the utility of older computers – both in performance, but also in reliability. In his four years at RCA, he developed unique software designs that could all have been patented, had anyone back then thought to do so.

The Seventies - C3 Inc.

In 1968, Dave joined a group of other members of the RCA advanced software group in Washington DC to form *C3 Inc*, initially to continue development for older RCA computers, but very quickly morphing into a developer of minicomputer-based product systems, including a “key-to-disk” system to replace keypunch machines, and a microfilm index and retrieval system that became the *MicroDisk* product for 3M Company.

Dave served as Vice President of Development, and then President and CEO, until leaving in the mid-70s to pursue opportunities in database and telecommunications product development. *C3 Inc's* public offering in the early 80s provided the funding for Dave & Maggie to start another computer systems company, and *ZONAR Corporation* was the result.

The Eighties and Beyond - ZONAR

ZONAR demonstrated unique expertise in Operating Systems Software, Database Management, Telecommunications, and Image Retrieval Hardware Control (most especially for microfilm and microfiche before digital imaging became viable). ZONAR also earned a reputation as experts in Real Estate Multiple Listing Systems (MLS), contributing software and design to MLS products of its own and for multiple vendors and REALTOR® organizations. ZONAR's expertise earned it the Federal Government customers like the *United States Marine Corps*, the *Nuclear Regulatory Commission*, and the *Internal Revenue Service*, and diverse vendor and user organizations throughout the US.

From Data to Information

But its work with the National Association of REALTORS® *WIN DXM* in the mid-nineties precipitated a revolution in perspective for the team. For all of their history, computers have processed *data*. But in every instance, the identical *information* was being converted to totally different *data*. ZONAR saw this clearly when dealing with Multiple Listing Systems from different locations housed on different platforms.

ZONAR recognized the simple equation that could revolutionize Information Technology: **Information = Data + Context**. Instead of extracting data from information, ZONAR products encapsulated the *data* AND *context* into packages they called *Information Objects*. These could then be processed directly by any system that had access to the standard *context dictionary*.

The New Millennium and AI

In the years since this revelation, we have had *Y2K*, *Social Networks*, the advent of *Artificial Intelligence*, and an implosion of the importance of truth and accuracy in information. The migration from text to data has reversed, and the desire for precisely defined information upon which all can agree has waned. Rather, emphasis has shifted to the emotional properties of communications rather than their information content.

But ... there was a time when the shift from data to information could have begun ... and who knows where we would be, now two decades later, had our

information systems been able to reliably determine what was true and what was not.

Dave Sullivan

ZONAR

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