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CANADA

DALLAS HOWE

The Man and the Dream
—Tenacity Personified

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TAMING THE ILLUSIVE EHR:

Lessons from the Trenches



Dallas Howe – The Man and the Dream – Tenacity Personified

STEVEN HUESING, EDITOR –

Author's Note:

It is my personal privilege to write this article about a man who has made an indelible mark in the Canadian history of a field that I have been part of since the beginning of my career. As a contemporary of Dallas in the 70's and early 80's in the "great struggle" for acceptance of Information Systems in Canada, he had my respect and admiration then; it has only grown since then - a feeling, I am sure - that is shared by other survivors of that era.

As the publisher of this magazine, while recognizing that the nature of this article can be misconstrued, its sole purpose is to honour Dallas Howe's contributions to our field and acknowledge his success. He has earned that after 30 years.

Saskatchewan is wheat country — tough and rugged, with a perverse climate. So tough that Alberta is considered to be a great place to move to. The place produces individuals who reflect the land and its history — independent, self-reliant and certain in the belief that they can not only survive, but thrive as well.

Dallas Howe, the "D" in "BDM" is one of those people — a "farm boy" whose dauntless spirit has taken him from the combine to the corporate boardroom and a well-earned place in Canada's healthcare information systems' hall of fame.

Beginnings

Dallas grew up on his father's farm just outside Regina. With an interest in mathematics, he received his baccalaureate and Masters degree in Arts from the University of Saskatchewan, followed by post-graduate work in computer science at the University of Toronto.

True to the notion that "*you can take the boy out of the prairies, but not the prairie out of the boy,*" Dallas returned to Saskatchewan. In due course, he was part of the leadership of a government-sponsored team that achieved fame, if not notoriety, in pioneering what would emerge as "Hospital Information Systems" — the Saskatoon Hospital Systems Study Group. Among the many projects the team worked on was the feasibility of a distributed departmental approach to computing utilizing the then newly available mini-computers and developing systems based on that concept. The team's research and development, particularly in the pharmacy arena led to implementation in several provincial hospitals.

By 1968 they were leading the bleeding edge in the then revolutionary unit dose concept — at a time when hospitals had to package their own and decentralized pharmaceutical inventories along with the notion of pharmacists in a clinical role were virtually unheard of. The "computerization" of the system and a 24-7 support centre along with the first Saskatchewan "800" number were key to the concept's viability.

"It was a concept that took more than two decades to become widely accepted", muses Howe, "and with it, came the evolution of the pharmacist from a dispenser of drugs to being a key member of the patient care team".

Publication of these leading edge (but real) results in Medical journals attracted attention in the US and elsewhere. Reflective of the time, even those who wanted to buy could not — there was nothing for sale. The project's mandate was to serve Saskatchewan, only Saskatchewan, and nothing but Saskatchewan. In the government's "provincial view", the seeds of commercialism, export, and economic diversification and the attendant employment opportunity had not yet germinated. There was wheat, after all.

...Except in the minds of Dallas and two of his cohorts, Blaine Holmlund, and Murray Pask. In 1973, after many after-hour debates in the establishments of downtown Saskatoon, they thought through the concept and reserved the company's name — "BDM". Ironically, the owner of the middle initial, Dallas, was the one to see the concept and the name that bears it to fruition as the only shareholder since 1973. Murray went back to his roots to become a successful grain farmer. Blaine was to re-focus his energies back into Academia eventually becoming the Vice-President of the University of Saskatchewan and leading their vision to become one of the foremost training centres for high-tech entrepreneurs.

In the early seventies, sallying forth in the business of information systems in healthcare wasn't a "sure thing"; it was pretty speculative in the least. In 1974, with his half-section farm as a fallback position and \$20,000 in savings, Howe put his tenacity and dream on the line — BDM became a reality. BDM became a family enterprise with Dallas's wife Sandy as an integral part of the financial management and operations of the business in the early years. In more recent years Dallas's daughter Tricia and son Chandler would also join the company in marketing and technical support roles respectively.

Doing Business

Being a leader in the implementation of new technology, particularly in Healthcare, is a double-edge sword. It's hard to sell to an immature market — certainly the case in mainstream healthcare facilities in Canada in the mid-seventies — on the other hand, those who saw information technology as the future, what we call "e-health" these days, were out looking for you.

A Boston-based company, Spear Medical Systems, also in the process of developing similar systems, found Dallas Howe and BDM. The ensuing development contract provided the cash-flow necessary to develop BDM's product to maturity for the market of the time.

"At that time", Howe reflects. "It seems to me that Canadians came up with great ideas, and then sat around and talked about it, and dreamt up all kinds of reasons why it won't work. Then, of course, it doesn't. The Americans talked about it for awhile, and then invested in it and made it work."

The relationship with Spear expanded to an agreement whereby Spear marketed BDM's products to hospitals across North America. BDM's market grew in orders of magnitude when Becton-Dickenson Ltd, a multi-billion dollar medical supply conglomerate, acquired Spear. Consistent with those times of acquisition, corporate shuffling, and divesting parts of acquisitions, BDM was able to take over Spears' marketing network. By 1979, Howe opened BDM's own sales and support centres in both the U.S. and Canada.

In the early seventies, there were two ways to deploy hospital information systems, through "mainframe" technology and "mini" computers, the former was reserved for the very large facilities, and the latter out of the financial reach of "small" facilities. In both cases, given proprietary operating systems, software was "hardware-dependent" and the market was essentially self-limited.

By this time, BDM's hospital Pharmacy was running in the University of Saskatchewan (the 1st site), the University of Wisconsin and the University of Kentucky.

By 1977 with the advance of microcomputer systems BDM added another product line and developed and installed their first retail "RX" system. One would guess that it was on home "turf" - Fysh's Pharmacy in Moose Jaw Saskatchewan.

"I can still recall the bemused smirk on the face of the guy when I mentioned our Canadian reference site," says Howe when he tried to sell the product to a senior executive of a major Canadian Retail Pharmacy chain in Toronto. In an apparent total reversal of the "not-invented-here" syndrome, it proved to be easier to ship product to the U.S. sales office and sell to the Ontario market from there.



Dallas Howe

Turning Points

As microcomputer size and power developed to handle up to 64 users, by 1980 BDM redesigned their hospital version of system to run on larger microcomputers, offering that alternative to transition from the mini computer environment. The next big step in 1988 was another version that was "open architecture" and ran on any UNIX box. This was followed by a PC-based version in 1989, which extended BDM's offerings into the huge "small" community-based hospital market.

The phasing out of hardware dependency allowed the company to focus on software development and services. "We assess new technologies in terms of how they can improve our products' functionality within context of our customer's needs, and like to think that we provide the industry with leadership in their use and implementation", notes Howe, " Our customers require that they can capitalize on the benefits of technological advances."

Hence, the company's slogan "*Delivering Better Care Through Technology*".

Network solutions were a quantum leap in the evolution, in response, BDM developed a totally redesigned pharmacy product, RxTFC®, which in Howe's view, biased or otherwise, is " truly RX for the twenty first century".

Another case in point, the company has offered Robotic and Clinical Data Base interfaces since 1992, and windows client/server products since 1995. "BDM In-Motion" a series of products designed to capitalize on pharmacy software functionality on PDA's and mobile platforms was introduced in 2002. Concurrently, in keeping with growing privacy and security concerns both here in Canada and the US, BDM was a leader in developing Biometric Security options for its customers.

RxTFC software is top rated internationally. It is estimated that BDM's customer base, on average, uses the software to process 11 drug doses each second of every day. Over 5 billion doses have been administered utilizing BDM systems.

Tenets

BDM has been a successful privately held company for over 30 years. One can only surmise that its success is a reflection of the philosophy and tenets of its founder and President.

Know your customers... BDM's flagship product has always been Pharmacy and notwithstanding minor diversions, has kept its focus in that niche. Its R&D background and long-time association with both the academic and pharmacy practice communities has created a kinship with Pharmacists in knowledge and understanding of the challenges and issues that they face. The interests of the Company and its customers become synonymous, the profit motive notwithstanding.

Embrace change... By definition, both healthcare technology and the healthcare system are evolutionary; strategically position your products and your ongoing research and development to catch the upward curve so that your product is "there" before your customers demand it.

Deliver value... The only true profit is the creation of real value. Develop a strong value proposition and be dedicated to ensuring that everything you do has value to the customer.

Be prudent... Understand that if you put your company at risk, you put your customers at risk - avoid being part of a stampede, chart a course that you know you can travel. When times are "good", invest in your company's and your customer's future. Develop and maintain your people's skills and knowledge and keep your staffing at a "lean" level so that challenge is always part of the equation.

Follow the dream... As corny as it sounds, there's no better motivation than a truly personal commitment to a quest to which you contribute your knowledge, talents, business acumen and tenacity to achieve success.

So, does it work?
Yup.

BDM has shown a profit every year for the past thirty years. How much? Well, it wouldn't be prudent to disclose that would it?

The quality of the product and its robustness is reflected by the credentials of just a few of BDM's leading customers who rely on BDM medication management systems in their facilities:

- University Health Network (Toronto)
- Johns Hopkins Health System (Baltimore)
- McGill University Health Centre (Montreal)
- University of Wisconsin Hospital and Clinics (Madison)
- UCLA Medical Center (Los Angeles)
- Memorial Sloan-Kettering Cancer Center (New York)
- Calgary Health Region (Calgary)
- Capital District Health Authority (Halifax)
- Providence Health Care Society (Vancouver),
- Children's and Women's Health Centre of BC (Vancouver),
- St. Boniface General Hospital (Winnipeg),
- Texas Children's Hospital (Houston)

... Some things speak best for themselves.

Not bad for a farm boy from Saskatchewan with \$20,000, a dream and tenacity, eh?

The only constant is change:

GE MEDICAL SYSTEMS ACQUIRES BDM, LEADING DEVELOPER OF PHARMACY INFORMATION SYSTEMS

Offers Clinicians "Next Generation" Medical Ordering Technology for Safer Patient Care

16 December 2002 - MILWAUKEE, Wis. and SASKATOON, Saskatchewan - GE Medical Systems Information Technologies, the healthcare IT business of General Electric Company (NYSE: GE - News), announced today that it has acquired BDM Information Systems Ltd. to provide clinicians with an advanced pharmacy information system to enable more accurate medication ordering.....

Dallas Howe:

"I am excited about BDM joining the GE Medical Systems family and the opportunity it provides to further a dream I have to see RxTFC used globally. This also brings us closer to our vision of RxTFC being a key component in a truly seamless integrated electronic record no matter where the healthcare client has contact with the system related to their medication. We have also always striven for continuous improvement in patient safety providing trust and confidence in medication treatment through real benefits to the ultimate customer: the patient."

