

Content and Dis-Content in the New Media

With all the computers in the world, all the internet accounts, all the CD-ROM drives, all the new technologies -- Java, Netscape, Flash, Shockwave, DVD, etc.-- why is the new media such a failure? I will try to suggest a few answers drawn from my own personal digital Odyssey.

Many people have diverse skills and interests but few are lucky enough to be given the challenge to use them so fully as I have as editor of *The Canadian Encyclopedia*. For me it has been the opportunity to use my experience as an editor and a writer, to express and share my knowledge of Canada *and* to enjoy my love of technology. Even in my very first days as a copy editor in the mid-1960s I spent as much time learning about how the printing presses work as I did reading Fowler's *Modern English Usage*. I was lucky also, for reasons that I will get to, that *The Canadian Encyclopedia* set up offices here at the University of Alberta in 1980.

1980 was not *that* long ago by most measurements, though my then 8-year-old daughter is now in graduate school. In book publishing terms, books are printed and sold much as they were then, in fact much as they have been for the past 100 years.

To put together the largest reference work ever undertaken in Canada, I studied as best I could how things had been done in the past. After visits to Britannica and World Book in Chicago, I began a process that had proven successful on reference works for the past 200 years – mounds of index cards stored in lovely walnut veneered cabinets.

There has been very little written about how reference works are created. I dare say that there are more books on how to use Quark Express than on how to make a dictionary. One exception is a wonderful biography of James Murray, *Caught in a Web of Words*. I read this book in preparation for my interview with Mel Hurtig and in order to impress him recommended the book to him. Only after the meeting did I realize that Murray spent his whole life shuffling index cards and died before he published the letter E. Fortunately Mel hired me anyway.

Some months into the process of organizing index cards, I had a meeting with Ron Senda of Computing Services. He told me that the university computer, the vaunted Amdahl, and a program named Spires could make my life a lot easier. The only computer that I had seen to that time was one that processed punch cards at a Toronto publishing company.

Spires did save us a lot of time, helping us to organize some 10,000 entries, and 2000 contributors. I used to amaze people by showing them printouts of overdue authors or word counts or lists of entries of birds or minerals or rivers in Alberta, just as we later amazed people by holding up a CD-ROM and saying "Look! An entire encyclopedia AND a dictionary on this little disk!". As we progressed through the editions, we went on to use dedicated word processors to enter the articles, computer programs to convert the text, and Sun stations to typeset and eventually to lay out pages. These were radical

changes and our processes were far ahead of encyclopedia publishers elsewhere in the world. A further great change came about as computers made their way onto editors' desktops and software developments enabled us to rely less on specialists.

Yet, even though today I personally maintain a more complex database than that Spire's database, personally manipulate and process most of the thousands of images, sounds and videos in the encyclopedia, as well as maintain the encyclopedia web site, these changes were *not* the most significant elements of the computer revolution that has swept us along.

That happened when computers moved from facilitating production, in the way of a typewriter or a printing press, to the delivery of the information itself through CD-ROM and the World Wide Web. Everybody knows this now, I guess, but few of us really have understood its implications. When futurists and McLuhanites muse on the implications of "being digital" they enjoy the shock value of proposing that bytes will democratize and equalize information, making sight, sound and words interchangeable and media irrelevant. Futurists love to look at we book publishers with condescending pity, asking how we will cope with the death of the book. When I disputed this with a futurist whom Telus had brought to town, a man who gets paid for this sort of talk!, and who dubs himself "Mister Tomorrow", he wagged his finger at me with a missionary fervour and said that a Bushman understands the new reality better than I do!

Digital information has brought into being a computer multimedia industry, though not of course multimedia itself. When I debated guru Derek de Kerkove on this subject I surprised him by saying that the greatest multimedia experience in my life was walking into Chartres cathedral for the first time, the sun blazing through the stained glass, the grandeur of the spaces, the stories in the sculptures and the heavenly sound of a children's choir singing mass. The devotional unity of sight, sound and word in Chartres makes *Encarta* look like child's play.

These issues are enormously important, for the point that occasioned this exchange was de Kerkove's assertion that it does not matter if digital information is beamed into classrooms along with ads for Coca Cola – that the digital revolution has made content interchangeable. My argument is that however much we aspire to innovation, the human mind inevitably creates new paradigms with reference to the old and that in this digital rush we *still* have time to make choices about the direction in which we will go. I believe that book publishing is a far more appropriate model for the new media than television or the computer industry. A publisher's role is to act as an intermediary between the creative individuals "out there" -- writing their books in isolation, telling their stories, crafting their poetry -- and the unformed public with an almost infinite taste and need for wisdom and beauty – as well as entertainment. Almost the only goal of television is to sell Coke or Pepsi to the maximum number of people. As a result, television is all but lost to us as either a creative or an educational medium. Will the new media follow?

Why, then, do we have no great works of computer multimedia? Yesterday I visited Compusmart here in Edmonton, the largest computer retail outlet in Canada. There I

counted four CD-ROM multimedia titles made in Canada. I looked in vain for new models of what this industry might do. I only found more encyclopedias. It is very early of course, and in a society that does not value art and that values profits above all we will not create the multimedia equivalent of Chartres, or to take another example, Richard Wagner's Ring.

But is the potential there? Sometimes I think that it is. Take our own project, *The Canadian Encyclopedia*, soon to appear in its fourth electronic edition. Another stroke of luck made me the editor of the very kind of work that to date has proven most adaptable to computer multimedia – an encyclopedia. It has the kind of information -- packets of words nuzzled under headwords -- that lends itself to the kind of searching, recombining, and linking (through that *one* truly revolutionary computer development – hypertext) via a search engine that a printed book cannot approach. In this case, interpreting the old – the printed volumes – into the new – CD-ROM with a powerful search engine – made sense to all. Mister Tomorrow was right in this case. It no longer makes sense to print certain kinds of books: encyclopedias and dictionaries foremost. I have argued that the textbook should follow and perhaps poetry (sound, imagery as well as words) though no-one believes that novels lend themselves to the computer screen. Sometimes the path to the imagination is clearest through words alone.

So encyclopedias have proliferated on CD-ROM and are, aside from games, still the only multimedia products to gain wide acceptance by consumers. Fewer than 5% of multimedia titles make a profit. Last year, I tried to take some time in between busy schedules to rethink the idea of the electronic encyclopedia and I began to see possibilities beyond the print-bound notions of what we had grown comfortable with. We are still parceling out information in “articles” under “headwords” tied together by a subject “tree” very little different from Diderot's *Encyclopédie*, published over 200 years ago. The pictures and sound, the much valued multimedia, are set in thumbnails, like pictures in a picture book.

What if we restructured the content so that the power of images or sounds and words could be reversed in a manner more appropriate to a particular subject? What if some parts of the encyclopedia would be better presented in that other outdated means of communication, the lecture? What if we could use the computer's ability to sort and arrange the information into new patterns, a mosaic or nebula or three-dimensional model, rather than a tree? What if there were real *interactivity*, (now *there* is a word that needs contemplation!) beyond looking and finding or clicking and going or choosing an answer from a multiple-choice quiz? What if we could develop technology to recognize symbols or patterns beyond individual words or single languages, indeed to penetrate meanings? What if we could figure out the possibilities, based on what we need to know, and then develop the technology to fulfil it instead of the current model in which the entire process is driven by programmers? Even on CD-ROM *The Canadian Encyclopedia* is still very much a book.

The point is that, however crude my own epistemology, creating multimedia requires an understanding of the *content* as well as the technology, requires thought and informed

imagination as well as technique, requires a rich and diverse education – dare I say Liberal Arts education with so many scientists here today?.

Recently I was in Toronto to visit a huge multimedia producer, housed in a modish, renovated garment factory, complete with hammocks and punching bags. This company has been hired to plan a monster web site dedicated to Canada for the millenium, funded by a large foundation and possibly the Canadian government. The project managers are mostly young men and some women in their twenties or early thirties, all with design or programming (if you can call Director programming) backgrounds, none with humanities degrees in literature, linguistics, history, philosophy or art. The discussion of course centred on the use of Flash or Direct X or video production to draw and impress users. What would be the CONTENT! What do people need to know? To turn around the current cliché “If you build it AND they come, what will they learn? What (or whose) vision of the country would you present? Such a project has NO chance of ultimate success without people who have the broadest kind of knowledge and experience of the subject.

At one point finding out my interest in art history, they showed me a prototype of a CD-ROM production about one of Canada's major art museums. To interest a student in an abstract painting by Borduas they interposed a film clip of Trudeau during the October Crisis. My objection that the two had absolutely nothing to do with one another, unless Postmodernism has made us completely mad, met with silence. My suggestion that Borduas was a revolutionary and that they could use the experiences of artists as individuals concerned with the non-material world and with resisting the received knowledge and perceptions of their elders – the true adolescent experience -- was jotted down by one person sitting at the table.

There are plenty of people working on the technology and far too many of them are determining the multimedia that we see. Technology for its own sake and disregard for content will not create knowledge out of chaos. On further reflection, this new world of electronic information still has far to go in technology as well. Too many CD-ROM titles are tied to the static progressions of Director. It is shocking to me that so few multimedia companies have database experts, much less content experts, by whom I don't just mean education consultants. I mean editors, writers, painters, scholars, etc. Too many web sites are either shackled by the limitations of HTML or choked by narrow bandwidth. But will we be thrilled or enlightened when these problems are solved?

I sat for a year on the federal Advisory Council for the Information Highway, in a work group dedicated to Education. A few of us argued fruitlessly that the real focus of multimedia development should be in rethinking content. It was not a voice that could be heard. When telcos, cable companies and software and hardware vendors are fighting for their lives (i.e., profits), this kind of plea sounds inconsequential. Yet we rush to put computers into the schools and homes, without the least understanding of whether they are enriching or impoverishing the learning experience.

I hope that you don't think that I came here to impress you that an editor can use Paradox (the program or the literary device) or Photoshop or that I am not supportive of governments and industry trying to create jobs in the so-called knowledge-based economy (when was it not "knowledge-based?). When I talk to editors, writers and artists I encourage them to get involved with the new media. When I talk to the industry I encourage them to try to understand why they are doing this, not just how.

I congratulate you on the creation of your new institute. I hope that you see the task ahead of yourselves not just as a challenge of technology but of the imagination.