

ET: The Educational Technologist

The movie of the year, as every film buff knows, is *ET: The Extra-Terrestrial*. To those of us in Educational Technology, the use of "our" initials is mildly amusing. Indeed, one cannot help but speculate on the possible similarities between ET the extra-terrestrial and ET the educational technologist. Whether the current film can actually be considered a metaphor for the educational technologist is a question deserving at least a passing thought.

What are the similarities?

Most important, ET the extra-terrestrial is from another planet, another world, and another civilization. ET the educational technologist is likewise often perceived as being from "another world" . . . a world of gadgets, of machines, and of high technology. Indeed, as high technology reaches higher, the gap between the educational practitioner and the educational technologist correspondingly widens, increasing the otherworldliness of the technologist. (See however this issue's *opinion* column for an alternative discussion on this idea.)

Second. Although ET the extra-terrestrial comes apparently from a super-

technologically developed society (How else could he have gotten to earth?), nevertheless he is what we would call very "human", and in fact subject to the most basic of human needs: food, shelter, and love. ET the educational technologist . . . that's us . . . is, underneath, very human, too. Unfortunately it usually doesn't show, and we tend to come across as mechanistic, lost in boxes and arrows, behavioristic in the worse connotation of the term, cold, and ugly.

Of course, there are always individuals who have the gift of penetrating a tough exterior and are able to recognize strength, beauty, and true worth. In the case of ET the extra-terrestrial, it was first the young boy, then his sister, then the rest of his family. In the case of ET the educational technologist, recognition of our true worth is on equally tenuous grounds. It comes sometimes from students, who have experienced a sudden insight perhaps from our film or video productions; sometimes from a few parents who recognize the role of media in the modern world as a basic; sometimes even from our colleagues who may see media in education as more than a means to an end, but as an integral com-

ponent of twentieth century society.

Something missing?

But somewhere the metaphor breaks down. ET the extra-terrestrial seems to have come to grips with the environment in which he exists, and finally can function willy-nilly at a human level, as well as his own level of high technology.

ET the educational technologist has not yet come to grips with his basic problem. ET the educational technologist is still dazzled by flashing lights, gimmicks, and computer games and all the dangling promises which machine technology offers education. ET the educational technologist has not yet recognized the subtle, but powerful, link between science and art. Educational technology in Canada today seems to be most concerned with the gadget technology and its application to education. We are excited about satellites, videotex, computers, videogames, the integrated video terminal, and the like. We choose to ignore the warnings of Ned Ludd and his followers who in the early 1800's in Nottinghamshire rose up *en masse* against the new technology which threatened to put people out of work and to change the quality of life. These so-

called Luddites were concerned, of course, not with our educational technology, but the far more pragmatic installation of knitting machines in textile factories. Nevertheless, similar warnings are being voiced today.

The pendulum swings

Yet perhaps a change is in the wind. We are beginning to see signs that the push towards "science" as the ultimate answer, exclusive of the "arts," is wrong. The "basics" should not be interpreted to mean how to read a program in BASIC. The basics must include the development of aesthetic appreciation of the arts, and of the artistic way . . . what Matthew Arnold has termed "the best that is known and thought in the world."

The swing of the pendulum to an acceptance of education as an art form is not yet significant enough to be called a trend amongst educational technologists, yet the first signs are there. While high technology captures the modern imagination, voices of moderation are being heard over the din. Schumacher has coined a counter phrase of "intermediate technology." In *Small is Beautiful*, Schumacher devotes a full chapter ex-

amining education, and suggests that science and engineering are not enough. Science and engineering he argues, produce "know-how", but know how contributes no more to culture than does a piano. For a piano to have any meaning, we need the program, the music, the concerto, yes, the software. Technology leaves us up-in-the-air . . . unfinished. Can education help us, asks Schumacher, to finish the masterpiece?

Chemist-philosopher Michael Polyani, working independently, has pointed out the gap between fact and value, science and humanity, and suggests the need of a **Personal Philosophy** which includes recognition of the "tacit dimension" of learning and of knowing.

The theme is, of course, a favorite one of fiction. ET is only the latest attempt to explore the depths of the relationship of art and science. EM Forster's *The Machine Stops*, and Kurt Vonnegut Jr.'s *Player Piano* are both exemplary and well known. The latter author chooses the metaphor of a map to separate art, science and technology:

Illum, NY is divided into three parts. In the northwest are the managers and engineers and civil servants and a few

professional people; in the northeast are the machines; and in the south, across the Iroquois River is the area known locally as Homestead, where almost all of the people live.

The problem expressed by Vonnegut is the lack of art, that element which unites abstract knowledge and human feeling, and provides the bridge between north and south Illum.

Educational technology as art

It is not enough to look at educational technology as an interaction between hardware and software. It is no longer sufficient to say that all that is needed for educational technology to take off is good software. Those represent only two sides of the trilogy. The forgotten element is art. Educational technology is doomed to failure until the synergistic interaction between art, hardware, and software becomes a matter of course.

At this juncture in the history of educational technology, we need less of TRON and its mechanistic world of cold computer programs which can do anything, even take over the world. Instead, we need more of the humanistic ET whose major concern, all his technology notwithstanding, is simply to phone home. □

OPINION

Congratulations on becoming editor of CJEC. Now, having congratulated you, I would like to take exception to the general outlook to communications media you seemed to convey in your first editorial. You pictured "Everyman" as facing a bleak communications landscape of alienating and overwhelming technology.

First, I would like to summarize a series of events or realities that lead to my more optimistic conclusions which follow. The first reality is the increasing restrictions placed on communications technology by budgets. Money in the hands of consumers is still quite available. Money in the hands of school boards and government agencies is decreasing with little chance for turnaround. Thus individuals can't look to institutions for leadership in communications technology. A good example is that more people seem to be taking courses on microcomputer operation from local businesses than from local community colleges.

Recently the Saskatchewan Audio Visual Association met and changed its name to the Saskatchewan Association for Media and Technology. This seemingly auspicious event was dimmed when the nominating committee could not produce a new slate of officers. Other individuals have indicated the organization has outlived its usefulness.

As past and continuing president, I might regard these downers for our association as my responsibility, but being both egotist and optimist I have to find some other conclusion.

There is a third event that has focused my attention in positive directions. Our communications staff has agreed to write a chapter on communications for a Canadian Society of Extension Handbook. In trying to subdivide communications into reasonable subdivisions it seems that many once useful distinctions are breaking down. For example the lines between print and non-print blur as videotex begins to occupy the television screen with a mix of text, graphics and still visuals. Word processing continues the blurring process with the easy interchange between video-display terminals and paper as information carriers.

A final happening was my assignment to work with Telidon and evaluate its implications for agricultural extension. Of course this new responsibility carries no additional budget or major relief from other responsibilities.

The above occurrences get repeated over and over for people in the communications field, and we can get discouraged. If we are climbers, and if we felt that our university degrees were going to provide a position of leadership and

control in the communications field, there is reason for such discouragement.

Ten years ago, many of us felt we were already leaders destined for higher things. Now many of us are unable to travel and increase our expertise, we are unable to produce meaningful materials in any volume, we are unable to purchase the materials of others and we find that individuals with little or no formal background are leading us. This is illustrated when we go to non-communication events and find communications technology being applied in ways so far beyond our budgets, we can't hope to compete and we do get discouraged.

You suggest that it is "Everyman," known in less "genteel" circles as the "great unwashed," who feels alienated and bombarded by "too much too soon." I would suggest that, on the contrary, "Everyman" is coping rather well.

The kid with his Atari video game doesn't feel bombarded. The kid who trades his video game for a personal computer doesn't feel bombarded; nor does the parent who out of sheer enjoyment joins the kid in chasing ghosts or bashing aliens. It's the media specialist with his ten year old degree in audiovisual communications who feels bombarded.

You further suggest that the "big media" connotes so called high technolo-

gy, and that the "Manipulation, production, and understanding of high technology is no longer within the reach of Everyman". The whole question, of course, is, when has the manipulation, production and understanding of communications been in the reach of "Everyman"? When could "Everyman" write a poem, confidently compose a series of meaningful sentences, or produce a quality visual?

I am presently providing a series of workshops to department of agriculture professional staff. Cameras and slide projectors are sometimes mysteries and certainly the process of scripting is beyond most of their present capabilities. Even many specialists in media have very little creative sense. "Everyman" can ask a question of the old technology. "How can I get a book published?" The answer is "not very easily." Yet in Saskatchewan "Everyman," using new "high technology," can join a computer club called "The Source" for \$100.00 a year. He can write poetry and receive royalties from readers as widely separated as Greenland and Texas. These readers, using data phone lines can access this poetry quickly and cheaply within minutes of the poem's final composition.

New technology has the magic of moving "Everyman" from the role of passive receiver to interactor, controller

and even producer. The reality of this magic is underlined, not refuted, by the uneasiness and sense of loss perceived in the role of media specialists such as myself. Some of us will stay tightly locked in our more or less secure jobs becoming increasingly removed from communication realities. We will play out our Willie Loman roles to our own personal loss and the detriment of the profession. Others of us will adapt to the changes. We may have learned some things from the past which will be of continuing value. If we haven't, we will do what many others have had to do and that is start all over and build with what is left to us. Only a few of us will starve in the process.

What has happened in computers is happening in communications. It is very doubtful that the spread of video games and microcomputers has made "Everyman" more alienated and threatened.

In communications we package information in a few ways only. We have written words, spoken words, still visuals and motion visuals. Alienation occurs from communications when the individual loses control and loses access.

New technology doesn't change the basic ways of packaging information. New technology makes it easier for "Everyman" to do the packaging. Can we doubt, for example that in a few years the

rich kid on the block will have access to the family video camera and editor? Can we doubt that this kid will gather the gang to do a production? These kids are the real "Everyman," not the media co-ordinator on the block who just lost a repair budget for the local school board's 16 mm projectors.

1984 should dawn rich with potential for "Everyman." As media specialists faced with crumbling I.M.C.'s and a "lights out" mentality on the part of politicians funding education, libraries and other knowledge broker enterprises, we still have responsibilities. Our first responsibility is to forget about managing and controlling the technology.

That role is now as dated as saber teeth. The problem of using technology for quality communications is still with us though, and some of us should be able to make the transition from hardware handlers to message managers. This transition will take some time until "Everyman" with easy personal access to hardware recognizes a message vacuum and begins seeking ways to fill it.

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