

The Three L's – Literacy and Lifelong Learning

An address by Peter Calamai, to WWestnet 2000 conference Calgary, Nov. 2, 2000

You probably can't place the name, Edward Lorenz. He's hasn't been a contestant on Who Wants to Be a Millionaire. Nor does he play in the NHL. And he certainly isn't running in the current federal election.

But if instead I ask whether you've ever heard of the Butterfly Effect, I'll bet there may be a glimmer of recognition. A butterfly flaps its wings somewhere like Brazil and stirs up a tornado in Alberta. It was back in 1972 that Lorenz, who was then a professor of meteorology at the Massachusetts Institute of Technology, wondered if this sort of bizarre cause and effect actually happened in the world's atmosphere and was responsible in part for our weather.

The destructive butterfly flap was a powerful image for what's come to be called chaos science. Perhaps too powerful because it obscures what Lorenz was most trying to communicate. He wanted to get across two concepts and because I think they're concepts that are also relevant to what we're talking about at this conference, I'm going to spend just a minute on them.

After that, I'm going to skip lightly over the familiar ground of strategies for improving workplace essential skills, then make a sweeping judgment about how successful these strategies have been, point some accusatory fingers for why we haven't accomplished more and finally try to suggest how we might make more progress.

I keep saying "we" but that's a bit of a fraud. I'm only an onlooker, an observer of the literacy scene since 1986. But I haven't been in the trenches actually doing it. So consider these comments as coming from an outsider, although one who tries to be reasonably well-informed.

Back to the flapping butterfly and chaos science. Professor Lorenz wanted to get across two fundamental ideas.

First, the state of the atmosphere at any one time is determined by a combination of factors. For our purposes here today, we don't need to understand those components in detail. But they're things like temperature, pressure and wind velocity and the radiation from the sun. They're expressed through rather complicated formulas covering all four dimensions – three for location and the fourth for time.

The important thing about these formulas is that the mathematical bits inside them are all interconnected. So the temperature at one time and place in the atmosphere has a direct, but subtle, effect on the formula that forecasts the pressure somewhere else in the atmosphere at a different time. Change one thing and the consequence is unpredictable.

That was Lorenz's initial insight and a fundamental one – this dynamic interdependence among the components of a complex system. And you have to admit that it was a stroke of dramatic genius to illustrate this concept with the flapping of a butterfly's wings that changed air pressure minutely in one spot, eventually resulting in a violent storm half a world away.

But that powerful image obscured the professor's second point. Sure the atmospheric system was inherently chaotic but it could still be predicted. Why? To vastly oversimplify, because even such a dynamic, chaotic, non-linear system as the Earth's atmosphere conformed to the laws of statistical probability. That meant you could model the atmosphere with a computer program, run a whole bunch of "what-if" scenarios and look at what happened. What if we started with very cold initial conditions, what if ash spewed upwards by volcanic eruptions cut in half the radiation from the sun that reached the Earth's surface, what if humanity's activities doubled the concentration of greenhouse gases in the atmosphere? When you ran enough of these scenarios and enough variations, you'd have uncovered some general characteristics of the system that were highly probable, statistically speaking.

So for the next little while let's give free reign to our imaginations. Let's think of essential skills, productivity and employment as three variables in a dynamic, chaotic, non-linear system. And let's imagine that we're changing various "what-if" conditions like the strength of the

commitment radiating from governments, and the ash raining down from the elites and the hot gases rising up from activity below. And then let's run these scenarios and variations for at least a decade.

Now you might call these starting conditions by different names. They could be sectoral partnerships or labour-management partnerships. And other variables could be called one-on-one peer tutoring, onsite classroom delivery, integrated curriculum strategies, one-on-one intervention strategies and so on.

What would our computer modelling produce from these inputs? There would definitely be some spots where the resulting atmosphere was benign, even welcoming. These welcoming conditions would produce a huge increase in essential skills programs and help some people keep jobs or get new, better ones. And these programs and the people who ran them would become much better networked as the exercise progressed. The substantial radiation from the central sun, something called the National Literacy Secretariat, might also spawn a large body of made-in-Canada literature and learning materials. And the ash and the hot air combined with this radiation could have transformed some regions to lush paradises and others to barren wastelands.

It's not safe to pile any more baggage on this donkey of an already overworked analogy. But I hope I've made the point. The interrelations among essential skills, productivity and employment may seem complex and utterly unpredictable but certainly no more so than the climate for the next three months, a forecast that the Meteorological Service of Canada is already routinely making.

In fact, 10 years ago some farsighted people had already painted a picture of what could and should be accomplished for literacy in the private sector by the year 2000. These representatives from organized labour, the corporate sector and the literacy field came together at a conference at Mont Ste-Marie Quebec. The goal of the meeting was to develop a private sector strategy for literacy, by which they meant reading, writing and using numbers – the three core essential skills.

Here, taken from the final report of the conference, are a few predictions, goals and hopes for the Year 2000.

Predictions

- The importance and scope of the literacy problem will be broadly understood and there will be growing awareness of the full range of solutions.
- Training trust funds will be a feature of the industrial relations landscape.
- Building in people the capacity to learn will be seen as essential for competitiveness

Goals

- The rate of functional illiteracy has been cut in half compared to 1990
- Five per cent of working time is devoted to training and development
- Literacy learners are eligible for UIC funding (we'd call it EI today)
- Federal transfers to the provinces that are earmarked for education must be spent on education as a condition of transfer

Hopes

- Sufficient public and private resources will be channelled into literacy training so that all those who want to learn, can learn.
- Literacy training and management training will be seen as equal priorities
- Businesses will be under pressure from the corporate community to devote one per cent of gross revenues to literacy and training. Unions will institute a one-cent-an-hour check-off to finance literacy and basic skills development.

There's lots more. But I hope that's enough for you to agree with two observations.

First, these were a far-sighted group of people.

Second, we haven't come very far toward those predictions, goals and hopes.

Why? Let me go back to our imaginary computer model, the one that tried to describe the interplay between essential skills, productivity, employment and all those other variables. If we really had such a model, we could align it with what actually took place over the past 10 years. And then we could peer inside for an explanation of what went wrong.

I think what we'd find there are a lot of comfort zones spots where some of the actors are sitting out the action. If you're charitable, they're resting from the fray. To be candid, they've crawled into hidey holes where they can't be discovered or disturbed.

Take the federal government for example. Its refuge is a constitution that gives provinces the responsibility for education. And to make sure their hidey hole couldn't be breached, the feds eagerly handed over responsibility for the delivery of training as well.

And what are the consequences? See them for yourselves by reading the speech Finance Minister Paul Martin gave to the Toronto board of trade on Sept. 14. It was billed as the New Economy speech, the Liberal vision of how Canada and Canadians would prosper in the globalized, high-tech world. Mr. Martin uttered all the usual phrases about "investing in people" and "the real engine of growth is the human mind". He talked about augmenting the traditional three R's of the school system with the new 3C's – that's Computation, Calculation and Communication. He thundered that our Grade 8 students ranking 14th in international math and science tests was a "flashing red light .. ignored at our peril."

The Finance Minister went on in his New Economy speech to propose some targets – Canada has to stand among the top five in international math and science tests, we have to double the time devoted to job-related instruction, we have to grab five per cent of all world e-commerce trade in 2003.

But it's not just numbers, Mr. Martin assured his listeners.

“The purpose of these goals and objectives is not to put up better statistics. It is to lift up greater numbers of people; it is to raise living standards and widen the circle of opportunity.”

All very commendable. Except that the finance minister spoke for more than 30 minutes about widening “the circle of opportunity” and never once mentioned Canada’s poor showing in the International Adult Literacy Survey. But he did at least mention literacy. Canada has to ensure that all children leaving Grade 8 are computer and Internet literate. Yesterday in Ottawa, however, the Liberal Party of Canada – not to be confused with the federal government — announced its platform in the current election campaign. One of the few new sections in the platform was called lifelong learning. The core of that was something called Registered Individual Learning Accounts, which is supposed to double the number of people in the workforce receiving employment-related training in five years.

The federal government is far from being the only participant with a convenient blind spot. Raise literacy with much of Corporate Canada and within five seconds you’ll be hearing how we must focus on improving the school system. It’s a diversionary tactic, the equivalent of bits of aluminum chaff that bombers once threw out to befuddle enemy radar (nowadays it’s called by the fancy name of electronic warfare countermeasures but the principle remains the same.)

Most businesses don’t want to talk about adult literacy because their investments are so puny – either in direct delivery of workplace basic skills or in sponsorship for family and community literacy programs. Obviously, if you’re attending this conference, this doesn’t apply to your company. But you may have met some people who hide in this particular hole.

And what about the literacy field, those who deliver the training. In the first place, it isn’t a field at all. There are no entry standards, anyone can hang out a “literacy practitioner” shingle (just as anyone used to be able to call themselves a journalist, I might add. Alas no longer. Nowadays it takes a Masters degree in Journalism just to make the cut as an intern at the Toronto Star.)

There’s essentially no accountability in the non-field of literacy delivery because there are no Canada-wide agreed ways of measuring the progress of individual learners in literacy training,

no rigorous benchmarks, little in the way of agreed outcome assessments. Rather than having to perform to measurable targets, practitioners talk about raising the self-esteem of learners. It's a very comfortable hidey hole.

And the media! They're even more hypocritical. A few times a year they "discover" that Canada has a literacy problem, usually just around National Literacy Day in September. And their promotion departments sponsor programs to Reach Up to a Reader or give annual awards to outstanding literacy programs in the circulation or broadcast area.

But cover the issue as if it was really newsworthy? That almost never happens. School boards can close skills upgrading courses, provinces withdraw the right to a high school education for adults and the OECD can issue literacy reports that show Canada falling further and further behind – and most of the media pay no attention. For reporters, literacy is a feel-good event where the station manager or newspaper publisher hands over a cheque. It's not real news. And that's a comfortable place to hide.

Now we come to organized labour. I'm reminded of Sir Walter Scott's line that "fine words butter no parsnips" (*The Legend of Montrose*). I've have visited excellent skills upgrading programs championed by trade unions in several provinces but often the talk of partnerships with management is more lip service than reality. And when it comes to contract negotiations, labour has a depressing tendency to let the perfect become the enemy of the possible by asking for the moon in essential skills training and not even winding up with the equivalent of the clapped out Russian MIR space station.

Now, is there anyone in the room who I haven't savaged?

There is a justification for this excess of candour. I'm trying to get at the reasons why the literacy needle has barely budged over the past decade. I confess that that gloomy verdict is mostly my subjective judgment. No national figures exist to allow a really rigorous tallying of literacy accounts. In fact, the National Literacy Secretariat can't (or won't) say how it has disbursed its

millions on a province-by-province per capita basis. And no one has reliable statistics on the number of learner-hours and grade-equivalent gains nationally, provincially, or by program.

However in the five years that passed between the first and second national assessments administered by Statistics Canada there was no detectable improvement in literacy scores. And in the late 1980s the best estimate was that fewer than two per cent of people with low literacy were getting help from any program. It must be the best, because I made it in *Broken Words*. A decade later, the best estimate is five per cent. And I made that one as well, in the *Literacy Matters* supplement in September last year.

Five per cent of 10 million adults who rate lower than Level Three literacy – the minimum acceptable according to StatsCan – amounts to the literacy needle barely moving from zero. Yet sometimes I hear people object that the nation's literacy status isn't all that dire if you eliminate all the immigrants and old folks who inflate the numbers. So consider only Canadian-born adults between the ages of 16 and 65, what you might call the workforce. Forty per cent of them are below Level Three in literacy, 15 per cent are at Level One. The needle hasn't moved much there either.

Why has moving the literacy needle proven so difficult? Why do so many groups seek out comfortable hide-holes rather than deal with the issue?

When I produced the Broken Words study for the Southam newspapers back in 1987, I was sure that the answer lay in increasing public awareness. Give the general public irrefutable evidence that many of citizens needed help with a skill so fundamental to enjoying a full life, and people would rise up and demand action from decision-makers. And for added measure the IALS study proved that literacy levels affected national competitiveness, economic prosperity, productivity and – eventually – the state of your wallet or pocket book.

But none of that did the trick and I didn't understand why. Until a couple of years ago when I stumbled across a book called *Coming to Public Judgment* by Daniel Yankelovich, who is one of the gurus of U.S. public opinion surveying. Yankelovich was focused on a quintessential

American challenge of informed decision making in a participatory democracy, something that isn't as much of a preoccupation in Canada because our political system still sort of works.

To tackle this problem, Yankelovich drew upon his vast experience and extensive empirical research in tracking the progress of public policy issues over decades. He found that all these issues passed through seven identifiable stages before the public was agreed on a course of action that it would sanction the elite to implement.

Here are those stages:

1. Dawning awareness of the issue.
2. A growing sentiment to tackle the issue.

Together Yankelovich called these two consciousness raising because it's not enough that people are simply aware of an issue. They also must feel that it is important, that it applies in some way to their own lives and that something needs to be done about it.

In Canada, there is hard, take-it-to-the-bank evidence of a dawning awareness of literacy and essential skills as an issue. In 1990 and 1999, Decima Research included some questions about literacy awareness on the company's omnibus polls. The results are modestly encouraging. Asked last year how much they had heard about literacy in Canada, 31 per cent of those surveyed choose "a lot" – the top of five levels offered by the Decima interviewers. Back in 1990 only 26 per cent had chosen a lot. That increase of five percentage points represents almost a million more Canadian adults who say they are aware of literacy as an issue.

There was an even bigger boost in awareness of workplace essential skills over the decade. Last year, 32 per cent of those surveyed said that inadequate reading and writing skills are a very serious problem in the workplace. In 1990, the proportion was 24 per cent. That amounts to almost an additional two million adult Canadians.

Unfortunately the Decima questions didn't probe the second stage of consciousness-raising – whether there was a growing sentiment to tackle the problem and an appreciation that it actually touched the lives of the people being interviewed. Here we have only indirect evidence from what are known as top-of-mind surveys. Most public opinion firms do these on a regular basis. The interviewer simply asks the person on the other end of the phone what they think is the most important issue requiring government attention. No list of potential answers are read (what the pollsters call an open-ended response) but the replies are grouped into categories. So, for instance, schooling, knowledge and skills would be clustered under the heading education.

In the past decade literacy has never made it on to the list as a subject in its own right, meaning that fewer than five per cent have ever named it as their top-of-mind issue. Several pollsters say they can't remember literacy ever being mentioned at all, even as a subcategory that would have been rolled into education.

An absence of evidence of a phenomena doesn't prove an absence of the phenomena but it's difficult to believe that the Canadian public yet rates literacy as a problem that must be tackled. I suspect, without much empirical evidence to back me up, that most Canadians aren't convinced the issue has any relevance for them. We know for certain that a majority of low-literate Canadians say their reading and writing abilities are quite sufficient for their daily lives and that they see no need to upgrade those skills.

I should add that the media seldom progress beyond the first stage of just simple public awareness, since traditionally they have seen that as their prime role. Only with the emergence of something known variously as civic or public journalism have a few media outlets become engagé.

But if the general public and media are mired at stage two, the groups represented in this room most obviously are not. So how do we account for the existence of those comfortable hidey holes. Let's look at the next three stages of Yankelovich's seven-stage progress to public judgment. These are:

3. Concern transforms into a consideration of choices.
4. The wishful thinking stage. Faced with unpalatable options, the public begins to think that maybe no action should be taken. (Saw this operate during the '80s and early '90s in Canada when public wanted the deficit tackled but didn't like the idea of cutting health care. The wishful thinking was that simply running a tighter ship would somehow take care of \$60 billion.)
5. Weighing the choices – a stage that sees personal values evoked and put to the test (such as the role of the state, the importance of shared societal values, the kind of desired society.)

I'd say that Stage Four, wishful thinking, is where most groups head for those comfortable hidey holes, although some might also be avoid the weighing of choices in Stage Five.

The danger is that most groups will want to avoid the mess of Stages Four and Five and leap to the final two stages:

- 6 Taking a stand intellectually.
- 7 Making an emotional resolution.

There's not much point spending a lot of time on these last two stages. Yankelovich devotes several chapters to examples of the public coming to such resolution. I can tell you that it's not simple and that the whole process – from initial awareness to final public judgment – almost always takes years and often decades.

That's good news actually. Perhaps we're not as far behind the curve in putting literacy on the public agenda in Canada as thought. But I fear we may have lost some of the initial enthusiasm because this turned out to be a problem that isn't going to be solved by a simple "war on literacy." As many of you already know, the concept of lifelong learning (of which literacy is an integral part), that concept challenges a lot of the values, beliefs and practices of current Canadian society, once you go beyond mere lip service. We may not be waging a war but we are engaged in a cultural revolution.

That revolution (or evolution if you prefer less violent language) can only take place with the informed consent and active support of the Canadian public. Even if don't buy the seven stages of Yankelovich, I think it's obvious that the public needs a lot of help to reach a judgment on literacy and lifelong learning – in our homes, our workplaces, our institutions and our society.

Some of this people mostly have to do on their own. That's because one of the biggest hurdles to changing an aspect of culture in a society is often not overt behaviour but the underlying individual attitudes – think about drinking-and-driving, or spousal abuse.

But a lot of the process of coming to public judgment can be helped by good leadership, by forceful champions, by institutions that raise consciousness, ease the working-through phase and guide the public through that final resolution.

The people who will provide that leadership, those champions and those institutions are the kind of folk who are in those room. You've already gone farther along the path to judgment than anyone else. But before you and your institutions can lead, you've got to abandon your hidey holes, those comfort zones of self-doubt and self-delusion. Maybe today and tomorrow would be a good time to begin.