The Unbearable Lightness of Education[1]

Robert Stake, University of Illinois

The title of this keynote address is a play upon the title of Milan Kundera's anti-totalitarian novel, *The Unbearable Lightness of Being.* Kundera found the life of each of us greatly shaped by chance, largely indeterminate, noting our resistance to rules and customs, yet constrained by comfort, fear, and habit. He spoke of lives as events occurring but once, each moment unique in vital ways and too weak a guide to events still to come. "Everything occurs but once," he said.

That's pretty hard to believe. We see repetition each way we turn, the safety and boredom of our daily routines. Kundera belittled the predictabilities of psychology, sociology and economics, although not the predictability of bureaucracy.

Bureaucracy is heavy with predictability. Personal being at times is light with indeterminacy. Kundera puzzled his readers by noting that we cannot decide whether lightness, or heaviness, is good. Is it good that our lives are heavy with deference, with duty, with devotion, with kitsch, with assignments, with consistency and taste? Is it good that our lives are light with privacy and secrecy, with freedom, with uncertainty and creativity? He found much of our lives heavy, ever mixed with the light, but the light so disconcerting, eerie, even spooky--and so that we as individuals and we as communities struggle to curtain the light away.

Education. I propose today that Education too is unbearably light, perplexing in its diversity and wonderment. We who are the researchers of Education draw our authority from societies and disciplines that want Education to be controlled and predictable, to be substantive, dependable, even if the mind,

---

[1] Keynote presentation for the annual meeting of Georgia Educational Research Association in Savannah on November 15. 2002.

immature and mature alike, is fundamentally light. Schools are run with heavy hands; the curriculum is heavy--notwithstanding its rhetoric of enlightenment.

I am not going to talk today primarily about teaching and learning, the processes of Education many of you study. I am going to talk about the product of Education, the resulting education that each person holds inside his or her being, and refines, and re-forms in part each day.[2] I ask you to concentrate upon us as educated.

It is the business of infants and youth--and elders as well--to attain an education. We are wired for it. It happens on either side of the school door. Faster than the rest of us, youth do it constantly, impetuously--voraciously adding new knowledge--and solidifying the old.

It is the business of professional educators, and that includes most of us here, to build institutions and guide other educators who will educate students the way their parents and our patrons want them educated. We would perpetuate our privileges for them, and multiply their opportunities. But the students' business and ours collide. Our headings are toward different horizons.

Oh, they coincide when material appetites run strong, when working for the car payment and rent on the apartment. But a prevailing appetite in our students is for the heavy education of their curiosities. We, on the other hand, want them heavy with the education of our syllabi. Two heavinesses, infiltrated, honeycombed with personal indifference, with appetite for social standing, obstinacy, and creative zest. The mind of the individual student will not settle for the advertised generosity of the curriculum.

---

[2] Education as product depends on education as process, but let's postpone discussing the connection.

Personal education, and the collective education of our people, exist largely without registry in diaries, test scores, grade books and job applications. Our indicators fail to indicate (Shavelson & Stern, 1981). Each education is so vast, so idiosyncratic and context-bound, so electric--with each mind drawn to a variety of social causes. We educational researchers are the measurers, the keepers of record, but Education, as a volume, as a product, defies our efforts to represent it.

From the White House to Home Schooling, it is felt important to know how much a student knows, important to repair each education's fissures, and so necessary to justify the social investment in Education. It is unbearable that we cannot display knowledge and ignorance on our spreadsheets. Our need to do so and inability to do so leads us often to pretense and deceit. We educational researchers especially are ashamed to acknowledge the lightness of Education.

What lightness is that? Indeterminacy. The intangible holdings of the mind. Would anyone deny that great works of men and women come from the uniqueness of their education?

> Do not go gentle into that good night,
> Old age should burn and rave at close of day;
> Rage, rage against the dying of the light.

Had there been no Dylan Thomas, we would never have heard those words: his alone. We do hear him because he lived, and he draws upon our common Education, and private as well. It is each of our fathers we hear. We listeners depend on both the common and the private, on both the heavy and the light.

My four-year-old granddaughter, Nellie, newly moved to Seattle, said,

> I have a new friend. We do everything together.
> I tried to wander off but she just follows.

Experience is education too. Nellie's education wanders off its many ways each day, stretched and straightened by parents, brothers, friends, teachers, television--and hearing her own soliloquies. So little we know of what she knows. Her education is sampled neither by utterance or paintbox; its boundaries as indistinct as the universe; its pigments ever changing. Her own education demands so little of her; always there, predictable, unpredictable; light, heavy, light.

Indeterminacy. To make his point about the indeterminacy of being, Kundera has his hero, the young surgeon Tomas, contemplate the likelihood of having become the husband and soulmate of Tereza, a girl from a distant village. He muses,

> Seven years earlier, a complex neurological case happened to have been discovered at the hospital in Tereza's town. They called in the chief surgeon of Tomas's hospital in Prague for consultation, but the chief surgeon happened to be suffering from sciatica, and because he could not move he sent Tomas to the provincial hospital in his place. The town had several hotels, but Tomas happened to be given a room in the one where Tereza was employed. He happened to have had enough free time before his train left to stop at the hotel restaurant. Tereza happened to be on duty, and happened to be serving Tomas's table. It had taken six chance happenings to push Tomas towards Tereza. . . . So fateful a decision resting on so fortuitous a love, a love that would not even have existed had it not been for the chief surgeon's sciatica seven years earlier. And that woman, that personification of absolute fortuity, now again lay asleep beside him, breathing deeply (p.35).

Not all things in Tomas' life, and ours, are under-determined. His devotion to medicine was over-determined. His infidelities were almost completely predictable, predictable in the general. Long after a failed first marriage, it was predictable he would remain a bachelor. His life with Tereza was under-determined, yet he resisted many opportunities and pressures to return to his predictable bachelorhood.

And what of an individual's education? How much is over-determined, pressed again and again into mind, drill, drill, drill. And how much is under-determined, borne by the flight of intuition, the light on the haystacks never the same.

But even with the over-determination, we learn from a ten-year-old boy that the answer sheet changes capriciously from assignment to assignment, "You just have to figure out what's the right way to do it today."

The professor follows her teaching plan, unfolding the logic of a sector of a discipline. Sociology perhaps. Or plant biology. The students' answers on her tests huddle a common mean for simple declarations of fact, and range far and wide for interpretation. Her students later on are selling Birkenstocks, programming spreadsheets, designing carports, and working for the Mayor. They seldom need to recall anything they learned in class or from the book, yet all educated in ways the professor guesses to be true and does not know, and cannot know--all educated, some more than others, some more to our liking than others, not necessarily with more being better.

Personal education is what we learn in life, alone and in crowds, rationally and experientially. It is about people, places, and events, the deepest and most shallow of thinking. It is largely indeterminate, beyond measure, beyond knowing. The education of a school's children, or of a nation, is largely indeterminate.

Well, it was determined somehow. It happened because the minds were bent to know, and teachers' minds were bent to teach, and experience fills the live-long day, with advertisers, and preachers, and torch singers, and cartoonists, and judges, and the readers of the Tarot cards. Educations are determined, much, but so little, by plan.

Many's a slip twixt the cup and the lip. (Palladas, A.D.400)

The Common Curriculum. Ah, but perhaps you already weary of me talking about the private caverns of the mind. The world's schools are tooled to teach a common education. Almost all the evaluation of teaching is based upon what the students are to learn in common. Is a standard content for school education best for our students? Is it a way to be fair? Is it what their future employers need? Is it like boot camp for military recruits, to knock the uniqueness out of them?

The minds of youth, one from another, are more dissimilar than the leaves on the trees, than the books in the library. Yet we have our schools emphasize attaining the knowledge most common, and reward little the elegant and inventive personalization of knowledge. Perhaps because of the bluntness of our teaching and testing, but perhaps because of our fear of uniqueness and eccentricity, we teach a common curriculum, similarities more easily managed and socially constraining. Yes, it is difficult enough just getting that much done.

Would we say too that the part of an individual's education that comes from the common curriculum is indeterminate, at least, largely under-determined? Is the knowledge and skill attained from all that intended to be taught a common holding, shared with classmates in school and age-mates across the country? The standardized tests used in Georgia and all the Western world presume there is a desirable common holding, actually shared knowledge and skill. And government policies presume that that common holding is a basis for assessing the quality of the teacher and school.

Much of what is taught in school and college is assimilated into a complex storage of understanding and habit. What is there subsumes what is coming in.[3] New knowledge is caught into the

[3] Psychologist David Ausubel said: " . . . meaningful learning of new ideas conforms to principles of logical classification insofar as it may be described as a process of subsumption under those relevant existing ideas

dynamos of experience, connotation and circumstance, so that a map of this sector of personal education would look little like the instructor's syllabus or the researcher's classroom observation. Personal knowledge will seldom resemble the formal orderings of the learned societies.

Still, for many students, the mental holdings will be associated with recollections of the tasks of "learning it" and retrievable for testing purposes, given appropriate test questions. That is to say, classroom elements of an education are multiply bonded, processed, personalized, rendered more meaningful to the student's reality, to what makes sense to them. Leo Postman (1970) found this happening to one's recollection of discordant stories. We make our education make sense to us.

But how then does it become useful to a world of business or medicine or music, where the formalization of knowledge is miles deep, coded and depersonalized? I cannot explain it. I think it comes with practice, with a passion for making it work. A person lives in multiple worlds, including a world of personal experience and a world of formalized knowledge, then translating the languages of one to the other.

During World War II, British cryptographers built a computer they called Enigma and broke the secret German codes. Writing of the dangers of expecting Education to feed directly into problem solving, Robert Harris, author of the book, *Enigma*, wrote,

> The lesson of Bletchley Park is simple: there is no substitute for the discipline of scholarship, and for the pursuit of purely intellectual activities. Politicians who sneer at this as a waste of taxpayers' money would do well to ponder the story of Enigma. The cryptanalysts whom Churchill addressed in 1941 may indeed have looked as though they had just crawled out from under a stone. They may not have been able to muster an MBA between them, let alone a degree in media studies. And they would

---

in cognitive structure which exhibit a higher order of generality and inclusiveness" (p 4).

certainly not have recognised their educations as part of anyone's "number one micro-economic policy." But they won the war (Daily Telegraph, 5-11-2001).

Representation of Personal Education. We educational researchers suffer the conceit that we can measure Education. And politicians insist on the deceit that we are measuring Education. U.S. Secretary of Education, Lamar Alexander, said that to have an effective educational system, we must know how much each child knows. He said that parents have a right to know whether or not the student understands what is needed as a competitive worker for the world marketplace, and what is needed as a scientist in the Twenty First Century. He implied we could know how much a child knows.

Some schools and colleges are more effective than others. It has little to do with how much teachers know about what the students know. The best educational systems are those that get the best students. With better students and teaching conditions, the quality of teaching will be higher.

Teachers know a little about what individual students know, but not much. The best of their examinations do indicate who are the better students but only a tiny and select sampling of what each one knows. The indicator systems developed by researchers (Shavelson & Stern, 1981) do not try to sample how much educated students have become. According to my own studies (Stake, 1995, 2002), current standardized tests of student achievement do not measure content knowledge; they measure aptitude for academic learning. Even when they include an abundance of subject matter content, what is being indicated is scholastic reasoning, the ability to figure out the right answers, not amount of knowledge. Scholastic aptitude is important for further schooling, but current standardized tests are of almost no value for indicating how educated a person has become.

It is possible to teach to what students already know, in other words, as a tutorial, but tutorial teaching is very costly. Budgets, tradition and academic freedom require that courses be oriented to what teachers want to teach, courses to be taught to imaginary students, imagined in the mind of the instructor.

With better knowledge of what the students already know, that is, the content of their own education, we might be able to teach better. But, even for research, we cannot test that hypothesis without valid ways of representing what they know. The best representations that schools and colleges have today is the transcript of courses taken, using information from a course catalogue as to what is supposed to have been taught. A student's education extends far beyond and falls far short of what is taught in school. The language of course catalogues, national goals, standards and tests is a very weak language for describing an education ongoing.

A Personal Knowledge Map. Just how hard is it to make representations of a person's education? [transparency] Working with ideas I developed in the 1970s, using the Dewey Decimal Classification to identify topical areas, I recently sketched my own educational map, shown here and on your handout. In the middle is my professional knowledge. Above that, my academic knowledge. Below, my personal knowledge. I am using the term knowledge to represent both knowledge and skill. It includes simple knowledge and historical, multi-disciplinary and utilitarian knowledge of the topic, all of which might become prominent in a next couple of levels of subdivision. Had I started with a different classification system, the map of my education might have given specific attention to genealogy, graphics, bowel disease and Nellie.

The areas of these domains are intended to be proportionate to my total knowledge. These are proportions of what I know, not of all that is out there to be known. I have estimated my professional knowledge at about 15% of my total formal knowledge. I have omitted many smaller bits of knowledge,

things like religion, that constitute less than 2% of the total, I have indicated immodestly that I think about 1% of my total knowledge is of staff development,[4] even though it is the main issue of my life's work as a program evaluator.

A lesson is small. An education is vast. Here's an estimate. [transparency] Think of the knowledge from a lesson as the size of your thumbnail. The knowledge of a whole course is much larger, sometimes the size of your whole body. But education is as large as this Georgia Coast Center. That's the point of all this. An education is much larger than a lifetime of courses.

Maybe my academic knowledge is not 20% of the total; maybe it is 2%. What I know is that there is a lot of a personal education to be maintained for many years to which teachers and curriculum developers are paying little attention. Is that a shortcoming of our teaching?

With the graphic, I am trying to make it more apparent how difficult it is to get even a gross estimate of a person's education. [transparency] (Yes, it's all so arbitrary.) Still, even at this crudeness, I think that it would be useful for me, a teacher, to have the information of the first map about each of my students. But, it probably has been more valuable just to talk with them about things. Even were the measures good approximations, the area representation seems to serve little purpose.

I might mention that in the early 70s, thinking it would help teachers and counselors, I started developing this mapping idea and obtained a grant of $10,000 to study it further. After a few months, I became frustrated with the indeterminacy and gave the money back.

---

[4] The quality of my knowledge in that area and others is not indicated. Sooner or later we must talk about the quality of different parts of an education, but not now.

Lightness. Nellie, my four-year-old heritage, has discovered lists and large numbers. Recently, after a long phone conversation, I told her I needed to go read my students' papers, she said, "Why don't you make a list?" "Of what?" "Of things to tell them." "There would be too many." "A million and two?" "Yes, that's right," I said.

Loren Eiseley, paleontologist and poet, gave the 1962 John Dewey lecture, "The Mind as Nature." He said, "It is here,--in our search for what we might call the able, all-purpose, success-modeled student—that I feel it so necessary not to lose sight of those darker, more uncertain, late maturing, sometimes painfully abstracted youths who may represent the Darwins, Thoreaus, and Hawthornes of the next generation" (p 40).

As further examples, Eiseley spoke of the latent genius of Einstein, Kipling, Melville, and others. He quoted Dewey as saying, "No mechanically exact science of an individual is possible. An individual is a history unique in character." And Eiseley quoted Henry David Thoreau with these words:

> We should treat our minds as innocent and ingenuous children whose guardians we are--be careful what objects and what subjects we thrust on their attention. Even the facts of science may dust the mind by their dryness, unless they are in a sense effaced each morning, or rather rendered fertile by the dews of fresh and living truth. Every thought that passes through the mind helps to wear and tear it, and to deepen the ruts, which, as the streets of Pompeii, evince how much it has been used.

Heavy and light.

The Unbearable. Milan Kundera considered Being, human spirit, consciousness, to be buoyant, with edges evanescent, capable of eluding constraint, capable of freedom from inhibition, from family bonds, at least mentally eluding police and totalitarian states. He saw Being having the capability of being free, but a freedom often resisted. The major constraint on Being, on personal

freedom he saw to be kitsch, the attention-arresting, popular attractions--sentimental, sensationalistic, slick. Not only in entertainment but especially the gimmicks and gew-gaws of political slogans; war on terrorism, the global market, evidence-based evaluation, education—virtues converted to façades, the kitsch. Kundera wrote,

> The feeling introduced by kitsch (political kitsch) must be a kind the multitudes can share. Kitsch may not, therefore, depend on an unusual situation; it must derive from the basic images people have engraved in their memories; the ungrateful daughter, the neglected father, children running on the grass, the motherland betrayed, first love. -- Kitsch causes two tears to flow in quick succession. The first tear says,: How nice to see children running on the grass! The second tear says: How nice to be moved, together with all mankind, by children running on the grass! -- It is the second tear that makes kitsch kitsch.

In this way, Kundera ended his novel on lightness, exposing the heaviness of the police state in Czechoslovakia.[5]

I have drawn your attention today to the lightness of education--susceptible to the curriculum, constrained by social pressure, but capable of freedom--no, even genetically coded for personal interpretation, never entirely caught into the common view, even when one wants not to be different. A personal education is like the wind, capable of pushing a sail or windmill and not detained by it. A personal education is like the starry sky, sorted by constellations, but with a million and two parts remaining uncharted. An education is so light, so little contained.

Nellie's education is bearable. Yours and mine as well. For us, education's an easy portage. But to the teacher on a strict lesson plan, to the teacher teaching to the test, curiosity is a burden.

---

[5] In his book, *Disturbing the Peace,* Vaclav Havel spoke of Kundera's failure to extend his abhorrence for the police state in to a stand for human rights, and particularly, full respect for women.

Too many cross references, too many distractions, too much personal baggage.

To the establishment, to the police state, a person's education is unbearably light because it cannot be sufficiently controlled. It can be represented only in crude and misleading ways (Stronach, Halsall, & Hustler, 2002). All the efforts of a Ministry of Education to define education as what fits the curriculum, or as what's found on examinations, or as what's determined by evidence-based research, are kitsch, sentimental, sensationalistic, slick. A person's education is, as Dewey said, as Kundera implied, "a history unique in character."

Bibliography

David P. Ausubel, 1963. Some psychological aspects of the structure of knowledge. Paper presented at the Fifth Annual Phi Delta Kappa Symposium on Educational Research, "Education and the Structure of Knowledge." University of Illinois, November 4-5.

Loren Eiseley, 1962. *The mind as nature.* NY: Harper & Row.

Robert Harris, 2001. Lessons we can learn from cracking the Enigma code. *Daily Telegraph,* October 5.

Vaclav Havel. *Disturbing the peace: A conversation with Karen Hvizdala.*

Milan Kundera, 1984. *The unbearable lightness of being.* NY: Harper and Row

Leo Postman, 1970. *Verbal learning and memory: Selected readings.*

Richard J. Shavelson and Paula Stern, 1981. *Review of educational research.* 51(4), 455-498.

Robert Stake, 1995. The invalidity of standardized testing for measuring mathematics achievement. In Thomas A. Romberg, editor, *Reform in school mathematics and authentic assessment.* Albany, NY: SUNY Press.

Robert Stake, 2002. Substituting aptitude testing for measurement of human accomplishment. Unpublished paper. Urbana, IL: University of Illinois, CIRCE.

Ian Stronach, Rob Halsall, and Dave Hustler, 2002. Future imperfect: Evaluation in dystopian times. Unpublished. Manchester, UK: Manchester Metropolitan University.