

Technology and Distance Education

Three talks by David Lochhead presented to the SACEM Annual Meeting, Brite Divinity School, Fort Worth, Texas, January 10-12 1997

- Content and Context in Education
- The Digital Revolution
- Online Education: Problems and Prospects

Content and Context in Education

This address was given on Friday, January 10th 1997

During the next few days, we want to think about education and technology. To be more precise, we want to think about using technology to educate at a distance. Tomorrow I want to speak specifically about digital technology and on Sunday, of its use in distance education. In order to lay the basis for what I want to say then, I want to begin today on a more philosophical note. I would like you to join me this afternoon in thinking about communication and context. I would like us to think about how context impacts on the content of what we communicate -- the interrelation of context and meaning.

Early in this century in Anglo-American philosophy, under the influence of Bertrand Russell and the early work of Ludwig Wittgenstein, the most influential theory of how language has meaning took the form of what was later called the Fido-Fido theory of meaning. It was called the "Fido-Fido" theory because it held that words were the names of things. Words had meaning by virtue of their ability to refer to things. And so a word like "Fido" was the name of a particular dog. In short the word "Fido" had meaning by virtue of the fact that it referred to (or pointed to) the dog Fido.

This view of meaning probably received its most elegant expression in Ludwig Wittgenstein's early work *Tractatus Logico-Philosophicus*. In this work, Wittgenstein elaborated a view which said that all language had meaning by virtue of its ability to draw pictures of reality. A sentence like "The cat is on the mat" drew a picture of the way things might be in the world. The word "cat" referred to a certain type of animal. The phrase "the cat" referred to a particular instance of this type of animal. Similarly the phrase "the mat" referred to a particular instance of a certain kind of floor covering. Finally, the phrase "is on" informed us of the relationship between "the cat" and "the mat." In this way, the sentence "The cat is on the mat" could be described as a picture which is drawn with words.

Now that is a very simple description of a certain view of meaning. Words mean what they name. When we speak those words we convey certain meanings. A sentence like "The cat is on the mat" conveys its meaning quite directly, by providing us, as it were, with a snap shot of reality. Although the proposition that this sentence expresses might be true in some contexts (or states of affairs) and false in other contexts, it means precisely the same thing, whatever the context in which it is said. It draws the same word picture, whether it is true or whether it is false. In this view of meaning, it is the content of communication that is decisive. The context of communication is -- or so it is believed -- quite neutral.

Wittgenstein's masterpiece -- and it was a masterpiece, whatever the problems in the account of language that it presented -- was published in the 1920s. Paradoxically, about the same time, some film makers in Russia conducted an experiment that pointed in a quite different direction. These film makers were fascinated by the technique that is called "montage." In film, montage is the method of creating meaning by assembling film clips together. By placing one clip before another, one suggests that the first clip is connected to the second, that the first clip interprets the meaning of the second.

In a famous experiment, these film makers took one clip -- a close up of the face of an actor with what was supposed to be a neutral

expression. They took this clip and connected it with three others: a picture of a child playing, a picture of a bowl of soup, and a picture of a body in a coffin. Thus they created three sequences: 1. Child playing -- actor's face -- child playing. 2. Bowl of soup -- actor's face -- bowl of soup. 3. Coffin - actor's face -- coffin. These three sequences were shown to different audiences who were asked to describe the emotion on the actor's face. Those who saw the sequence with the child playing saw affection in the face. Those who saw the sequence with the bowl of soup saw hunger. Those who saw the sequence with the coffin saw an expression of grief.

We may say that, in this example, the content of the communication is a picture of an actor's face. The meaning communicated is the expression which the audience perceived on this face. In this example then, the meaning -- the expression perceived on the actor's face -- is not created by the face of the actor itself -- that is, the content. The meaning is created, rather, by the context within which the content is placed.

English philosophy of the early part of this century focussed its attention on the content of a communication as the bearer of its meaning, perhaps because the question they raised was of the meaning of the individual proposition, the assertion of a truth claim. When you take for your paradigm of meaning a referential statement like "The cat is on the mat," the question of context does not seem to be important.

In analytical philosophy it was Wittgenstein himself who began to realize the limitations of his earlier view. In Wittgenstein's later philosophy he recognized that language does not stand outside the world and describe it. Rather language is an activity in the world. It is, Wittgenstein said, a form of life. As an activity that is embedded in life we could say that we play games with language: not one game but as many games as there are forms of life. Language derives its meaning from the various activities of which it is a part. In language, we deal with a multiplicity of language games. Words derive meaning only from the uses to which they were put in these various language games. In short, meaning, for the later Wittgenstein, was inherently

contextual.

In continental philosophy, by contrast, a parallel view of meaning was developed by hermeneutics. Hermeneutics dealt primarily with the meanings of texts. With texts, the question of context cannot be ignored. Texts are much bigger units than propositions. When we ask about the meaning of a text, we may not have any interest at all in the question of its truth value. We are not interested in an isolated cat sitting on an isolated mat. We are more likely to be interested in following the cat as it appears and reappears throughout the text. We become concerned with the significance of the fact that this particular cat appears on this particular mat at this particular place in the text. In interpreting a text, one must deal with a whole network of relationships: the relationship of one part of a text with another, the relationship of a text with its author, the relationship of a text to the world it refers to, the relationship of a text to the broader culture in which it appears and of which the text is a representative expression.

With the development of the hermeneutic tradition since Schleiermacher and the related development of the historical-critical method, the question of context has been given considerable attention. Those of us who have been trained theologically are the beneficiaries of those traditions. We have been trained -- rigorously trained -- that to look for the meaning of a Biblical text, we have to look at context. Furthermore, we have been educated to understand that there are many dimensions to context. Let us review the various types of context that we encounter in interpreting a Biblical text.

First, a Biblical text has its origin in a world that is historically distant from us. In coming to understand a text, we have to respect that distance. We have to ask the question of historical context. What was happening in the world at the time the text first appeared? When we ask this question, we soon find that the historical context of a text has many dimensions. That is, a text may appear at one time, yet refer to or represent another time. Thus a Gospel text may speak of the world of Galilee in the time of Jesus but may have been

committed to writing far away from Galilee a generation later. In coming to understand the text, we have to ask about both times. Again, the text may have a long oral tradition behind it, which means that interpretation needs to be cognizant, not only of the historical world of the text but also of the history of its transmission.

Within the broad range of what we mean by a historical context, we find other factors to take into consideration. Indeed, unpacking what we mean by historical context is like peeling an onion. We discover layer upon layer. We must deal with the cultural context, the various ways that people represented reality to each other in their daily life, the symbols and rituals they used. Then there is a socio-economic context. How was the division of labour accomplished in that world? What economic and political interests were at play in the world of the text? Which of those interests does this text serve?

There are also literary considerations to be taken to account in interpretation. What is the literary form of the text? Why does the text use this form and not another? What can the literary form of the text tell us about what it is trying to say?

Then there is language. Any of us who have had to struggle with Hebrew and Greek understand something of this. To use a different language ushers us into a different world of thought. We are aware that language is an important factor in understanding a text. We know that the Hebrew word *dabar* and the Greek word *logos* are both rendered by the English word "word". But we are also aware that our English word does not capture the very different shades of meaning that the Greek or Hebrew words carry with them. If we reflect on it, we are aware that to translate a text from one language to another is to take it out of context. In short, in thinking about context, we cannot forget about language.

So in interpreting the context of a text, we have to bring to bear on it considerations of a historical, anthropological, cultural, political, economic, literary and linguistic nature. To that, we often have to add biography and psychology. Who was Hosea? What made Hosea tick? What is unique about the way that Hosea saw his world?

When it comes to the interpretation of a Biblical text, we know all of that. Theological students are drilled over and over again in sniffing out the context of a text before they preach on it. We call it exegesis. Theological students are also trained to reflect on the relation between the context of a text and the context of their hearers, to relate the text to the world we live in. All of this is part of the common discipline of theological studies.

For some reason, it seems to me, we are not quite as careful about context when it comes to education. I probably should not generalize here, so I should probably just speak for myself. I think that I am much more content centered when I am planning a course than I am when I am planning a sermon. That is, I conceive my task as essentially that of communicating a body of knowledge -- that is, a certain content of information -- to a group of students. Occasionally I am reminded that teaching is not that simple as, for example, when one encounters a student who has such a unique way of seeing the world that everything that is taught seems to come back in essays and exams in a form that seems barely recognizable.

What in fact happens -- at least it happens to me as a teacher -- is that I make assumptions that the experience of my students -- their context -- is substantially the same as my own. I know enough, of course, not to assume that my students can remember the day John Kennedy was assassinated or that they understand the ethos of the late sixties. But apart from things like that, I assume that the world they inhabit is essentially the same as my own. When that assumption seems to work well enough, I can forget about the context of my students and I concentrate instead on how to be true to the content of my teaching -- how to explain the ontological analysis of Paul Tillich or the Christology of Rosemary Ruether. When I am concerned with how I communicate with a body of students, almost all of the contextual variables that we have to think about in interpreting a passage of scripture can be ignored. Our language, our historical setting, our socio-economic setting, our culture -- all can be placed in the background because we can assume them to be constant. That is not to say that they are not active. Since the

context of the students seems to be substantially the same as my own, I do not expect them to create obvious difficulties for communication.

We are used to the situation in which we are involved in face to face education in a class room, whether the form be that of the lecture, the seminar, the small group discussion. The situation changes when we begin to think of distance education. In this case, many of the assumptions that we make in the classroom are called into question. When we do not occupy the same space at the same time, we need to remind ourselves again of context and its role in communication.

When I teach in the classroom, I make certain assumptions about the context of my students. The first assumption is that the students live in an urban environment. They either live in on-campus housing or they commute from somewhere in the vicinity of the city in which my school is located. Furthermore, I assume that all of the students understand and have the skills to cope with a North American academic environment. I assume that they know the rules of academia -- for example, about plagiarism -- and that they are proficient in the English language.

From time to time, however, we encounter students to whom our assumptions do not apply. One or more of our expectations about the context in which students live are not met. In the schoolhouse environment, our usual reaction to this situation is to attempt to alter the student's context, to teach them how to meet our expectations.

Let me attempt to illustrate this from some examples in my own experience. Some years ago, I taught in Memorial University in Newfoundland. If you can picture Newfoundland, it is a big island that sits off the east coast of Canada, somewhere south of Greenland. It is the closest piece of North America to Europe. It is an island that is about six hundred miles by road from east to west and except for its northern peninsula, probably about several hundred miles from north to south. Together with Labrador, that strip of land that sits on the east coast of the continent pointing toward the north

pole, -- it has a population in the region of a half million -- considerably less than most of the cities we live in.

Newfoundland has traditionally been a society of fishing villages, spread throughout the bays that wend in and out of Newfoundland's coast. For most of its history -- and remember, some of those little settlements go back to the 1500s -- communication has been by sea. The highway that ties east to west in Newfoundland only goes back about 40 to 50 years. Consequently, the typical Newfoundlander comes from a small village of several hundred people which has been isolated from other villages for centuries.

When I lived and taught in Newfoundland, all that was changing. The highway was not only built. By the time I arrived it was actually paved. The Newfoundland government, having become a province of Canada only twenty years before, was valiantly trying to modernize the Newfoundland economy. Schools were being regionalized. Teachers in the school system were now expected to have some university training. A school of engineering was established, hopefully to supply an offshore oil industry which at that time was still a glint in the government's eye. And thousands of young students, reared in the small villages that were called "outports," came to the city of St. John's, lived in university residences, and sat in our classes, expecting to be prepared for a job market that might be there when they graduated.

The job market would not be in the outports. The jobs that they hoped for would be in regional schools or in some of the growing centres of the island: St. John's, Gander (with its international airport), Grand Falls or Corner Brook (with their paper mills.) In one way or another, the students, in addition to being educated, had to be -- if I can use the term -- "re-contextualized."

Take the matter of language, for example. Many of my university colleagues claimed that too many of the students could not speak proper English. But that wasn't quite true. What they spoke was a dialect that was perfectly fitted for the life of the outport, a world of

rocks and trees and water and boats and nets and fish. From the perspective of the culture of the university, however, it was a language that seemed to have an inadequate vocabulary and a grammar with insufficient subtlety. It was a language that could not be used to express the nuances that are part and parcel of academic communication.

Now whether one deplored the poverty of the outport culture that our students brought to the classroom or whether one acknowledged that this was a noble, rich but different culture, the whole university experience was oriented to helping student to make the cultural transition to an sophisticated urban context. To live in an outport did not require a university education. But outport life -- at least as it had existed for the past 400 years -- was, so everyone assumed, destined to disappear. Consequently we expected students to learn our context, the context of the urban university. Our teaching was not particularly adapted to their culture.

To take another example: In the school in which I teach, we are increasingly getting students from east Asian cultures: Japanese, Taiwanese, Chinese and Korean. These students come with cultural expectations -- for example, concerning the authority of the teacher - - which differ from the expectations that we who teach regard as appropriate. They often have difficulty with English. Often they have different expectations about the use of sources, of what counts as "plagiarism." In the classroom setting, we expect these students to adapt. We expect them to develop adequate facility in English. We expect them to learn the North American rules concerning the use of sources. We expect them to learn "western" traditions in theology. Of course, if they can take all of that and recontextualize it for themselves, all the better. The point is, we do not do it for them. We expect them to learn the context that we assume when we teach: English, Western, North American, Urban.

In the last decade or two, schools have begun to develop programs which do not assume the norms of urbanity, the academy, the English North American context. For some years, the New York Theological Seminary has oriented its programs, its timetable, its

curriculum, to the Afro-American and Hispanic inner city context. United Theological Seminary in Dayton, Ohio has oriented much of its Doctor of Ministry program to the context of the Afro-American church. It is noteworthy, however, that most of the teaching in that program is not done by the resident faculty at United, but by leaders of the Afro-American church. At the Vancouver School of Theology, we have designed and implemented a special program to prepare people for ministry in the context of First Nations communities.

In these three programs, however, it is worth noting that the program works because the teaching of theology has been removed from its usual context in a residential campus. The context of the students is addressed, at least in part, by removing the teaching from its traditional academic setting and its expectations. Each of the programs use different strategies to pursue this goal. Let me speak of the two programs of which I have first hand experience.

The Dayton program addresses the question of context in at least four ways. First, it takes advantage of the fact that the Doctor of Ministry is an in-service degree. That is, by its very nature, the Doctor of Ministry usually focuses on a project that is designed for and implemented in the pastor's own context. Secondly, Dayton focuses most of its doctoral programs on the Afro-American church and recruits from that context. That is, for many of the programs, the context of learning is defined in advance as being that of the Afro-American church and culture. Thirdly, Dayton recruits its mentors from the same context. That is, most of the instruction is done by leaders of the Afro-American church. Finally, in the on-campus portion of the program, an intensive event of one week's duration held twice a year, the Afro-American culture dominates. That is to say, the non-Afro Americans who are enrolled in, or who teach in, Dayton's D. Min. program are very aware of their minority status. They are aware that their usual cultural assumptions do not necessarily apply here.

In the Vancouver Native Ministries program, there is a similar relocation of the context of learning. In designing the program, Vancouver recognized that to enroll in an on-campus degree program

is a culturally dislocating experience for most First Nations people. The program was thus designed to train leaders who had been identified by First Nations communities and who, in most cases, were already exercising pastoral leadership in that context. The Vancouver program was designed so that most instruction would be delivered to the students who were already actively involved in ministry in First Nations communities. While the instructional units are designed under the direction of the Vancouver School of Theology's regular faculty, most of whom have little experience of First Nation's culture, these courses are delivered to the students through the use of tutors who live in or near the student's home community. Once a year, the students attend an on-campus summer school where the great majority of students and some of the faculty are First Nations people. When, as often is the case, that instructional programs are designed and/or written by non-native people, the cultural application of the material is left open to be explored by the student in conversation with her or his tutor.

Let me recapitulate what I have been saying. First: The meaning of any communication, including instructional communication, is always influenced by context. Put conversely, communication is never a simple matter of the transfer of a determinate content from one mind to another. Second: Most of our experience of teaching has been formed by contextual expectations that may not, in fact, hold. Thirdly, there can be, and are, strategies for dealing more directly with the role of context in instructional communication. Furthermore, we are more likely to attend to those strategies in distance education than we do with classroom education. This leads me to my final point. In distance education we may attend to the context of the student. But we introduce another contextual variable that we may overlook in our instructional design. My final point is that in addressing context we must understand that the medium we use to communicate is an unavoidable aspect of the context that we must address.

It was Marshall McLuhan who, in the fifties and sixties, called attention to the power of media to shape what is communicated. For McLuhan, it was the medium itself, quite apart from the content that

a medium might carry, which constituted what McLuhan called "the message." McLuhan was challenging what he regarded as the dominant view of media current in the fifties and early sixties, the idea that the media operated as a neutral conveyor of content. Thus one could be concerned about the kinds of programs that television carried but not pay any attention to the impact of the medium itself.

For McLuhan, different media construct reality in very different ways. How media reconstruct reality is related to two different variables. The first variable is speed. How quickly do media work? Traditional media, with the exception of speech, were slow. The Electronic media are fast. A slow media separates the content from its reception. Thus a slow medium tends to place reality "out there" at a significant distance from the receiver. The electronic media, on the other hand, are immediate. The immediacy of a medium tends to involve the receiver in the content it mediates. Thus, the first world war was "over there, over there," while the Viet Nam war -- or the Gulf War -- unfolded immediately right in our own living rooms. Indeed, the night that hostilities in the Gulf War commenced I was amazed at my own reaction. I listened to the accounts of bombers and missiles bombarding Baghdad as I might listen to a football game. It was if I was listening to a play-by-play description and, within an hour or so the final score would be announced and the game would be over. During that evening, nomatter how I told myself rationally that this was not a football game, I could not shake that emotional response until I left the "play by play" account and settled for news summaries of the hostilities in the morning or evening news.

The first contextual variable that conditions the "message" of a media, then, is speed. The second variable is what McLuhan describes as the sensory ratio involved in communication. What this means is that any medium, when compared to any other medium, shifts the role of each of the senses in the way we encounter the world. Print, for example, involves a massive shift of the sensory ration through which we encounter reality to the eye. Print is primarily a visual medium. It requires the eye to do virtually all of the work. Radio, by contrast, is an auditory medium. It shifts the sense

ratio away from the eye and towards the ear. Since the seen world is quite different than the heard world, so the construction of reality which radio effects is quite different from the constructed reality of print.

When you those two variables together -- speed and sensory ratio -- the result is the kind of contrast that McLuhan was concerned to document between the world of print -- the so-called "Gutenberg Galaxy" -- and the rapidly emerging world of television -- the so called "global village." (It is worth recalling that when McLuhan published *Understanding Media* in the early 60s, television had been available in Canada for barely ten years.) Print, a slow, visually oriented medium, created a world that was objective, linear, rational. Television, by contrast, was fast and what McLuhan called "tactile" (a word that McLuhan used to denote the integration of the senses rather than the specialized sense of touch. In contrast to print, television immersed the viewer in the world it constructed. It provided a holistic, organic reality.

In McLuhan's analysis of media, it is not just the obvious features of a medium that we need to attend to. To compare television and print is not just to compare the moving image on a screen with static characters on a page. Just as important in considering the context that a medium constructs for communication, are the subconscious ways that our senses deal with the data. Thus, in silent reading, our eyes have learned to scan a printed page without engaging the rest of our bodies. That is, we become accomplished silent readers when our vocal cords make not the slightest response to the words we read. Only our eyes engage the text. With television, by contrast, our senses are constantly creating a picture out of a dot rapidly moving on a cathode ray tube. Our senses are constantly "filling in" for the low definition signals we get from the screen. In short, at the unconscious level even the dullest program on television involves us in a way that even the most thrilling piece of printed prose cannot match.

For most of us, I imagine, our understanding of education has been formed primarily by the medium of print. What can be known can

usually be put on a printed page. On the printed page it can be read by the student and recalled when necessary for evaluation. The lecture owes much to the expectations of the print medium. Like a printed text, a good lecture is designed to begin at one point, to develop an argument in a series of more or less well ordered steps, and come to an end. It may be interrupted by questions, introducing an interactive element that is not always available in print. But it is usually the case that a lecture could be transferred to a printed page with little difficulty. This, at least, is the model of education that dominates in schools and universities -- where students are expected to be evaluated and, on achieving sufficient mastery of the content of the curriculum, eventually graduate. In continuing education, perhaps, we achieve somewhat more freedom from the print model. We engage in events that are focus on specific skills, which usually cannot be adequately conveyed by a book but require more of an apprenticeship relation of student to teacher; that require practice -- under supervision -- of the skill that the student hopes to acquire. Alternatively, our educational events may focus on what we call experiential education, that seek not to transmit a body of material but seek more to broaden a student's experience. For these kinds of education we might say that our basic paradigm of communication is the face to face conversation.

When we seek to use electronic media in education, then, we are moving into unfamiliar territory. We move cautiously. We bring films and videos into the classroom, not to recontextualize our education but as audio-visual aids to what is basically a textual or a conversational educational model. When we use television as a medium of communication, we attempt to use it to replicate a textual or conversational experience. At its worst, we use television to import the talking head of the lecturer into the living room of the student. Even the best educational television -- and I think here of Bill Moyer's Genesis as a current example -- simply allows us to sit in on the conversations of the experts.

What all of this means is that we have not yet understood the electronic media as a new context for education. Furthermore, we are not likely in our generation to understand them well, to allow

them to shape our understanding of what our new context is. This is not because we are particularly dense and obtuse people. It is, rather, because we always understand new media on the basis of our experience of the old. We can only hope to begin the process. We can best do this, not by bringing the media into our classrooms but, rather, by bringing our classrooms -- our teaching space -- into the new media. It is for this reason why distance education is so important. If it is true, as I have argued, that distance education has helped us to be serious about the context of the student, distance education also, I believe, will help us to be serious about our context of communication.