

Technology and Interpretation: A Footnote to McLuhan

"The Medium is the Message." Thus spoke Marshall McLuhan. McLuhan's cliché for the 1960s pointed to a close connection between the technologies we use, on the one hand, and the way we experience and understand the world, on the other. We exist in a symbiotic relationship with our machines. We create machines. In turn, our machines re-create us. We create a technology. The technique mediates between us and our world. It transforms both our world and ourselves in such a way that we become dependent on the machines we have created. We may improve on our machines. We can no longer dispense for them. The human race existed for eons without telephones. Yet, having integrated the telephone into our lives, the telephone has made itself indispensable. It has transformed us. It has transformed the world. We can no longer live without it.

The relationship that exists between the human spirit and the artifacts of human creativity can be described as an organic relationship. We create our machines in our own image. However, in the intimacy that exists between ourselves and our creations, we are constantly being recreated in the image of our image. We integrate our technologies into even the most spiritual dimensions of our lives. It is not only our material environment that is transformed by our machinery. We take our technology into the deepest recesses of our souls. Our view of reality, our structures of meaning, our sense of identity - all are touched and transformed by the technologies which we have allowed to mediate between ourselves and our world. We create machines in our own image and they, in turn, recreate us in theirs.

Some of the mechanisms by which we internalize our technologies have been named by McLuhan. According to McLuhan, machines are extensions of the human body. The wheel, he said, is an extension of the foot. Print, he claimed, is an extension of the eye. A telegraph system is an extension of the central nervous system. Our machines allow us to reach out beyond the limits of our flesh. Our machines alter the ways in which our senses feed us information about the

world beyond. You will remember the myth of Narcissus, how Narcissus was mesmerized by his own reflection. Our machines offer us an image of ourselves -- an image, which like the reflection of Narcissus, can hold us transfixed in self-adoration.

The value of the work of McLuhan is that it does not allow us to treat the way we mediate between ourselves and our world as if it were something incidental to ourselves and the world we mediate. What we see in the world is a function of the way we see it. The mediation of meaning, then, is a function of technology.

Interpretation is concerned with meaning. Meaning is intimately related to technology. I do not mean that in any reductionist sense. Meaning is not reducible to technology. Meaning is only mediated by our technology. Technology does not create meaning. What technology does is to transform meaning. For that reason, technological awareness needs to lie at the very centre of the hermeneutical task.

McLuhan spoke of the "Gutenberg Galaxy". Galaxies are always complex, and so is McLuhan's thesis. The "Gutenberg Galaxy" consisted of the complex social, intellectual, cultural and, indeed, even spiritual changes that accompanied the introduction of printing in western culture. The "Gutenberg Galaxy" was not produced by print. A careful reading of McLuhan's work reveals how many of the constellations in that galaxy predated the introduction of movable type into Europe. McLuhan's thesis is not the reductionist one that would claim that the mechanistic world view was the direct causal effect of the print technology. If anything, for McLuhan, print, as a technology, is the catalyst that allowed the emerging mechanistic, linear, individualistic tendencies of the modern period to become the integrated, dominant pattern of its time.

In the world of print, everything needs interpretation. Print objectifies the word. The word was born as pure sound. Through technology the word was slowly transformed into an object of sight. First the word is spoken. Then it appears as a symbol, a pictograph that recalls the sound. Next, in the phonetic alphabet, the word takes a form can be

readily translatable - from sound to sight and back to sound. In print, sound becomes redundant. The printed page makes silent reading possible. The word is now fully objectified. It exists on the printed page, quite independently of any speaker, any hearer. The sound of the word no longer matters. The word is an object, indifferently available to any subject.

Print creates the need for interpretation. Hermeneutics is a necessity for literate human beings. Interpretation is required by print precisely because print decontextualizes the word. That is precisely the result of the objectification of the word. When the word is extracted from its birthplace in the human voice, when it is placed on a page in black and white, then the word no longer has a context. The meaning of the printed word becomes a problem, even for its author. Once a word is printed and circulated, it is available to be recontextualized by readers in different times and place. And as it is recontextualized, even the author may lose the certainty of what contexts are appropriate and what are not. A replaceable context is something that can be celebrated, as in printed poetry, or deplored, as in fundamentalist exegesis. When the word is available without a context; when the word is available for many contexts, then hermeneutics is necessary as a mediator of meanings in conflict.

Print is unidimensional. Print is. It exists in splendid objectivity on the printed page. The simplicity, the stark objectivity, the fixity of the printed word transfers itself to meaning. As we encounter the word objectively, we look for a meaning that corresponds to it. We imagine that the objectivity of the word must be accompanied by an objectivity of meaning. We look for the meaning of a text that matches the unity and objectivity of the printed word.

The hermeneutical crisis of print begins in this search for the single meaning of the single text. Gutenberg transferred the sacred text from the illuminated manuscript to the objective, and duplicable, printed page. Where the manuscript had produced an intimacy between the copier/reader and the word, the printed text was quite objective. The Reformation and Counter Reformations can be understood, from this perspective, as a struggle to determine who

would control the definition of the objective meaning of the text, a meaning which corresponded to the objectivity of its printed form. Would the single meaning be defined by the magisterium? Would it be revealed by the Holy Spirit through the devotional life of the pious reader? Or would it be defined by the new class that would be created by the print culture: the objective scholar? Protestantism, in affirming the new power that the printed word would put in the hands of ordinary people, opposed the claims of the traditional ecclesiastical elite to control the meaning of the sacred word in its new printed form. But by insisting on a single literal sense of Scripture, Protestantism ended by supporting the claims of a new elite -- the objective, critical scholar -- to define the single meaning of the single text.

Critical scholarship attempted to resolve the hermeneutical crisis by positing an original context, which, if properly reconstructed by historical science, would determine the single "literal meaning" which the theology of the Reformation had posited. In banishing allegory from interpretation, only historical science could provide the objective context that would endow the objective word with objective meaning.

It was left to visionaries like Pascal and Kierkegaard to see the flaw in this approach. In his brilliant expose of objective critical scholarship, the Kierkegaardian pseudonym, Johannes Climacus, identifies the ultimate failure of an objective, critical hermeneutical enterprise. Faith, according to Climacus, is an "infinite passionate interest in one's eternal happiness". But, Climacus objects, in the scientific spirit that dominated objective critical scholarship -- indeed, which has dominated modernity -- we became so objective that we no longer had an eternal happiness!

It was ironic that precisely at the time that McLuhan was calling attention to the objectivist bias of print, emerging departments of religious studies were attempting to prove the "objectivity" of the scientific study of religion. While this apologia for the objectivity of religious studies was being urged on secular university faculties, scholars like Wilfred Cantwell Smith were arguing that to objectify religion was to falsify it. As the radical movements of the late 1960s

came to dominate campus life, teachers of religious studies vacillated between the role of objective scholar, apparently demanded by the academy, and the role of guru, apparently demanded by the times.

The hermeneutical crisis of print is behind us. What Johannes Climacus could see in the mid 19th century was becoming apparent to all by the late 20th century. For all the values of objective scholarship, we are finding it more and more difficult to believe that objective scholarship defines the real world. The idea of an objective meaning of an objective word is the illusion of a world that no longer dominates us as it once did.

Marshall McLuhan described our situation as having come under the dominance of a new technology, the electronic media. The complex that McLuhan attempted to describe as the product of the implosion of electronic technology is now familiar to us under many names. McLuhan's world of print was masculine, mechanistic, atomistic, left brain. The world of electronic technology is described as feminine, as organic, as holistic, as right brain.

The crisis of print for hermeneutics is a crisis of the past. Instead we are faced with a crisis of the electronic technologies. In place of a content in search of a definitive contexts, our crisis now is the reverse. Now we must deal with contexts in search of content. Today there is no solid, stable text to be placed in contexts of interpretation. Today we must interpret contexts, often in complete abstraction from any content at all.

To the objective scholar whose concern was the interpretation of text, the electronic media represented the unscholarly, the unscientific. Print was designed to convey fact, solid stable fact. Print could hold a proposition, freeze it so that it could be studied, dissected, verified. The electronic media were designed to convey news, information that moved so quickly that by the time it could be confirmed or denied, it was no longer news. The content of the electronic media, as they developed from the code of the telegraph into the sound of radio to the images of the cinema and TV, constituted performance more than it did description. The electronic

media did not describe a world as much as they evoked it. What could be published was eclipsed by what could be produced.

In a sense, the hermeneutical task of an electronic world involves the interpretation of contexts. In Europe, a new science, semiotics, extended the task of interpretation from the printed word, to the artifacts of technology itself. Roland Barthes and others took the objects of our culture, from cars to cola, as systems of signs to be studied and interpreted. The media of communication themselves, radio, cinema, television, become objects of interpretation quite independently of whatever content they might have. It is not the programs that appear on television, but television itself, that poses the primary hermeneutical problem for interpreters of the contemporary world.

The electronic media, we might think, have the power to render text archaic. With the availability of information in many non-textual forms, the need for universal literacy does not seem as compelling as it once did. One does not need to read in order to be informed about the world beyond one's immediate experience. One does not need to read a newspaper in order to be informed about the events of the day. Radio, television and their respective storage devices - the audio tape and the VCR - greatly reduce the importance of text in the culture at large. The use of text becomes an anachronism and those who work with text become cultural eccentrics. The compelling need for interpretation created by the printed word loses much of its force.

In the electronic media, then, print loses its place as the primary information medium. In the process, performance replaces rational argument as the primary mode in which information is presented. The critical review of a performance rather than the interpretation of an argument becomes the primary mode of reflection on the information we receive.

In spite of these appearances, text has not disappeared. In a sense, text has been given a new lease on life by the computer. The computer deals with text easily and naturally. Instead of reducing the text we must use, computers actually multiply text. Sheet after sheet

of textual material is spewed out of dot matrix and laser printers, the product of the remarkable multiplication of text that computers make possible. When we begin to use computers in any regular and systematic way, we soon find that we are overwhelmed with text. We have more text than we can absorb. We become the victims of information overload.

As long as we deal with text, we need to be involved in interpretation. Interpretation, of course, can be extended far beyond the world of text. It is text, however, the printed word, that provides us with the central paradigm of interpretation. Outside of text, hermeneutics tends to become indistinguishable from aesthetics. Without text, it is unlikely that we would pay much attention to what we call hermeneutics. It is not that the problems addressed by hermeneutics would disappear. It is that hermeneutical questions would seem much less important, that they would rank very low on our list of intellectual priorities.

The computer, then, tends to restore a central place in our culture to text. With the democratization of the computer in the form of the personal computer, we find the culture shift away from print reversed. In its re-emphasis of text, computerization raises questions of whether the new technology will fundamentally change our relation to text. What form does the interpretation of text take in a digital culture?

When text takes the form of the printed word, it becomes objectified. Printed text is "out there". It is an object of observation. The distance between the subject (author or reader) and the object (the word) is emphasized. The printed word is a completely visual object.

McLuhan uses the word "tactile" to describe media that contrast with print. Print is not tactile. Electronic media, however, are tactile. By "tactile," McLuhan does not mean that the electronic media involve the sense of touch rather than the senses of sight, sound, smell and taste. "Tactile", in McLuhan, refers to the integration of the senses. When McLuhan calls television a tactile medium, he means that television does not involve a single sense. Rather, television draws

the whole person, with all of his or her senses, into an involvement with the content of the medium. Print isolates the sense of sight. A tactile medium, like television, works by integrating the senses rather than isolating them.

If we are to use McLuhan's terminology, then, we can describe what the computer does to text as making text tactile. Through the computer, we become involved with text in a way that is not possible with print. With the computer, I do not observe a text. I enter into a text.

The way that the computer de-objectifies print could be illustrated in a number of ways. It is perhaps simplest to consider the operation of a word processor. The ways in which we relate to text through a word processor are, with minor differences, true of a wide range of computer applications. The word processor is not so much a specialized way of using text with a computer. Rather, the word processor is an expression of the way in which a computer mediates text to a reader/writer. Word processors make explicit what computers do with and to text.

A word processor, it should be noted, can be used both for reading and for writing. We may think of word processing primarily as a tool for writing. In fact, the technology is indifferent to the purpose for which it is used. A typewriter is, quite unambiguously, a tool for writing. A microfiche projector is, just as unambiguously, a tool for reading. A word processor can be either. Like a typewriter, I can use a computer to create text. But like a microfiche reader, I can use a computer to translate the text from its unreadable stored form (magnetic signals on a disk) to a form in which it can be read.

In the print medium, there is a clear contrast between an author of a text and the reader of the text. The role of the author is clear. The author creates and revises text. The author shapes the text into its final form as it appears on the printed page. The "author", here, may in fact be a group of people, including editors, typesetters, printers. The act of creating text need not be the act of a single individual.

The act of authoring is, however, clearly distinguishable from the act of reading.

One of the first things one experiences in using a word processor is the way in which the technology changes the relation of the author to the text. Before the computer, the act of creating text was primarily a linear one. One started a text at the beginning and proceeded through to the end. Revision of text tended to be messy. That is, to revise text one had to interfere with the linear flow. One would cross out, write in the margins or between the lines, cut and paste with real scissors and real paste. With a computer and word processing software, however, one can start a text anywhere and let the text grow. One can revise text by entering into it. Moving text, inserting or deleting text is neither messy or difficult. The result of editing is seamless. The flow of the text is uninterrupted by the editing process.

What may not be obvious to the novice user of word processing software is that the medium blurs the difference between an author and a reader. If I wish to read a text that is stored magnetically on a computer disk, I load it into my text editor or word processor in a manner that is identical to the way I would load a text that I am in the process of creating. Once loaded, I can treat the text in exactly the same way as a text I am authoring. I can insert, delete, cut, paste. I can split the screen of my computer console so that I can compare two parts of the text at a single glance. As a reader, the medium allows me to relate to a text in a way that is identical to that of an author. The medium simply does not recognize the distinction.

The relation of subject (reader/writer) and object (text) is much more intimate with the computer than with the print medium. I relate to a text on a computer with my fingers as well as my eyes. Text becomes, in McLuhan's terms, "tactile". The text becomes an extension of myself. I can manipulate text as if it were a part of my body.

We always understand a new medium in terms of older media. Consequently we begin to think of word processing in terms

borrowed from the world of the typewriter. We think of data retrieval in terms borrowed from libraries. We think in terms of the separation of the functions of reading and writing. In our relation to digital technologies, we are still at the stage of seeing digital text through eyes conditioned by centuries of familiarity with print. What needs to be clear is that digital text is not print. Our relation to text in a digital culture will be very different to the relation that was created by print technology. The task of interpretation, then, will be very different as the computer comes to replace print as the primary means with which we engage text.

Knowing that interpretation will be different in a digital culture than it has been in a print culture is not, however, to know how it will be different. In a sense, that is too early to tell. It is only as we gain distance from our conditioning by the assumptions of print that we can begin to see the shape of the new hermeneutics with any clarity. We are not yet far enough into the computer revolution for that clarity to be possible. It is possible, however, to attempt some informed speculation.

First: As we relate to text through computer technology we will be less inclined to look for the meaning of a text. As the text appears to us less and less as a given, objective "thing", the idea of an objective meaning of a text will become less compelling. It can be argued, of course, that the best hermeneutics has long since given up any objectivist theory of meaning. That being granted, we must recognize that all of us who have been reared in the world of print, somewhere deep inside, feel that there should be an objective meaning of a given text. That prejudice of print, we may expect, will be eroded by computer technology.

Second: The objective givenness of the printed text has carried with it a sense of authority. The text can carry a sense of authority because it is "given". The printed text is solid, unchanging, real. If one could invoke a sense of authority in pre-print cultures with the phrase "It is written...", the medium of print intensified the aura of authority that attached to text. In a digital world, the sense of the unapproachability of text, that gives it its aura of authority, is

destroyed. With the computer, the text is always tentative. When one can manipulate the text at will, its aura of objective solidity disappears. In this medium, I control the text. The text does not control me.

Third, the computer invites a reader/writer into a playful relationship with the text. That is, on the computer, the text becomes a playmate to the reader or writer. The text takes on a plasticity like that of clay to the potter. It can be moulded and remoulded. It can be twisted, re-ordered, restored. The meaning of a text, consequently, is as malleable as the text itself. The task of interpretation becomes that of imagining new meanings, of stretching interpretations to see how far they can stretch. To make new hermeneutical shapes out of old materials.

Protestant interpretation of scripture has developed hermeneutical traditions that were well suited to the print medium. Print and Protestantism grew up together. The Protestant slogan " sola scriptura", the Protestant insistence on a single literal meaning of the text of scripture, the ecclesiology that emphasizes the community gathered for the hearing of the word and the way in which that ecclesiology relates Bible, pulpit and people -- all bear the marks of the influence of print. Protestantism is not solely the creature of print. That would be to ignore the spiritual dynamics of the Reformation period. Nevertheless, the print medium became a central factor in the shape that the Protestant Reformation eventually took. Classical protestantism can aptly be described as the spirituality of print.

Our analysis of what computers do with text would seem to indicate that the traditional ways that Protestantism has gone about its hermeneutical task has undergone strain and will continue to undergo strain under the impact of the electronic media. At one level, the electronic media threaten to abolish text. This pressure expresses itself ecclesially, for example, in attempts to substitute multi-media celebrations for the proclamation of the Word. If this were the only effect of the electronic media, then the future of hermeneutics as a tool of theology would be very bleak indeed. However, as we have

argued, the marginalization of text appears, from the point of view of computer technology, to be only a stage in the development of electronic media. With the reemphasis of text by computer technology, a reemphasis of text in our institutions, including the church, is not an unlikely result.

The new emphasis of text, will not, however, be like the old. The points of stress are clear. The hermeneutic of print has tended to move in an authoritative, literal, and historical direction, attempting to infer the present significance of a text from its original meaning. A hermeneutic of digital technology is likely to resist that direction and to stress in its place a more playful interpretation of what the meaning of the text might become. In the process, our understanding of the authority of the text will undergo a profound shift. Authority will not disappear. But in place of a heteronymous authority of the original context, the authority will be one that emerges out of the covenant of our play.

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