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978-0-521-17944-7 - A History of Communications: Media and Society from the Evolution of Speech to the Internet

Marshall T. Poe

Excerpt

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## INTRODUCTION

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# MEDIA CAUSES AND MEDIA EFFECTS

The premises with which we begin are not arbitrary ones, not dogmas, but real premises from which abstraction can only be made in the imagination. They are the real individuals, their activity and the material circumstances in which they live, both those which they find and those produced by their activity. These premises can thus be verified in a purely empirical way.

– Karl Marx, *The German Ideology*, 1845<sup>1</sup>

In 1846, Karl Marx surveyed the philosophical scene in Germany. He was not happy with what he saw. The thinkers of his day, he complained, had mistaken speculative philosophy for hard science. They loved to play with ideas, but they never quite got around to testing them in the real world. The result was a thick bramble of vague concepts, imprecise notions, and fuzzy impressions that, while perhaps entertaining, never really added up to a concrete theory of anything. Marx thought these philosophers were doing their countrymen a disservice. Things were changing rapidly, and people needed to understand why. He therefore set about trying to explain these ongoing changes by means of a rigorous, empirically testable theory of history.

A similar situation obtains today in communications studies. The most influential thinkers in the field are, like the philosophers of Marx's day, a bit too fond of high-flown ideas and not fond enough of the solid facts. They propose theories that are at once hard to understand, difficult to test, and sometimes just plain wrong. These deficiencies are unfortunate because, as in Marx's era, things are changing rapidly. In the last quarter century, we have witnessed a rare event in human history: the birth of a new medium, the Internet. Although pundits tend to exaggerate its impact, it is certain that that impact is significant. The

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Internet has changed the way we work, what we consume, how we play, whom we interact with, how we find things out, and myriad other details about the way we live. Yet we don't have a good way to understand where the Internet came from and what it is doing to us, so we are to some degree adrift.

This book is intended to help us find our way by means of two theories about the media in general and the Internet in particular. The first endeavors to explain why successive media – speech, writing, print, audiovisual devices, and the Internet – arose when and where they did. The second endeavors to explain what these media did and are doing to the way we organize ourselves and what we believe. In this introductory chapter, we will begin by discussing existing theories of media causes and effects, all of which, save one, are deficient. We will then turn to the single exception, the theory of media genesis and effects propounded by Harold Innis. Finally, building upon Innis's ideas, we will lay out the theories that form the backbone of this book.

### MARSHALL McLuhan

Any discussion of media theory must begin with Marshall McLuhan, if only because he coined its most famous expression – “the medium is the message.” Everyone knows this cliché, everyone repeats it, but, alas, few agree on what it means or whether it's true. The same might be said of McLuhan's writings generally: they are widely known, they are widely read, yet they provoke as much head-scratching as comprehension. By all accounts, McLuhan was an adventurous, inventive, and imaginative thinker, but he didn't write very clearly. Here he is, for example, explaining “the medium is the message” in 1964.

In a culture like ours, long accustomed to splitting and dividing all things as a means of control, it is sometimes a bit of a shock to be reminded that, in operational and practical fact, the medium is the message. This is merely to say that the personal and social consequences of any medium – that is, of any extension of ourselves – result from the new scale that is introduced into our affairs by each extension of ourselves, or by any new technology.<sup>2</sup>

How should we understand this crucial passage? With a bit of effort, we can find the central hypothesis of all media studies – that media do *something* to us. Here McLuhan says they have “personal and social

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consequences,” a promising start. You might think that the next sentence – or at least one nearby – would be something like “and those consequences are . . .,” followed by a series of empirical claims. This medium does this, this medium does that, and this medium does the other thing. If you had such an expectation, you would be disappointed. Reading on, however, you would encounter random nuggets like “An abstract painting represents direct manifestation of creative thought processes as they might appear in computer design,” and “Alexis de Tocqueville was the first to master the grammar of print and typography.”<sup>3</sup> Yet, search as you might, you will find no clear, well-articulated theory linking specific causes – kinds of media – with specific effects – “personal and social consequences.” Perhaps such a theory could be constructed out of carefully selected passages in McLuhan’s oeuvre, but it would be a bit of a Frankenstein’s monster – an unholy composite of parts never intended by their maker to be united in one being.

McLuhan, then, was not really a theorist in any straightforward, empirical sense. Nonetheless, we should recognize that he made a crucial contribution to media studies and therefore our project: he focused scholarly attention on the media themselves – talking, writing, printing, electronic signals – as opposed to the information the media convey. He separated the medium from the message and, in so doing, founded the central program of modern media studies, that which attempts to describe and explain the effects of media on the human mind and human groups. Nearly all researchers in media studies pursue some version of this program today. A number of reasonably coherent “schools,” however, stand out: the Mentalist, the Marxist, and the Matrixist.

## THE MENTALISTS, THE MARXISTS, AND THE MATRIXISTS

The Mentalists – Walter Ong, Eric Havelock, and Jack Goody being the best-known among them – are united in the conviction that media in general and literacy in particular make people think differently.<sup>4</sup> Learning to read and write, they propose, rewires the brain and enables new cognitive abilities. This was and remains a sensible, sexy hypothesis. We know that the brain undergoes radical changes during maturation, and as it does, new mental capacities emerge. Children can’t talk and then they can. They can’t reason and then they can. They can’t do arithmetic and then they can. Learning to read and write – and by extension

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learning to use any other medium – must do something to our minds. It's true, it must. The difficulty is discovering just what that may be. If media are the cause, then what are the cognitive effects? The answer would seem to be simple enough: new modes of thought. But what are these “modes of thought”? How many are there? And what exactly differentiates them? The Mentalists often answer this question by positing dichotomies: “civilized” versus “savage” thought, “rational” versus “irrational” thought, “logical” versus “illogical” thought. These dualities are not very specific, but they do have the virtue of being real and therefore observable. Take the last of them, logical versus illogical. There is indeed something very specific called “logic”; it is used by the human mind to think; and it is unevenly distributed among humans – some people reason logically and some don't.

Logic, then, presents a clear test of the Mentalists' thesis that media change the way people think. If literacy causes logic, then the Mentalists are right; if not, they are wrong, at least as far as the impact of literacy is concerned. Careful anthropologists have run this test in the field and the results are definitive: there is no direct, causal relationship between learning to read and write and the cognitive capacity to think logically.<sup>5</sup> Teaching people to read and write has a significant impact on their ability to read and write, but not necessarily on their ability to reason. This result, of course, doesn't mean the Mentalists are incorrect on all counts. We may yet find ways in which media mold the mind. At present, however, we don't know of any.

While the Mentalists pursue the cognitive side of McLuhan's program, the Marxists and their modern followers, the Critical Theorists, investigate the macro-political side. The founders of this line of inquiry – Theodor Adorno, Max Horkheimer, Herbert Marcuse<sup>6</sup> – were practitioners of “media studies” *avant le lettre* and *avant* McLuhan. They were interested in a lot of different things, but one of their central concerns was to explain the persistence of capitalism long after Marx predicted it would collapse. Their disciples are still mining this vein.<sup>7</sup> The *marxisant* Critical Theorists are much less focused, though it would be fair to say that they are concerned with comprehending the way capitalist mass media engender and maintain various forms of illusion, alienation, and oppression.<sup>8</sup> The idea of a “Culture Industry” is central to the Marxists and Critical Theorists. Simply stated, the Culture Industry thesis holds that the late capitalist mass media turn people into

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obedient consumers, making them willing victims of exploitation, and thereby ensuring the survival of capitalism itself. In Marx's day, religion was the opiate of the masses; in our day, the Marxists and Critical Theorists claim, it's the mass media.

Like the Mentalists' literacy thesis, the Culture Industry thesis has the cardinal virtue of being testable. If we find that the presence of mass media hinders the development of socialist (or, generally, noncapitalist) institutions, then they are right; if not, they are wrong. Over the past half century this test has been run all over the world, and again the results are unmistakable: the presence of mass media has no discernable impact on the likelihood that a region will drift to the left. After World War II, Western Europe evolved a sort of free-market socialism; the United States did not. Since both had robust Culture Industries, we can conclude that the mass media had no determinative effect.<sup>9</sup> The Marxists and Critical Theorists are certainly correct that the media affect society. It's just that their theory is unable to describe or explain those effects.

The third school might be called "Postmodernist" or "Poststructuralist," but those tags are too broad. A more telegraphic tag would be the "Matrixist School," after the popular 1999 science fiction film *The Matrix*. The film portrays a universe comprised of a real part (the earth) and a computer-simulated part (the Matrix). Humans actually exist in the real part in life-support pods. They, however, don't know this. As far as they're concerned they live in a modern city circa 2000. But their city is only a very sophisticated representation. In short, the "residents" of the Matrix are brains in vats. The writings of Jean Baudrillard in some measure inspired the film.<sup>10</sup> In essence, Baudrillard argues that modern media have produced something like the Matrix.<sup>11</sup> Thanks to mass communications, Baudrillard says, we no longer live in a real world where representations refer to realities. Rather, we live in a media-created world where representations only refer to other representations. Of course, like the people in the fictional Matrix, we don't realize we are brains in vats. Thus, Baudrillard overturns McLuhan: the medium is no longer the message, but instead the technology that obscures all *real* messages.

It's hard to know what to make of Baudrillard's theory. It rests on a solid empirical foundation: people are sometimes fooled into thinking that representations are real. But, like the Marxists, the Matrixists seem

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to go too far.<sup>12</sup> Media are powerful, but they are not all-powerful. Most people have no difficulty distinguishing reality from representation, even when the latter is presented by fancy modern devices. Is there anyone who thinks that “Reality TV,” for example, is reality in the full-blooded sense? Moreover, most people realize that the media can be used to trick them. Everyone knows not to “believe the hype” produced by the media. Hollywood is the “Dream Factory,” not the “Reality Factory.” The key question, empirically speaking, is this: How effective are different media *qua* media at deceiving people, or rather, at prompting them to confuse representation and reality? The Matrixists never pose this question, so they never answer it.

## HAROLD INNIS

McLuhan pointed media studies in the right direction by telling us that media themselves – not the information they convey – do something to us, but he refused to be specific. The Mentalist, Marxist, and Matrix schools are specific, but their theories are empirically unsatisfying. If we desire a convincing theory of media effects, one that will explain the impact of media generally, then we will have to look elsewhere.

Fortunately, there is someplace promising to look, namely, to the neglected work of Harold Allen Innis. Innis was a peculiar figure.<sup>13</sup> He worked as an economic historian at the University of Toronto, where McLuhan was a student and later a professor. All of his early writings suggest a cast of mind that was profoundly different from McLuhan’s. The titles of Innis’s early monographs tell us much of the man: *A History of the Canadian Pacific Railroad* (1923), *Fur Trade in Canada: An Introduction to Canadian Economic History* (1930), *Cod Fisheries: The History of an International Economy* (1940).<sup>14</sup> These works were exercises in economic empiricism, not abstract engagements in high-flying theory. Believe it or not, they turned Innis into an academic celebrity. He was perhaps the most respected scholar in Canada in the prewar years, the celebrated founder of what is still known as the “Staples Theory” of Canadian economic development. In the early 1940s, Innis began – predictably enough – to study another staple of the Canadian economy, pulp and paper. This research, however, led him in a new and unforeseen direction.

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Although all of Innis's writing had focused on Canadian economic history, he was an admirer of grand historical thinkers such as Oswald Spengler, Arnold Toynbee, Alfred Kroeber, and Pitrim Sorokin, all of whom had written well-received books charting the rise and fall of civilizations.<sup>15</sup> By a peculiar connection, pulp and paper gave Innis the opportunity to try his hand at this sort of universal narrative. In the 1930s, two Classics scholars, Milman Parry and Albert Lord, set about trying to prove, *horribile dictu*, that the works of beloved Homer were first sung by ancient, pre-literate bards and only much later written down.<sup>16</sup> To demonstrate this outrageous thesis, they needed to show that something of Homeric complexity, beauty, and length could be composed and vocalized by unlettered minstrels. So they traveled to the Balkans to record singers who, so it was said, still sang long heroic tales. Sing they did, and Parry and Lord rocked the world of Classical scholarship by demonstrating that "Homer" might have been an oral tradition rather than a great writer. The traces of what came to be known as "orality," they showed, were evident in the written versions of the *Iliad* and the *Odyssey*. The buzz about Parry and Lord's research could be heard in Classics departments all over the world, including that at the University of Toronto. Innis knew people there, and knew them well. Whether Professors Charles N. Cockrane or Edmund T. Owen introduced Innis to Parry and Lord's revolutionary work is not known, but they are credited by Innis himself with stimulating his "interest in the general problem" of communications history.<sup>17</sup>

Whatever the source, Innis realized that Parry and Lord's primary theoretical finding might be fruitfully extended: communications technologies might not only shape content, as orality had shaped the *Iliad* and *Odyssey*, but they might also mold the societies in which they were deployed. Over the next few years before his tragic death from cancer in 1952, Innis explored this hypothesis with respect to two questions: (1) How do new media arise? and (2) What do different media do?<sup>18</sup> His answers, we hope to show, were in the main correct.

## WHY MEDIA ARISE

Innis proposed that new media were "pulled" into broad use by rising demand, not driven by rising supply. Demand comes first and supply follows. This theory has been validated by scholars studying the more

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general process of technical innovation, adoption, and dissemination.<sup>19</sup> Thanks to their work, we know what might be called the “rules” governing the discovery of a new tool, its initial use, and its spread through a population. As we will see, new media follow these rules rather exactly.

*Rule 1: Groups of tinkerers discover new technologies.* How are new technologies conceived? We sometimes say that protean geniuses – your da Vincis, Edisons, and Oppenheimers – come up with them, but that’s wrong. These folks were smart and creative, but they had a lot of help.<sup>20</sup> Others were on the “trail of discovery,” and some were quite close to the end when *the* discovery was made. Alas, we forget about them in our haste to create idols. We also sometimes say that “necessity is the mother of invention,” but that’s wrong too. Clearly, something impels people to create, but we know it’s not necessity.<sup>21</sup> For the first 170,000 years of human existence we lived under dire necessity – thirst, hunger, disease – yet we invented almost nothing. Alas, we seem to have forgotten that as well. What the record shows is that groups of interested people – tinkerers – almost always stand behind the discovery of new technologies. Tinkerers do not work alone, and they do not work because they must. They work together with others on problems that may or may not be “objectively” important.

*Rule 2: Tinkerers can only discover the technologies in their technome.* We like to talk about technological “leaps,” moments at which we jump from now into the future. This is a flattering metaphor, but it’s inaccurate. Like evolutionary change, technological change is almost always incremental. Darwin said *natura non facit saltum*; we should say *technologia non facit saltum*. Indeed, the parallel is quite close. One of the principles of biological evolution is that the potential of a species to evolve new traits is constrained by its genome, that is, the set of genes it has available. It might be evolutionarily advantageous for your progeny to have wings, but it’s simply not possible given the genes *Homo sapiens* has to work with. The same principle holds for technological progress: the potential of tinkerers to invent new technologies is constrained by their “technome,” that is, the set of technologies (in the broad sense) available to them. Leonardo and his colleagues probably would have been pretty excited about building an A-bomb, but the technome they were tinkering with didn’t have the technologies needed for them to conceive, let alone build one. As in all things, you can only do what you can do.

*Rule 3: Technological supply does not produce technological demand.* We generally say that new technologies are invented because people find them useful. That, however, is not quite right. If it were, then we wouldn’t find that the supply of useful tools almost always outstrips demand for useful

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tools. For most of our history we've had what amounts to excess technical capacity: we can build more tools than we can use. The reason is that tinkerers do not always – or even very often before modern times – produce new technologies because they think anyone will use them. They know that if you build it, sometimes they will come and sometimes they won't. But they build it anyway, creating the aforementioned excess capacity.

*Rule 4: Technological demand, if unfocused, does not produce technological supply.* We generally say that new technologies enter mass use because a lot of people want them. That, however, isn't quite right either. If it were, then we would find that mass demand for useful tools always translates into mass supply, and it doesn't. That's because technological demand is often unfocused. For a whole variety of reasons, new tools generally cost more and are worth less when they first appear than once they have been adopted en masse.<sup>22</sup> This is another way of saying that the barrier to early adoption is higher than the barrier to late adoption. The problem is that the barrier to early adoption is often too high for individuals, even if there are a large number of them. Thus, for want of early adopters, the new tool never enters mass use.

*Rule 5: Only organized interests can produce the demand necessary to “pull” a new technology into mass use.* We live in an individualistic age and therefore think individuals make history. They don't – at least not technological history. Only what we will call “organized interests” can make technological history because only they can overcome the barriers to early adoption mentioned above. Individuals are too poor to accomplish this feat, and so are disorganized masses of individuals. Organized interests, however, can “get the ball rolling” because they are coordinated and have a common purpose. They can create, gather, and pool resources; compel their members and others to do their bidding; and focus their power on specific goals – such as engineering and adopting a new technology. Organized interests can take many forms and pursue many purposes. As a general rule, however, we can identify three main types: economic organizations (businesses, industries, classes), political organizations (functionaries, leaders, castes), and religious organizations (believers, priests, orders).<sup>23</sup> Almost whenever and everywhere we find complex society, we find these sorts of organizations. Clearly there is something essential about them, though just what it is extends far beyond our present concerns.

*Rule 6: When it comes to technological adoption, organized interests are reactive and not proactive.* We tend to think of organizations – outside ones like revolutionary political parties – as conservative: they generally don't fix things that aren't manifestly broken. That's exactly right as it concerns

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the history of technology. Historically speaking, organized interests have not adopted new tools in anticipation of some *future* change in conditions. Rather, they have adopted new tools in response to some *ongoing* change in conditions, particularly one that makes them unable to do something they want to do. When these conditions arise, organized interests begin to search for, engineer, and adopt new tools. More likely than not, those tools will already be available in prototypical form because of excess technical capacity (see Rule 3).

*Rule 7: Organized interests are most likely to adopt new tools in response to fundamentally new economic conditions.* We find it very easy to say that Marx was “wrong.” But in fact he was right, at least about the long-term driver of technological development. There have been five fundamental shifts in the way humans make their livings: the Behavioral Revolution (40,000 BC), the Agricultural Revolution (10,000 BC), the Capitalist Revolution (AD 1200), the Industrial Revolution (AD 1760), and the Information Revolution (AD 1940). During each of these shifts, there was an upsurge in innovation, adoption, and dissemination of new tools. It’s not hard to understand why: the old tools, while still useful, didn’t work well under new conditions, so new tools had to be brought into play. By Rules 1, 2, and 3 we know that the prototypes of these tools were available because of excess capacity; by Rules 4, 5, and 6 we know that organized interests under pressure to adapt to new conditions engineered, adopted, and spread them.

Together these rules suggest the following “pull” theory of media adoption: “New Economic Conditions → Technical Insufficiency → Increased Demand from Organized Interests → New Media Technology.” This theory, however, is not quite complete. As we hinted previously, there are two additional factors that affect the adoption process: the timing of adoption and the nature of the technology adopted. As to timing, there can be no doubt that the rate of adoption has been increasing rapidly for at least the last 40,000 years. To take a pertinent example, it took several thousand years for writing to go from idea to widely used implement; it took only several decades for the personal computer to do the same. The rate of adoption, therefore, is a function of time. As to the nature of the technology adopted, there can be no doubt that some tools are naturally more appealing than others. To take another pertinent example, it took more than four centuries following the introduction of the printing press for mass literacy to develop in Europe; it took only a few decades for television to become a staple of everyday life. Reading is hard and not much fun; watching is easy