

**Technics and Human Development:  
The Myth of the Machine, Vol. 1  
by Lewis Mumford<sup>1</sup>**

Throughout our course, we have discussed a wide array of topics in regards to the ethics of technologies. They have ranged from analyses of technology-driven disasters to dealing with privacy and security in the everyday life of the average American consumer. In the beginning of the class, we even questioned whether it is ‘right’ to discuss ethics. But in Technics and Human Development, Lewis Mumford takes a huge step back in order to get a very big-picture view of technology. He challenges the common view that technology is only limited to tangible inventions or new processes.

In understanding the significance of this work, it is important to realize the vast knowledge that was poured into it. Only considering books, his writings span over 60 years, beginning in 1922 with The Story of Utopias, finishing with his autobiography in 1982. The Myth of the Machine (of which Technics and Human Development is Vol. 1) is a culminating work for Mumford, being written in 1967<sup>2</sup>, after years and years of brilliant study and contribution to anthropology, history, and urban studies, among many other things. It was the last major work in which he directly addressed sociological and

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<sup>1</sup> Full Citation: Mumford, Lewis. *Technics and Human Development: Myth of the Machine, Vol. 1*. (New York: Harcourt Brace Jovanovich, Publishers, 1967).

<sup>2</sup> Dates and works taken from “Lewis Mumford: A Brief Biography” – <http://www.nd.edu/~ehalton/mumfordbio.html>

technological issues (the books published after this were generally autobiographical or summarizing in nature).

This writing focuses much more on the anthropological and sociology planes of humanity, and analyzes their implications on the small portion that we regularly refer to as technology. One of the notions Mumford seeks to dissolve is that primal man<sup>3</sup> was primarily a tool-making creature. This common idea holds that the advantage man had over the rest of the animals was that he was able to smack some rocks against each other to make axes or sharpen some sticks for digging<sup>4</sup>.

Instead, Mumford proposes that the ‘tool’ that set man apart was language. Language doesn’t only encompass the ability to communicate with other members of the species, but also the ability to create symbols to represent experiences, objects, and memories – something that no other animal has. In other words, the real power of language is in its relation to man’s unique self-consciousness.

According to the best picture of events that current science and study can come up with, there was some point in time where man moved from being a reactionary creature to a self-conscious one. For some as of yet unknown reason, primal man somewhat suddenly became aware of himself and his surroundings in a way no other animal had ever before. Instead of simply responding to various environmental stimuli, man was able to recall vivid memories of past events, relate them to current circumstances, and envision the same or similar things happening in the future.

At this point, development of so-called tools and technology as we know it was still understandably slow. Mumford proposes that man was in a state of confusion,

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<sup>3</sup> I will be using the words ‘man’ or ‘he’ in reference to the androgynous ‘humankind’ since this is the way Mumford uses these terms.

<sup>4</sup> Mumford, 6

comparing it to when you just can't find the word to express what you're thinking of. But for early man, those words simply didn't exist yet. Obviously, there was no real way information could be passed between individuals, or across generations.

The turning point was the maturation of man's symbol-creating ability. Man used the only thing available to him to express what he knew of the past, future, and unreal: his whole body<sup>5</sup>. The logical basis for this hypothesis lies in the connection to other animals. We know that animals have the ability to communicate with sounds, hand motions, and body language, so the logical conclusion is that early man put together this instinctual ability with his newfound symbolizing ability.

Through a long, complicated process (which I will not describe here), Mumford proposes that complex language resulted from repetitive symbolizing with the use of man's highly developed vocal chords. Now, in contrast to the earlier state of confusion, we have a man that can communicate with others regarding his dreams, his experiences, and his new ideas for the future. Unlike the earlier state where each generation potentially had to re-learn all the invention and knowledge that was generated in the previous one, man was able to pass on what he had learned, leading to an accumulation of these things.

But just talking about the wonderful effects of increased knowledge and better tool making would not give us an accurate depiction of the situation. Mumford goes into great detail about the importance of dreams in this age of confusion. The effect of the dream was amazing when combined with mankind's newfound development of language. In the dream, man could conceive of things that had never existed, or may exist, or may never exist. And with the ability to vocalize and symbolize these thoughts, they created

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<sup>5</sup> Mumford, 59

an awesome potential for good and evil. Mumford describes it this way: “If man had not encountered dragons and hippogriffs in dream, he might never have conceived of the atom”<sup>6</sup>. The dream brought about both wonderful ideas and terrible nightmares. Out of these is born myth.

Even now, people understand the seemingly instinctual desire to need an explanation for the unknown. In a time of very little so-called scientific understanding of the world and universe, early man had no choice but to apply his dreams to what he saw around him. This was one of the driving forces for the development of language, and resulted in a primitive religion based around fertility, animal, and agricultural gods.

But a change in this came as modern ‘civilization’ began to form in “a few great river valleys”<sup>7</sup>. Mumford writes that, although the inventions of the loom, the plow, and metal tools and weapons later on were important for the development of society as we know it, it was the discovery of a new social structure and the immense power it had that was the true motivator. This was the very beginning of what Mumford dubs the ‘megamachine’. At a time where the most advanced tools were still stone axes and digging sticks, a complex machine was available that was made of human parts doing the bidding of those few in charge.

The controllers of the megamachine began to focus their mythical knowledge toward celestial bodies and the sky. While the old earth-bound deities could be seen to grow, die, and act in ‘human’ ways, the deities of the sky were fierce, perfect, and all-powerful. This gave power to the divine leaders of the megamachine and inspired fear

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<sup>6</sup> Mumford, 54

<sup>7</sup> Mumford, 163

and obedience in the large populations of the newly-formed cities, instead of cooperative, democratic living that preceded this age.

Mumford expands further upon the idea of the megamachine in volume two of Myth of the Machine<sup>8</sup> and in other writings. The rest of Technics and Civilization focuses on how one of the major factors in the development of the megamachine – external mechanization of time – affects the further development of technology. Along with the fierce empowerment by the mythology of the sky deities, new mathematics were formed in terms of external time, compared to the seasonal time of prehistoric man. Obviously, we can see (regardless of the cause-effect relationship) in our own age where we stand in terms of time. As has been said in other presentations and papers, time is now a commodity, to be saved, bought, and wasted. Mumford ends the book with this passage to emphasize how he feels about the place of the megamachine in today's world:

Only one thing was needed to assemble and polarize all the new components of the [Western] megamachine: the birth of the Sun God. And in the sixteenth century, with Kepler, Tycho Brahe, and Copernicus officiating as accoucheurs<sup>9</sup>, the new Sun God was born<sup>10</sup>.

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<sup>8</sup> I assume so, anyway. I have not read vol. 2, but from summaries I gather that Mumford discusses the megamachine in more detail there.

<sup>9</sup> I had to look this word up, so I'll include the definition here – accoucheur: one that assists at a birth, syn. obstetrician

<sup>10</sup> Mumford, 294