An Excerpt from:

"Complex Responsibility in an Age of Technology," in *Living Responsibly in Community*, ed.
Fredrick E. Glennon, et al. (University Press of America, 1997): 251-254.

Homo technicus as the Responsible Self

Who Is *Homo technicus*?

The interpretation of technology as a mode of human activity[namely, the
extension and enhancement of human capacity and power by artificial means] suggests
an anthropological ideal-type: **Homo technicus**. *Homo technicus* -- the being who has
the capacity and propensity to extend and enhance its capacities and power, by artificial
means in the service of human purposes. *Homo technicus* is that aspect of human being
that intervenes purposively into its natural and sociocultural environments. It invents,
perpetuates, and enhances new modes of, and environments for, human conduct and
being. As such, *homo technicus* is an expression of human agency and, therefore, is a
locus of responsibility.

> Though the presence of *homo technicus* distinguishes the present age, it
> is not an offspring of this age. Rather, *homo technicus* is as old as *homo
> sapiens*. As Langdon Winner suggests, No evidence exists of any culture
> that has gotten away without some attempt to understand, alter, and
> explain nature. No evidence can be found of any human society that has
> not employed tools and techniques to expand or enhance the capacity to
> alter nature. (Winner: 133-134).

Thus, the technological impulse forms an essential characteristic of human being.
In an age of pervasive technology, however, *homo technicus* has become a definitive
feature of human being and a primary facet of responsibility.

The Responsible Self

Clinton Gardner's mentor, H. Richard Niebuhr, clarified the notion of the moral
self by proposing three models of moral responsibility.[i] The first traditional model is the
human-as maker. Ethicists refer to this model as teleology or consequentialism. Human
making leads to consequences that are good or bad. E. Clinton Gardner (a student of
Niebuhr's and one of my teachers) suggested that the human-as-maker "is like an
artisan or craftsman, who shapes or constructs things in accordance with some idea of
the good and for the sake of some end." (Gardner: 119) This symbol "accents the

purposive nature of moral action; it also implies and understanding of human freedom as self-determination by final causes." (Loc. cit.) This rendering of moral responsibility clearly resonates with an instrumental conception of technology. (The instrumental view of technology is discussed in Episode 2 of this blog series.) Technology allows humans to make things that produce good or bad consequences.

The second model of the moral self, according to Niebuhr, is the **human-as-citizen.** This is traditional deontological or formalist ethics. The nature of the act itself, not the consequences of the act, has moral significance. From this perspective, responsibility consists of obeying the law. Here, "law" consists of the moral law and cultural norms (including the legal system) that are implicitly or explicitly sanctioned by the moral law. The model of human-as-citizen also resonates with the instrumental view of technology. Technology is neither good nor bad, it is only rightly or wrongly used. The only issue of responsibility is whether technology is used in ways that follow or subvert the law.

Niebuhr claimed that both models accurately depict an aspect of the moral life. Each is true to a point. The same can be said of the instrumental view of technology. Therefore, in a limited sense, each of these models of the moral self resonates with this limited view of technological being.

Niebuhr's choice for the ***responsible*** self was a third paradigm -- the **human-as-answerer**. This model, he believed more accurately and fully portrayed moral existence. In this model, dialogue is the chief analogy to responsibility. Here the agent is understood "predominately in terms of interaction, in terms of challenges in [humanity's] natural and social environments." (Gardner: 121) Human being is defined in terms of human "relationships to that upon which they and all their actions are contingent -- in terms of the possibilities and limits that are given, not primarily in terms of human autonomy. Here the primary question is "What is going on?"; and the action of the agent is understood as a response to that prior action. "(Gardner: 121)

While the human-as-maker seeks to do the good and the human-as-citizen seeks to do the right, **the human-as-answerer seeks to do the *fitting***. The fitting is "a response of the self to the needs, capacities, and potentialities of other selves to which it is related." (Niebuhr: 77)

I agree with Niebuhr's reaction to the traditional models of teleology and deontology. They both fall short of an adequate view of responsibility, especially in relation to technology. The model of the human-as-answerer more fully reflects the nature of responsibility. It also resonates with crucial aspects of technological being. Most importantly, it comprehends agency and responsibility in terms of response to

possibilities and limitations within the web of relationships. The model of responsibility I am suggesting follows Niebuhr's lead, but pushes the metaphor beyond answering.

Modifying Niebuhr's Model: the human-as-answerer becomes the human-as-participant

Homo technicus does not just answer, but participates. *Homo technicus* is not just caught up in a web of dependence and interdependence. Through activities of expansion and enhancement, h*omo technicus* modifies this web. *Homo technicus* relates to others in innovative ways. *Homo technicus* expands the web of interrelatedness to greater wholes (such as the whole planet), to larger communities (beyond either village or the state), to future generations (what is the half-life of plutonium?), and so on.

Homo technicus is a finite creature but acts at the intersection of possibility and limit to modify the conditions of human finitude. At this intersection, *homo technicus* expands the humanly possible, intervening in sociocultural and natural systems, molding the world in it own image. Innovations in science and technology provide unprecedented insight into and control of human and nonhuman systems, mitigating uncertainty and risk, and altering limits to expand possibilities. At the same time, the fitting response is one that accepts the fact that contingency can be modified but not ultimately escaped. *Homo technicus*, as the responsible self, must bear the costs and risks involved in overcoming some aspects of finitude.

The human-as-participant seeks to do the fitting, but does so realizing that responsibility includes fashioning the mold into which the participant must fit. *Homo technicus* is, therefore, not simply the human-as-maker, because the responsible self is, to some degree, the product as well as the producer of its conduct, including technology. In addition to ask "What is going on?", the responsible self must also ask "What am I doing that affects what is going on?" Only in answering this question can a fitting response be made. In this case the fitting is the response of *homo technicus* to the needs, capacities, and potentialities of other selves to which it is related through technological being. The fitting now incorporates response to a condition caused, to some degree, by the agent itself. Being *homo technicus* as the responsible self involves participation in the life of the other, not merely a response to the other.

---

[i] H. Richard Niebuhr, *The Responsible Self* (New York: Harper and Row, 1963).