

## ON FACT, FAITH AND FICTION

John Steinbruner

Those appalled at the dysfunctional behavior of all types of government in recent years but still unwilling to concede the decline of civilization can plausibly hope that the turbulence we are witnessing indicates an ultimately constructive transformation well underway. That is admittedly more an act of faith than a demonstrable observation at the moment, but there are coherent reasons not only to aspire to human progress but also to believe we are actually seeing it. In particular, underneath all the bothersome political conflict, we clearly have been experiencing one of history's most seminal events – the dramatic efficiency gains in the storing, processing and long-range transmission of information that have occurred over the past four decades. Public consciousness of the underlying technical achievements is driven by cell phones, personal computers and the Internet services that connect them, but the consequences extend far beyond those applications. The operations of all contemporary societies have come to depend on a massive flow of information that was literally inconceivable just a few decades ago. On balance, that development has substantially improved the circumstances of living around the world.

When the prime symbol of this achievement – the Internet – was first established in the early 1970s, the originators thought they were designing a research network connecting perhaps 100,000 main-frame computers. They did not imagine that the file transfer protocols they devised would eventually extend to billions of personal computers far more capable than the mainframes of their time. Nor did they imagine that the resulting network would carry a flow of data currently running at the rate of an exabyte ( $10^{18}$ ) daily and projected to triple by 2015. They did not anticipate that the Internet would become a spontaneously generated global utility vital to the functions of everyday life with no political authority in charge. They did not foresee that it would enable the emergence of a global economy exceeding the control of any sovereign jurisdiction or any organized institution.

Four decades later we marvel at these developments and appreciate their immediate benefits, but it is doubtful that we yet comprehend or have yet experienced their ultimate implications. The various social upheavals that dominate the daily news give reason to believe that more is happening than the enjoyment of miraculous consumer products. Cultural traditions and established institutions are besieged in all parts of the world. Their evident struggles to cope suggest that a major transformation is in fact occurring with as-yet undefined character and as-yet undetermined outcome. It is a time to look for prophets among the multitude of pundits.

The problem, of course, is that virtually all the pundits profess to be prophets, and there are no indelible markings to distinguish one from the other. There are, however, some practical guidelines. If one suspects that a major transformation is underway and not yet complete, one

does not expect the defenders of tradition to be a direct source of enlightenment. Their agitation may be a signal, but the clues are to be found in what they resist, not in what they endorse. Constructive understanding is more likely to be found among those who dare to visualize fundamental change and are currently vilified for their efforts. One cannot expect a major transformation driven by circumstance rather than attitudes to be popular until well after it is accomplished.

Those guidelines suggest that those who currently speak of the relentless process of globalization and who warn of the consequences of global warming are plausible candidate prophets. Those who deny both phenomenon in the name of immutable sovereignty and who proclaim the priority of national identity and other separatist ideologies are the evident defenders of traditional order against the onslaught of circumstantial change.

It is yet too early for even the most visionary prophet to discern how that contest will play out, but some of the main battle lines are reasonably apparent. Information technology is clearly driving the process of globalization and will have to be the prime instrument for managing the consequences if they are to be successfully managed. At the same time, an exponential surge of the total human population from two billion in 1950 to projected stabilization in the range of 8 to 11 billion by 2050 drives the anthropogenic thermal impulse threatening the earth's ecology and thereby ties each separately organized society's fate to every other's. Both of these events, unfolding over the course of a hundred-year period that is already half over, are unique in the history of the planet. They give reason to expect consequences never before experienced. They give reason to believe we are condemned **not** to repeat history whether or not we remember it and wish to preserve its familiar features.

So what is it that we cannot repeat and what will we have to invent? With all the inherent uncertainties conceded, there are some fairly good clues. Coercive firepower can be expected to recede as an instrument of global organization. The apotheosis of destructive potential embedded in nuclear weapons technology has very probably ended the age of great power imperialism, although it may well take the passing of generations who do remember that history and are infused with its legacy ideology for that reality to be acknowledged. There has not been and will not be any hegemon capable of organizing the world. But ironically, perhaps, with imperial threat fading, the prime justification of sovereign authority – territorial defense – is also weakening. It currently appears that nation state jurisdiction will indefinitely remain the prime venue for establishing consensual allegiance and that consensual allegiance will be the prime determinant of effective authority. But it is also evident that any organizational form whose effective authority is confined to a limited portion of the globe will not be able to cope with the consequences of globalization, even within its own jurisdiction. Global coordination of

assertive action and global regulation for mutual protection are emerging imperatives, like it or not. The question is how they are to be met.

And with uncertainties again duly conceded, there are plausible candidate answers. In a world of common interest and divided jurisdiction, policy coordination and protective regulation on matters of consequence will predictably depend on rules that stand on their intrinsic merits. Primarily means that they will have to embody credible principles of equity. And the ability to establish equitable rules will predictably depend on the ability to establish measures of transparency that document compliance and expose violation. Human societies of all types readily establish and enforce equitable rules, if they have reliable access to relevant information. Thugs, thieves, and tyrants who defy operating rules for personal benefit need to hide in order to succeed, and they cannot succeed if they cannot evade scrutiny.

The use of advanced information technology to force transparency is potentially a very powerful means of global coordination, so much so that fear of misuse or at any rate of unwelcome use has been the main impediment to its development. Measures of transparency designed to control acts of violence could be extended to control endemic corruption as well, and that would have revolutionary implications. The technology to conduct protective scrutiny is available. Refined concepts for doing it are less available and institutions capable of being trusted custodians of highly consequential information do not as yet exist. Whatever else a process of transformation might bring, formalized equity rules and refined procedures for protective oversight can be expected. They are presumptive imperatives of the 21<sup>st</sup> century.

I have presented what I consider to be the main dangers of the globalization process in two recent working papers: "Security Policy and the Question of Fundamental Change" and "The Cyber Security Situation." In *The Secular Monastery* I have extended one of those concerns to the level of personal relationships by means of a fictional story. The underlying idea is that if any social collective is to undergo the constructive transformation the circumstances of globalization seem to require then its constituent individuals will have to be both extensively and intensively engaged, emotionally as well as conceptually. The globalization process does extend to the level of individual lives, and that means personal attitudes have acquired both strategic and moral significance.