

The Past & Future Of Desktop Publishing

By Mathew Paris

I

About eight years ago, when I began desktop publishing in what eventually became The New York Writers Café, I thought I was creating for some of the best poets and novelists in New York a list of fine books. I seemed to be doing what a small press did. I knew a lot of brilliant people and thought their work should be available to the public in some way. I also thought there was a little money to be made for author and publisher in selling their effusions as shareware, offering generous samples of work free.

Now I know better. I tell people who contact me to start their own Website, invite their friends to offer their books there. The irony is that I did it myself though I didn't know I was doing it.

I know now the future of desktop publishing either is to be an animal that existed before Gutenberg, a monster creature who is author, publisher and editor all at once. The computer world will not to have twenty or a hundred publishing companies but millions of them. Desktop publishing will either have that very loose and personal cowboy character or be shut down by an outside force. As much of a collective business as paper publishing has become in the last century, desktop publishing will push it to the margins and beyond.

I lived as a child through the largest collective action on the planet: the late but unlamented Second World War. I spent my adolescence scrambling in the hard-edged mazes of the Military-Industrial Establishment. My young manhood was spent enjoying the 60s, a time in which various panaceas centering around that generic word "love" were very popular among hundreds of millions of young people who took up huge marches, rock festivals, and brainless orgies if they opposed a large and odious colonial war. I had been brought up in a large city, a neighborhood, an intact family with some strong extended ties; I went to large schools and libraries to read books, read those that were published by fairly large corporations, and got my classical education by reading cheap versions of famous books of the past put out in great volume by the now defunct Everyman, Loeb or Modern Library series. The idea of a line of books pushing centrifugally into outer space is very alien to me.

Having lived my entire life among happy and miserable drones in a collective situation this illumination of the future of the Andante did not come to me quickly. Sometimes what is both complex and terrifying hides behind what seems simple. We all think we know what a book or a writer is; those of us with

business heads are sure we can define a distribution system of anything from cars to computers. We can handle the unknown with less terror because we think it is known.

We think of computers and the Internet as an extension of older systems, done with trucks, ships, roads, warehouses and clerks, telephones, drums and simulated bird calls to maintain such an operation from valley to valley. It is an instrument that gives us a new way to run something like a business or a post office.

Most computer people, coming as they have from a scientific world, define writers as purveyors, books as vessels of information: an assessment that leaves out with relief for all the enigmas of style, aesthetics, and talent.

Information is classically divided into inductive and deductive groups: what we learn from the senses, testimony and other evidence, and what we can infer from logic applied to induction. When totalitarian forces skew our sources of evidence we are better off inferring what we can from what little evidence cannot be meddled with. There are two kinds of inductive information available to us: oral and written. In the ancient world and in modern times, very often the information not committed to writing is more important. Books were seen as primers that covered the more shallow elements of a subject; the real teaching was done with the spoken word and in privacy between the master and the tyro.

Almost all advanced information is and has been oral. We can speculate on the diverse reasons people don't want to put such material in books; we should not leave out the personal quality of spoken words. Information given orally is sheathed in the voice and character of he or she who offers it. It is personal in a way a book never is. It implies by its very nature that some information is linked to personality in a way that is inextricable from its actual character.

Some information from the time of Herodotus was collected from oral sources, written down with no sense at all that there was anything privileged or clandestine about the data. Aristotle traveling with Alexander to expand his knowledge of biology never felt that his collections of strange bones and insects were part of some spiritual arcana.

They were found data available to anyone with intelligence, leisure and the power to travel with impunity. Strabo, five hundred years later, gleaning his books on geography from endless research among Mediterranean farmers, never encountered anyone who was niggardly about when to plant certain crops when the stars were in a certain conjunction.

This was neutral impersonal knowledge; it did not matter who had it, imparted it or received it. It means that our personal response to this data two thousand years or so later is added to rather hard edged information.

What is astounding to us in his researches never seemed to surprise the imperturbable Strabo; he never seems to wonder how the farmers had an enormous oral knowledge of astronomy and made most of their decisions based on a feeling that sympathetic magic occurred between these orbs and the Earth.

There analytical exploration of the six kinds of dung of the pig and their uses as manure are reported as if he is taking down absolute mathematical computations. Science never seems to have in the ancient world had the privileged and arcane character of the truths of faith.

Freedom of information is centrally important to all of us; it is the foundation of our sanity. Human actions and thoughts that are a matter of private taste allow us to take up the full diversity of what we can understand and be conscious of, whether we are pornographers or physicists decrying the behavior of a hydrogen atom. What we cannot talk about doesn't go away; it haunts us with more power than it could ever have were it ordinary and taken up with all the minor energy we bring to a Cajun recipe. Given the collapse of nearly all the other sources of information in our time, the Internet is now the central and major source of information for most people with computers. It may often be their only source.

We know deductively that since sanity is our best chance for survival, as a natural consequence we are always going to want to be sane to be so, to have true information. One deluded with false information is no better off than a psychotic with his delusions. We know with the same deductive power that any rule at all in the interest of perpetuating itself is going to close down any information that reveals to all or even a few that the universe is a free, openended infinite place with many physical laws and realities utter beyond the aegis and narrow cosmology of local rulers.

Books are linked to what a culture finds admissible for its survival. Publication of books was nonexistent in the ancient world. One had one's scribe copy a book. One to do so had to be rich and leisurely as well as having the intelligence to value books. Literacy in Rome meant one was free, rich, a priest or a scribe.

The future tends to destroy the artifacts of the past. Some of our books of the ancient world come not from the libraries of aristocrats but are copies scribbled by small boys learning who learnt how to read and write millennia ago by reading Gilgamesh or Aeschylus. Some Jewish sects still teach this way; a child learns to read the Torah from the first word. Literacy has advantages we take for granted, but an illiterate culture, holding its information in its memory, cannot be destroyed by pillagers burning its books; the books only die when the one's who have memorized them are killed. For this reason we have enormous Central Asian epics accessible to us but not most of the plays of Aeschylus, Sophocles or Euripides.

Most cultures in the past have not been literate including those in the West. Charlemagne could not read. Large editions of books imply armies of readers. The Protestant Reformation, the subsequent faith that literacy and education would give all a franchise in society, produced readers mostly in the past two hundred years.

Literacy is not a given in life. It is historically rather an aberration. Global distribution of millions of books are really a very recent phenomenon of a culture that still believes that knowledge is power. It might be more precise to say that, if true, books put that power in a book rather than the individual human mind.

We say Amazon.com as a logical extension of a tradition of selling books. In fact, books have only been a business and connected with money in the past five hundred years or so. Most were produced in small editions even in the West until the 1830s.

These hard edged notions with their certainty veil from us the motile and elusive character of our relations to computers, not to mention inventions generally; the way rulers and priests have always brought into the world of books their agendas of control, maundering, order and selective access to true and false information.

We've all already heard people complaining that the Internet is filled with enthusiasts and they don't know whom to believe among them. It's going to be much more of the same in the future. Considering the diverse opinions on all things in the world beyond the properties and action of hydrogen, about which we can all agree, can this mirror of our contentions, if it doesn't claim the objectivity of the old collective systems of the past century, be bad?

The term "information" is rather a partial description of an language, rooted in our remote and unknown past, programmed in our genes unlike any other animal on Earth, language is part magical as well as descriptive. We can learn from words that hydrogen and oxygen, if we know their precise quantity, will produce a precise result we can predict infallibly. This is all we ask of any science. Our success at physics has inspired us to apply such criteria to regions where our science fails.

In the West we are very good at reductive thinking, hard edged objective reality such as Kepler's Laws, which apply to all celestial bodies; we are lousy at personal sciences like psychology and aesthetics. Anything as inconsistent as human nature, one thing on Tuesday, another on Thursday, and both or neither on Saturday, confounds our reductive science.

All we can do in this erratic world where chance or something more unknown motivates character but not hydrogen atoms is jail or kill people who are felons on Wednesday when they are medio-crities or even saints the rest of the week. It is the business of police to arrest people, of prisons to jail and kill people and thus our character as we define it is always the worst of us. We send people to their death for killings they did on one day; we don't reward them for their peaceful levies under the same pressures on other days. We simplify our take on people and falsify their compel nature because the West is comfortable with anything that does not resemble hydrogen.

Our failure to understand human nature because human character lacks consist-ency or seemingly even reason makes a lethal difference in our ability to pre-dict anything we do. Marx in hi books was wrong about some of his prophecies because he built them on a presumption that men act on their interest. Who can say what our interests are? Perhaps this falsification is built into books and language. There are fewer words than facts.

As guilty as others of my inventive Western world, I assume in my naiveté but not on the evidence as do most computer people that all men want freedom and power. It makes me comfortable to think that. I

feel as good as people who think humans are one step or less from ants, wolves, hydrogen atoms or jumping beans. Aristotle said on the same evidence I see when I go outdoors that most men are natural slaves. We are too erratic for efficient definition much less tyranny.

Robert McNamara, our first computer mandarin, once thought it was the clear interest of the Vietnamese and probably all life in the universe to be like affluent suburban Americans. The computer world in its heart still thinks in this medieval way. It is tied into Western linear notions of history, progress leading narcissistically up to itself like the old missionary faiths. In the maw of this cybercentrism everybody is surprised when others choose to act not to be like us.

We don't like to think that computers are probably for the top but not the bottom half of intelligence in humans, and have an elusive utility for non-Western systems. We see Iranians using computers to vote and run biosciences but the Persians are old and adaptable, have a culture not really fundamentalist at bottom no matter what their government is. I've seen people in straw huts in the jungle in Columbia watch television. Will they be playing Doom at the North Pole and making out spreadsheets too? Nobody knows.

We can talk objectively about information given us on how to run a computer program. We cannot say the same of the text of "Hamlet". The words have an aesthetic effect we cannot measure but which we hunger for. The same words have different effects on different people who read or see it. We know the story of Hamlet and would be bored if the text were merely a bare account of what this minor Danish prince, otherwise unknown to us, said and did before he perished. We are a culture very rich in physical science, very poor in psychology and aesthetics. The text of "Hamlet" is both: on one level a more or less objective run of words, on another a ghostly contractual arrangement with an unknown audience that is not measurable or knowable with our scientific instruments.

It's no good to say like Maimonides that aesthetics are not important to a mature man, and thus dismiss it. We are all ignorant aestheticians who know what we like; we live partially by these strange intuitions. We are programmed by unknown forces not to thrive in optimal health when we cannot see the color green. We are dwarfed and feel minuscule in cities with high buildings; we feel more powerful when the edifices around us do not conceal the sky and seem a hearth for men, not giants. Given our irrational and programmed responses, information that touches these primal elements in us is not really defined by thinking of words as hard edged objective mirrors of facts and truth.

Aesthetics invades our science as well as Art. Mathematics speak of elegant equations; some complain including the mathematician himself of the lack of aesthetic properties in, let us say, Kepler's work. It was a great source of sadness to Kepler that his laws described ellipses, not the more commodious circles. Einstein was very much concerned with aesthetics; he was also a dilettante violinist. Heisenberg could play the whole of Beethoven's piano sonatas; he was as likely to discuss what beauty was as what laws did or did not rule the physical universe.

What we try to relegate to superstition, pathology, fiction or a cemetery will affect us all the more if we do not acknowledge it and pay it some small honor. If aesthetics and its contract with shadowy

audiences were not enough to confuse a world looking for hard edged precision in information, we have at least three versions of Hamlet, probably all equally authentic and done while the author was changing the text as he mounted the play. Which bit of information is more to our interest to honor as "Hamlet".

In "Hamlet" scholars usually take the final version, which nobody plays because it is much too long, probably made by the author after the play closed because he was totally obsessed and couldn't rid himself of the play. Then they, making very personal aesthetic choices, add to it from all of the three earlier versions when they personally think upon occasion the lines are better. Every editor gives us a different "Hamlet".

We could say that on a specific day and time, perhaps a moment we can't identify, Shakespeare thought "Hamlet" was a certain run of words, then try to recover our hard edged definition of text and information.

We find the same blurred choice in many works of Art. There are several versions of each poem in Whitman's "Leaves of Grass"; editors commonly pick the earlier ones. Most people prefer the early, not the late version of Henry James' "The American". Editors have a choice of three or more versions of some Chopin Waltzes; the composer had a habit of handwriting different versions for his pupils.

What do we do with hard edged definitions of "text" these works? Somewhere in the background some editor is making very personal choices about Chopin too. Many of them are not afraid to say he and other composers made "a slip of the pen": and wrote the wrong notes when there is only one version. Maybe they are right; maybe not.

In a famous story by Jim Ballard, a set of scientists control a tribe in South America by predicting an eclipse of the sun. They tell the native they are going to make the sun disappear, it does briefly, and they are feted afterwards as gods. That is in sum the political value of correct information. Those who know what is and will be happening can use their knowledge as raw instruments of power.

Information is contractual. If a mathematician were to devise an equation identifying and predicting the nature and uses of information he would have to put into his figures a mathematical set of symbols that would represent the character and abilities of the reader. We don't all respond the same way to information. When Keats sees a Grecian urn, or when Newton is hit on the head with an apple, something happens which does not happen when Keats and Newton are elsewhere and it happens to other people.

The Internet offers a potentially infinite run of diverse ways of seeing reality that would have given Ballard's savages, had they had computers, an option to take up quite another view of the eclipse of the sun and the power of those who claimed to produce it. When one goes to a subject that is both famous and inspires continual dissent like the JFK assassination, one can see the genius of this tool in opening up possibilities of information to an optimal audience.

One is not constrained by the censorship of the buck in cyberspace. There are no warehouses, salesmen, truckers, offices and secretaries to pay off. One doesn't pay and overtip for a three martini lunch in New York with agents. For twenty dollars and one's labor in Oshkosh one can offer this service and one's enthusiasms to the world.

Desktop publishers on the Internet take for granted that they have utter freedom to put on their site whomever they please. This is a pretty remarkable assumption to have about publishing books at any time in history. Though we are supposedly guaranteed Freedom of the Press in the Bill of Rights of our Constitution, we have always had censors, direct ones and the kind of craven provincialism that has ruled the culture even when it cannot entrench itself in law.

In our time commercial publishing is censored by an utter and consuming faith in redemption by money, the always escalating cost of rents and shelf space, the belief of all that it is better to make more money with the same labor with what they perceive to have great attractiveness to more people. These people are certain that books on trivial subjects mildly catching to the eye are what can garner that optimal cash. It all leads to the thirty or so cunningly packaged bland and comforting books, often with copious illustrations, one sees in every Barnes and Noble with their surface veneer and whimsy that supposedly inspires an upper middle class traveler on the way to the suburbs to think it might look good decorating a coffee table.

To put it very baldly, a few hundred years ago, people in Europe were killed for printing dangerous books, sometimes a translation of the Bible. Most countries including our own has some form of overt or indirect censorship by priests or the government, usually in the name of protecting the helpless people and their children against the terrible things they will think and do if they are exposed to certain volumes.

Books have always been seen by kings and priests as demagogic instruments of persuasion that are either good or bad for them. Most kings and priests have protected their flock from the horrors of information by keeping them illiterate. We have a return of illiteracy here in the United States, and given our optimism and faith in pure tactics, we meet this old enemy as if it had never happened before, and with a parade of experts who are foaled by the media, fail. Then they are dispatched to their retirement in some posh place after their catastrophes.

In both Mediterranean and Nordic myth information is usually in the hands of hermits who live far away from the capitols or even villages of their world. They sit in huts in the forest, maintain austere residences on mountains, trek through deserts, are even known to live in other worlds when it pleases them to do so. It is these savants that have the runes, the amulets, the knowledge that is not to be found in any capitol or urban priest, is even unknown in a hamlet.

When a man of knowledge of these ages like Socrates or Jesus or Galileo lingers too long in a capitol he gets into trouble. The superior magic of Moses to the priestly wizardry of Egyptian hierophants was obtained alone in the desert of Midian. We may gather than the ancient world thought that the consistent and stable world view of kings and priests, and honest and brave inquiry into truth were at odds.

We can appreciate from this last slaughterhouse of a century how important information is. Had the Allies known of the aims of Germany and pushed the Nazis out of the Rhineland in 1934, then an easy response to Hitler's bluff, fascism would have collapsed; there never would have been a Second World War. Had the Jews in Poland, the Ukraine and Russia been aware of the German intent, they probably mostly would have escaped, or at least would have prepared to defend themselves against a genocide that was mostly a surprise to them. The Polish army in 1938 faced the German tanks with mounted cavalry. They hadn't received the information that they were living in the twentieth century.

Conversely, it was to the interest of the Nazis to conceal their intents from those who from the first had the combined power to destroy them. From 1933 to 1939 they were very successful at doing so. Knowing this, in the face of lack of information, we can deduce from the interest of groups and nations what they are, what they do and will do, and what we need to do to protect ourselves from them or support them.

Since the Second World War much of American politics has revolved around information sources. Vietnam was the second illegal war that bypassed the Constitution but the last American war in which journalists could walk anywhere and get information freely. We know nothing about subsequent wars like the Gulf War and the Serbian conflict. Freedom of the press these days doesn't extend to anything the government doesn't want people to know about.

An American in New York in 1950 had his choice of eight to ten major newspapers, diverse radio programs and many magazines; he also commonly met with people in the street or public squares to talk or debate as a major form of entertainment. The diversity of the newspapers and magazines assumed that somebody somewhere would report just about anything one needed to know. Fifty years later the same American is stifled by a very tight envelope of what he knows, thinks he knows, or perceives as existing or not existing.

One can see what a sinister aspect the Internet has had to people who have replaced the old system of information with the new one, whom we know deductively without meeting them or any other evidence since they are rulers, most hope by this control of information to produce order and a reductive notion of reality among those who are hooked into their media.

Posting of ideas and controversial notions on big providers and services like Prodigy and AOL has replaced the public square and the town hall as a place for debate. News groups forward e-mail information from dissenters and mavericks at enormous speed all over the planet.

Knowing this should explain to us why no government has made a serious attempt to stifle or regulate the Internet. E-mail has none of the privacy of a letter, certainly remote from the secrecy of an oral passing of knowledge in a desert or sacred temple. Somewhere in the cellars of some enormous building not far from Washington every e-mail is being searched for information about the arenas of dissent outside our capitol. Every Website is a flypaper trap to bring into the light the silhouette of otherwise

unknown people who are interested in subjects like the JFK assassination or how to make bombs from dung, whom the government wants to know about.

In my opinion Washington knows more about individual dissenters from its empire all over the world precisely from the utter freedom they have all had to wander around the Internet. I think the Internet will stay cheap, free and attractive for all; it will continue to be a good place for desktop publishing. If its freedom is stifled, the dissenters will organize elsewhere, perhaps in shadowy areas not as accessible to computers or any other machines.

My guess is that it is not only Washington but China, Pakistan and any other country with a computer class who takes such an interest in who goes where on the Internet. The United States is not an autocracy; we have in our culture for a kind of laissez faire indifference to most human action which leads practically to making America the real land of opportunity and freedom in a sea of largely slave-states.

Nations like China, Indonesia or Pakistan have leaders and priests who believe they have the right to monitor and control everybody under them. What better way is there for an intelligence force of any foreign tyranny to know who is thinking what than to read the e-mail of every citizen and see who in their country goes to what sites on the Internet? To paraphrase Voltaire, if we didn't have the Internet, China would have to invent it.

It also may be that there is no technical means to control the Internet even if a government wanted to do it. If true, this would be the irony of ironies, that a military-industrial empire built an information system that could not be disrupted in time of war, and in the end it was principally used to take up freedom in a centrifugal way utterly at odds with the sincere and principled intents of the inventors and patrons of the system.

Predicting the future of the Internet and desk to publishing or anything else is dangerous. People are still waiting for the end of the world or for Marx's prediction about how capitalism will destroy itself.

As we can see, the term "information" is not an inclusive definition of what we have or can obtain from words, notes, memory, paintings in caves or museums, or any other source.

II

Inventions always have their dark side. We are willing to take up computers as we have the car, the telephone, the airplane and television as a clear boon without doing too much thinking about any invention as a tradeoff. We forget that the automobile, telephone and airplanes kill a few hundred thousand people each year, and has a destructive effect on community organization. Our very messiah of the age, computers, has certainly retired millions from their lives prematurely to spend their mortality at various games and new versions of ancient addictions including solitaire.

Books themselves are an invention with an equivocal political history. They have been the instrument for priestly tyranny as well as the tools of Mosaic revolution and the Protestant Reformation and Jefferson's immortal and inalienable hunger for individual liberty. The first generally literate society we know about, the Babylonians, knew that books could give it access to the energies and intelligence of nearly its entire population. Books have been many shapes from clay tablets to scrolls wrapped around cylinders of wood; they have mostly been handwritten. Our current book is a triumph of the binder's and typesetters art combined with the adornment of simple illustration, made for our collective society.

Books and language were for millennia the central way that one could record an event that mirrored its movement in time. Pictures, statues, are static media. Words enable us to follow an action from its beginning to its end, or at least the commencement and resolution perceived by the story teller. For many reasons including ease, portability, and practical use daily in conversation, language has been until this century the most efficient means of communication on all subjects between people. We have often assumed from this base until the past few decades that our most valued books contain the most wise and intelligent perceptions by the best of humanity, that our authors are not merely competent but sometimes brilliant and prophetic leaders.

This was connected with the history of class. Those with their eye on the past did not worry much that books had been written and read for thousands of years only by aristocrats and priests. Literacy meant on some level not that the whole of humanity would form a new class but that we would all be gentry.

The more radical elements of the Protestant Reformation, the Left and the populists noted rightly that there was an extant and vital oral literate at the bottom of every culture, they collected it from fairy tales to alehouse ballads, and they used books and pamphlets to promote a new class of social-ists and socialism as the Reformation had illuminated the Western world with its sermons and Bible translations.

This war, which has raged from the Reformation into the present, produced two definitions of books: they are for some a connection with the best and wisest of all time, and for others the instruments that could elevate us from the class war and genocidal slaughter of the past and present. In both cases books are regarded as tools that connect people to history, social reality, and their larger place in the universe. The technocrats who currently rule much of the West see books as manuals, troves of information in a game playing world of strategy.

In the 21st century we have other means besides paper books to take up any of these august services. Most people who grew up after 1960 associate books with some justice, even if the authors were in their age pariahs who died broke, with school, Academic monkishness, the manipulations of intelligence agencies and elitism; they prefer to look for wisdom and leadership in movies popular music and television.

We like to think because we generate money as salesmen of the new in America that things replace other things; sometimes they do. Television did not replace theatre, radio or movies. They can all do things television cannot do. Nothing has yet replaced a book for sustained ability to communicate on all

subjects from psychology to science explorations of the deeper aspects of our existence. An e-book read on a tiny computer is no different in substantive offering of language from a clay tablet written on in Babylonia six thousand years ago. Movies and television are visual media that move in time but they are always on the surface of things. They can only imply what a book can state directly and at its leisure.

In the past few years Palm Pilot has given us the skeleton of the future e-book among the other wonders of their device. The Palm Pilot among other things reads ASCII and can run any test program it chooses. It means that one can read the whole of the Gutenberg library and even the works published for Palm Pilot on Peanut Press, the first of the digital publishing companies working with what is the obvious model for the very portable e-book in this new century. With the cheap, nearly weightless and tiny Palm Pilot one can not only read anything in ASCII but search and make one's own notes on it. The device also suggests that desktop publishing of books in the future is not going to make money directly in the manner of paper publishing. An ASCII book is beyond property.

Books enter the lists as one of many media which attempt to color the perceptions and notions of reality of their audience. The long war of property and copyright in all these media is being lost by the side that wants to own media products. This is hardly catastrophic for authors, the only ones in the chain of writing, publishing, distributing and selling unable to make a living at what supports everybody else.

Authors now describe a novel as something one can purvey only by saying that Harvey Keitel loves the book and wants to play the hero in the movie. They can all do better than that on a Website. Visual artists who can't get into a gallery because the very rich people who buy Art as an investment see its beauty as irrelevant have nothing to lose either. Any musician beyond about a hundred people in America cannot lose by putting his works up on Website.

Property has been taking a beating in all the media. MP3 files are the preferred way young people hear music on computers. There are beyond being cheap; they often cost nothing. There is already a whole language to describe making pirated CD-Roms of movies, books, music, anything at all. As importantly, popular music groups of some fame have decided to offer their works directly on the Internet on their own Website. Young painters will be produce visual work made for Jpg. files, not one of a kind productions with paint and canvas.

Back in the late 80s one saw a similar rush of computer programmers, paid equally badly, to shareware as a means of promoting their talents. One doesn't have to chose either-or, but we can be certain that most authors in the near future will charge in an army to the Internet because they have few or now other directions to go to get their work to their readers.

Cultures are the really efficient patrons or stiflers of scientific interest. The West lives in a dead world where everything imitates or should imitate hydrogen atoms; that faith makes us as unlikely to take up certain subjects as other faiths prevented the Mayans from using the wheel or domesticating the dog. If we were to invent a machine to talk to spirits that would produce predictable and accurate results, our whole metaphysical system would go bankrupt, invaded by the ghost and friends of Cotton Mather.

The wheel or the steam engine are not audacious inventions but harvest of the will of a specific survival system; Mayans personally observed a million times or more that seeds roll away from trees better when they are smooth and round, steam pushes anything in its way with ferocious power. Yet in many millennia nobody in the New World put the wheel to work.

Only one culture we know of has had an Industrial Revolution, a change based at its inception on springs and steam power but always powered by the ferocity of the will and the hunt. To predict the future of the Internet and desktop publishing we have to assay the empire and the dissenting worlds inhabits.

Most of our current media pantheon of neighbors who are outsiders is directed against Islamic "terrorists". We should not be astounded when other survival systems attempt to protect them-selves against the computer world. We live in a world of many survival and reality systems; they don't go away because we think they are primitive or superstitious fossils that should go away. We have yet to discover that these supposedly antediluvian clunky systems have virtues one day we may be envious of that have a respectable shot at outlasting us.

Most of us oldsters remember that when we got involved with computers in the 1950s, we assumed the same sort of people we see would use them a half century later. We don't like to face the fact that most if not all of our children in America are going to be stupider and more ignorant than their parents. Americans could have once thought computer use would be universal had it been invented in the 1930s. In this first decade of a new century several tens of millions of Americans are virtually illiterate. They will never use a computer, Internet or desktop publishing in any form.

We haven't seen our wonderful new education system kick in its results yet because we still have extant most of the Americans educated in the 50s and earlier. Twenty or thirty years from now, we will have two classes beyond our emigrant imports: a largely semi-literate population and computer users, not challenged as children to be more than they had to be, who will not want to know anymore than they need to pay off their credit cards.

We don't really know the long term results of loss of authority, the artificial stifling of classical maleness, the absence of ability to command by male or female in this empire. One of them seems to be that it goes to its excess and then the prison system takes over.

We may have escaped from the trap of all life before us to face a dilemma in which we alone have the luxury to choose between a bankrupt past desperation and an unknown insanity as our survival style.

Matthew Paris co-runs a Website offering about thirty books: NYWCAFE. He is a commercially published author, journalist and critic.