THE HUMANITIES IN A TECHNOLOGICAL AGE

Peter Caws

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I wish to dedicate these remarks to the memory of a man who lived at the Chinese Imperial Court eighteen hundred and eighty years ago. His name was Ts'ai Lun. If it is not a familiar name, that may be explained in the words of d'Alembert, from the "Preliminary Discourse" to Diderot's *Encyclopedia, or Reasoned Dictionary of the Sciences, Arts, and Trades by a society of men of letters.* D'Alembert says there:

> *The contempt in which the mechanical arts are held seems to have affected to some degree even their inventors. The names of these benefactors of humankind are almost all unknown, whereas the history of its destroyers, that is to say, of the conquerors, is known to everyone.*

This text and its source provide my starting point.

Note that the *Encyclopedia* was written by "men of letters," who specialized in what we would certainly now call the humanities, but that it was among other things a "reasoned dictionary" of *trades,* the practice of what we would certainly now call technology. The humanists who wrote the *Encyclopedia* were excited by technology, enthusiastic about it. as was their fellow-humanist and contemporary Thomas Jefferson. Anyone who has been to Monticello will have sensed the delight Jefferson took in the gadgets and devices of his day. Had he been our contemporary instead of theirs, I am sure he would have been among the first to acquire a microcomputer and a VCR (what he would have found to record on it is another matter—I will come back to that).

The encyclopedists not only took their inquiries into the workshops where technology was practised, but their passion for understanding was such that in some complicated cases they became workers themselves. In the Prospectus to the *Encyclopedia,* which d'Alembert reprints, Diderot remarks that

> *...there are some trades so unusual and some operations so subtle that unless one does the work oneself, unless one operates a machine with one's own hands, and sees the work being created under one's own eyes, it is difficult to speak of it with precision. Thus, several times we had to get possession of the machines, to construct them, and to put a hand to the work. It was necessary to become apprentices, so to speak, and to manufacture some poor objects in order to learn how to teach others the way good specimens are made.*

and he goes on immediately to add:

> *It is thus that we have become convinced of men's ignorance concerning most of the objects in this life and of the difficulty of overcoming that ignorance....*

Here we have a group of reflective geniuses practicing the humanities in a technological age (for the eighteenth century already was such an age—and as far as that goes, no age of civilization not based on slavery can help being technological, as even Oscar Wilde knew) whose view of our topic is refreshingly clear: they think technology is important enough to warrant their interest and their involvement, and in

getting involved they become aware of their own ignorance.

The first task of humanists in a technological age is surely to understand technology, not merely to use it, gratefully or otherwise, but to become informed as to its workings and powers. What technology does is to exploit the natural properties of things and processes in the world, learned by experiment and in some cases (but not all) understood by science, so as to *amplify human ability.* Of course this has its risks, since it amplifies our ability to do stupid things as well as wise ones, and has been largely used for this purpose. This has happened because the technologists, motivated at times by humane but at other times, alas, by commercial considerations, have delivered their amplifying devices to some individuals (among others) less reflective or critical about their purposes than humans ought humanly to be.

Having trivial desires made easy of attainment has encouraged an attitude towards the world—Heidegger describes it in his essay "The Question Concerning Technology"—in which the being of things is overlaid by their handiness, so that everything becomes instrumental, nothing is really an end, not even human beings themselves. But all that is not the fault of technology as such, it merely means that technologists, too, sometimes fail to be human, and become as uncritical and reflective as their customers.

What might have made them all critical and reflective, wise in their development and use of technological devices? That, as we have been reminded, is the province of the humanities. Part of what I am suggesting is that humanists cannot be expected to succeed at this task unless they really understand the technology, acknowledging openly the human values it embodies as well as the human risks it introduces. For technology is something in which humanists, as human, can take a proper pride. The great thinkers of the Enlightenment did so. But their engaging conviction that technology would be used for good was *really* a form of another and different conviction, namely that human beings could become good.

It is probably easier to understand technology than to become good. Understanding technology is something we can reasonably aim for; there is a growing branch of my own discipline called the philosophy of technology, which has arisen somewhat as the philosophy of science arose, but with an emphasis on *praxis* and *techne* rather than on *theoria* and *episteme,* and it raises fundamental questions, as it professionally should, about action in a world of originally human but now sometimes alien things, as opposed to thought in a world of originally human but now sometimes alien ideas. The parallel between these worlds is an old philosophical *topos,* an elegant version of which is to be found in Spinoza's *On the Improvement of the Understanding,* where he compares the making of tools by means of other tools with the manner in which the intellect improves its own instruments.

But understanding is only one of the tasks of the humanities, even though without it further activity is futile; there is also what might be called their humanizing task. How does it stand in a technological age?

My conclusion here may seem perverse in the light of the obvious implications of our topic. It is that one of the most important things the humanities can do in a technological age is to forget, when not explicitly attending to the fact, that that is the sort of age it is. For the humanities have a task that is independent of the age, namely to articulate the best. I was going to say the best in human achievement or some such thing, but I think I will leave the phrase as it is: to articulate the best.

The implicit opposition under whose sign we are speaking here, between the arts and humanities on the one hand, and science and technology on the other, is, I may remind you, of comparatively recent date; the humanities originally emerged on the academic scene in opposition not to the sciences but to divinity, and the present state of the world suggests that the latter opposition is far from transcended, so that the humanities have an old agenda still outstanding. In this connection the technological age may be a red herring.

One of the prejudices that it is hardest for humans to overcome is the prejudice that the best has to be looked for on the divine rather than the human side of this old opposition. The decline of religious faith still seems to many people synonymous with the *descensus averni,* and a merely human world to be

automatically a dead or empty one. Matthew Arnold seems to have suffered from this conviction; we are left at the end of "Dover Beach," as you will remember, "as on a darkling plain... where ignorant armies clash by night." (Of course, it is a less despairing poem than it seems, containing as it does, almost in passing, the best and only human answer to its own problem, in the poet's exclamation "Ah love, let us be kind/to one another.")

The loss of faith, however, as Lytton Strachey notes with his customary amusement, admits of varying interpretations: it may lead to perplexity, so that the victim spends the rest of his life trying to find his faith again, but it may occasion profound relief, as in the loss "of a heavy portmanteau which afterwards proved to have been full of brickbats." It is true that the general decline of faith was historically an accompaniment (and indeed an effect) of the rise of science and technology, but that need not have been a change for the worse—it may, Strachey suggests, have been a change for the better.

So I will hold to my definition of the task of the humanities as the articulation of the best—an expression that now recalls to me, through its over-familiarity, Yeats's remark about who lacks all conviction and who is full of passionate intensity. The passionate intensity, these days, comes from the anti-humanist wing, and it is my belief that the humanities confront a far more serious danger from this quarter than from science or technology. Of course here again I would rather temper oppositions than exacerbate them, and like Feuerbach I think there is far more of the human in the divine, and far more of the divine in the human, than their old conflict recognizes.

But there is, and I repeat, an anti-humanist spirit abroad, and one that does not hesitate to use the most sophisticated resources of technology to propagate its message. It claims a superhuman knowledge of the human, and while this claim is and has historically been effective in inspiring people to rise above the worst in human nature, it has also often had as a side effect the suppression of the best. For the best is always a reaching beyond, and therefore always risks being seen as subversive. In a way the association of this anti-humanism with technology is appropriate, because it too makes easy what without it might be hard: it makes belief easy, especially belief in privilege, and in the status quo.

Kierkegaard long ago foresaw this development, and forged his own quirky response to it.

> *For when all combine in even way to make everything easier and easier, there remains only one possible danger, namely, that the easiness might become so great that it was too great: then only one want is left, though not yet a felt want—that people will want difficulty.*

This want Kierkegaard set out to supply. But he did not make much of an impact—everything has kept getting easier and easier, except when it has broken down, when the consequences have been more and more apocalyptic. Nevertheless I think he was right; the practical task of the humanities is to bring people to want something hard, namely to acquire and understand humanity without the aid of technology or piety, and to bring them to want that as much as they now want the easier rewards and answers that technology and piety provide.

How can any enterprise possibly succeed in such a task? Why should it want to? The second question is the easier to answer: it is because easy solutions nearly always have unforeseen and unhappy consequences. If we do not think through the implications of our actions and beliefs in a sufficiently rigorous way, some innocent person will pay, sooner or later, for our neglect. The historical evidence for this is overwhelming, in religious and ideological (and therefore often military) confrontation, economic injustice, and ecological catastrophe. The first is more difficult. However, I have perhaps made it too hard.

It is not that people have to give up the benefits of technology, nor for that matter of piety, although that is a more complex question. It is just that these have to be judged in the light of their human

consequences. And people might be brought to want that if those consequences, for good and ill, could be made vivid to them. That will take some insistent work, among other things greater and more persistent efforts by humanists—including a more imaginative use of technology. "When the true muses retire from the scene," says Cleanth Brooks, "the bastard muses are ready to take over." But who let the true muses retire?

Well, they haven't altogether retired. They are to be found at work here and there, in public radio and television (Jefferson would find *some* things worth recording on his VCR), in educational programs, in the National Endowment for the Humanities, in theatres and lecture halls, above all in libraries. Thanks, at least in part, to Ts'ai Lun. For Ts'ai Lun was the inventor of that extraordinary medium for information storage and retrieval, requiring only natural light and the unaided eye and therefore proof against power failures, that we know as paper.

I chose Ts'ai Lun because, as I sat down to write this text, it struck me how irreversibly dependent we all are on this obvious and thus invisible contribution to technology—as on myriads of other and similar technologic helps to humanity, without which indeed humanity could not even have dreamed of becoming what it is. I thought we ought to celebrate him and his neglected fellows, to restore the spirit of Diderot's *Encyclopedia* (now *there's* a project for the Endowment!).

Of course it is what we put on the paper that counts. But I don't have to tell you, by now, what that should be. My last word, which I address to myself as well as to you and to my colleagues and students and children (and their colleagues and students and children), is that we should go and do it, and not only on paper but in the other media as well, competing if necessary for the attention of our fellows as well as for the support of government and the corporate world—and it will be necessary to fight not only the bastard muses but the forces of fundamentalism and superstition and repression. For nobody is going to make it easy for the humanities—but humanists of all people should find even that a source of strength.