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Devices of the Soul: Battling for Our Selves in an Age of Machines
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Introduction

Self-forgetfulness is the reigning temptation of the technological era. This is why we so readily give our assent to the absurd proposition that a computer can add two plus two, despite the fact that it can do nothing of the sort—not if we have in mind anything remotely resembling what *we* do when we add numbers. In the computer's case, the mechanics of addition involve no motivation, no consciousness of the task, no mobilization of the will, no metabolic activity, no imagination. And its performance brings neither the satisfaction of accomplishment nor the strengthening of practical skills and cognitive capacities.

How is it, then, that we can so easily think of the computer as doing the same thing we do? Only because nearly the entire content of our own activity has fallen from view. It may seem trivial to forget ourselves in the matter of simple addition. But if we greatly increase the sophistication of the calculation, and if we continue to reduce it to the non-human terms of the machine, eventually we arrive at a computer's-eye-view of the entire world of industry, commerce, and society at large. From this viewpoint it is wonderfully easy to assume, for example, that the financial spreadsheet of a business provides all the information required for making decisions. But where in the

impact of the company's operations upon the local community, consumers, and the physical environment? And where do we find the passions and motivations, the intentions and moral impulses, through which we can infuse a business with the light of human consciousness and make of it a vocation, a worthy expression of our lives?

The computer's automatic logic, necessary and valuable though it may be, sucks all these flesh-and-blood concerns into a vortex of wonderfully effective calculation—so wonderful and so effective that only what is calculable may survive in our awareness.

The remarkable thing is not this obvious and even hackneyed truth. Rather, it is the fact that, despite our recognition of the truth, we often find it nearly impossible to alter our course in any meaningful way. And so we move in lockstep with an ever more closely woven web of programmed logic. None of the machines guiding our activity may seem particularly malevolent, yet the meaning of our lives all the while becomes harder to lay hold of.

How hard it is to keep faith with ourselves is painfully evident in education, where *everyone* disclaims the fact-shoveling model of learning. And yet the unconscious metaphors by which we reveal our real convictions about education revolve more and more around the idea of downloading information or transmitting it from one database to another. And the computer in the classroom makes this idea irresistibly concrete. Transfixed by the efficient data flows all around us, we easily lose sight of the fact that lack of information has not been the bottleneck in education for decades, or even centuries, if it ever was. Rather, the task for the teacher is to take the infinitesimal slice of available information that can actually be used in the classroom and find some way to bring students into living connection with it.

miraculous machine. But we should not forget that, in order to do this, we had in some sense to reduce ourselves to the machine's level—to imagine it and mime it within ourselves—until we achieved such a clear, internal expression of it that we could build it in the world. In particular, we had to enter into our own potentials for programmed, automatic thought and action before we could build automatons of silicon, plastic, and metal.

Not only did the machine originate with us, and not only does it live in us, but now it has a massive external and objective presence in our lives. We can interact with all this machinery only by shaping ourselves to its requirements. In this way the objectified machine can, if we allow it, further strengthen those inner, mimed automatisms from which it first arose. Now repeated in compulsive resonance with the universal computational apparatus of society, these inner gestures threaten to harden into chains of the soul.

The danger of self-forgetfulness, then, is the danger that we will descend to the level of the computational devices we have engineered—not merely imagining ever new and more sophisticated automatons, but reducing ourselves to automatons. So first and most fundamentally, it's not the objective mechanical entity we should worry about, but rather our own participation in it. There is, however, positive hope in this, because our participation is, or can be, a long way from machine-like. Yes, in one way or another we must adapt ourselves to the machine's requirements, but how we do so—and when, and in what context—leaves a lot of room for expressing our own purposes.

This is an essentially inner work. It requires a certain spirit of mischief and trickery from us, a willingness to fashion creative inner "devices" that stand opposite the inner automatisms now resonating so powerfully with the external machinery of