

The Productivity of the Knowledge Worker

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The most important, and indeed the truly unique, contribution of management in the twentieth century was the fifty-fold increase in the productivity of the manual worker in manufacturing.

The most important contribution management needs to make in the twenty-first century is similarly to increase the productivity of knowledge work and the knowledge worker.

The most valuable assets of a twentieth-century company were its *production equipment*. The most valuable asset of a twenty-first-century institution, whether business or non-business, will be its *knowledge workers* and their *productivity*.

Work on the productivity of the knowledge worker has barely begun.

In terms of actual work on knowledge worker productivity we are, in the year 2000, roughly where we were in the year 1900, a century ago, in terms of the productivity of the manual worker. But we already know infinitely more about the productivity of the knowledge worker than we did then about that of the manual worker. We even know a good many of the answers. But we also know the challenges to which we do not yet know the answers, and on which we need to go to work.

Six major factors determine knowledge-worker productivity.

1. Knowledge worker productivity demands that we ask the question: "*What is the task?*"
2. It demands that we impose the responsibility for their productivity on the individual knowledge workers themselves. Knowledge workers *have* to manage themselves. They have to have *autonomy*.

3. Continuing innovation has to be part of the work, the task and the responsibility of knowledge workers.
4. Knowledge work requires continuous learning on the part of the knowledge worker, but equally continuous teaching on the part of the knowledge worker.
5. Productivity of the knowledge worker is not—at least not primarily—a matter of the *quantity* of output. *Quality* is at least as important.
6. Finally, knowledge-worker productivity requires that the knowledge worker is both seen and treated as an “asset” rather than a “cost.” It requires that knowledge workers *want* to work for the organization in preference to all other opportunities.

Each of these requirements—except perhaps the last one—is almost the exact opposite of what is needed to increase the productivity of the manual worker.

In manual work quality also matters. But lack of quality is a restraint. There has to be a certain minimum quality standard. The achievement of Total Quality Management, that is, of the application of twentieth-century statistical theory to manual work, is the ability to cut (though not entirely to eliminate) production that falls below this minimum standard.

But in most knowledge work, quality is not a minimum and a restraint. Quality is the essence of the output. In judging the performance of a teacher, we do not ask how many students there can be in his or her class. We ask how many students learn anything—and that’s a quality question. In appraising the performance of a medical laboratory, the question of how many tests it can run through its machines is quite secondary to the question of how many test results are valid and reliable. And this is true even for the work of the file clerk.

Productivity of knowledge work therefore has to aim first at obtaining quality—and not minimum quality but optimum if not maximum quality. Only then can one ask: “What is the volume, the quantity of work?”

This not only means that we approach the task of making productive the knowledge worker from the quality of the work rather than the quantity. It also means that we will have to learn to define quality.

The crucial question in knowledge-worker productivity is the first one: *What is the task?* It is also the one most at odds with manual-worker productivity. In manual work the key question is always: *How should the work be done?* In manual work the task is always given. None of the people who work on manual-worker productivity ever asked: “What is the manual worker supposed to do?” Their only question was: “How does the manual worker best do the job?”

But in knowledge work the key question is: “What is the task?”

One reason for this is that knowledge work, unlike manual work, does not program the worker. The worker on the automobile assembly line who puts on a wheel is programmed by the simultaneous arrival of the car’s chassis on one line and of the wheel on the other line. The farmer who plows a field in preparation for planting does not climb out of his tractor to take a telephone call, to attend a meeting, or to write a memo. *What* is to be done is always obvious in manual work.

But in knowledge work the task does not program the worker.

A major crisis in the hospital, for example, when a patient suddenly goes into coma, does of course control the nurse’s task and programs her.

But otherwise, it is largely the nurse’s decision whether to spend time at the patient’s bed or whether to spend time filling out papers. Engineers are constantly being pulled off their tasks by having to write a report or rewrite it, by being asked to attend a meeting and so on. The job of the salesperson in the department store is to serve the customer and to provide the merchandise the customer is interested in or should become interested in. Instead the salesperson spends an enormous amount of time on paperwork, on checking whether merchandise is in stock, on checking when and how it can be delivered and so on—all the things that take salespeople away from the customer and do not add anything to their productivity in doing what salespeople are being paid for, which is to sell and to satisfy the customer.

The first requirement in tackling knowledge work is to find out what the task is so as to make it possible to concentrate knowledge workers on the task and to eliminate everything else—at least as far as it can possibly be eliminated. But this then requires that the knowledge workers themselves define what the task is or should be. And only the knowledge workers themselves can do that.

Work on knowledge-worker productivity therefore begins with asking the knowledge workers themselves: