The Autonomous Performer

Some Implications of Configured Work

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Can Performance be Engineered?

The reigning paradigm of human performance technology holds that performance can be engineered. This means that the conditions of performance can be arranged to ensure results. In this scheme of things the conditions of performance are arranged by management, typically with the aid of a performance technologist, and the performance is accomplished by a person known as "the performer."

This is a useful model for work where the control mechanism relies on compliance. In such situations, the work is *prefigured*, which is to say *required results and routines are defined in advance*. These requirements are then communicated to the worker and monitored by management.

Performance problems are deviations from requirements and these are detected and corrected by various means. Training is sometimes one of these means. Other means include providing the proper incentives, arranging for feedback or knowledge of results, and making certain that the working environment supports the carrying out of the work.[1]

But what if work performance hinges on contribution instead of compliance? What if the work must be *configured* by the worker in response to the situation at hand? What if the worker, not the manager, must define the results and the routines and the resources required? What if the worker is the main or even sole repository for the reference conditions or standards that define acceptable performance and enable feedback? What if the performance in question reflects the actions of autonomous agents instead of compliant instruments? What if the work process is neither materials-based nor data-based? What if it is knowledge-based? What if it consists not of a series of state-change or transformation operations but, instead, takes the form of a network of recurring, patterned conversations? Are the conditions of performance then so easily arranged? Is worthy performance then so easily engineered?

It is my aim in this article to begin exploring the concept of the autonomous or self-governing performer, especially as manifested in that creature of almost mythical proportions, the knowledge worker, and to begin identifying ways in which performance technology must be defined and practiced differently to accommodate the hard reality that much if not most of the work in today's workplace is configured, not prefigured. We will begin with the distinction between prefigured and configured work.[2]

Prefigured and Configured Work

Work is a process and it has a result, some outcome or product.

Prefigured work is work that has been defined and designed in advance, for execution under a set of well-defined standard conditions. Prefigured work is usually defined and designed by someone other than the person who will be expected to do it. For many years the other person was an industrial engineer. Prefigured work is characterized by repetitive, usually unvarying, routine under standard conditions; the same task being performed again and again. Materials-based, assembly line jobs are the archetypes of prefigured work. However, much data-based and information-based work is also amenable to treatment by way of prefigured work routines. Much clerical and

[1] See my article "The conditions of performance" for a more comprehensive listing of the factors affecting prefigured performance.

[2] See Peter Drucker's book, *Management: Tasks – Responsibilities – Practices*, for what is probably the first discussion of prefigured and configured work routines.

bookkeeping work has been automated. So has much rule-bound decision-making work (e.g., claims adjudication, loan and credit applications, and insurance underwriting).

Configured work is work that is defined and designed in place, in response to the situation at hand, and by the person(s) doing it. There might be some similarities from situation to situation, as is the case with some kinds of consulting engagements but, more often than not, the work situations are very different. For many people, configured work is illustrated by what are known as "special projects." Such projects often require the team members to collaborate in defining the mission of the project, setting its objectives, devising the means of achieving them, putting those means into effect, and evaluating the results. The work of the researcher is the classic case in point of configured work.

What should be clear from the descriptions above is that the locus of control is very different for prefigured and configured work. Prefigured work has an external locus of control, usually vested in management, and the aim of management is to ensure compliance. Configured work has an internal locus of control, always vested in the performer, and the aim of management is (or should be) one of eliciting contribution and supporting the performance necessary to that contribution.[3]

In many respects, the differences between prefigured and configured work routines reflect the differences between manual work and knowledge work. The shift to knowledge work that transpired between 1920 and 1980 reversed the composition of the work force. In 1920, it was dominated by manual workers of one kind or another and the work was predominantly prefigured. By 1980, that dominance had been reversed. Today, the work force is dominated by knowledge workers or what former Labor Secretary Robert Reich (1991) called "symbolic analysts," and work itself is predominantly configured, not prefigured.

In the last analysis, the distinction between prefigured and configured work boils down to the view taken of the worker. For prefigured work routines, the common view taken of the worker or the performer is that of a passive, compliant instrument of management, an actor whose lines are scripted and then acted out under someone else's direction. For configured work routines, this view won't do. The worker or performer, in work groups or alone, must be viewed as self-governing, as an autonomous agent who acts on behalf of an employer, not simply at the behest of or in accordance with the dictates of management. Peter Drucker (1973) was addressing this very issue when he wrote regarding the knowledge worker, "Above all, no one can supervise him. He is the guardian of his own standards, of his own performance, and of his own objectives" (p.279).

Implications

In broad terms, the implications of the shift from prefigured to configured work are that the mission, models, methods, and marketing of performance technology are all on the table, up for review and revision.

Of all the implications of configured work and of autonomous performers, none is clearer than this: The responsibility for work design and performance improvement must rest with the performer. As Drucker (1973) also wrote, "Management must retain a veto power, and will often exercise it. But the responsibility for job design and work group design belongs to those who are responsible for output and performance. And that is the worker and the work group" (p. 272).

[3] See my article "What is in the world of work and working" for a more in-depth contrast of prefigured and configured work.

This shift in the responsibility for work design and performance improvement signals a corresponding shift in the mission of performance technology and performance technologists. The mission must shift from one of applying the technology on behalf of management to one of transferring the technology and know-how to the work force, of making it available for individual workers and work groups to use in configuring their work, of making it possible for them to engineer their own performance instead of having it engineered for them by someone else.

Beyond this shift in mission lies a requirement to modify the models that now undergird the practice of human performance technology. Human performance technology has its roots in radical behaviorism and the stimulus-response-reinforcement view of behavior. This view is very much reflected in the models of performance that undergird human performance technology.

The reigning models of human performance technology were developed by the great names in the field, people like Karen Brethower, Tom Gilbert, Joe Harless, Bob Mager and Peter Pipe, and Geary Rummler and his colleagues at the Praxis Corporation in the 1970s.[4] Setting aside minor variations, the essence of the message conveyed by these exemplars and their models can be summed up as follows:

> There is a great tendency to rely on training as the solution to many problems of job or task performance when in fact the problem is traceable to factors affecting performance other than the skill or knowledge of the performer. These other factors include but are not limited to the communication of expectations, the provision of suitable consequences and feedback, and managing task interference (e.g., clarifying competing priorities, ensuring the proper tools and equipment are available, and so on). Tend to these other factors and the desired performance has a much higher likelihood of occurring.

There are some underlying assumptions here. First, is a causal link between behavior and performance, between actions and results. Although performance technologists are usually quick to distinguish between behavior and performance, the two are nonetheless inextricably linked. Second is an assumption that the actions required to produce a given result can be specified, usually by some outside agent such as an industrial engineer or a performance analyst. In short, the work can be prefigured. Third is the assumption that this prefigured working activity can also be programmed, that is, shaped, influenced, and maintained as a result of various external interventions (e.g., training, incentives, feedback, and consequences).

The reigning models offer useful ways of looking at repetitive tasks intended to yield standard products under standard conditions. They are less useful in fluid working environments, where results must be achieved under widely varying and, on occasion, rapidly and radically changing circumstances. Under these conditions, performance is not so much a matter of mastering and then carrying out prefigured routines as it is a matter of configuring a response to the situation at hand. This kind of work requires flexibility, adaptability, and constancy of purpose on the part of the performer. It also means that problem solving, instead of being an occasionally and situationally useful skill, is a core competency. Setting goals and objectives, instead of being the sole prerogative of management, is an integral part of almost everyone's job. Planning, scheduling, and even designing work falls not to the industrial engineer but to the worker. Many if not most of the people in today's workplace are better viewed as self-managing and self-controlling agents acting on behalf of their employer instead of instruments to be managed and manipulated.

[4] The key books and papers by these luminaries are listed in the references section of this paper.

A Model of Autonomous Performance

At this point I will present and explain a model of human behavior and performance that I use to guide my thinking about those subjects. It acknowledges the autonomous nature of human beings. It also recognizes that performance on the job is increasingly a matter of configuring courses of action instead of carrying out prefigured routines. It is a model that reflects self-control not external control. The model helps keep in mind the distinction between behavior and performance while, at the same time, keeping their relationship intact and in the forefront of one's thinking and analyses. It reminds us that without behavior there is no performance. The model is depicted in Figure 1 below and described in subsequent paragraphs. First, two key terms are defined: behavior, and performance.

The Key Terms: Behavior & Performance

Behavior is activity. Performance refers to the effects of activity, to what Tom Gilbert (1978) called "accomplishments" and to what Gilbert Ryle (1949) earlier called "achievements." The essence of the distinction between behavior and performance is the difference between means and ends, between activity and results. A story from my early consulting days illustrates clearly this important distinction.

> In 1975, a petite young woman was interviewing for a position as a field sales representative with a nationally known manufacturer of foodstuffs such as tea, salad dressings and instant soups. The interview was conducted by the vice president of sales. The director of sales training, in whose office I was seated at the time, was betting the young woman would not get the job. The sales force was all male, it had been all male for a long time and, by all accounts, it was likely to remain that way. After all, the job frequently entailed lugging heavy boxes from the warehouse to the sales representative's car and from the car to the store. This was clearly a man's job. After the interview, the vice president of sales stepped into the adjoining office of the director of sales training and, to our surprise, announced that he had hired the young woman. When asked why, he replied, "Well, when I told her about the boxes, she smiled and said, 'Surely, you don't think I'm going to carry them myself, do you?'"

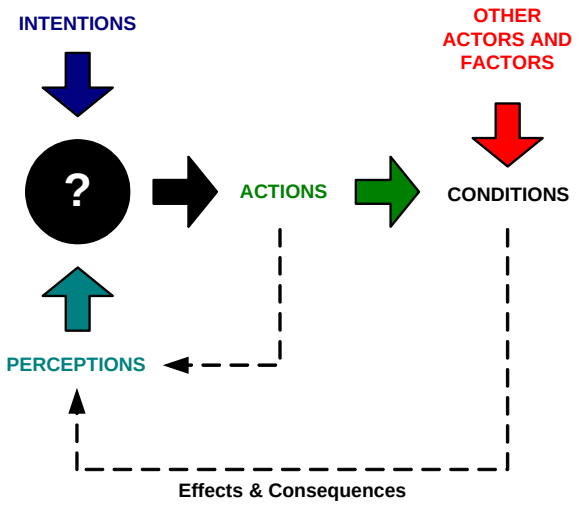

Figure 1 - A Model of Human Performance

As the young woman saw it, the job was to get the boxes from the warehouse to her car and from her car to the store. That did not mean she had to lug them herself. Lugging behavior (at least on her part) was just one of many means for moving the boxes. The performance, the "accomplishment" as Gilbert termed it, was getting the boxes moved. With this distinction between behavior and performance in mind, let us examine the elements in the model shown in Figure 1.

The Elements of the Model

Intentions

Intentions is a term that encompasses many other terms; for example, aims, effects, ends, goals, objectives, and outcomes. We are purposeful creatures. We set our sights on desired ends and then, through our actions, set about achieving them. Moreover, we pursue our goals and objectives under varying and trying conditions. We adjust and adapt, persisting in the face of unforeseen, unwanted circumstances. The ends we seek, the effects we set out to create, the conditions we intend controlling – all these and more define our intentions.

Actions

Actions are the things we do, planned or unplanned, including the decisions we make. These can range from a single small act to a complex course of action. Action or behavior might be reactive or proactive, it might be orchestrated or improvised, impromptu or scheduled. The pace might be measured and steady or hectic, even frantic. Actions can be undertaken by a single individual, a team of two or more, or an army of thousands. It is also the case that our actions can be more or less efficient and more or less effective, which is to say they might or might not make good use of resources and they might or might not lead to the desired results. In all cases, however, action is our only means of effecting changes in our environment.

Conditions

Conditions refers to the current state of those circumstances we seek to control. This might or might not be aligned with our intended state. The conditions we seek to control can be as "fuzzy" as a view of ourselves as good husbands, fathers, wives, or mothers, and they can be as concrete as keeping our automobile in a given lane while driving at high speed on a very windy day. The conditions we seek to control might include finishing up the fiscal year well within budget, or bringing in a project on time. They can even include something as mundane as the extent to which we want our steaks cooked.

Perceptions

Inside my skin, or so I believe, is a person, a sentient being of some kind, possessed of a modicum of intellect, intelligence, ideas, insight, imagination and initiative; a someone who watches what goes on outside my skin and attends to what is going on inside it as well. (For the most part, I think I reside directly behind my eyeballs; I am an intensely visual person.)

My knowledge of what is going on "out there" comes to me via my perceptions. They are the source of all that I know. I perceive my own actions, their effects, and what I believe to be their consequences, all in light of the conditions I seek to control. Indeed, my actions, my behavior patterns, serve to align my perceptions with my intentions, my internal reference conditions. If my perceptions don’t align with my reference conditions, or when their alignment is disturbed or threatened, I act in such a way as to achieve or preserve alignment between reference and perceived conditions. From time to time, I change my goals and expectations. Over time, I learn. My reference conditions change. All happens by way of my perceptions. The dotted lines in Figure 1 close the loop that runs from goals and expectations through decisions and actions to their effects and consequences.

Other Actors and Factors

William Powers (1975) observed more than a quarter of a century ago, that behavior is the means whereby we control our perceptions.[5] Essentially, we act or behave to achieve and maintain alignment between our perceptions and internally-held reference conditions. That these reference conditions might be only temporarily adopted or easily discarded makes no difference. We act not only to achieve alignment between perceptions and reference conditions but also to maintain it. We are alert to other actors and factors that might disturb the alignment between our reference conditions and our perceptions of the corresponding actual conditions. I dress one way, my boss wants me to dress another way. My mode of dress is consistent with my reference conditions and inconsistent with my boss's. We are attempting to control the same perceived condition.

A Few Words about Effects and Consequences

Effects are the perceived changes in conditions we attribute to our actions. Some are immediate and direct, such as the sound of the keyboard clicking in response to my touch and the appearance of recognizable characters on the screen in front of me. Some are indirect and delayed; for example, the effects of a reorganization or a downsizing might take quite some time to make themselves felt. Some effects are intended and some are unintended, such as the occasional "typo" that flying fingers sometimes create.

Accidents do happen. Some of the effects of our actions are observable and some are unobservable. Similarly, some are known and some are unknown. Some are natural, that is, they ripple outward from our point of intervention and what happens occurs as a function of the structure of the situation or system in which we are intervening. Some of the effects of our actions are contrived, that is, they are imposed on us by others, usually as an attempt to elicit or to extinguish certain behaviors on our part. Much of the conflict in the workplace stems from this focus on behavior. Finally, the effects of our actions may be viewed as consequential or inconsequential, which is to say they matter to us (or to others) or they don't.

Consequences are the effects of our behavior to which we attach significance and that act to confirm or disconfirm and perhaps alter our actions. Some consequences are direct and some are indirect, some are immediate and some are delayed, some are observable and some are not, some are intended and some are unintended, and some are natural and some are contrived. If they are to be operational, consequences must in all cases be known and significant. There is no such thing as an unknown inconsequential consequence.

When I act to maintain my preferred reference conditions, it looks to other people as though I am resisting change. I am, but that does not mean I am generally resistant to change, it means only that I am resisting that particular change, which I view as a disturbance. When other people manipulate the contrived consequences of my behavior or performance, their actions look to me a lot like just plain manipulation. Depending on the meaning I attach to those contrived consequences (and the motives I ascribe to those doing the contriving), I might or might not behave in ways that are consistent with their perceptions and reference conditions, but I will always behave in ways that attempt to maintain alignment between my perceptions and my reference conditions. The same is true of other people. This view of people as self-governing requires some rethinking of human performance technology.

[5] See Powers' book *Behavior: The Control of Perception*.

Refocusing, Repackaging, and Repositioning Performance Technology

The shift in responsibility for the design and management of configured work to the worker and the work group means the market for performance technology has moved. Workers and work groups are the new clients and customers for what performance technologists have to offer. They are the users, too. They are no longer the targets. The methods of performance technology must be refocused, repackaged, and repositioned in response to this change in the marketplace.

The current marketing of performance technology centers on applying the technology to the performance of individuals and work groups. It must center instead on transferring the technology to individuals and work groups for use by them. Performance analysis must be situated in the work group, not in some staff group or external consulting firm. Performance technology must be repositioned as a design methodology, not just a diagnostic framework. It must be repositioned for use in preventing performance problems, not simply correcting them. To paraphrase Joe Harless, "An ounce of design is worth a pound of diagnosis."[6]

Summary

The nature of work requires many if not most people in today's workplace to configure their responses to the situations they encounter instead of simply carrying out routines that have been prefigured for them by others. Successful performance hinges on performers who are best thought of as autonomous agents, not compliant instruments. In turn, this requires us to acknowledge what has been there all along – the autonomous or self-governing nature of human beings.

Acknowledging the autonomous or self-governing nature of performers and performance carries with it important implications for performance technology and performance technologists. Chief among them is that performance technology must be practiced and applied by workers and work groups in the course of configuring their work. No longer can we afford to have it applied primarily by performance technology specialists acting as advisors to managers who are trying to solve performance problems after they have occurred. In short, if worthy performance is to be engineered, workers and work groups must engineer it.

In general, the implications for performance technology of a shift from prefigured to configured work call for changes to its mission, its models, its methods, and its marketing. Effecting these changes is one of the chief challenges facing performance technologists.

References and Recommended Reading

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