

Business Process Reengineering: Newest Fad, or Revolution in Government?

There is a new management trend coming, and if managers have not heard about it, they will soon. Its proponents call it a revolution in the way institutions are organized. Its skeptics call it the latest in a long line of alphabet-soup fads dished up by management consultants, from MBO to PPBS to ZBB to TQM. Whether managers consider it a revolution or a fad, they need to learn about business process reengineering, or BPR, because it is different, and many people think it will permanently change the way managers organize their institutions. Consider the following:

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Russ Linden

- In Napa County, California, applicants for public assistance once had to wade through endless forms, long waits, and many interviews in a process that took eight hours just to determine eligibility for coverage. The staff complained of writer's cramp, and everyone knew that the system was hopelessly out of date. The process has been "reengineered." After integrating its various social service programs, substituting an automated system for the myriad forms, and using an "interactive" interview conducted by cross-trained case workers, Napa County reduced the waiting time for applicants from eight hours to a few minutes.
- In one small city, budget staff members did a study of the purchasing process and learned that they often spent \$150 or more of staff time to make a \$5 purchase. The city reengineered the process. Now, departments are

given responsibility to make all small purchases.

Each department has been issued a bank credit card and an approved list of vendors. For all purchases under \$1,000 with these vendors, there are no requisition forms, no purchase orders, no sign-offs or hand-offs. Staff members are able to buy what they need, when they need it, at a competitive cost. Each month, the bank sends the finance department a tape of all city transactions, allowing the city to reconcile purchases against its own general ledger system. The result: purchases are made promptly, equipment does not sit idle for lack of small parts, and the city estimates that it is saving thousands of dollars. The savings in staff time can not even be calculated.

Some reengineering examples, such as those above, may appear to be nothing more than quick fixes, changes that should have been made long ago. But to draw this inference misses the point. Whether reengineering is for you or not (and it is not for every locality), it is not a quick fix. Rather, it is a fundamentally new way to think about and structure organizations.

From Function to Process: A Radically Different Way to Organize

Since the Industrial Revolution, we have organized most large enterprises much as Henry Ford designed his assembly line in Highland Park, Michigan: along functional lines, with jobs broken down into small, repetitive steps. The people, like the parts, were standardized and interchangeable. Ford was looking for efficiency, not creativity. ("You're not paid to think; we'll do the thinking around here," he said to one laborer.) The point was to drive down costs and make each unit account-

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able. His system certainly achieved those objectives. Most large organizations, public and private, have been modeled along similar lines.

Since the Reform Era, government has taken bureaucracy one huge step further. To combat the graft and corruption that was rampant in many governments, institutional changes led to centralized staff functions (accounting, finance, personnel, etc.) and to such oversight boards as civil service commissions. This development resulted in far less corruption, at the cost of an ever-growing bureaucracy. Rather than simply giving a task to a worker, employers have learned how to pay peo-

ple to check others, who check others, who check others. Workers spend more time accounting for what is done than actually doing anything. And every time there is a major problem, additional checks, layers, and procedures are created.

Process reengineering reverses this trend. It collapses long, tedious sequences of sign-offs and hand-offs, shrinking the time it takes to make decisions and deliver services. What makes BPR radical is that it aims at the total rethinking and redesign of organizations along process, not functional lines. Because most managers have never known anything other than functional types of organizations, this contrast takes some time to appreciate.

A functional approach means that managers organize around specific functions or departments, say, finance, information systems, human resources, parks and recreation, and police. This approach makes sense, but BPR challenges individuals' basic assumptions about what makes sense. Organizing by function is right from the *professional's* point of view. Finance personnel like working together; so do engineers, accountants, and social workers. When an organization is reengineered, it is designed along process lines, which is what makes sense to the *end user*, the customer.

For example: most lending institutions take four weeks or longer to make decisions on mortgage applications. The reason for the delay is that banks and thrifts are organized by function, which forces the applications to go through a rigid, assembly line-type, sequential process involving four or five departments and as many as 20 different people. The applicant waits a month, but the application is actually worked on for less than an hour. Most of the time, it is sitting on someone's desk. This same long, sequential process is fostered by local governments to process applications for permits, licenses, and benefits; to develop the budget; and to make

many decisions. The following case study exemplifies a move from a functional to a process orientation.

Reengineering the Business License Process

In Charlottesville, Virginia, a person wanting to open a business had to run the equivalent of a bureaucratic triathlon. The applicant went to three different departments, up and down several flights of stairs, often having to return home for information between steps.

First stop was the commissioner of revenue's office, where an applicant filled out a form with three carbon copies. The applicant took it up two flights of stairs to the building and life safety department, which checked to see if the business was approved for the building to be used, found out whether the structure was accessible to the handicapped, and ensured that the certificate of occupancy was correct for the intended use. If everything was in order, the applicant went to the third office, community development. Here, staffers asked about signage (if the sign was to be used, it required another application and a check); determined whether the building was in the historic district (changes to a building in this district must go to the board of architectural review, entailing a whole new series of steps and forms); checked the zoning to see if the proposed business use was permitted; determined if the required number of parking spaces was provided; and noted whether a house was being used for a business purpose (only certain types of occupations were allowed in houses).

Finally, the applicant took all of the forms and permits back to the commissioner of revenue's office, where all signatures were checked and verified. If everything was in order, the applicant paid a fee and received the license. Because three different offices were involved and

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because only one or two people were authorized to sign the forms and permits in each, the applicant had a long, wearisome process with several surprises and occasional detours along the way.

A team of staff from the three offices met to reengineer the process. Today, it is one-stop shopping. The applicant goes only to the commissioner of revenue's office, where an employee fills out a simple one-page form. The employee calls the other two offices to verify zoning, sign usage, handicapped accessibility, and so on, while the applicant is there. Applicants do not wait; several staffers have been cross-trained to take the information and make the

decision in each office. There are no surprises; applicants are told upfront of everything they will need. There are no carbons to carry around. The one-page form is being automated, and after the other two departments have verified an applicant's eligibility by phone, they send their verifications to the commissioner of revenue by E-mail.

Results? What used to take two days—assuming that all went well—now takes a half-hour. Citizens are delighted, and they only have to deal with one employee. Staff love it because they do not have to deal with paper, and there is nothing to get lost in the shuffle.

The Principles of BPR

The business license example illustrates the key principles of process reengineering:

1. *Substitute parallel for sequential process.* Anyone who has ever prepared a multidish meal for guests understands this principle. In the Charlottesville case, the old process was drawn-out because it was sequential. The streamlined process is fast, in part because several steps are going on in parallel.

2. *Bring "downstream" information "upstream."* One of the major causes of delays, errors, fingerpointing, and turf guarding is the fact that many processes are begun without getting information from all who will have a role in it. At some point, someone says, "If you'd asked me earlier, I could have saved you a lot of grief." There are no surprises in the business license example; the "downstream" information (what is needed to complete the application) is all given to the applicant "upstream," at the start.

3. *Provide a single point of contact to customers and suppliers whenever possible.* The principle of one-stop shopping,

as used in Napa County's welfare office, is being used in Charlottesville to simplify the steps and ensure that no client falls through the cracks.

4. *Capture information once, at the source.* As reengineering guru Michael Hammer points out, the old information processing tools required people to capture information frequently; in the Charlottesville example, applicants used to fill out forms three times even in the best case. Getting the departments to coordinate on a single, simple form and using modern technology are remedies that allow the information to be captured just once.

5. *Ensure a continuous flow of the "main sequence": that chain of activities that adds value for the end user.* Identify the value-adding steps—those that the customer cares about, such as seeking and providing information, delivering a service or product, and speeding up a response. Eliminate any functions that slow the processes down. Any non-value adding steps that still may be necessary must be performed in parallel. In the business license instance, the customer does not care that two other departments must verify and sign off on the application, though those sign-offs are needed. If verbal confirmation can be obtained quickly on the phone and formalized later through E-mail, the main sequence of value-added steps can keep moving, and the non-value added steps need not slow things down.

6. *Organize around outcomes, not functions.* This principle is at the core of BPR. A reengineered process begins by asking, What is the final outcome? In the purchasing example, the necessary outcome was a prompt, appropriate purchase. Everything was organized around the desired outcome.

7. *Don't "pave cow paths." First, redesign*

How to Reengineer Processes: The Steps

1. Map out the process as it currently exists.
2. Start at the end and work backward. Ask, what does the end user need? What is the "deliverable" that this process must produce?
3. Set an ambitious objective. Trying to improve 15 to 20 percent will not do it. Only a quantum leap—a 90 percent reduction in response time to requests, a 75 percent reduction in time to make a purchase—will force the staff to think in truly new ways.
4. Start with a clean sheet. Besides acknowledging existing laws and codes that can not be changed, make no assumptions about who or what is involved. Insist on finding the leanest way to provide the deliverable to the end user.

the process, then automate. Automating bureaucratic processes makes no sense; it only helps us make the same mistakes faster! Automation did not "fix" the business license process, which had to be totally streamlined before automation really would make a difference.

8. *Every time a piece of paper enters the system, demand to know why.* When in doubt, recycle it. Paper simply slows down the process, makes professionals like the Napa County social workers into clerks, and adds unnecessary hand-offs and sign-offs. In a high-tech age when customers expect speed, paper has little place. Good substitutes are advanced technology, face-to-face communications, and trust.

It Is Not for Everybody, or Every Situation

Unfortunately, reengineering enthusiasts can be guilty of overpromising. The fact is, process reengineering is not for everyone. In matters of policy, public involvement, and politics, there always will be a need for extensive consultation and meetings. If you streamline those processes too much, the public may perceive that it is being left out. Also, when an organization is going through a crisis, BPR and other innovations are inappropriate, even though the crisis may force people to take a fresh look at how they do business once the crisis is over. In such highly contentious controversies as battles between environmentalists and developers, a highly streamlined process may cause more problems than it solves.

Nevertheless, many aspects of government are being reengineered successfully. The U.S. Passport Service has streamlined its processes; it used to take up to six weeks to get a passport renewed and now it can be done in a matter of hours. Unemployment bureaus, voter registration offices, management information systems, accounts payable operations, and revenue systems are just some of the functions being reengineered in government. Virtually any long, multistep process involving several stages and sign-offs is a likely candidate. We only are beginning to understand how far this approach can go because the bureaucratic mind-set has become so imbedded in our thinking. More than anything else, business process reengineering forces us to adopt new ways of thinking. At a time when the president is trying to reinvent government, this approach is worth studying carefully. **DM**

Russ Linden, principal, Russ Linden & Associates, Charlottesville, Virginia. Linden's book on process reengineering in government will be published by Jossey-Bass in July 1994.