Introducing hidden processes

Early on, when you begin looking at a process that you want to improve, it is a good idea to spend time mapping it out with a flowchart. The map creates a visual representation of the process that can be used to communicate what steps are involved, where decisions are made and how work flows through it. This map is a valuable tool when working with project teams who need to have a common understanding of the process in order to work together and make improvements.

When I work with groups to map out a process, one of the first things that I usually hear is that they had no idea how many steps were actually in their process. This statement is often followed by someone pointing out that the ‘official’ map we just created does not really reflect what actually happens, because there are ‘unofficial’ steps that are missing. These are steps that exist, but are not recognized as being a part of the process. They are hidden processes.

Hidden processes pop up as unplanned inspections, rework, or the scrapping and restarting of efforts due to mistakes or defects that occur. These hidden processes use up resources, increase the time it takes to provide a service or product, and drive up costs. Because of this, organizations have to devote more resources than planned to accomplish their goals. Let’s look at an example.

Simplified hidden process example

Say you and one of your co-workers are helping to process student entries to participate in a university-sponsored race. In the first step, you write the student’s name, identification number, phone number, and email address on a pre-printed event form. You then hand this form to your co-worker who enters the information into a database. Finally, the form is passed to a third person who sends the student an information packet and racing bib (number) to attach to their shirt. On the surface, it appears to be a pretty straightforward and simple process (Figure 1).

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Start → Write down the student’s information → Enter the student’s information into a database → Student is sent a racing bib (number) → End
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Figure 1

Now let’s say that your co-worker notices that you sometimes pass them incomplete or unreadable forms (defects). When you pass each new form to your coworker, the first thing they are going to do is review what you wrote to see if they can read it and if all of the needed information is there. This is an inspection step that is masquerading as part of the data entry step, and is the start of a hidden process (Figure 2 orange shapes).
Even though it only takes a moment, this is time and staff cost that is not being put into the actual job of entering the information into the database. Even in small amounts, this can be costly when you multiply them by a large number of repetitions. Just for fun, let’s do the math. If 2,000 students wanted to participate in the race and it only took an extra 2 seconds for your coworker to review each form, it would add up to a little more than an hour of unplanned inspection time that is not adding value to the process and for which the co-worker is being paid. In more complex processes, inspections like these can take longer and be far more costly.

**Figure 2**

After your co-worker finds a defect, it has to be corrected. What if you hand them a form where you forgot to write down the student’s identification number and the email address is smeared and unreadable. Now your coworker has to pass the form back to you and let you know that it needs to be fixed. You can go back and fill in the identification number, which will require you to spend more time and add a little bit of extra staff cost to processing this entry. If, after looking at the email address, you decide that you cannot make it more legible, then you would need to scrap the form and start over. Now the work that you have to do for this one participant’s entry is double what is should have been – twice the time, twice the labor, and twice the cost of the pre-printed forms. During the course of this work, if the first step produced 100 defects that had to be reworked or restarted in order to sign-up 2,000 racers, the process would require the total time and resources needed to sign-up 2,100 racers. It is small wonder that hidden processes can be so taxing.
The major issue that arises from having hidden processes is they conceal the steps that produce defects (bad services or products). If the example process is looked at as a whole, everything looks fine. You had 2,000 students ask to be signed-up for the race, and in the end 2,000 people were entered and received a race packet. Serving all of the students did not happen because the process worked flawlessly, but because one of the workers kept catching all of the mistakes from step 1 and having them corrected through a hidden process. At first glance, the process does not need to be improved because it did what it was designed to do. But when you see that there were hidden processes in place making it happen, and that there was an extra half-hour of inspection time, plus rework time and additional material and staffing costs, it becomes apparent that the process needs improvement.

As you examine the services you provide and map them out, be on the lookout for hidden processes. At each process step, ask what happens if the inputs from the previous step are found to be defective or contain mistakes. This question will often uncover the hidden processes which are being used to fix things and keep work flowing, and help you identify where defects are being created.

As always, I welcome your questions and feedback. You can email me at clayton.taylor@asu.edu.

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