

REFLECTIONS ON MANAGEMENT

WITH TOM GALVIN

AUDIO TRANSCRIPT



Sequencing Activity into Streams (Knowledge Management, Part 7)

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Please note: This transcript has been edited for clarity.

When it comes to explaining what's going on in an organization, we practitioners have to strike a balance between accuracy and clarity. In the previous episode, I talked about a way to distill the complex and expansive amounts of activity that an organization undertakes. Breaking it down from the ordinary or unremarkable cases to the extraordinary or crisis situations. Now, in this episode, I'm going to talk about how an organization tries to sequence things from some sort of input to some sort of output. And sometimes the sequences are very strict, like an assembly line, but many times the sequence is but an ideal that represents a general sense of movement. I will call this the stream-based metanarrative and talk about how we can construct and utilize it to analyze an organization's behavior.

My name is Tom Galvin and these are my Reflections on Management.

Now up front, I did not come up with the term “stream.” This term has been used in a number of articles that I see both in organization studies but especially in practitioner journals. [These] describe relationships among various organizational activities that generally start at some sort of a point -- say with a strategy or a strategic direction or some idea that the organizational leadership wants to accomplish something -- to some sort of an output at the end. But rather than a sequence, a very strict sequence like an assembly line that goes from one station to another station (and there's a determinism to it), what I'm talking about here is where the points on the stream represent different decision spaces, and some of these can be very, very closely interrelated, whereas others might be almost wholly independent, except to say that it's really hard to move forward unless the prior activities are accounted for or are completed in some way.

I want to provide a practical example of how the stream metaphor has appeared in some literature. I'm going to use two articles that are kind of closely related and touch on the same topic, and they have to do with military readiness. One is Todd Harrison's article from 2014 called *Rethinking Readiness*. What he tries to do is to show that when we talk about military organizations and whether or not they're providing ready forces, the tendency is to measure readiness. In terms of what he refers to as readiness inputs -- that is the number of personnel, the amount of equipment, the condition of the equipment and the training levels -- as opposed to the readiness output that's measured, which is the capability or capacity to perform a particular mission. The stream metaphor comes in that he basically lays out from the readiness input to the readiness output, the translation that should occur that allows us to measure the capacity at the output level. And it's a series of decision points in between.

Similarly in Laura Junor's article, which is called *Managing Military Readiness*, she refers to these as "pipelines," but uses upstream and downstream as the two points on [or ends of] the pipeline. Talking about how the translation of "raw military resources" using her words -- again, personnel, materiel, etc. -- should be not only translated into and measured as capabilities downstream, but also to align the reporting mechanisms on what is reported at various levels or various intermediate stages between the upstream provision of personnel and material to the downstream reporting of capability. She took it kind of one step further to talk specifically about intermediate stages along the way. So you can kind of tell that both of them are looking at the same stream, just different perspectives of it, but also how you progress through the stage of generating those outputs.

Now I'm going to give another example, and this is one that I've used to personally, and this is basically one of organizational design. What I find is that when an organization is going to conduct some sort of a transformation, that is to change from one mission to another or significantly alter their mission in some way, that requires basically a new structure or new processes to be instituted, that there's also kind of an upstream in a downstream to it. So, the upstream is the change in mission itself. [What is] the new mission and how does it compare to the old mission? You know, regardless of the extent or the degree to which you have the change of mission, that kind of falls at the source that the beginning of the stream.

From there, the transformation is going to involve several different elements, but there's kind of a natural sequencing to it because on the first part there is the requirements, which is to say, what is it that about the organization that is going to then be structured or act differently from before? How does that new mission translate into the tasks that the organization is going to perform? Here are the capabilities that the organization needs that's different from before, and the capability requirements may include both those that they have to create versus those that they have to divest.

And then you start getting into the nuts and bolts of the size and the physical organizational structures, especially if this is going to be one of those types of organizations where you create a structure in you, carbon copy of it, like if you're talking about changing the franchises or the local district offices or something of that regard, where you're going to take what is the new mission and propagate it sort of in a semi carbon copy, but not entirely carbon copy fashion from one location to another.

And that gets then finally to the actual what I might call the stationing aspect, which is physically where are you going to put these new organizations? Are you going to change your footprint, basically update your footprint where they are now? Are you going to need new facilities, new infrastructure, new real property or divest? Then the facilities would ordinarily be kind of like the tail end. It would be the most downstream because the facility requirements would naturally depend on what you come up with in terms of the structure that you need to house, but not necessarily because sometimes the organization may find itself where the stationing piece may be, where cost cutting measures demand that you reduce your footprint. You need to consolidate. You need to become more efficient. In which case then you can imagine that, well, on the one hand, you want to go from strategy to capability and posture, but sometimes the inject into the situation is such that you're starting with the posture, which

might be we need to get out of brick and mortar facilities for certain functions and go entirely online, which means we have a lot of divestment to do or we need to grow some of our franchises, but there's just no room. We've got to construct new locations for them to go at.

So there is a sequencing, but you can kind of see that there is the potential for injects into each of these intermediate steps that I described that could have impacts going downstream and going upstream. So the stream can represent any sort of sequencing that is logical if not actually physical. The more obvious cases are where it is more physical or more tangible, where you're moving from a very clearly defined input to a system to a clearly defined output, and the stream reflects the natural decision points on the way. And that might be something I might refer to as more tightly coupled or more directional.

Another is the type of a stream where there is a logic that says that there's an input to an output, but ... may involve intermediate decision points that have direct interfaces with the environment, such that despite the sequencing, the stimuli that affects decision making is coming in from sort of the middle. And then there are effects that go to adjacent intermediate points, both going downstream and going upstream. The use of upstream and downstream in these instances reflects that the bureaucracy or the organization's administrative structure is somewhat designed to prefer movement downstream, such as movement from a strategy to a good or service, or from a plan to the completion of that plan or its sustainment. However, that's not to say that there isn't the potential for movement upstream going against the flow. It's just that those [activities] going that direction becomes harder because once, for example, if you were to take an intermediate decision (which is to say in my organizational design example that you're going to just change the structure of the franchise's first because that's the decision that you can most immediately effect), then there's going to be a profound impact on the strategy that will be felt. But the focus on making the decision at the structural level first, the impact on the strategy then is felt moving upstream. It's not direct, it's indirect. And because of that, one would expect it to feel a bit more disruptive.

So now the question becomes how do we describe a stream that allows us to perhaps model them and analyze them? I guess the start point is to figure out what is the components of a construct of the stream. It starts with a simple set of *origins* and *destinations*, but I think it is probably wiser to consider them as sets as opposed to singular. [It] may be singular, e.g. In the case of an assembly line where you have a single input and a single output to produce a particular item. But we can also consider how you might have sets of inputs or *sets of origins*, much like the way that streams or rivers have multiple sources potentially leading into it that converge. You know, the examples about readiness and talking about multiple origins -- we're talking about personnel, material, perhaps time, money, other resources. So you can have a set of origins.

You can also have a *set of destinations*. You can imagine that in my organizational design example, that there may be different ways of thinking about the outcome of the stationing piece, where downstream the capabilities may be multiple and different or distinct in such a way that you have to kind of mentally separate them out. There's then from the origins and destinations, you then have a flow which is not necessarily unidirectional but is sort of preferred stronger, flowing from the origins

to the destinations which you would call downstream and upstream, going in the other direction. And I think that the strength of the flow is perhaps based on how strongly the movement goes downstream versus how strongly the movement could go upstream. So, I would imagine that if the flow is faster, meaning that the procedures are really built to go smoothly in one direction, that would be very different than a case where you have, say, the design example again that I gave where it's much more bidirectional because each of the intermediate phases could be its own decision space and it's very different in that way.

Now the flow can be assessed on the basis of the *rules, heuristics, norms and shared understandings* that relate one intermediate decision point to another. And that might help you with figuring out what it is that causes one decision space to translate into another if it isn't immediately apparent. And then another thing with the streams is the *feedback*. We traditionally think about feedback loops as going from a downstream position to an upstream decision where the arrow goes from the downstream to the upstream and skips everything in between. Whereas I think with a stream you have to account for feedback, essentially touching all of the intermediate positions in between the place where the feedback originates and where it goes. Not just say jumping all the way back to an earlier decision space. There would be an impact of a change in a decision or a problem that affects the immediate upstream decision space. And from there, the next immediate upstream decision space would be affected. So you can imagine that in my organizational design example that kind of iterative upstream [movement] would happen if something happened at the stationing level that might impact then a structure design decision, which then would impact to the requirements, etc..

So that I think is one of the things that feedback is considerably more robust because of the interconnectedness and the bidirectional sequencing of the decision spaces in the stream. Now I just want to offer one more example to show how the streams can be used, let's consider personnel and sort of the human resources life cycle. If we were to consider all of the decision spaces associated with recruiting, onboarding, entry level selections, promotions, career management, all the way to separations and termination and all of the like. This is another case of where you see that there's a sequencing to the various decision spaces. However, each decision space represents its own set of decisions, and there's a lot of independence of those types of decisions, like how you define a career, how you establish a recruiting organization, how you on board, how you separate pensions and that sort of thing. So there's a lot of distinct decision spaces involved within this framework of a sequence from the beginning to the end.

What I do find in discussions with students is that there is a tendency to think about the decision spaces and their independence and want to narrow the scope. For example, let's talk about the selection system alone or let's talk about problems of being able to recruit. And yet one can see how what they're trying to do to understand and to perhaps make recommendations about this one decision space is going to have profound implications for those systems that are adjacent in this sequence. And then what would be the second and third order effects [that] can be predicted. Now, in some cases, the adjacency of decision spaces is not 100% clear, but so long as one can connect one decision space to another, it's certainly possible to do some cross analysis without overcomplicating things. And so then it helps with bringing the student's perspective a little bit broader to think of how

do you elevate this issue to a more strategic level and think about the entirety of the system? The stream provides a decent point of entry.

And so there you have it, the stream metaphor, a construct that allows you to think about decision spaces that go from an origin to a destination with some rules and relationships established in between that allow you to kind of narrow down to particular portions while also being able to analyze them more strategically, to think about second and third order impacts and know where to look. So that's a meta-narrative which I think is useful for trying to explain decisions and explain the impacts of those decisions. So now the next metanarrative to examine is to think about the decisions themselves, or how we decide how we generate alternatives and compare them. And that's going to be the subject of the next episode.

And that's all for now. The views expressed are my own and do not necessary reflect the United States Army War College, the United States Army or the Department of Defense. Thank you for listening and have a great day.

ALL THE BEST!

TOM GALVIN