

Notes for Technology, Innovation, and Leadership

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Stages of the Process of Innovation

Innovation means a change of practice of a community, where the new practice is of greater value to the members than the previous practice. To effect innovation, the entrepreneur will need to put together a team and manage it. The team will carry out actions (loops) in which the leader is the customer of the team members. Therefore the innovator must have competence at managing a team's commitments so that they move toward completion.

To create the team, the leader must engage people into the conversation for the vision and mission that the team will fulfill. All the "rules of engagement" we have practiced somatically come into play. Can we blend with the other person and walk with them as a partner but not as a controller or threat? Do they want to stay with us or do they move off? As the team gets formed and works together, their engagement moves through three stages:

- **Inclusion** (who is in, who is not; does everyone feel included by the group; does the group welcome back someone who has been absent for a while)
- **Control** (who is in charge; who is the customer and performer for each request; is someone trying to "take over" from the leader or tell others what to do?)
- **Affection** (after a while of working together, the team members feel affection; take care of one another; anticipate one another; have a group momentum that leads to higher performance)

The group leader needs to nurture and manage these stages.

Prior to action and engagement is the declaration of the mission and vision. Can the leader convey a compelling vision of where the project might go? Of how to get there? Of what benefits will come? Can the leader say what is in it for each participant? How each can contribute? When making these declarations, can the leader hold center and speak from personal commitment to the mission?

To summarize: The temporal sequence of stages is

- **Declaration** of mission and vision as an offer to potential team mates and beneficiaries of the project.
- **Engagement** with the people who will make the project happen.
- **Management** of the commitments of the team.

Peter Drucker's Principles **(from *Innovation and Entrepreneurship*)**

Opportunities

There are seven major kinds of opportunities for innovation. The skilled innovator knows them and is watching for them. The first four are visible inside the organization or industry:

- *Unexpected events* (successes, failures, outside events)
- *Incongruities* (between reality and assumptions or expectations)
- *Process need* (improving a process to overcome a breakdown or make it substantially better)
- *Changes in industry or market structure*

The other three involve changes outside the organization or industry:

- *Demographics* (population changes)
- *Changes in perception, mood, and meaning*
- *New knowledge* (both scientific and nonscientific)

Innovation from new knowledge is the most difficult. It relies on the *existence* of the knowledge and usually on the *convergence* of several different knowledge areas. When the right knowledge converges, there is a surge of interest and many competitors are likely to show up to build a market. This period is called the "window". After a few years, it is no longer possible for a new entrant to come in; the window closes. Then follows a "shakeout" leaving only a few survivors. Despite all the books written about surviving a shakeout, it is mostly unpredictable who will win. Very few bright ideas make it down this path, although our way of reporting the innovations usually makes it seem that most started with a bright idea by a genius. During the window, the innovator can waste no time or make a misstep, otherwise he will fall to one of the competitors. With the other six opportunities, there is usually time before there are competitors and there is time to correct mistakes.

Many people do not see these opportunities when they appear. It takes a special awareness to see them. This awareness can be developed by organizational practices that Drucker calls "greed for the new". Chief among the practices are review meetings that examine the best performing projects, what went right, and what new opportunities have appeared. Also, a manager can meet occasionally with the staff to ask for their aspirations and their sense of opportunities, perhaps using the list as a way of looking.

Practices for Purposeful, Systematic Innovation

- *Analysis of the opportunities.* This means careful appraisal of each apparent opportunity with analysis of resources, costs, benefits, and risks.
- *Listening.* This means going out to potential customers to find out what they have to say. Are they receptive to the proposal? Or to something else? What do they value? What drives them? What concerns them?
- *Simplicity.* The innovation has to be simple and focused. If it does more than one thing, it confuses. If it isn't simple, it won't work. The greatest praise of an innovation is, "This is obvious. Why didn't I think of it?"
- *Start Small.* Do one specific thing. Avoid complexity and the grandiose. Simple starts minimize startup resources.
- *Leadership.* Aim for leadership with the innovation. This means that the innovator must also exercise leadership.

(In NPS, the MS thesis is an opportunity for analysis of a proposed innovation. Listening will have to be done during and after the thesis, using the listening skills we teach. If you move to implement the innovation you will want simplicity and a small start. You will need to exercise your leadership skills, learned here and elsewhere, to make everything happen and come together.)

Drucker warns against several pitfalls:

- *Don't be clever.* Innovations have been adopted by ordinary human beings, not well educated MS and PhD holders. If an innovation is to include the great masses, conservatives, and even laggards, it has to be understood by all.
- *Don't diversify, splinter, or do too many things at once.* Keep your energies focused on the one simple thing you are trying to accomplish. Often even that one thing takes a huge amount of work.
- *Don't innovate for the future; innovate for the present.* If it's not useful now, you won't be around when it finally gets to be useful.

Drucker reminds us of three realities about innovation, to help guide us to what we are trying to accomplish:

- *Innovation is work.*
- *Innovators build on their strengths.*
- *Innovation is an effect in economy and society, a change of behavior (practice) of a community.*

Finally, Drucker says that *innovators are conservatives*. That they have special, "risk-tolerant" personalities is a myth. Innovators do the analysis, the listening, the simplicity in order to avoid taking unnecessary risks. They carefully define the risks and then confine them. They are not "risk-focused"; they are "opportunity-focused".