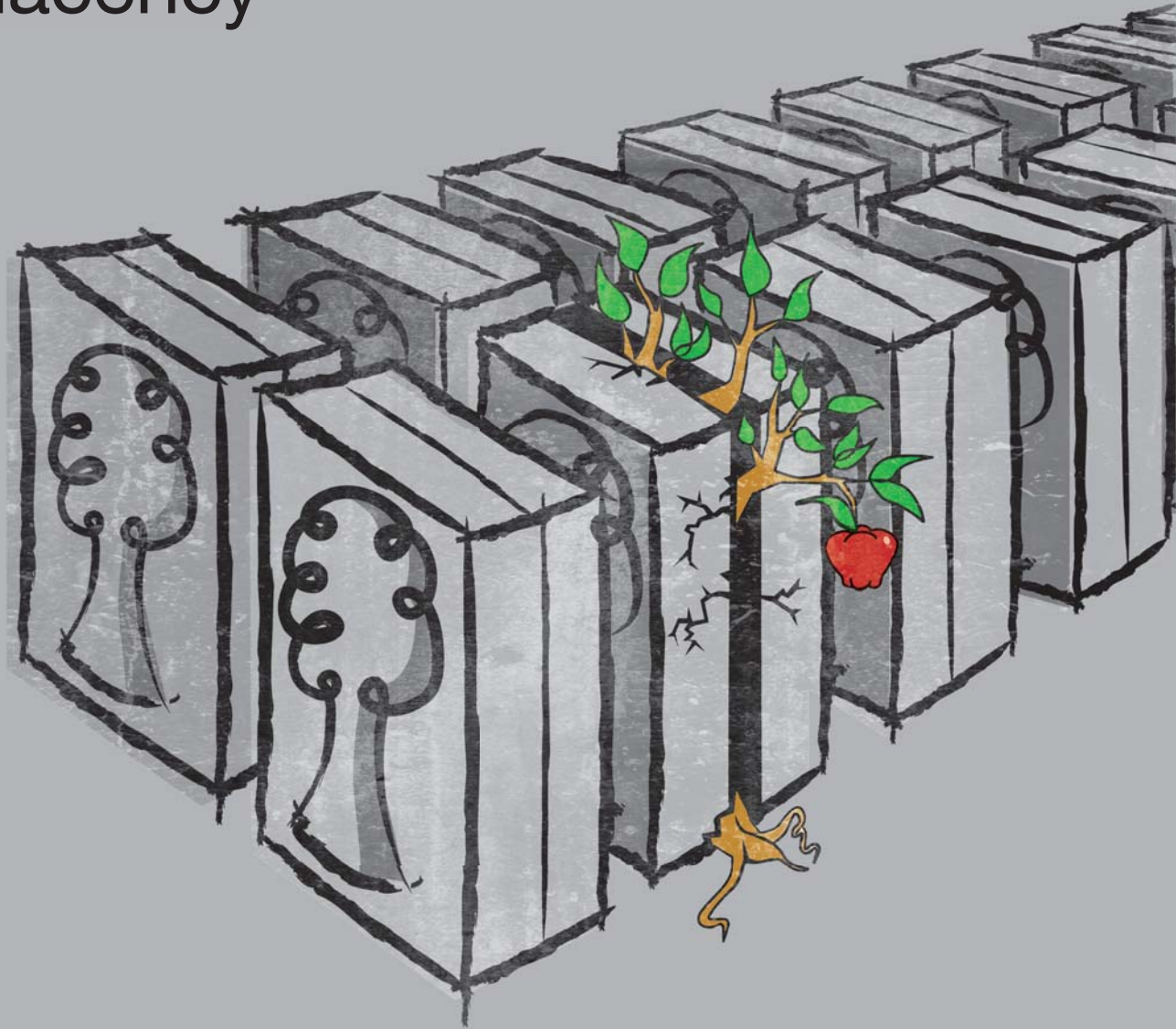


# Challenging Complacency

BY STEPHEN DENNING



When the minority report of the group monitoring NASA's progress in making the space shuttle fleet safer after the loss of the Columbia said in August 2005 that NASA "must break [the] cycle of smugness substituting for knowledge," it put its finger on a challenge that afflicts all successful organizations: how to avoid the complacency that inevitably accompanies success and how to use knowledge to reduce the risks that complacency brings with it.<sup>1</sup> Whether or not NASA itself suffers from smugness—the majority of the monitoring group didn't address the question—the issue of complacency is endemic in all large organizations. Various strategies have been used by organizations wishing to retain their edge. This article reviews the strengths and weaknesses of different approaches, including several for dealing with situations where knowledge is no help.

## Root Causes of Organizational Complacency

The first step in dealing with the problem is to recognize how deep-rooted and intractable it is. Many common assumptions and behaviors promote complacency. These are the most important:

- **EXCESSIVE RELIANCE ON PRIOR SUCCESS:** The more often a particular routine achieves a successful outcome, the more likely people are to develop an unwarranted belief that success is assured.<sup>2</sup> The reality is that the opposite is true where random risks are involved: the probability of risk materializing increases over time.
- **ARROGANCE OF EXPERTS:** Disdain for laymen or for experts in other fields is a perennial tendency of the expert. The fact that the expert is right more often than the laymen can lead to the illusion that he is always right.
- **OVER-ACCENTUATION OF THE POSITIVE:** Management is an action-oriented activity. The can-do mind-set that is necessary for getting things done may discourage listening to nay-sayers and skeptics, even when their viewpoints have merit. Nevertheless, most high-value knowledge lies in negative narratives that reveal the pitfalls, difficulties, and obstacles that lie in the way of success.<sup>3</sup> Because such narratives can be seen as a threat to management plans and objectives, fear of negative career consequences can hamper their dissemination.
- **OVER-RELIANCE ON TECHNOLOGY:** Technical specialists have a tendency to believe in the infallibility of their technology, particularly in areas where they have some knowledge and control. This can be a serious problem for computerized safety systems, which can generate a false sense of infallibility.<sup>4</sup>
- **THE “BLACK SWAN” BIAS:** People tend to discount the possibility of unprecedented risks. Because all the swans they have seen are white, they assume black swans do not exist. A black-swan event is beyond the realm of normal expectations and tends to be discounted, even by experts. The difficulty of learning from black-swan events is compounded by the fact

that they rarely repeat. Learning from the discovery of one black swan that black swans are possible doesn't prepare us for, say, a platypus.<sup>5</sup>

- **GROUPTHINK:** Groupthink occurs when people are deeply involved in a cohesive group whose striving for unanimity overrides a realistic appraisal of alternative courses of action.<sup>6</sup> Large organizations often exhibit symptoms of groupthink, including illusions of invulnerability and a sense of superiority; collective rationalization and stereotyping of outsiders as uninformed; ignoring contrary data; suppressing alternative viewpoints; and shielding leadership from dissent.

## Strategies for Dealing with Complacency

Because the root causes of organizational complacency lie deep in the human psyche, there is no known cure. Various organizational strategies for reducing the impact of complacency have been adopted, including changing the organizational structure, adjusting the discourse, enhancing organizational values, getting ready for the unexpected, and aiming for radical innovation. The different approaches have varying strengths and weaknesses.

### Changing the Organizational Structure

One set of strategies concerns adjusting the organizational structure, forcing attention on important issues that are often ignored.

- **GIVE ORGANIZATIONAL INDEPENDENCE TO ANALYSTS:** One approach to resolving the tension between negative knowledge and management's positive can-do attitude is to give analysts formal independence from the managers. In the World Bank, the Operations Evaluation Department (OED) reports to the board of directors rather than to the president of the organization. This enables the OED to be fearless in presenting its findings. Where the approach results in confrontation, however, organizational learning may be retarded.

■ **ESTABLISH FORMAL PROCESSES FOR PROFESSIONAL DISSENT:**

In high-stakes decisions, such as in the management of nuclear energy facilities, where a mistake could mean disaster, formal processes are established to allow professionals to express “differing professional opinions,” or DPO. The hope is that such a channel allows heterodox opinions to be shared. The risk is that using the DPO can have the same negative career consequences for critics as when no such channel exists.

■ **INTRODUCE STRUCTURED APPROACHES TO MANAGING RISK:**

Recently, risk management programs have become popular. They set up systematic processes for describing, cataloging, evaluating, and taking measures to prevent, reduce, or compensate for risk, with specific accountabilities for accomplishing these tasks. Such programs promise to give managers a handle on intangible risk factors.<sup>7</sup> They also may create costly bureaucracy, giving a semblance of protection against risk while stifling the creativity needed to deal with significant risk.

■ **CREATE OASES OF SAFETY THROUGH COMMUNITIES OF PRACTICE:**

A more flexible approach, growing out of knowledge management, gives communities of practice organizational blessing and support. Communities constitute “safe spaces” where experts can establish levels of trust needed to discuss even difficult, institution-threatening issues. The approach is low cost and flexible and builds on the natural tendency of experts to learn by sharing experience. But communities can be fragile as they depend on the forbearance of hierarchical managers. In the absence of active efforts to cross-fertilize from other disciplines or groups, they are also vulnerable to groupthink.<sup>8</sup>

Structural solutions are attractive because, apart from communities of practice, they can be implemented by managerial fiat. They generate explicit and consistent approaches to knowledge issues and create clear accountabilities. None of the structural solutions is guaranteed to work, however, because

the results depend on the quality of the discourse taking place within the various structures.

### *Upgrading the Quality of the Discourse*

Explicit efforts can be made to upgrade the quality of the discourse that takes place within organizational structures.

■ **USE ANALYSIS TO GET THE BEST POSSIBLE HANDLE ON KNOWN**

**ISSUES:** Statisticians and data can be used to get the *best rational take on probabilities*, based on past experience, while recognizing that past experience is not a guaranteed guide to the future. Expert judgments can also be supplemented with techniques that draw on the “*the wisdom of crowds*”—large numbers of people, acting independently, engaged to assess probabilities.<sup>9</sup> Managers also need to wrestle with the data, continually reassessing its significance and reliability, focusing discussion on areas of *doubt* and *uncertainty*, and paying particular attention to anomalies and *dissenting viewpoints*. It is also important to *learn systematically from mistakes*. Without systematic tracking of risk-related decisions and their effectiveness and training to correct for known biases, learning is likely to be limited.

■ **USE NARRATIVE TECHNIQUES TO EXPAND THE RANGE OF ISSUES**

**TO BE ADDRESSED:** While analysis is good for dealing with known issues, it is impotent for evaluating issues that have not yet been formulated. Narrative techniques can help open up previously unimagined risks and reveal the nuances and interconnections of apparently unconnected risks. One technique is *pre-mortems*. In a pre-mortem, planners are asked to imagine that their plan has been carried out and that it has failed and to think about what might have caused the failure.<sup>10</sup> Where the issues involve human behavior, *role-playing* and *simulations* can help overcome the problem of the time-lag in learning from real-life experience in complex situations.<sup>11</sup> Research shows that role-playing can yield more accurate predictions than expert forecasts.<sup>12</sup>

APPROACHES FOR FIGHTING ORGANIZATIONAL COMPLACENCY	STRENGTHS	WEAKNESSES
<b>CHANGING THE ORGANIZATIONAL STRUCTURE</b>	<b>CAN</b> usually be implemented by organizational fiat; generate consistent and explicit exposure of the issues with clear accountabilities	<b>CAN</b> be rigid, as the efficacy depends on the quality of the discourse that takes place within the structures
<b>UPGRADING THE QUALITY OF THE DISCOURSE</b>	<b>FLEXIBLE</b> and generally low cost	<b>HARD</b> to institutionalize; efficacy depends on organizational values
<b>ESTABLISHING AND DISSEMINATING ORGANIZATIONAL VALUES</b>	<b>INCULCATES</b> capability to deal with issues throughout the organization	<b>VALUES</b> may no longer be relevant in a radically different environment
<b>PREPARING FOR THE UNEXPECTED</b>	<b>GENERATES</b> flexibility and creativity, leading to efficient solutions to seemingly insoluble problems	<b>ASSUMES</b> that reliable knowledge is not available; may encourage excessive use of improvisation
<b>TRANSFORMATIONAL INNOVATION</b>	<b>CAN</b> save an organization from irrelevance and death; requires courage, imagination, smarts, and strong leadership	<b>RELIABLE</b> knowledge is not available; involves high risk

■ **TAKE ACTIVE STEPS TO ENHANCE THE FLOW OF DEBATE:** The quality of discussion can be improved and the chances of defining and mitigating risk can be increased by *encouraging open discussions*, having group leaders solicit and receive feedback and criticism from others; *ensuring a mix of disciplines*, and getting outsiders involved in the discussion, so as to generate potentially creative tension; *taking time out* to give individuals room to re-think, re-formulate, gather further data and re-present; *having non-participants explicitly assess the group's dynamics* to help flag phenomena that may be stifling debate.

Efforts to upgrade the flow of professional dialogue comprise an array of tools and techniques, none of which is “the

solution,” but all of which can make a contribution. The tools are flexible and generally low cost. They are, however, hard to institutionalize. Moreover, these approaches will lack robustness unless supported by strong organizational values.

#### *Establishing and Disseminating Organizational Values*

Neither structural approaches nor steps to enhance dialogue are likely to be effective unless they are aligned with organizational values. An organization may declare that innovation or safety is a top priority, but if the actions of the top management show that its real priority is meeting short-term production goals, then its declarations will have little impact.

ORGANIZATIONS NEED TO PREPARE FOR UNANTICIPATED RISKS. AFTER ALL KNOWN RISKS HAVE BEEN PLANNED FOR AND THE RIGHT STRUCTURES, DISCOURSES, AND VALUES PUT IN PLACE, THEY NEED TO BE PREPARED FOR ISSUES THAT HAVEN'T BEEN ANTICIPATED.

Values are usually established in situations where leaders have to deal with adversity. For instance, General Electric has a detailed set of policies specifying what is meant by unyielding integrity and backs them up with energetic managerial action. In 1991, for instance, when a single GE employee was found to have been involved in bribery related to the sale of airplane engines to Israel, GE swiftly disciplined twenty-one otherwise-excellent executives, including several top managers, whose only flaw was that they had not been watchful enough to detect and prevent the fraud. This GE story of principles and actions sends a clear signal about the value of integrity. Repeating the story helps establish integrity as a core value of the company.<sup>13</sup>

Establishing and disseminating organizational values is a powerful way of inculcating a capability to deal with difficult issues throughout the organization. However, some values may no longer be relevant when the totally unexpected happens.

### *Preparing for the Unexpected*

Organizations need to prepare for unanticipated risks. After all known risks have been planned for and the right structures, discourses, and values put in place, they need to be prepared for issues that haven't been anticipated. Because knowledge of such events is by definition lacking, specific plans cannot be formulated, but steps can be taken to enhance the capability to deal with the unexpected.

■ **DEVELOP A CAPABILITY TO SWARM:** The military has learned that top-down centralized decision makers can not deal as resiliently with uncertain battlefield conditions as decentralized units on the ground, which can respond to risks and seize opportunities as the situation evolves.<sup>14</sup> The same tactic can be applied in non-military settings, as NASA showed in response to the Apollo 13 problem and as a Toyota group demonstrated when it rebuilt a burned-down factory in a week.<sup>15</sup>

■ **INVEST IN REDUNDANCY:** Super-efficient, just-in-time game plans may be good for getting results in smooth seas, but when the going gets rough, survival may depend on having extra capacity and backup. In the aftermath of both 9/11 and Katrina, cell-phone systems designed to handle normal traffic failed, greatly hampering rescue efforts.<sup>16</sup>

A capacity to improvise can generate flexibility and creativity, leading to efficient solutions to seemingly insoluble problems, even where advance knowledge is not available. Too much reliance on improvisation, however, can encourage ad hoc approaches to risks that should have been predicted and prepared for. And it is little help when the overall mission of the organization is in question.

### *Transformational Innovation*

Management often involves trying doing “more of the same” but doing it better, more quickly, and more economically. Innovation is about doing something completely different. In a sense, innovation is the opposite of management and requires dissimilar techniques.<sup>17</sup>

Thus much of the activity that currently goes by the name of innovation hardly warrants the term. Henry Ford once said that if he had asked clients what they wanted, they would have said “faster horses.” Much so-called innovation in organizations is about searching for “faster horses,” that is, tame, incremental improvements that don't fundamentally change the situation, when what is really needed is something radically different—a car.

When organizations face fundamental challenges to their mission as a result of shifts in the external environment, they may need to innovate radically in order to survive. Digital Equipment Corporation had great strengths in minicomputers and kept making marginal improvements to them but was unable to adjust to a fundamental shift in the external environment—the advent of the PC. It did not survive. By contrast, Nokia began life as a collection of firms specializing in foresting, rubber, and

cable manufacture; it successfully transformed itself to become a global giant in mobile phones.

Public sector organizations face similar challenges when the external environment changes or when the consensus supporting the mission unravels. They may not die abruptly like private sector firms if they fail to adjust to the new situation and transform themselves, but they will slowly decline into irrelevance.

When it comes to transformational innovation, knowledge is often the problem, not the solution. All available knowledge concerns the past and typically indicates that radical new strategies will fail, because there is no market, or existing organizational capability, or tested technology, or all of the above. Transformational innovation concerns the future about which there is no reliable knowledge. When the future is very different from the past, courage, imagination, and smarts become at least as important as knowledge.

For organizations that are in synch with their environments, transformational innovation is a matter of choice. Where the external environment has shifted significantly, transformational innovation becomes a necessity. In such cases, complacency is not an option, but neither is knowledge. Private sector organizations may face the necessity of generating a new market with radically different products, services, clients, or business models. Public sector organizations may need to face the stark reality that unless they can forge a new consensus with stakeholders, transformational innovation will be a requirement of survival.

## Attacking Complacency on All Fronts

In any large organization, the struggle against complacency is an unending battle. All avenues reviewed in this article need to be exploited, including structural approaches to enhancing the sharing of knowledge, steps to enhance the quality of the dialogue that takes place within those structures, strenuous efforts to establish and transmit appropriate organizational

values, explicitly preparing for the unexpected, and creating a capability to undertake transformational innovation. Organizations cannot entirely eliminate risk or complacency, but serious and thoughtful efforts to counter complacency can help bring dangers to light and reduce the likelihood of failure. ●



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