



## TechLeaders: Implementing, Managing, and Sustaining Organizational Change

### A report of 2006 workshops for senior technical women

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**TechLeaders**, a program of the Anita Borg Institute, increases the number and influence of technical women and showcases the positive influence of technology on the world's women. The program provides workshops, knowledge, and original research to enhance leadership, break down barriers, and create positive organizational change leading to the success of technical women. In 2006, the Anita Borg Institute held three TechLeaders workshops with 211 participants. Two of these workshops were for **senior technical women** and focused on **change leadership**.

#### **Why "change"?**

ABI's decision to focus on organizational change in 2006 was twofold:

- 1) Creating positive organizational change that effectively attracts, retain, and promote women in high-tech is part of the organization's mission. We believe that by providing senior women leaders in technology the tools to effectively manage organizational change, they will create change that is beneficial to all women.
- 2) Managing change, regardless of its nature, is a critical component of a technical leader's success, which meets ABI's mission of increasing the influence of these leaders. Research presented at the May TechLeaders Workshop showed that in the face of accelerated globalization and constant technology advances, 2/3rds of high tech CEOs globally saw the need for fundamental change over the next to year, but only 15% of them experienced success at managing fundamental change in the past.

*The Senior TechLeaders: Managing Change Workshop* was held on May 15-16, 2006, at IBM Corporation in New York. 55 senior technical women attended from the following sectors: 18% from Academia, 71% from industry, and 11% from nonprofit and government.

#### Workshop presenter:

**Kris Pedersen**, Vice President/Partner, IBM Global Business Services (GBS)

Kris is an expert in large-scale business transformation associated with business process and system integration efforts and broad organizational change. She led the discussion with the 6 innovation enablers identified from her work: climate for creativity, idea generation, incubation structures, metrics and incentives, role of collaboration and partnering, and integration of business and technology. Participants applied and discussed these concepts to their role as technology leaders.

*The Senior TechLeaders Workshop on Building and Sustaining Change in Technology Cultures* was held on October 4<sup>th</sup> in San Diego, California. 84 technical women in senior leadership positions attended the sold-out workshop from the following sectors: 32% from

Academia, 62% from Industry, and 6% from Nonprofit and Government. The workshop included 2 sets of four breakout sessions led by each presenter, and a collective report out and synthesis.

Workshop presenters:

**Debra Richardson**, *Professor of Informatics and Dean of the Donald Bren School of Information and Computer Sciences.*

Debra discussed her experience of transformational change in the academic setting. As the new chair of the Department of Information and Computer Science at UC Irvine, she embarked on a major transformation from department to school, the highest academic unit on campus, a change initiative which had previously been met with failure. Debra focused her conversation on providing others the capacity to understand and implement change leadership in academia and argued that *“leadership in academia involves influence rather than mandate”*.

**Wendy Bartlett**, *Distinguished Technologist, Hewlett-Packard*

Wendy brought to the table her long standing experience being at the receiving end of change. Her session, *“Five Years, Three Companies, One Desk: Tips of Surviving Mergers, Acquisitions and Reorganizations”*, led participants in the identification of the challenges brought by externally-imposed changes and building a change survival skill set.

**Katy Dickinson**, *Director of Business Process Architecture, CTO and Sun Labs and*

**Carol Gorski**, *HR Director, Sun Microsystems*

Katy and Carol presented their lessons learned through the experience of implementing the SEED Mentoring program at Sun Microsystems, a highly recognized program for the successful retention and organizational development of engineers. They conceived, started, implemented, and sustained the program which has a proven track record of diversity, high satisfaction, and high regard by management, combined with higher promotions and performance ratings for its participants.

**Sabina Nawaz**, *Leadership Consultant and Former Senior Director of Leadership, Microsoft Corp*

Sabina Nawaz, an organizational and leadership consultant and leadership specialist who started her career as a software developer, focused her presentation on how to set up change right the first time. She grounded her lessons in the example of setting up and implementing leadership programs within Microsoft while she was a senior director of leadership, Management, Employee Development and Succession Planning.

Both workshops held several fundamental **lessons about effective change management** in high-tech, whether one is the implementer of organizational change or the subject of such change. Here, ABI presents the 10 key lessons for managing change in high-tech.

*“You cannot understand a system until you try to change it.” Schein, 1995*

## **10 Lessons for Implementing, Managing, Sustaining and Surviving Organizational Change by TechLeaders speakers and participants**

- 1: Change is a hard and long process: Don't rush it, don't underestimate it, and acknowledge that it will take time to happen
- 2: Expect resistance!
- 3: Articulate a clear need for change and a clear vision
- 4: Communicate, Communicate, Communicate (C<sup>3</sup>)
- 5: Be a researcher of the situation (like a software engineer), and don't take it personally
- 6: Build alliances and consensus
- 7: Expect Surprises, do not ignore the naysayers and the undecided: seek them out!
- 8: Go for it, treat Change as an Opportunity, and Have Fun
- 9: Create early wins and measure successes
- 10: Don't rest on your laurels

### **Lesson 1: Change is a hard and long process: Don't rush it, don't underestimate it, and acknowledge that it will take time to happen**

A crucial mistake in change efforts is an underestimation of how much time and effort it will take. The organizational literature acknowledges that most change initiatives fail, even when the organization's management acknowledges that the change necessary. Presenters talked about the importance of not underestimating the length and difficulty of the change process.

- Debra Richardson's session featured her experience with transformational change in Academia. She emphasized that change is difficult, and takes time and energy, and requires patience to see to completion. She entered the change process in her department by openly acknowledging that sustainable change would take a significant amount of time and that the academic context presented specific change constraints.
- One of the top 10 barriers to successful change identified by IBM's study of 500 high tech companies is unrealistic timetables in implementation.
- Katy Dickinson and Carol Gorski showed that a crucial component of the successful mentoring program at Sun Microsystems was the long-term commitment of its leaders.
- Sabina Nawaz stated that change is not a binary process and happens over time. In order to see it through, change agents must sometimes sacrifice short term goals in order to achieve the long-term goals of change

### **Lesson 2: Expect resistance!**

- IBM's study of Fortune 500 companies identified employees' "change initiation fatigue" opposition as top barriers to change for 33% of companies surveyed. Initially, employees may be highly skeptical of "yet another change initiative". Recent research suggests that resistance to change is actually hardwired in our brains and is experienced as pain by our brain and that resistance to change is not only psychological but physiological. Indeed, Wendy Bartlett talked about experiencing externally imposed change through 3 phases: 1) surviving it, 2) re-establishing yourself as a leader, and 3) sharing collective wisdom to help others go through change.
- If the Change is Negative, Bartlett and Nawaz's sessions explained that individuals go through the typical stages of denial, anger and depression before moving toward acceptance. One example of such negative change discussed by participants is when a technical leader sees her project getting cancelled through reorganization. Participants discussed the pitfalls of being too emotionally attached to their project and failing to adapt

to change. Even change that is desired by employees, that is, a case of positive change, takes time and involves stages of acceptance.

### **Lesson 3: Articulate a clear need for change and a clear vision**

A common theme in successful change identified by workshop presenters and participants was the need to identify, articulate, and communicate a clear need for change and communicating a clear vision of what the change will entail.

- The IBM Change lifecycle model identifies the first step of change as “vision and commit”, where a clear and compelling vision for change should be articulated which includes: a vision aligned with stakeholder needs and articulation of the business benefits, shaped by enabling and defining technology, and clearly articulating the end of the transition.
- Sabina Nawaz presented a Change Equation by Richard Beckhard and David Gleicher (also known as Gleicher’s Formula):  $D * V * F > R$

#### Where:

D is the dissatisfaction with the current state  
 V is the vision of the next step  
 F is the first, concrete steps that can be taken  
 R is resistance to change

All 3 of D, V, and F must be present for the quantity on the left side of the equation to exceed R. The leader of the change effort needs to articulate the vision and the first steps that will lead the organization to the desired state.

- Other sessions also identified a clear need for change and a sense of urgency a crucial element in predicting the success of the transition. Richardson talked about relentlessly articulating her vision for change to faculty and stakeholders and making herself available to answer their questions, while Dickinson and Gorski emphasized that the creation of internal company support around a well defined need for the program was crucial to the success of their mentoring program. John P. Kotter, in “Leading Change”, similarly articulates this need by saying that the most common error in change management is the failure to establish a great enough sense of urgency. Kotter argues that if you do not have a vision of what the future will look like after the change that can be presented and understood in less than 5 minutes, you are not ready to embark on the change process. He identifies the creation of this sense of urgency as a difficult process and the source of more than 50% of the failures in organizational change. The urgency rate is not high enough until 75% of a company’s management is persuaded of the need for change.
- IBM’s change lifecycle emphasizes the need to articulate how existing technology, programs, and initiatives, will integrate or align with the change effort. Work with the core: In “Built to Last”, Collins and Porras argue that any change must work with the existing core values of the organization. A good manager must preserve the core while stimulating progress. In the technology setting, this includes not only the organization’s core values but the core technology valued by the organization. If the change can be tied to those core values and technology, it will be easier to persuade people that it is necessary. Kotter identifies a failure to anchor change in the organization’s culture as a key source of failure. Similarly, Carol Gorski and Katy Dickinson talked about clearly fitting the mentoring program to the existing needs and culture of Sun, and Sabina Nawaz discussed how change initiatives at Microsoft were articulated to fit within company needs and values, including Microsoft’s values of questioning and personal excellence. Debra Richardson of UC Irvine spoke about paying close attention to academic core values when she set out her change efforts.

## **Lesson 4: Communicate, Communicate, Communicate (C<sup>3</sup>)**

### **The C-Cubed Principle:**

Part of the success in creating that sense of urgency and implementing change highlighted by the workshops was the importance of constant communication, also called “C-Cubed” by participants. This is also emphasized by the management literature: Kotter argues that a crucial yet typical mistake in change management is “*undercommunicating the vision by a factor of Ten.*”

- Katy Dickinson and Carol Gorski from Sun Microsystems argued that to implement a successful new program in high tech, you must first talk extensively to people in the organization in order to determine their needs. Katy and Carol’s mentoring program’s success also rested on empowering mentees and making them accountable for the success of the relationship.
- Debra Richardson talked about relentlessly discussing her vision for change with faculty and being open to their questions, comments, and concerns. A key takeaway from her session was the importance of consensus building in the academic context, where you have no direct authority over tenured faculty.
- Sabina Nawaz described the process by which she created buy-in for change efforts at Microsoft; the process involved actively listening to stakeholders’ concerns and empowering them to be a part of formulating the change initiative.
- IBM’s study of success factors in 500 companies identified quality communications in its top 10 success factors.

## **Lesson 5: Be a researcher of the situation (like a software engineer), and don’t take it personally**

Technical leaders are uniquely positioned to lead change efforts because of their ability to analyze complex situations and problem-solving abilities.

- Wendy Bartlett’s session emphasized the need to observe, listen, and look for nonverbal cues, and encouraged people to become a researcher of the situation.
- Debra’s session proposed approaching change like a software engineering research process. The ability to analyze the situation, a salient skill of technical people, enables leaders to not take criticisms personally while openly listening to feedback with consideration. She shared the 4 principles from her reading of Miguel Ruiz, which she applied to her change efforts: Be Impeccable With Your Words, Don’t Take Anything Personally, Don’t Make Assumptions and Always Do Your Best.
- Consistent with “not taking it personally,” participants and speakers discussed that when being at the receiving end of change, technical employees should not get emotionally attached to their project, since projects can get cancelled during mergers and acquisitions and the introduction of disruptive technology in a technological field. One way in which the potential for emotional attachment can be defused is to analyze the change as an opportunity for growing one’s technical skills.

## **Lesson 6: build alliances and consensus**

Change is not achieved in a vacuum. The sessions emphasized that change is contingent on the ability to create buy-in and create alliances. Sessions emphasized the need to create alliances and consensus across one’s immediate department and team.

- Remember who your audience is. A study of technical employees reported that these professionals place a high value on recognition for their technical contribution, value autonomy in their work and place a high importance on their ongoing learning opportunities and personal development (White 2006). They value technical challenges and ongoing opportunities to grow in new challenges and new skills (Farris and Cordero 2002). You are more likely to engage your peers in change efforts if you can articulate the benefits to them in terms of new technical challenges, growth, and skill development. Ask yourself “as a technologist, what would make this work for me?”
- Dickinson and Gorski emphasized the importance of cross-departmental alliances and identified collaboration between HR and Engineering as a key component of their

success. They also identified a list of people who could promote the program within the organization. A crucial component of the successful mentoring program at Sun Microsystems was the long-term commitment of its leaders.

- Pedersen argued that innovation comes from the integration of technological capabilities with business insights. IBM's change lifecycle identifies team and stakeholder mobilization as the second step in the change process after articulating the vision and calls for engaging and mobilizing leaders at every level of the organization. Nawaz's session emphasized finding key sponsors to act as champions of the change.
- Richardson recommended delegating early: it magnifies the change process and helps enrolling supporters.
- Creating buy-in at the top level of the organization was also identified as a crucial condition for successful change as exemplified by Sun's SEED program and Microsoft's leadership program. Top sponsorship was identified as the most important success factor in IBM's study of change initiatives. All sessions addressed the need to create buy-in with influential players in the organization. This buy-in has to be more than words, however, and must be apparent in the actions of top managers. Research shows that successful change always involves the buy-in of at least a few powerful employees, and that forming coalitions must be started as the onset.

### **Lesson 7: Expect Surprises, do not ignore the naysayers and the undecided: seek them out!**

- Related to the C-Cubed principle, all of the sessions emphasized the need to recognize the negative feelings associated with change, and trying to understand other people's perspectives as they experience change. Paul Strebel, in a piece examining change resistance, similarly argues that *"for many employees... change is neither sought after nor welcomed.... To close the gap, managers at all levels much learn to see things differently. They must put themselves in their employees' shoes to understand how change looks from that perspective."*
- Nawaz stated this by saying that *"Macro doesn't mean much to micro"*: that is, unless you articulate the benefits of the change to the individual, they are unlikely to want to change their ways, even if you talk about high-level organizational benefits. Dickinson and Gorski emphasized listening to people's concerns and addressing their individual needs as crucial to their success. Debra Richardson also emphasized a crucial component of her change process residing in listening to the concerns of naysayers and seeking them out.
- Bartlett's session provided a tip to help attendees communicate with naysayers: start with the assumption that everyone wants to do a good job and have at heart the best interest of the organization.
- Nawaz drew on the work of Ed Freeman who identifies 3 groups of people in their reaction to change: the greens are those who embrace the change; the reds oppose it, and the blues are undecided. Nawaz recommended recruiting the greens for influence, actively listening to the concerns of the reds, and pay attention to the blues, those people you can get on board by communicating your vision and often get ignored in the change process.

### **Lesson 8: Go for it, treat Change as an Opportunity, and Have Fun**

To keep up with the latest innovations and technological change, organizations in the high tech space need to continuously change to remain competitive. Similarly, universities face competition for the best and the brightest and must constantly remain competitive in terms of research and teaching. Therefore, technical professionals and professors are subject to a great deal of change during their careers, whether it shows itself in terms of new technology, new programming languages, or new organizational structures and initiatives. A crucial long term success factor for technologists is thus their ability to embrace change.

- In Wendy Bartlett's session, participants discussed being the subject of externally imposed change as difficult, yet potentially filled with opportunity. Wendy proposed her model for "change judo," where rather than fighting change, one leverages it, such as

- seeing the opportunity to present your career objectives to upper management, identifying exciting new technical directions. Some participants called this “turning lemons into gold.” Being able to perform “change judo” is also easier if you constantly keep your technical skills up to date and build effective relationships and networks outside your immediate team.
- Participants emphasized letting go of the past and embrace the change. This relates well to Daly’s (2005) tips for surviving organizational change in high tech, where he writes: *“whether your last position was the best thing you ever knew or a long visit to a toxic waste dump, you need to let it go and start with a clean slate... Leave your baggage at the gate and don’t allow your past to hold your current and future hostage.”*
  - During the report out, participants noted that women usually take time to prove they have the skill before taking on the job. However, as emphasized by all the sessions, growth comes from stepping out of your comfort zone. A key lesson was that you can be confident in your ability to take on a new job or challenge; regardless of whether you are 100% sure you can do it.
  - All sessions emphasized having fun through the process of implementing or going through change.

### **Lesson 9: Create early wins and measure successes**

- Debra emphasized that noticeable early wins were crucial to gaining consensus. Similarly, the change equation presented by Sabina involved clearly identifiable first steps on the path to long term change. Similarly, Kotter identifies that the failure of planning for and creating early wins is a common mistake when implementing change: *“Real transformation takes time, and a renewal effort risks losing momentum is there are no short-term goals to meet and celebrate. Most people won’t go on the long march unless they see compelling evidence within 12 to 24 months that the journey is producing expected results.”*
- In order to gain momentum and achieve sustainability, clear metrics of success need to be implemented and communicated. The articulation and use of clear performance measures and rewarding successful use of the new practice are two of the top 10 success factors in leading change articulated by IBM’s research. Similarly, one key ingredient of the success of Sun’s SEED mentoring program was the articulation and communication of its success metrics. They were able to show that SEED participants were more likely to get promoted, were earning the highest performance rating in their evaluations at a rate of twice the company average. This in turn convinced other people in engineering that this new program was crucial to Sun’s ability to retain and promote technical talent.

### **Lesson 10: Don’t rest on your laurels**

- Participants and speakers discussed change as a constant process. Kotter (1995) identifies “declaring victory too soon” as a common source of failure in change programs: *“while celebrating a win is fine, declaring the war won can be catastrophic. Until changes sink deeply into a company’s culture, a process that can take five to ten years, new approaches are fragile and subject to regression.”*
- Katie Dickinson and Carol Gorski have built constant feedback in the SEED mentoring program in order to continue its improvement and further its buy-in. Sabina Nawaz described her willingness to keep answering questions and pushback even at a time where she thought the process was finished.
- IBM’s change framework puts full cultural transformation as the last stage of the process of change. This involves including an overall cultural change plan as part of the original change plan. Come up with some indicators: how will you know the culture has changed and your change has become a full part of the organization? This indicator could involve organizational members using a new technology or conducting meetings differently, or collaborating in new ways.

The 10 lessons for leading, implementing, sustaining and surviving change, which emerged through senior technical women's presentations and discussions at these two TechLeaders workshops, are applicable to a wide range of change initiatives in technology. The Anita Borg Institute hopes that these takeaways will continue to inspire leaders in technology beyond the workshop in leading their own change efforts.

## References