Strategies for Success in Industry and the National Labs (and Federal Agencies)

Suzi Iacono, Digital Society and Technologies Program, National Science Foundation, US
CRA-W Career Mentoring Workshop, June 8, 2008
San Diego, CA

The NSF Context

- It means working in the executive branch of the US government
  - Extant organizational structure and roles with little in terms of career ladder

Outline

- Set the context for the NSF (federal agency) environment
- Discuss several tensions that arise in this context
  - Bureaucracy vs. creative enterprise
  - Collaboration in a competitive environment
  - Stability amidst constant change, demands
- Respond to the questions posed for this panel
  - What are the characteristics of success?
  - Personal, Organizational
  - Important milestones?
- What does it take to succeed in this environment

The President of the United States

Office of the Director

National Science Foundation
Director
Deputy Director

Office of the Director
Legislative & Public Affairs
Equal Opportunity Programs
General Counsel
Integrative Activities
Polar Programs

Directors
- Biological Sciences
- Computer & Information Science & Engineering
- Education & Human Resources
- Engineering
- Geosciences
- Mathematical & Physical Sciences
- Social, Behavioral & Economic Sciences

Offices
- Budget, Finance & Award Management
- Information & Resource Management
Computer and Information Science and Engineering

--- Each directorate headed by an AD

ACIR  |  ANIR  |  C-CR  |  EIA  |  IIS  

Networked Systems, Architecture

--- Each division is headed by a DD


--- Each program is headed by a PD


Adv. Computation Research, Infrastructure Networking & Middle. Information


Total  $5.48 billion
Increase  $453 million  9 percent
Over FY 2003 Request

History of Digital Society and Technologies Program at NSF

Year  Program  Director  Budget  Proposal
1972  Comp. Act.  DD  
1980  Spec. Project  MPS  Richard Dolan
1982  Spec. Project  MPS  Richard Dolan
1983  Spec. Project  MPS  Len Haze
1984  Spec. Project  MPS  
1985  Spec. Project  MPS  Larry Oliver
1986  Spec. Project  MPS  Larry Oliver
1987  Internship  COO  $2,051,730
1988  Spec. Project  MPS  Larry Oliver
1989  Spec. Project  MPS  Larry Oliver
1990  Spec. Project  MPS  Larry Oliver
1991  Spec. Project  MPS  Larry Oliver
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- Yearly budget process

Digital Society and Technologies: Universal Participation in a Digital Society

Satellite  Macro-Cell  Micro-Cell  Pico-Cell


History of Digital Society and

Computational Org.

IT-IN-USE

Economics of IT and

Value Sensitive Design

Computational Markets

Multi-Agent Systems

Collaboration Technologies

Coordination Theories

Primary DST Subfields
The NSF Context

- It means working in the executive branch of the US government
- Extant organizational structure and roles
- Yearly budget process
- Deadlines, productivity measures and rules related to the merit review process (proposal processing) and post-award processes (monitoring progress and approving changes)
- Close to the political action – and potential to be in the news
The NSF Context

- It means working in the executive branch of the US government
  - Extant organizational structure and roles
  - Yearly budget process
  - Deadlines, productivity measures and rules related to the merit review process (proposal processing) and post award processes (monitoring progress and making changes)
  - Close to the political action – in the news
  - Growth in budget – doubling of NSF budget
  - Changes in content and structure – new programs, new initiatives

Three Tensions that Arise in the NSF Context

- Bureaucracy vs. creative enterprise?
- Collaboration in a competitive environment
- Stability amidst constant change, demands

Bureaucracy vs. Creative Enterprise

- Conditions of the environment present choices:
  - The rules, the demands could lead one to become a highly paid clerical worker or one can try to be a leader with a vision – using new opportunities, new money, building coalitions, etc. to do something
  - Even if one does choose to be a leader, it is necessary to work within the bureaucratic constraints while building, nurturing new enterprises

Collaboration in a Competitive Environment

- Collaborative environment:
  - Always part of a group – division, program team, committees, task forces
  - Want to collaborate across boundaries → co-review, co-fund
- Competitive environment:
  - For funding
  - For input into new solicitations
  - For resources, awards, bonuses, recognition
- The Tension: Building social relationships with those that you compete with for program budget, initiative budgets
Stability amidst Constant Demands, Change

Stability:
- Stable processes are required to achieve performance
- There are multiple workflows, one’s part must be done

Change, Demands on Time:
- New money to spend, new solicitations
- New management
- New staff

Tension: Handling stress, deadlines, productivity and change demands while also being productive

Success Characteristics

Personal:
- Passion
  - Have a vision of where you want to go, what you want to do, develop your talking points, bring them up in incessantly, never let anyone make oblique negative comments in discussion
- Take responsibility for your vision, be a leader, do the work
- Know how to prioritize, be efficient with time
- Know the rules, know what you can and can’t do
- Keep emotion out of the relationships, care and not care about one’s program; maintain neutrality; be able to give and take; show respect

Organizational:
- Energy to disseminate one’s passion
  - Internal – build social networks, build social capital especially across boundaries – across programs, divisions, directorates
  - External – build social networks with other agencies with similar R&D, OSTP, OMNI, NRC, and with community of grantees (committees, workshops)

Important Milestones

- Participated in initiatives outside regular program
- Early opportunity to work with PITAC and give editing recommendations
- Asked to give talks internally
- Chaired an interagency committee, had to report to a larger committee
- Chaired a “theme” in ITR
- More resources for travel available
- Traveled to Europe to meet EC counterparts, held workshops in Europe
- Asked to give talks externally
- More like building a support structure than an individual journey
- More like becoming a member of various communities

Important People

- Academic mentors who supported, protected and pushed
- Research colleagues – peers with whom I have remained friends over the years, although all our roles have changed
- Bosses – let me do my thing, said things like “act and then ask” used humor to talk about bureaucracy “Friday afternoon fire drills” “don’t put much time into writing that document– nobody will read it”
- My current colleagues – take the best and model that behavior
- My grantees – they are doing the science and making the important advances; nurturing them is key

Recommendations

- Be aware of the tensions and manage them
- Have a vision and persevere
- Build strong social relationships
- Build a support structure

Send email if you have questions!

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