Over the last decade, we’ve learned a lot about dynamics of bias and what can be done about it.
  o We have learned a lot about the subtle dynamics that produce bias

What do we do with this knowledge? How do we take that knowledge and put it into action.
  o How to get this information to the places where it affects practice.
  o How do you create and sustain the momentum and incentives for change.

This institutional change challenge is not unique to diversity initiatives. It permeates every effort to make change in an academic institution.

It is in fact quite challenging to translate knowledge about the dynamics of gender bias into effective action. Why is this so?
  o First, bias is hard to see at the individual level. People generally think of bias as deliberate discrimination done by individuals to individuals.
    ▪ We have seen today that under-participation results from more subtle, interactive dynamics.
    ▪ We are talking about things like rejection sensitivity, stereotype threat and opportunity networks, not, for the most part, deliberate exclusion.
    ▪ Large gaps in current status result from the accumulation of small differences in treatment. This dynamic was well summarized in the MIT report that jumpstarted so many of the current diversity initiatives:
      ▪ Marginalization accumulates from a series of repeated instances of disadvantage which compound over an academic career
    ▪ This form of bias is not as intuitive or well understood.
    ▪ It is also difficult to detect at the level of the individual interaction.
    ▪ These differences in treatment often occur without anyone noticing.
These “second generation” dynamics are also challenging because they occur in so many different locations involving so many different actors spread across the span of academic careers.

- These differences arise in a wide range of decisions that shape the trajectory of a faculty member’s advancement: defining the applicant pool, evaluating candidates, providing mentorship, building research teams, constructing informal professional networks, inviting speakers, assigning teaching and committee responsibilities, negotiating salaries, allocating resources, and selecting departmental and university leadership.
- Many people and institutions may participate in producing these small differences in treatment.
- They can occur within the walls of a particular department, within the larger university or across a research field.
- Gender and racial underparticipation results from this decentralized decision making, as well as from cultural and institutional patterns that cut across these domains but are difficult to observe or change from any one location.
- To get at them, you have to work in many different locations at the same time.
- Often, the processes, structures and incentives to bridge these gaps do not exist.

A third challenge comes from the way universities are organized. As you know well, universities are decentralized institutions.

- Achieving change within universities is like herding cats.
- Power is highly distributed in academia.
- Schools and departments have considerable autonomy.
- Departments often lack information about each other and about central administrative priorities and initiatives;
- Central administrators lack reliable information about departmental decisions and practices.
- Departments and disciplines do not regularly interact; they value different types of knowledge and communicate using different language and styles.
- This fragmented authority structure limits the power of any one level or actor to accomplish institutional change, including those at the top.
- It also contributes to the perception of powerlessness to bring about change.
- Virginia Valian, a well-known leader in the field of gender bias, sums up the problem.

  - The Provost says: I don't have the power. It's the Deans.
  - The deans say: I don't have the power. It's the chairs.
  - The chairs say: I don't have the power. It's the faculty.
  - The faculty says: There is no leadership on this issue!

- Finally, gender and racial issues are also challenging because they are linked with other problems with university governance and decision making.

  - Faculty search and hiring, promotion, and governance practices can be problematic in ways that may be experienced more acutely by women and people of color but that have far broader effects.
  - Gender and racial bias is integrated with and often results from inadequate organizational systems. Many of these systems problems affect faculty generally, such as the adequacy of departmental leadership, search and hiring practices, faculty development, and quality of life.
  - Some of the dynamics affecting participation by women and people of color also affect universities’ capacity to adapt to other complex problems, such as the challenges of interdisciplinarity in a world organized around disciplinary boundaries, and the challenges of collaborative scholarship in world that rewards individual distinction.
  - These dynamics can be built into the culture of a department or institution.

- So, addressing racial and gender underparticipation also requires addressing institutional problems

  - In fact, women's full participation in the academy cannot be achieved without examining these multi-level decisions, cultural norms, and underlying structures.
  - Change thus requires a process of institutional mindfulness.
This means enabling careful attention to decisions that ultimately determine whether women and men of all races will have the opportunity to thrive, succeed, and advance.

Institutional analysis asks: where are the barriers to participation? Why do they exist? Are they signals of broader problems or issues? How can they be addressed? Where are the openings or pivot points that could increase participation and improve academic quality?

Institutional mindfulness also requires the capacity for ongoing learning--about problems revealed by examining patterns of decision making over time, as well as about creative ways of addressing those problems, advancing participation, and improving academic quality.

Finally, it entails introducing incentives for improving inclusiveness and excellence into ongoing governance systems, into the culture of the institution.

Institutional mindfulness requires sustaining an ongoing process of institutional change.

This is what I mean when I talk about building an architecture of inclusion.

So, how do you do this? We need a different framework for thinking about the problem, a different framework for bringing people to the table, a different framework for mobilizing change.

I suggest the need to develop an architecture, meaning a structure that is created through participatory design, for leveraging change.

One that focuses on the institutional level of analysis and intervention (as compared to focus on individuals or even groups or policy).

- Connects what goes on at the institutional level to broader networks and communities of practice.
- Institution as the level of analysis, because it shapes how individuals can participate, and because it mediates the relationship of individuals to the broader society.
- Institution as the focus of intervention because that is where you can get traction to address individuals’ experience.
We need an affirmative vision to provide a normative framework propelling this institutional design.

- I offer one that locates the problem of gender and racial bias within a broader context of institutional citizenship. Citizenship means more than presence. It means active and full participation in the life of the institution. the ability to realize one’s capabilities. To engage fully in the classroom, the institution, the social and intellectual networks, the responsibilities.
- Identifying and reducing barriers to full participation
- Something important not just to women and people of color, but to institution’s legitimacy and efficacy. Fulfilling as part of various institutions’ role in a democracy

A new framework for promoting and sustaining learning and action, one that develops individual and institutional intermediaries that builds the architecture of inclusiveness for higher education

- Lots of experimentation on how to address structural barriers to participation
- How to involve previous excluded groups
- How to generate multiple designers of this ongoing problem solving process

A new role has emerged with the capacity to help build this architecture of inclusiveness. That is the role of the organizational catalyst.

- These are individuals in institutional roles enabling them to enlist people with social capital and knowledge to act as change agents. I call them organizational catalysts,
  - Organizational catalysts operate at the convergence of different domains and levels of activity
  - They are influential faculty, male and female, different races, great scientists and scholars, who bring information about gender and racial bias to the points where it influences practice (search committees, department chairs allocating responsibilities)
  - Situated at the nodal points of the institution
  - Have legitimacy and power
  - These positions must be occupied by senior faculty who are highly respected in their field and have a track record of advancing the participation of women and people of color
• Can speak the language in the currency of the community
• They enlist other organizational catalysts to act in their own location
• Using information to mobilize power and change

Let me give you an example from the University of Michigan

o In 2002, Mel Hochster, a distinguished mathematician and member of the National Academy of Sciences, won the Margaret and Herman Sokol Faculty Award in the Sciences.

o One of the University's most prestigious honors, the award carried with it a widely attended public lecture, typically used as an opportunity to celebrate the recipient's eminence and to feature path-breaking research.

o Hochster chose this occasion to speak to a room full of mostly male scientists and mathematicians about gender bias. Hochster's award lecture, entitled “Women in Mathematics: We’ve Come a Long Way – or have we?”, discussed the situation of women mathematicians and other women scientists, partly from a historical perspective and partly in terms of problems that exist today.

o He described “overwhelming evidence of gender bias in the evaluation of candidates and in many other contexts. Even when procedures seem to be objective and fair, studies have shown that gender bias is significant and pervasive.”

o Hochster’s speech was described by many as an important turning point in the institution. In the words of one high level administrator involved in gender equity at UM:

• People walked out of that meeting like they’d been thunderstruck. “I had never thought about this gender thing before. . . .” It was that he, who was a member of the National Academy of Science, gave this talk. . . . It was the drama of his gesture that really affected people. The information had been out, and he just had such a huge impact. Why? The National Academy of Science gets it. He gives over this important occasion for himself. Instead of talking about math, he talked about the problem of gender in science. It was hugely important -- an amazing lesson in how this progresses.

o How did this prominent mathematician become such an effective organizational catalyst?
He was energized by becoming part of STRIDE – a group of scientists who used their own methodology – scientific research and data – to educate themselves and then others about the dynamics, causes, and possible remedies for subtle gender bias.

- Spent a summer learning with other scientists – diverse group
- No necessary commitment to addressing gender bias
- Track record of scholarly excellence, commitment to students and to fairness
- Became multi-lingual translators who work with deans, chairs, search committees
- STRIDE members speak the language of science.
- They carry tremendous legitimacy as highly successful scientists who are committed to academic excellence.
- Many of them also had informal knowledge about the standards and recruitment patterns in particular departments, which enabled them both to tailor their research and presentation and to problem-solve more effectively within those areas.
- Connected to a broader institutional change process, not a hero taking a stand
- Lowered risk and raised impact of exercising everyday leadership

- How did STRIDE happen – Abby Stewart was the organizational catalyst who played a pivotal role as principal investigator of an NSF Institutional Transformation grant.
  - She is highly respected psychologist who was active both in university leadership and in gender equity issues at Michigan. She was at the hub of an institutional transformation project to include women in the sciences
  - She transformed the Principal Investigator role to become the conceptualizer, planner, coordinator, convenor, and mobilizer of an institutional transformation process.
  - Designed STRIDE
  - Harnessed the efforts of institutional partners – advocacy organizations, teaching and research institutions, affirmative action officers, deans, chairs, institute heads
- Connected individual support and trouble shooting to system redesign
- Made the deans co-principal investigators and involved chairs of departments in pedagogy and innovation
  - Produced concrete, striking results. Chemistry department story: the chair described their department as a B+ department; they recruited the number 1 draft pick in chemistry,
- Established a process of continually recreating leadership and mobilization
  - Opportunities and support for leadership in the micro-moments that cumulate to shape involvement

- At Columbia, we have built a role that builds on this organizational catalyst model and taken this strategy to another level.
- The President, in response to the work of a diverse group of motivated faculty, created Vice Provost for diversity Initiatives, to work closely with a Presidential Advisory Committee on Diversity.
- The Vice Provost has become an organizational catalyst who has seeded the ground for the development organizational catalysts in many different locations throughout the university.
  - The position is located in the Provost’s office, and works closely with active groups of influential faculty who are on the President’s Advisory Committee on diversity.
  - She works on the individual, group, and system level.
  - Her office draws authority from faculty participation but is located inside the university’s central administrative structure.
  - The Vice Provost is thus accountable to both the faculty and to the Provost and President.
  - She operates outside bureaucratic lines of authority but is strategically positioned within the administrative office bearing responsibility and authority for faculty.
  - The office is centrally located, but collaborates at the departmental or school level.
    - This position enables the diversity provost to draw together the diverse expertise and knowledge of people in different locations within the university
They work together to solve a common problem and to equip them to bring the results of this work back into their day-to-day environment.

This role thus creates a new space for innovation and problem solving that can improve mainstream practices within departments and schools. A university-wide initiative to help departments conduct more effective and inclusive searches is a good example.

These organizational catalysts have developed three crucial strategies to mobilize change.

**First, they use data to mobilize action.** Experience has shown that information alone does not produce significant change. It must be connected to decision-makers and leverage points for it to produce meaningful change and accountability.

- Information has its maximum impact when it flows to those in a position to take action, at a time when they must act, and in a form that they respect.
- The diversity initiative thus targets pivot points of decision making and key decision makers as focal points for information sharing.
- Data on search processes is, where possible, shared with active search committees and their chairs.
- Influential departments with open slots receive considerable attention.
- Meetings with senior leadership are used as opportunities to communicate information, present project proposals, and establish time frames for taking action.
- Where possible, information about search processes automatically will flow to committee chairs, as part of the hiring process. They cannot bring people in for interviews without entering, and thus focusing attention on, information about the pool’s composition, and inquiring about the adequacy of their search practices.
- This strategy builds information accountability into the doing of the work.

- Second, organizational catalysts diffusing and coordinating leadership
  - Sustained institutional change requires both bottom-up and top-down mobilization.
The Columbia initiative has developed a strategy for achieving both, by identifying and empowering formal and informal leaders who are part of larger networks and in a position to solve problems.

The diversity provost’s office uses central resources to strengthen the role of local leaders.

One form of this network and leadership development involves finding unlikely allies among people in positions of power who are persuaded by the data and willing to harness their intellectual and social capital to the effort.

- So, for example, the chair of the Economics Department became an important ally and supporter of the initiative through his work with the Vice Provost.
- He participated in the team that presented to various departments at diversity dinners. He played a critical role in the Economics Department’s success in hiring women, and has been a powerful spokesperson for diversity to other department chairs.

The diversity initiative has developed local versions of the organizational catalyst, by appointing diversity leadership within, for example, the business school, the school of engineering, and the medical school campuses

- Building infrastructure to support the work of local organizational catalysts

Third, organizational catalysts **develop and sustain collaborative networks**

- Cultivate communities of practice – people who share common interests, experiences, or concerns but otherwise lack opportunities to work together
  - Create occasions to collaborate among people with overlapping areas of concern
  - Frame issues at the intersection of common concern: people who care about improving retention of graduate students and about including women in that process
  - Bolster decisions to exercise everyday leadership at key pivot points defining access and participation – defining searches, who is on committees, how searches defined, how chairs can effectively manage departments
• In the process, they redefine how the institution operates
  o How does this happen? What is the role of public institutions in enabling this kind of institutional transformation process?
    ▪ NSF – a different kind of mediating organization
    ▪ Focusing on the institutional level, rather than only on the individual
    ▪ Connected to the underlying project of science – seeing connections between inclusion and innovation
    ▪ Creating communities of practice among universities, both grantees and not
    ▪ Insisting on self study, developing criteria, sharing knowledge
    ▪ Using gender and race to identify barriers and locate new frameworks for knowledge
      o Interdisciplinarity
      o Redefining fields – advances opening remarks
  o Role of advocacy and law:
    ▪ Reshaping data gathering and reporting
    ▪ Mobilization and facilitating problem solving
      o Bringing groups together
      o Reflecting insights in training and education
    ▪ Support and enable those within universities engaged in this work
      o Make it safe and legal
      o Integrate it into policy
  • Provide the connective tissue
    o Training
    o Policy
• Larger lessons
  o Diffusion of sites – mobilization within and across institutions
  o Importance of mediating actors
    ▪ Individuals
    ▪ Institutions
    ▪ Funders
    ▪ New roles
  o Importance of thinking through relationship between compliance and problem solving
  o Importance of linkages
    ▪ Among groups
    ▪ Among issues
Among levels – department, university, field
  o Rethinking roles
• So, to summarize: What do organizational catalysts do:
  o They are information entrepreneurs – they get the right information in the right form and use it so that it can influence practice
  o They are trouble shooters who use knowledge about particular problems to figure out how systems need to be redesigned
  o They use knowledge to legitimate the need for change, using the currency of the realm –
    ▪ Use knowledge to demonstrate to relevant people at relevant times that there is a problem and that problem is amenable to change.
    ▪ Connect data to core concerns of the departments
    ▪ Research based change agents – they develop the information needed to understand the problem and then redesign systems.
    ▪ They develop collaborations in strategic locations
    ▪ They create pressure and support for change
      • Keep the focus on these issues over time
      • Help develop workable solutions that will remove barriers and improve the institution.
  o The results at Columbia so far – attracting terrific people who enrich the diversity and enhance quality; opening up collaborations across departments and schools that have never before taken place, solving governance problems that seemed insoluble; creating a sense of momentum and hope.
  o Organizational catalysts make it possible to see that what’s good for diversity is good for the academy.