Why Diverse Teams Matter

Two main cases can be made for diversity and inclusion of women and other underrepresented groups in information technology: the social justice case and the innovation case. The social justice case appeals to us with “it’s the right thing to do,” as a humanitarian call for fairness, equal representation, and opportunity, within both academia and industry. Its antecedents echo from civil rights and feminism, backed by decades of social progress and research. The innovation case is a more recent phenomenon, emerging from best practices and research that points to the competitive advantages of diverse work teams along dimensions of innovation, productivity, efficiency, and problem solving.

In both cases, the context for an all-hands-on-deck call to action is at once overwhelming and compelling. In higher education, in 2011 women earned 57 percent of all undergraduate degrees but only 18 percent of degrees in computer sciences, which is the lowest for any STEM field. For women who also belong to one or more ethnically underrepresented categories (e.g., black, Hispanic, Native American), the number of degrees is even lower, which is the lowest for any STEM field. For women who also belong to one or more ethnically underrepresented categories, the number of degrees is even lower, which is the lowest for any STEM field.

Women who do earn degrees but only about 18 percent of degrees in computer sciences are retained and can thrive. Currently, women in the tech industry have a quit rate double that of men. According to a report by the Center for Talent Innovation, 80 percent of U.S. women in SET (science, engineering, and technology) say they “love their work,” yet 56 percent leave their private-sector organizations mid-career. This represents a huge brain drain, not to mention millions of dollars in investment walking out the door, most often to competitors, start-ups, and nonprofits.

Unconscious Bias Goes to Work

What is the “secret sauce” to engaging and retaining more women and minorities in information technology? It starts with the social processes that inhibit diverse participation. By now, most of us are familiar with unconscious bias: implicit associations that everyone makes regarding gender, ethnicity, age, sexual orientation, etc. These biases can unfairly disadvantage and disenfranchise people who are members of underrepresented or historically marginalized groups. Unconscious bias is part of our mental makeup and our culture. However, recognizing it and raising it to a conscious level allows us to address it, interrupt it, and mitigate its potential negative impacts.

Unconscious bias in the workplace manifests in institutional barriers that may include the following:

- Recruiting practices: biased sourcing of candidate pools; job ads that include biased language and messaging; biased

The Best and the Brightest?

It has long been assumed that assembling the best and the brightest in the room will yield the best and the brightest results. Therefore, searches for the best talent have, over time, increasingly narrowed the collective sense of who does tech best (and who does not) and where to recruit them (and where not). But these assumptions are now being called into question.

Scott Page’s landmark 2007 book The Difference makes a compelling case for the value of diverse teams. Through case studies and mathematical modeling across a range of organizations (industry, education, communities), he details the relation between diversity of people and strength and functionality of organizations in terms of productivity and problem solving. Throughout, he demonstrates that diversity can trump ability. Other research has demonstrated that the number of women on work teams is a stronger predictor of a group’s collective intelligence than is the total IQ of a group’s individual members. Additional studies have shown that gender diversity benefits organizations along dimensions of financial health, productivity, efficiency, employee performance, and innovation.

Even though exactly why and how “people diversity” translates into “functional diversity” to yield the benefits in innovation and productivity is a topic of ongoing investigation, such evidence signals us to rethink competitive strategies for recruiting and building diverse work teams. Primarily, it shifts the focus from acquiring the best individuals to assembling and empowering the most effective teams. In this sense, the strategy is akin to that in Moneyball, the book and film chronicling the paradigm shift in major league baseball: using analytics and data to move away from evaluating and hiring “star players” and toward evaluating and hiring effective teams. In information technology, the emphasis is on building teams for greater functional diversity—that is, diversity of thought. And in this sense, it is worth noting that such a clear plus for the innovation case of diversity and inclusion is fundamentally rooted in its social justice case, since diversity of thought ultimately stems from a diversity of life experience and identity.

But recruiting for diverse teams won’t do any good if we don’t create environments in which women and minorities are retained and can thrive. Currently, women in the tech industry have a quit rate double that of men. A report by the Center for Talent Innovation states that 80 percent of U.S. women in SET (science, engineering, and technology) say they “love their work,” yet 56 percent leave their private-sector organizations mid-career. This represents a huge brain drain, not to mention millions of dollars in investment walking out the door, most often to competitors, start-ups, and nonprofits.

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- Recruiting practices: biased sourcing of candidate pools; job ads that include biased language and messaging; biased
résumé-review processes and interview strategies, including all-male interview committees

- **Retention factors:** unequal pay for equal work; environmental elements signaling that women and/or other minorities do not belong, including “geek-culture” décor and “broad-grammer” culture; lack of support for competing work and life responsibilities, including flex-time; biased annual performance review protocols and criteria that subtly favor men and reinforce the dominant culture

- **Advancement:** biased and/or hidden advancement processes and criteria that subtly favor majority group members over minorities; lack of effective sponsorship for women and minorities; lack of role models and peer-group members for women and minorities in positions of power (a self-reinforcing cycle)

In addition, unconscious bias can be represented by interpersonal barriers and challenges:

- **Micro-inequities and micro-aggressions:** subtle but cumulative slights and exclusions that occur daily (“Dude, let’s talk about it over a beer”)

- **Stereotype threat:** the fear of reinforcing negative stereotypes associated with an identity category, resulting in behavior that can significantly affect performance, participation, and sense of belonging

- **Tokenism:** the expectation that someone represents and can speak for all others in a specific identity category, often resulting in women and minorities avoiding participation in “women’s groups” or diversity programs

- **Personality penalties:** being labeled as pushy, aggressive, or bossy for the same behaviors for which male or majority group counterparts are praised

**Solutions**

There is no single recipe for success in attracting and retaining diverse IT teams. Nevertheless, colleges and universities can lead the change, for both the professional sector and higher education. How?

First, educate top leaders and managers about the facts regarding women and other diverse people in information technology, training leaders to recognize and address unconscious bias in both its institutional and interpersonal forms.

Second, recruit more diverse people. Hiring staff that embody a diverse and inclusive environment sends a strong message. Doing so requires a proactive recruiting strategy that follows from a top-leadership directive to seek out and hire diverse staff and that does not in any way lower standards to accomplish this goal. A review of job ads for language that may include unconscious bias is also needed, as is sourcing to a wider range of potential candidates in order to change the traditional demographics of IT applicants.

Third, retain and advance diverse employees. As pointed out above, recruiting will do little good if retention is not achieved. And this means changing the culture of an organization—from its policies and procedures down to the ways individuals interact—in order to remove the barriers that exclude diverse people and the benefits they bring. To enable this scale of change, the National Center for Women & Information Technology (NCWIT) has assembled an industry reform model for organizations to use. Its purpose is to frame a strategic approach to organizational change that promotes diversity and inclusion and to do so in a way that encourages customization to the specific needs of different groups. This framework emphasizes a holistic effort that bridges strategic and tactical action.

Finally, be accountable for change. Organizations must set targets, measure progress, and conduct applied research for new ways of addressing these challenges. NCWIT is proud to be undertaking, in collaboration with Internet2, a new research project to gather and analyze gender diversity data from member organizations. This information will form a baseline from which the Internet2 community and individual member organizations can assess where they stand and then measure meaningful progress.

Casting diversity and inclusion as both a social justice case and an innovation case, dispelling the myth of “the best and the brightest,” shifting focus to building and supporting diverse teams in order to reap their demonstrated benefits for all people (majority and minority alike), and adopting a strategic change effort that is holistic in design are steps along a pathway of progress with clear and elevating goals: diversify; innovate; and celebrate the wealth and potential of our differences.

**Notes**


6. The NCWIT IT Industry Reform Model can be found in “Strategic Planning for Increasing Women’s Participation in the Computing Industry,” National Center for Women & Information Technology (NCWIT) Workbook, April 1, 2012.

**Brad McLain** ([brad.mclain@ncwit.org](mailto:brad.mclain@ncwit.org)) is a social scientist with NCWIT. **Catherine Ashcraft** ([catherine.ashcraft@ncwit.org](mailto:catherine.ashcraft@ncwit.org)) is a senior social scientist with NCWIT. **Lucy Sanders** ([Lucinda.Sanders@Colorado.edu](mailto:Lucinda.Sanders@Colorado.edu)) is CEO and co-founder of NCWIT.

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