

National Center for Women & Information Technology

PROMISING PRACTICES

How Can Organizations Recruit Diverse Talent in Ways that Promote Innovation and Productivity?

Diversifying the IT workforce is about much more than fairness and equitable representation. Significant evidence now suggests that diverse work teams also produce tangible benefits, including improved innovation, problem-solving, and productivity. In a recent study by the London Business School, work teams comprising equal numbers of men and women were more likely to experiment, be creative, share knowledge, and fulfill tasks. Similarly, a study by NCWIT on gender & IT patenting revealed that mixed-gender teams produce patents that are more highly cited. A wealth of additional evidence also suggests that diverse work teams produce better results in a variety of contexts (see below for more information).

Why do diverse teams often produce better results? The answer lies in the connection between “identity-group diversity” (e.g., race, gender, class, among others) and “functional diversity.” Functional diversity is the extent to which individuals frame problems and go about solving them in different ways. Life experience significantly influences *functional diversity*, and an individual’s membership in particular identity groups significantly influences her or his *life experiences*. Thus, teams comprising members from different identity groups are also likely to be rich in functional diversity.

Diversity trumps ability: Functionally diverse teams often outperform “high-ability” teams. Recently a research team set out to address the following kind of scenario: When an organization has a significant problem to address, is it better to assemble the 20 top-scoring candidates or 20 diverse candidates randomly selected from a reasonably qualified applicant pool? Using a series of computational experiments and mathematical models, the researchers confirmed that given a large enough sample size, a team of diverse agents produces better results than a team of the “highest-ability” agents. This outcome occurs because the highest-ability agents use similar problem-solving methods and miss potential solutions that the diverse set of agents ultimately discovers.

Of course, in organizational settings, communication processes and group conflict may limit diversity benefits; therefore, implementing practices that foster productive group communication is also vital. The potential productivity of diverse teams underscores effective communication as an important and worthwhile goal.

WHAT THIS MEANS FOR ORGANIZATIONS

Organizations interested in benefiting from functional diversity first need to seek it out actively. There are several ways to do so:

1. Modify any existing hiring and selection practices that focus exclusively on “highest score” measures
2. Recruit and reward people for being able AND relatively different
 - Develop recruiting, interviewing, and promotion criteria that stress the importance of diversity and creativity in problem-solving
 - Develop strategies that can identify and keep track of diversity in problem-solving
3. Be explicit and make employees aware of the company’s philosophy about functional diversity and its benefits — a first step toward fostering productive group communication

“Diversity trumps ability: Diverse groups generally do better than “high-ability” groups at problem-solving or prediction. These are not political statements; they are mathematical truths.”

– Scott E. Page

RESOURCES

- Ashcraft, C. & Breitzman, A. (2007). *Who Invents IT? An Analysis of Women’s Participation in Information Technology Patenting* (NCWIT). Executive summary available at <http://www.ncwit.org/pdf/PatentExecSumm.pdf>
- London Business School (2007). *Innovative potential: Men and women in teams*. Executive summary available at http://www.london.edu/assets/documents/Word/Innovative_Potential_NOV_2007.pdf
- Page, S. (2007). *The difference: How the power of diversity helps create better groups, firms, schools, and societies*. New Jersey: Princeton University Press.

NCWIT offers practices for increasing and benefiting from gender diversity in IT at the K-12, undergraduate, graduate, and career levels.

Visit www.ncwit.org/practices to find out more.

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PROMISING PRACTICES

Interview Strategies that Identify Functionally Diverse Perspectives (Case Study 1)

One Way to Recruit Diversity that Promotes Innovation and Productivity

Career

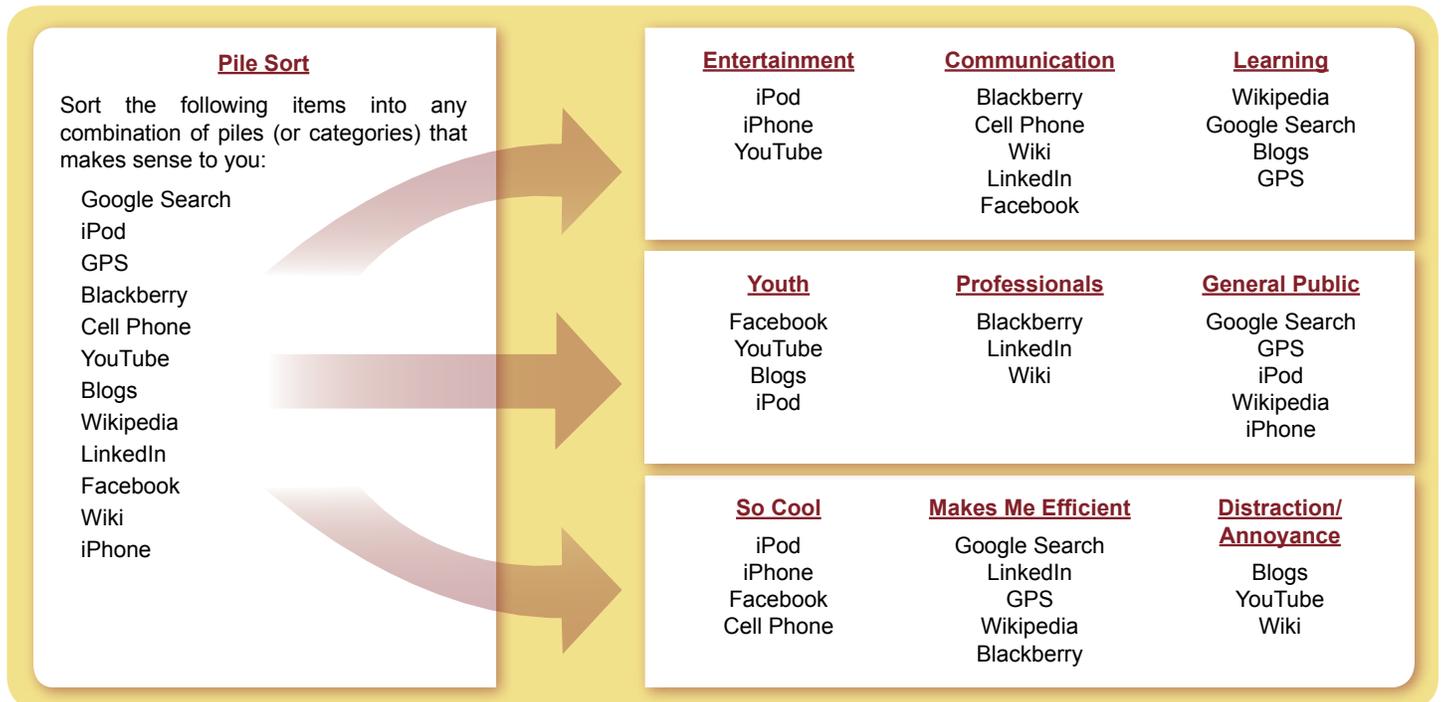
Work teams with high levels of *functional diversity* — diversity in the way an individual frames and solves problems — can significantly increase innovation and productivity. To reap this benefit, organizations need to identify and recruit talent with diverse patterns of thinking or problem-solving. This need is especially great for organizations in competitive and fast-paced environments like IT.

Here are some suggestions for interview strategies that help identify functionally diverse perspectives:

- Scenario Analysis.** Many companies already use scenarios to see how candidates behave or solve problems in a given situation. Often, though, employers look for candidates who solve these problems in ways that have been predetermined as “best,” or as the best “fit” for the organization. To increase functional diversity, employers also should seek candidates who solve these problems accurately but in ways that differ from the organization’s standard practice.
- Pile Sorts.** In this innovative interview strategy, candidates categorize a number of objects, concepts, or ideas that are initially listed in random order. This strategy is particularly helpful for identifying candidates with different perspectives or patterns of thinking. The figure below illustrates how this method works. Use it as a model for developing lists of objects or concepts relevant for your field and business unit.



- Ability or Aptitude Tests.** If your company currently administers a test or questionnaire that is scored on the basis of the highest number of “correct” answers, modify this process. Consider also awarding additional points for questions that are solved accurately but in ways that differ from the current company standard. Of course, questions need to be complex enough for this method to work. If the current test does not contain sufficiently complex questions, add some that allow for a variety of correct solutions or problem-solving approaches. In addition to awarding points for accurate answers, give additional credit for answers that are solved using diverse, innovative, or unique approaches. Also give particular credit or attention to candidates who correctly answer questions that most others get wrong.



NCWIT offers practices for increasing and benefiting from gender diversity in IT at the K-12, undergraduate, graduate, and career levels. This case study describes a research-inspired practice that may need further evaluation. Try it, and let us know your results.

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