The NCWIT Practices Framework

NCWIT's mission is to ensure that women are *fully represented* in the influential world of information technology and computing. We emphasize full representation because diversity is about more than numerical representation. Numerical parity is a small victory if women contribute only at the periphery of computing. Full representation also calls for women's integration in ways that make their numbers matter. These ways make it possible for women IT creators to contribute to achieving their individual goals, an organization's goals, and societal goals.

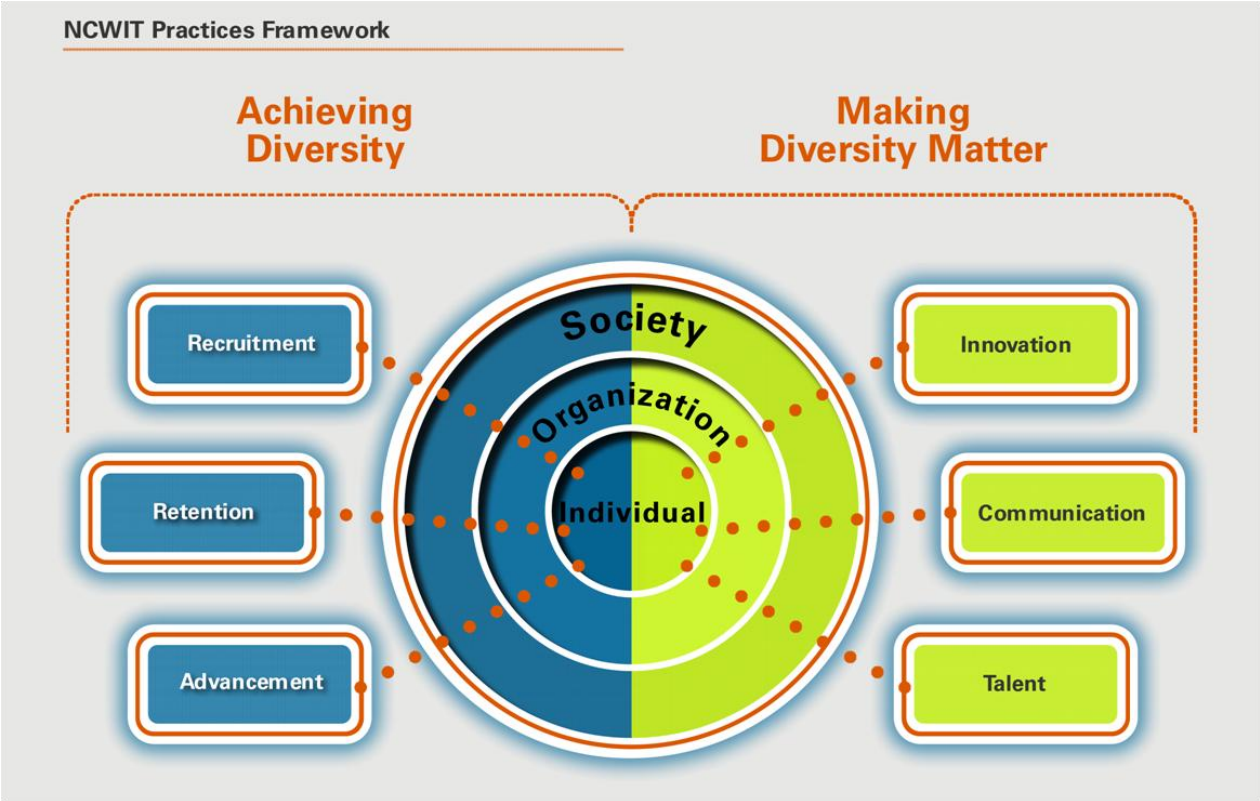
NCWIT developed the Practices Framework to provide a structure for thinking about interventions related to gender diversity in computing. This framework takes into account intervention implementers, goals, and audiences. As it visually represents these important elements, the NCWIT Practices Framework also organizes efforts into two interrelated categories: first, those intended to achieve diversity by increasing the numbers of girls and women in information technology; and second, those designed to make this increased diversity matter with regard to existing goals. The Framework guides our research efforts and helps us see where efforts have been concentrated and where they are absent.

By placing known practices into their relevant categories in this framework, we instigate action in a number of ways:

» Implementers have a better sense of what practices are supported by research.

» Researchers gain an understanding of the "gaps in the literature," thus guiding their own and their graduate students' research efforts.

» NCWIT social scientists gain a better understanding of the landscape of practices, both mapped and unmapped; this guides our search and research efforts, as well as the efforts of our many partners in hubs and in the Social Science Advisory Board.



The NCWIT Practices Framework

Practices that Achieve Diversity

Practices designed to achieve diversity are focused on increasing the numbers of girls and women in computing. They have goals or benefits related to recruiting, retaining, or advancing the diverse range of females. They can target audiences in settings that include formal or informal K-12 education, undergraduate and graduate education, and career women in industry, government, or higher education. Each practice has implications for or achieves its results through actions by individuals, organizations, or society. Selected examples of these practices include:

- **Recruitment.** K-12 girls attend a "Girls Exploring Science, Engineering, and Technology" event, and learn the importance of STEM and IT through hands-on activities and presentations about real-life applications of technology.
- **Retention.** Midcareer women in the workforce can resume a technical career through "on-ramp" programs.
- **Advancement.** Mentoring helps advance women to the next level in their computing education or career.

Practices that Make Diversity Matter

Practices designed to make the numbers of females in computing matter can have goals or benefits related to innovation, communication, and talent. Goals or benefits related to innovation might include improved creative generation or expression of ideas, or output in the form of teaching, research, products, and problem-solving. Goals or benefits related to communication might include improved work process, public image and relations, client satisfaction, learning from diverse opinions, and understanding of the market. Goals or benefits related to talent development might include reduced turnover, improved quality of applicant pool, or enhanced leadership. Each practice has implications for, or achieves its results through, actions by individuals, organizations, or society.

Practices intended to make diversity matter in Information Technology are sparse. For the most part, existing practices of this type target business audiences. More work is needed to investigate whether, or under what conditions, gender diversity in IT contributes to achieving individual, organizational, or societal goals. Examples of potential practices of this type may include:

- **Innovation.** Mixed-gender work teams produce IT patents that are more frequently cited than do same-gender teams, according to recent NCWIT-sponsored research.
- **Communication.** Managers form alliances with employees from underrepresented groups to foster serious consideration of diverse viewpoints and the learning that can result.
- **Talent.** The mentoring of women and members of racial minorities is a factor in managers' performance reviews.

For a complete list of NCWIT Promising Practices, please visit our website: http://www.ncwit.org/practices.html.

national center for women & INFORMATION TECHNOLOGY