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MENTORING-IN-A-BOX: Women Faculty in Computing

Mentoring Basics – A Mentor's Guide

This document helps you prepare for mentoring by noting the qualities and activities of a mentor. You will learn why faculty women in computer science need mentors, and how you can find a promising mentee. Find out how you benefit from the mentoring relationship, and learn good general mentoring practices.

WHAT IS MENTORING?

Mentoring is a process through which an individual offers professional expertise and support to a less-experienced colleague. A mentor serves as a teacher, counselor, and advocate to a protégée, or "mentee". Mentoring results in a mutually beneficial professional relationship over time. In the university setting, mentoring is a form of professional development that leads to better instructors, increased retention, greater understanding of academic values, and self-confidence in the skills needed for academic success.

WHAT IS NCWIT'S *MENTORING-IN-A-BOX: WOMEN FACULTY IN COMPUTING?*

Mentoring-in-a-Box: Women Faculty in Computing is a modular kit of mentoring resources designed for use with pre-tenure faculty women. The intent of this *Box* is to guide the growth of young women faculty so they become accomplished researchers, teachers, notable scholars, and influential leaders in computer science, as well as tenured faculty.

WHY MENTOR A FACULTY WOMAN IN COMPUTER SCIENCE?

Paltry representation of women at the higher echelons in academia means that women in computer science lack ready access to role models and mentors, and they tend to be excluded from informal networks that are critical to advancement (Boyce, 1998; Fox, 2001). Lack of access to mentors for women results in reduced effectiveness, work dissatisfaction, and lost organizational talent. Mentoring improves effectiveness, work satisfaction, and talent retention as it increases the representation of women in computer science.

WHY SHOULD I MENTOR?

It is good for the individual, the institution, and the field. Faculty mentoring often addresses topics such as research, publishing, and scholarship; teaching, advancement and retention; and relations with colleagues. Mentors transmit specialized knowledge that is otherwise less available to junior faculty. In this way, mentors give back to the institution and field by helping to prepare the next generation of innovators and leaders.

Mentors reap leadership and career rewards:

- As a mentor you will reflect on how you got to your current position and articulate the vision of what you want next from your career, and learn from this reflection.
- Through mentoring you help strengthen your department and institution, making it a more satisfying place to work.
- Mentors gain valuable interpersonal communication skills through the process of mentoring.
- Mentoring can be a way to cultivate your legacy and nurture the ideas you value.
- Mentoring junior faculty can open up new informal networks to you.
- Through the mentoring relationship, you can obtain new information and a new perspective. For example, younger faculty members may be more in touch with new and upcoming technologies, and this can benefit you.

Mentors experience personal rewards. Many mentors, at the top of their professional careers, find an increased sense of purpose by giving back through mentoring and establishing a legacy as leaders. Mentors also report feeling rejuvenated and energized through interacting with their junior colleagues.

The rewards are worth the investment. Research shows that people who become mentors report significant benefits and few costs. The rewards to the individuals and the field are worth the commitment and effort.

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WHAT DOES A MENTOR DO?

A mentor works on multiple levels, supporting the junior faculty mentee in meeting essential duties of teaching, research, and service, and helping her envision and take steps toward the professional goals she wishes to attain. A mentor combines instruction in professional behavior with affective support. A mentor may fulfill all or a combination of roles.

The Mentor:

Advises – Shares institutional and professional wisdom, critiques performance and work products, suggests strategies and improvements in work processes and products.

Acts as a role model – Offers insight on how he or she met professional milestones and progressed to the position now held.

Coaches – Helps a mentee learn new skills and practice new behaviors.

Advocates – Sponsors, provides exposure and visibility in the department, university and wider field.

Protects – Helps a mentee find new and challenging opportunities while protecting her from adverse forces and "dead-end" assignments.

Acquires resources – Brings critical information, opportunities, or experiences to the attention of the mentee.

Supports – Listens with a sympathetic ear, explains unwritten rules, and acknowledges disappointments and celebrates triumphs.

WHO SHOULD BE A MENTOR?

Any accomplished woman or man may be the right mentor for a woman junior faculty member in computing. You are ready to mentor if you:

- recognize how diversity and strong representation by women enriches the department's, institution's, and field's "gene pool" from which innovation and scholarship spring;
- are aware that women as a minority in computing face additional barriers to their advancement and you are dedicated to both breaking down these barriers and helping individual women overcome them;
- are committed to leveraging your experience and knowledge to support the development of junior faculty;
- are willing to be not only a storehouse of knowledge, but also an advisor, connector, critical friend, and supporter.

I'M READY, NOW WHOM SHALL I MENTOR?

Consider these different circumstances or opportunities when identifying your mentee. She may be:

- **Recently hired junior faculty.** Recent hires are good candidates because they have few established patterns of behavior that require redirection. They may even view mentoring as critical support the department and/or university should provide.
- **A woman part way along the tenure track.** A more seasoned junior faculty member may welcome mentoring. Remind pre-tenure women that getting support through mentoring is a wise thing to do at any stage in their career, and especially now.
- **A junior faculty woman outside your department.** Some mentoring is more effective if it crosses organizational units. This external mentoring avoids conflicts of interest and offers different perspectives. For example, if you are a computer scientist and your greater intent is to increase women's impact in the sciences, you might consider mentoring a woman in another department at your institution. Ask coleagues in other departments who would benefit from having you as a mentor. You may make fruitful interdisciplinary connections in the process.
- **A junior faculty woman in your research area at another institution.** You may meet a junior faculty member working on research related to yours at another university who would benefit from mentoring. (Your mentoring may focus on research only, with other aspects of her career supported by other mentors.) In this kind of mentoring you will gain knowledge and also extend your impact within your subfield.

Don't let distance hinder you. While nothing fully substitutes for face-to-face meetings, telecommunications make virtual connections almost as effective. Use technical aids such as teleconferencing and email to support mentoring from a distance.

IS SHE READY?

Your mentee is ready if she:

- Has an ambition to advance and increase her contribution to the department, institution, and the field
- Seeks constructive feedback and acts on it
- Is willing to explore new behaviors and skills
- Is able to commit time and effort to professional growth
- Is interested in being mentored

The best mentoring relationship results come when the mentee "owns" the process and drives activity toward her desired results. If your mentee is not able to clearly articulate a goal for the relationship or has trouble creating the *Set-the-Stage* template, have her prepare accordingly before you start into your mentoring relationship.

HOW DO WE START?

After you have decided to work together, plan how your partnership will proceed. This mentoring kit includes a *Set-the-Stage* template to guide planning as you set goals and establish the parameters of your relationship.

Agree to meet frequently and regularly, at least twice per month. Extensive research on mentoring shows that frequent and regular meetings contribute to the formation of an effective mentoring relationship.

It may take several months of steady engagement before you feel bonded and find your meetings habitual and natural. Agree that meetings are inviolable, and honor your commitment to them. If you must miss a meeting, reschedule another right away – don't wait for the next one.

WHAT ARE GOOD PRACTICES IN MENTORING?

General mentoring practices follow. For activities relating to specific topics such as *Advancing as a Researcher or Women in a Male-Dominant Field,* turn to the *Activities Guide.*

Recommend several mentors. In order to help a mentee get the most and best advice, you might recommend that she seek support from several faculty members. "Ad hoc" mentoring or advisory relationships help spread the cost of mentoring and make it okay that you are not all things to your mentee. Cross-department and cross-institution mentoring can give your mentee new perspectives and knowledge. Even informal chats with senior colleagues help the mentee build rapport, visibility, and professional networks. Encourage your mentee to seek mentoring in many forms, and help her develop her mentoring network by suggesting mentors and introducing her to mentors for particular topics.

Define roles and goals in mentoring. Be clear on where the line is drawn between your responsibilities and those of the department head or chair. Agree on goals for the mentoring relationship from the outset, and put them in writing. (A *Set-the-Stage* template is provided for this purpose).

Plan a beginning, middle, and end. Establish how long you expect mentoring to last, based on the goals you set and timeline for meeting them. Setting a time limit helps you stay goal-oriented in your meetings and actions. Recognize that every mentoring relationship has phases – including the end to formal mentoring. This doesn't necessarily mean the end of your relationship, but a change in how you interact and how often.

Establish realistic expectations. You can provide your mentee access to resources and people, but make it clear you do not take on her problems as your own. Coach as you can, but the mentee grows most when she solves her own problems.

Act as a colleague first, an expert advisor second. A know-it-all approach to mentoring is intimidating and can limit successes. Strike an open and warm tone so your mentee will feel she can ask you difficult questions and take risks. Listen as much as you speak so her questions and aspirations are always the central focus.

Don't just talk: do. Research suggests that the most beneficial mentoring is based on mutual learning, active engagement, and striving to push the leadership capabilities of mentees. With this in mind, hold action-oriented meetings. Don't just discuss issues, but plan ways to actively address them. Find exemplary models for your mentee to emulate. Review her work and encourage her to include her best efforts in a portfolio. Together examine the menu of activities in the *Activities Guide,* which covers many of the common topics concerning women faculty in computing. Select activities that address her goals, and then prioritize and set dates for accomplishing them.

Listen, listen, and then listen some more. Hear her concerns before offering your mentee advice and guidance. Establish trust and openness in communication from the start. The *Communication and Collaboration* section in the *Activities Guide* provides pointers for communicating effectively.

Tell your story. Use your own story when advising your mentee. Not only will knowing each other better make your interactions more fruitful and rewarding, events that shaped your career are instructive. Describe hard decisions you made and purposeful actions you took. Talk about how you have dealt with disappointment. Let your mentee know your standing in the institution and the field didn't just happen; you made intentional choices.

Protect from error. Strive to protect the mentee from what you see as major professional errors or missteps, but also leave room for her to learn from her own experience and mishaps. Remember that a successful mentoring relationship is one where the mentee eventually advances and no longer needs your support. Make sure the mentee is not overly dependent on your advice.

Understand challenges women face. Recognize that women and other minorities face additional barriers to advancement. Educate yourself about the issues. Resources on this topic are available in publications such as, *Faculty Diversity: Problems and Solutions* (Moody 2004). For local resources and support, call on the administrator responsible for diversity at your institution.

Advocate and Support. As a woman's mentor, you may be called upon to stand against unfair treatment or unequal assessment of her abilities and performance. Advocate for your mentee on issues relating to hiring, evaluation, and performance.

Imagine her experience. If you are a man mentoring a woman or if you and your mentee are from different cultural backgrounds, be aware of and respect her experiences, ideas, and goals. Cross-gender and cross-cultural mentoring relationships can be very enriching and successful but they require open dialogue about the ways gender and culture influence your mentee's experience in higher education and in the mentoring relationship itself.

Give constructive feedback. Your mentee may not ask for advice on some aspects of her work, but you know your institution's standards. Observe her teaching, read drafts of her papers, watch her in action in meetings, listen as she explains her research, and give constructive feedback. Constructive feedback is information that helps your mentee know what she's doing well (and could further enhance or do more of) and what she needs to learn or change. Constructive feedback does not need to feel negative. Convey the most important things first, and avoid overloading your mentee. Recount how you survived the "growing pains" everyone suffers in the process of becoming an accomplished professional.

Continually improve your mentoring relationship. Don't assume mentoring is working simply because neither you nor the mentee complains. Your relationship is working if your mentee is meeting her goals. As mentor, you are supplying a lot of advice, but feedback should go both ways. Regularly elicit feedback from your mentee as part of your meeting. Ask: *Are you getting what you need? What else do you need? How could we do even better?*

BEYOND THE MENTORING PAIR

As you and your mentee meet success, start thinking of ways to extend the impact of mentoring in these ways.

Promote mentoring programs. Mentoring is more likely to be successful if it is supported through a formal program. A mentoring program can provide support structures and resources that are not otherwise available to a single mentoring pair (Zachary, 2000). Mentoring programs can match mentors and mentees, set quality standards, host events that connect mentoring pairs with others, and provide expert advice. Formal mentoring programs evaluate their activities and processes and tailor them to suit the particulars of the institution. If you choose to work toward developing a formal

mentoring program at your institution, read publications listed in the *References & Resources guide t*o help you get the work underway.

Expand the circle. Meet with mentoring pairs to share strategies and advice. Every mentoring relationship functions differently and meeting with other pairs can be invigorating and instructive.

Advocate. Approach the dean of the school or chairs of other science departments where women are a minority, and convince them to promote mentoring as an expected activity of both senior and junior faculty.

Educate. Consider instituting a "reverse mentoring" program where senior faculty and administrators are educated about specific issues faced by younger staff, and in diversity issues relating to race and gender.

Perpetuate a tradition of mentoring. Teach your mentee how to become a mentor herself – by example and by encouragement.

NOTES: