Educause Session Template:

Title: **“Women in Technology” Strategies & Best Practices to Attract Young Women into IT Programs & Careers**

Abstract: 50 words

Women are highly underrepresented in all IT fields. University IT leaders are strategically important in the efforts to attract women into IT careers. This session will provide examples of successful programs and partnerships utilizing innovative approaches and outreach efforts that participants can implement at their own institutions.

Content & Approach

1. Statement of problem – 250 words

Women are highly underrepresented in all IT fields and careers. Many young women are not aware of the breadth of career opportunities in IT related fields. This issue is exacerbated by the fact that young women are underrepresented in the STEM courses of studies – math, engineering and computer sciences – that prepare one for a career in IT.

Myriad studies from organizations ranging from the American Association of University Women to the Girl Scouts to the National Center for Women & Information Technology have documented the challenge:

* Women hold 58% of the all professional occupations in the US workforce, but only 25% of IT occupations.
* In 2009, just 18% of the undergraduate Computing and Information Sciences degrees were awarded to women; in 1985, women earned 37% of these degrees.
* 57% of girls say that if they went into a STEM career, they’d have to work harder than a man just to be taken seriously! **1**

Gender diversity in the IT talent pipeline is critical if institutions of higher education are to fill their positions with the best qualified candidates – AND, if they are to develop a pipeline for other industries too. One reason that young women do not envision themselves in IT, is the limited pool of women executives in IT, which means that young women have few role models or opportunities to network with women IT leaders. There are new resources and model programs available, but many universities are not aware of the initiatives that they can implement to address the problem.

1. Description of project or solution – 500 words

There is a growing awareness that gender diversity is an economic imperative that impacts innovation, equality and the bottom-line. Organizations from the Anita Borg Institute to the National Center for Women in Information Technology (NCWIT) are capturing and disseminating well researched programs and best practices in areas including K-12 STEM outreach programs, campus recruitment and engagement events, and undergraduate mentoring and development projects. The NCWIT has developed an Academic Alliances initiative that has some 200 institutions of higher education involved – and these schools span community colleges, private institutions, women’s colleges and top-tier research universities. Many of Educause’s corporate members have developed programs and partnerships with colleges and universities around IT internships, training opportunities and networking events.

This session will provide a panel presentation and discussion with women IT leaders from George Mason University, Indiana University, Oregon State University, the NCWIT’s Academic Alliances Program and NetApp. The panelists will speak to their own experiences as women in the IT industry and how their careers developed. The panel will also provide attendees with insights on the scope of the issue, highlights of recent research, suggestions on how to leverage some of the proven approaches to attracting women into IT, and some specific examples of events and approaches that they can implement at their campuses.

For example: Universities such as George Mason University and Indiana University, have worked with NetApp and other industry partners to host successful WIT events on their campuses. The format of these events is flexible but generally consists of a main event or panel, where 4 women speak about their careers. There are additional career women throughout the audience available to contribute to the discussion. After the main event there are break-out sessions aligned by tracks, topics, etc., where smaller groups of students can speak to the career women in the audience. The session closes with an informal networking event to provide the young students an additional opportunity to speak with the hosts and speakers. Oregon State University has pioneered best practices in undergraduate research experiences, which have been shown to be very effective in recruiting and retaining women in IT majors.

The NCWIT has a number of initiatives through its Academic Alliances that attendees can learn about and possibly deploy at their schools; these include projects/resources such as:

* An Academic Newsletter
* Outreach initiatives
* An undergrad research experiences “program-in-a-box”
* Student Organization and Community College outreach programs and a
* Webinar series

This session will provide attendees with a road map on how to design and deliver a successful Women in Technology event at their campuses, how to encourage young women through undergraduate research experiences, and will provide for an interactive networking and Q&A session at the end.

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1. Impact – 250 words

The goal for this session is to inform, engage and empower the attendees with options and ideas that they can take back and easily deliver at their campuses. Developing and delivering WIT outreach efforts is no longer just about equity and equality, it’s a strategic business imperative to ensure that the universities’ IT operations can be staffed with the best talent. It is a way to bring in new approaches and insights for collaboration and problem solving to the IT team. It is a way to bring in new perspectives around innovation and creativity. It is a way to develop the next generation of IT leadership that will enable the institutions to deploy technologies and IT practices that support the ever changing needs of faculty and students. And, there are proven approaches that have been researched, documented and packaged for easy implementation that can accelerate making an impact.

The other beneficiaries are young women on the fence about a STEM-related career. For many young women, learning about IT career options and the diverse roles and roads to get there can be empowering. Having a chance to network with successful women executives and to hear their stories can be inspiring. The chance to gain a connection for a mentor or internship can be life changing. Attendees can customize the various approaches to fit their needs or the culture on their campuses, and by engaging with industry and community groups, the impact can easily extend beyond the campus itself to the broader community.

1. Importance or relevance to other institutions – 250 words

The issue of attracting young women into STEM-related education tracks and careers is a national issue. These needs and issues are relevant to almost every member institution of Educause. It is within the capability of almost every Educause member institution to develop and deliver some kind of WIT outreach effort. A goal of this session is to show why it is so important to the members and then to equip them to do something about it once they leave. A common concern across most IT departments is finding qualified staff – this session will arm attendees with proven steps that they can take to develop and grow their own IT talent pipeline.

1. Session Interaction - 250 words

The essence of the Women in Technology events and outreach is interaction – and a goal of this session it to be highly interactive as well. There will be a panel presentation and opportunity for Q&A, and there will be a post-panel networking event built in to allow for ad-hoc break-out discussions. IT professionals in the audience will be asked to share their experiences and suggest ways to implements events on their campuses.

1. Session Outcome - three objectives/benefits for attendees – 250 words
* Attendees will understand the scope and impact that having young women under represented in the IT fields is having on their IT program
* Attendees will hear several examples of successful outreach models that Educause members have implemented to interest young women in IT careers
* Attendees will leave with a road map / check-list outlining “how to” develop and deploy similar programs on their campuses. AND, they will leave with contacts to a network of like minded women to help them design and deliver a WIT event and/or other downstream efforts.

Program Theme/s (1-3):

* Professional Development/Training
* Partnerships/Collaborations
* Strategic Value of IT

Domain Focus: (1-2)

* Leadership , Governance and Management
* Teaching & Learning

 Speakers:

1. Sue B. Workman, Associate Vice President, Client Services and Support, Indiana University (sbworkma@iu.edu)
2. Sharon Pitt, Executive Director for Instructional Technology ( DoIT), George Mason University (spitt@gmu.edu)
3. Regina Kunkle, Vice President, State, Local & Higher Education ( SLED), NetApp (Kunkle@netapp.com)
4. Margaret M. Burnett, Professor of Computer Science at Oregon State University; Academic Alliances co-Chair, National Center for Woman in Information & Technology , and ACM Distinguished Speaker (burnett@eecs.oregonstate.edu)

Related research:

* Association of University Women:
	+ <http://www.aauw.org/learn/research/whysofew.cfm>
* Women’s Underrepresentation in Science:
	+ <http://www.apa.org/pubs/journals/releases/bul1352218.pdf>
* NCWIT 2011 Scorecard:
	+ <http://ncwit.org/scorecardflash/>
* Generation STEM (Girl Scouts):
	+ <http://www.girlscouts.org/research/publications/stem/generation_stem_what_girls_say.asp>