Updating National IT Industry Skill Standards and How Faculty and Employers Can Get Involved

Ann Beheler, National CTC

WASTC Winter ICT Educators' Conference – January 2019
• Educators believe their graduates are prepared for work
• Businesses do not agree
• Depending on the study, percentages vary

• Percentages on each “side” are not always the same, but the trends match

• Both businesses and educators want the graduates to be workforce-ready
WHY ARE SKILL STANDARDS IMPORTANT?

Provide a blueprint for how the technical knowledge and skills in the IT high-performance workplaces are organized and how the roles of workers contribute to the success of the enterprise.

This project will also embrace a future focus
WHY ARE SKILL STANDARDS IMPORTANT?

• EDUCATORS use skill standards to create curriculum that is relevant, current, and future-facing to better prepare students to meet employers’ job requirements.

• This project will create outlines for model curriculum so that a broader range of educators can better-prepare students for the workforce.
WHY ARE SKILL STANDARDS IMPORTANT?

- EMPLOYERS use skill standards to improve communications about job openings so they hire the most qualified candidates to address their current and emerging needs, and to improve their internal training and development.
WHY ARE SKILL STANDARDS IMPORTANT?

Make IT careers more accessible to students and employers because they provide transparency regarding the knowledge, skills, and abilities (KSAs) as well as the performance needed for success in the job market.
ITSS 2020’s PURPOSE

- Widen the pipeline of qualified IT workers

https://www.thesalesexperts.com/5/
ITSS 2020’s PURPOSE

• CREATE a contemporary and future-facing set of IT Skill Standards for the most critical IT job clusters, led by employer subject matter experts (SMEs) nationally.

• ENLIST for each Job Cluster, 40+ subject matter experts to create the knowledge, skills, abilities, tasks, and performance criteria using a Modified DACUM and Follow-up web conferences and surveys
ITSS 2020’s PURPOSE

- STRATIFY the top 4-8 critical work functions for each cluster and will also provide a list of the certifications valued by employers as of publish date.

- DETERMINE which portions of the standards apply to 2-yr. and 4-yr. programs to facilitate ease of use in development of employer-aligned student learning outcomes and curriculum.
ITSS 2020’s PURPOSE

- ASSIST both employers and educators to more easily apply the standards.

The project will incorporate other existing skill standards (e.g. NICE and NIST) – no reinvention of the wheel.
Recruit at least 50 employer thought leaders with expertise in all aspects of IT to create final draft list of critically-needed job clusters in IT

Disseminate list to 150 additional companies for review and comment to confirm and verify 8-10 Clusters

Using a sampling plan, recruit 40 SMEs for each cluster, to form a cluster-specific BILT

Virtual focus group to develop preliminary functions, tasks, knowledge, skills and performance indicators for each cluster

Using the BILT for each cluster and a sampling plan, recruit SMEs for the standards development focus group

In-person and virtual focus group sessions occur using the modified DACUM process to a draft of the full skill standards for each cluster that includes functions, tasks, knowledge, skills and performance indicators

Disseminate an on-line survey to 150 companies for review and comment of each cluster-specific skill standards

Incorporate feedback and revise the skill standards to develop the final draft per cluster

Conflicting or particularly complex feedback will be addressed by the project review panel

BILT for each cluster will review the draft to finalize the skill standards

BILT for each cluster identifies relevant job titles and industry-based clusters

Educators and representative employer SMEs identify functions, tasks and KSA's appropriate for 2-yr. & 4-yr. Applied IT degrees, including learning outcomes.

Disseminate the skill standards to educators, employers (including government) and industry associations

Develop and pilot policies and procedures to keep the skill standards updated

FINALIZE CLUSTER and VERIFY

DETERMINE STANDARDS PER CLUSTER and VERIFY

DISSEMINATE
Thought Leader Subject Matter Experts

- Have a broad and future-focused view of the IT industry
- Are aware of the job clusters that are most difficult to hire
- 50+ “future focused” SMEs will identify top 8-10 crucial IT job clusters
Subject Matter Experts per Job Cluster

- Business SMEs
- Educator SMEs
Subject Matter Experts per Job Cluster

- Business SMEs breakdown
  - 40 to 60 SMEs will participate in the modified DACUM process per job cluster using pro forma information as a starting point
  - 150+ additional SMEs will provide feedback on skill standards via survey
Subject Matter Experts

- Business SMEs also assist with…
  - identifying most in-demand 3-5 job descriptions per cluster and crosswalk skill standards to each
  - dissemination
  - providing ideas to sustain updates for job clusters.
Subject Matter Experts

- Educator SMEs breakdown
  - 20+ SMEs will participate in cluster identification as active listeners
  - 20+ SMEs will also participate in Skill Standards work per job cluster
  - Educator SMEs will assist in creating outlines for model curriculum that are readily usable, even by smaller institutions
Subject Matter Experts

- Educator SMEs also assist with...
  - crosswalk discussions for each cluster on what can be reasonably expected to be covered in 2-yr and in 4-yr Applied Technology Degrees
  - dissemination
Rough Timeline

- Sept 1, 2018 – funded by National Science Foundation
- February 2019 – virtual meetings with “thought leader” SMEs to identify and finalize the top IT job clusters
- Spring-Summer 2019 – first meetings with job cluster #1 SMEs to develop job skills
  - Start with pro forma list of critical tasks; job functions; knowledge, skills, and abilities
Sustainability

Ongoing process

– piloting a crowd-sourcing approach to keep the job skills updated
– seeking industry financial support and leadership
What Can You Do?

- Sign up to get on our distribution list for skill standards so you can receive them as they are finalized
- Apply to be one of our educator SMEs
- Recommend appropriate employer SMEs
  - Thought leaders to identify the most critical 8-10 job clusters
  - SMEs who may be interested and able to participate in the IT Skill Standards 2020 and Beyond Skill Standards meetings
Questions?

For more information, contact:

Central U.S.  
Ann Beheler, abeheler@Collin.edu  
Deborah Roberts, droberts@lonestar.edu

East Coast  
Gordon Snyder, gordonfsnyder@gmail.com  
Peter Maritato, maritap@sunysuffolk.edu

West Coast  
Terryll Bailey, tbailey@theallisongroup.com  
Suzanne Ames, Suzanne.ames@lwtech.edu