A Futuristic Approach: Identifying Emerging Work Skills

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Introduction

Using the Foresight to Insight process, 17 experts identified drivers of change and the skills critical for success in the next decade and beyond. Experts identified six key drivers of change and 10 essential workforce skills. Understanding the skills is critical to organizations, educational institutions, and those seeking employment.

The Problem

• Rapid changes in technology, employee longevity, and global connectivity are creating a new paradigm for the U.S. workforce.
• Organizational strategy and operations are becoming more complex.
• 75% of employers believe hiring struggles arise due to employees lack of experience, knowledge, and skills needed to perform the work critical to success.

The Purpose

The purpose of the research was to increase understanding of the workforce skills needed in the next decade. The workforce skills needed are important to (a) those who educate, hire, and retain the workers of tomorrow; (b) educational institutions who educate the workforce of tomorrow; and (c) individuals preparing to be highly employable in the future.

Method

University of Phoenix Research Institute researchers partnered with The Institute for the Future in a two-phase Foresight to Insight process to identify skills critical to success in the next decade.

Participants

The 17 experts from Fortune 500 companies and major universities with varied professional backgrounds from a broad range of disciplines met in Palo Alto, California. Participants represented the following organizations:

• Institute for the Future
• Stanford University
• Proctor & Gamble
• Walt Disney Company
• Right Management
• Electronic Arts
• University of Phoenix Research Institute

Procedure

Phase I involved scanning research materials through the lens of future work skills. Using the Delphi methodology, the IFTF developed a ten-year forecast.

Phase II consisted of a 1-day brainstorming workshop with experts allowing for an "outside-in" analysis to build upon the learning of Phase I. Using an adaptation of the Delphi technique, the brainstorming workshop included:

• Discussion of workforce drivers of change
• Clustering of drivers to identify skill areas
• Group discussion of developed insights for higher educational institutions
• Real-time graphic recording of drivers of change, skills, and job requirements

Results

Future Work Skills 2020

Sense-making
Social Intelligence
Novel and Adaptive Thinking
Cross-cultural Competency
Computational Thinking
New-media Literacy
Transdisciplinarity
Design Mindset
Cognitive Load Management
Virtual Collaboration

Future Skills Definition

Sense-making: Ability to determine the deeper meaning or significance of what is being expressed
Social Intelligence: Ability to connect to others in a deep and direct way; to sense and stimulate reactions and desired interactions
Novel and Adaptive Thinking: Proficiency at thinking and coming up with solutions and responses beyond that which is rote or rule-based
Cross-cultural Competency: Ability to operate in different cultural settings
Computational Thinking: Ability to translate vast amounts of data into abstract concepts and to understand data-based reasoning
New-media Literacy: Ability to critically assess and develop content that uses new media forms and to leverage these media for persuasive communication
Transdisciplinarity: Literacy in and ability to understand concepts across multiple disciplines
Design Mindset: Ability to represent and develop tasks and work processes for desired outcomes
Cognitive Load Management: Ability to discriminate and filter information for importance and to understand how to maximize cognitive functioning using a variety of tools and techniques
Virtual Collaboration: Ability to work productively, drive engagement, and demonstrate presence as a member of a virtual team

Conclusions and Future Research

To perform the work critical to success in the future, the U.S. workforce may need 10 essential skills:
• Organizations must understand 21st century skills to hire and retain talented employees and remain competitive.
• Organizations may need to update workforce planning and development processes to attract and develop human talent.
• Educational institutions must deliver programs that develop the knowledge and skills necessary for emerging work conditions.
• Job seekers must understand what skills are needed for the future and take responsibility to obtain these skills for market relevancy.
• Researchers should conduct validation studies with more traditional validation approaches to gather evidence that the named skills will, in fact, be critical for future workplace success.