IMPLICATIONS

The results of this research have implications for individuals, educational institutions, business, and government.

To be successful in the next decade, **individuals** will need to demonstrate foresight in navigating a rapidly shifting landscape of organizational forms and skill requirements. They will increasingly be called upon to continually reassess the skills they need, and quickly put together the right resources to develop and update these.

Our **educational institutions** are largely the products of technology infrastructure and social circumstances of the past. The landscape has changed and educational institutions should consider how to adapt quickly in response. Some directions of change might include:

» Placing additional emphasis on developing skills such as critical thinking, insight, and analysis capabilities

» Integrating new-media literacy into education programs

» Including experiential learning that gives prominence to soft skills—such as the ability to collaborate, work in groups, read social cues, and respond adaptively

» Broadening the learning constituency beyond teens and young adults through to adulthood

» Integrating interdisciplinary training that allows students to develop skills and knowledge in a range of subjects

Businesses must also be alert to the changing environment and adapt their workforce planning and development strategies to ensure alignment with future skill requirements. Strategic human resource professionals might reconsider traditional methods for identifying critical skills, as well as selecting and developing talent. A workforce strategy for sustaining business goals should be one of the most critical outcomes of human resource professionals, and should involve collaborating with universities to address lifelong learning and skill requirements.

Governmental policymakers will need to respond to the changing landscape by taking a leadership role and making education a national priority. If education is not prioritized, we risk compromising our ability to prepare our people for a healthy and sustainable future. For Americans to be prepared and for our businesses to be competitive, policy makers should consider the full range of skills citizens will require, as well as the importance of lifelong learning and constant skill renewal.

ABOUT THIS RESEARCH

Institute for the Future is an independent, non profit strategic research group with more than 40 years forecasting experience. Our research spans a broad territory of deeply transformative trends, from health and healthcare to technology, the workplace and human identity.

Apollo Research Institute sponsored this piece of research to increase understanding of the skills workers will need over the next decade in a technologically advanced and changing world.

To obtain a copy of the full research report, please contact Apollo Research Institute at www.apolloresearchinstitute.org

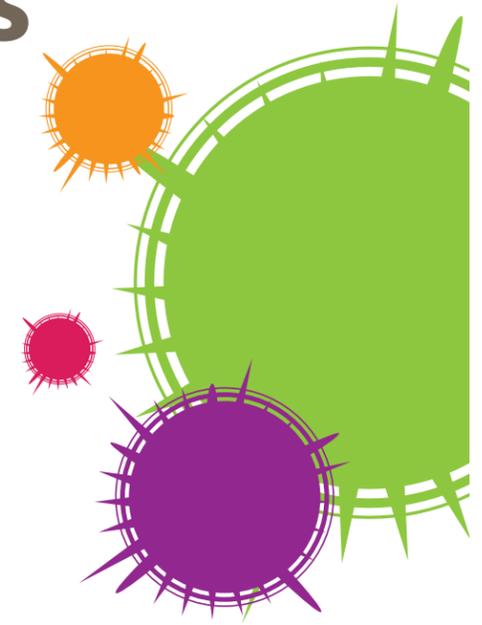**INSTITUTE FOR THE FUTURE**

APOLLO RESEARCH INSTITUTE℠

Future Work Skills
2020 Executive Summary

This research from Institute for the Future (IFTF) highlights some of the key drivers that will reshape the landscape of work and proposes ten new work skills that will be critical for the next decade.

METHODOLOGY

In researching this topic, we drew on IFTF's foundational forecasts in areas as diverse as education, technology, demographics, work, and health. This content was enriched and vetted at a workshop that brought together experts from a wide range of disciplines and professional backgrounds. During this workshop we engaged experts in a number of group exercises to think through key drivers of change and how these will impact workplace skill requirements.

KEY FINDINGS

We chose to highlight six drivers—big, disruptive shifts that are likely to reshape the landscape for organizations and workers. Although each driver is in itself important when thinking about the future, it is the confluence of several drivers working together that produces true disruptions. We then identified ten skills that we believe will be vital for success in the workforce:

» **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

Future Work Skills 2020

While all six drivers are important in shaping the landscape in which each skill emerges, the color-coding and placement here indicate which drivers have particular relevance to the development of each of the skills.

KEY

- Drivers—disruptive shifts that will reshape the workforce landscape
- Key skill needed in the future workforce

extreme longevity
Increasing global lifespans change the nature of careers and learning

computational world
Massive increase in sensors and processing power make the world a programmable system

superstructed organizations
Social technologies drive new forms of production and value creation

Trans-disciplinarity

Design Mindset

Virtual Collaboration

Sense-Making

New Media Literacy

Cross Cultural Competency

Social Intelligence

Cognitive Load Management

rise of smart machines and systems
Workplace robotics nudge human workers out of rote, repetitive tasks

Novel and Adaptive Thinking

Computational Thinking

new media ecology
New communication tools require new media literacies beyond text

globally connected world
Increased global interconnectivity puts diversity and adaptability at the center of organizational operations

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