
Setting the Scene: Skills Requirements for the Digital Transformation



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ITUCBS
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*Developing skills for
the digital economy
and society*

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Santo Domingo,
Dominican Republic



Outline

1. Context
2. Skills Requirements
3. How? When?
4. Main Highlights & Conclusions



VUCA context

Digital Transformation

The Fourth Industrial Revolution

*- among
individuals &
organizations*

A number of disruptive technologies will enable digitization of the manufacturing sector

Digitization of the manufacturing sector – Industry 4.0



Data, computational power, and connectivity

Big data/open data

Significantly reduced costs of computation, storage, and sensors

Internet of Things/M2M

Reduced cost of small-scale hardware and connectivity (e.g., through LPWA networks)

Cloud technology

Centralization of data and virtualization of storage



Analytics and intelligence

Digitization and automation of knowledge work

Breakthrough advances in artificial intelligence and machine learning

Advanced analytics

Improved algorithms and largely improved availability of data



Human-machine interaction

Touch interfaces and next-level GUIs

Quick proliferation via consumer devices

Virtual and augmented reality

Breakthrough of optical head-mounted displays (e.g., Google Glass)



Digital-to-physical conversion

Additive manufacturing (i.e., 3D printing)

Expanding range of materials, rapidly declining prices for printers, increased precision/quality

Advanced robotics (e.g., human-robot collaboration)

Advances in artificial intelligence, machine vision, M2M communication, and cheaper actuators

Energy storage and harvesting

Increasingly cost-effective options for storing energy and innovative ways of harvesting energy

What are the right skills?

YOU STEP INTO THIS CHAMBER,
SET THE APPROPRIATE DIALS,
AND IT TURNS YOU INTO
WHATEVER YOU'D LIKE TO BE.



– Calvin's wisdom

Organizations want specialized knowledge and expertise



Source: Globality. Rethinking professional services in an age of disruption, EIU 2018

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What does 'specialized knowledge and expertise' mean?

UP:SKILL

Skills enhancement in current role



RE:SKILL

Skills enhancement for new role



Skills enhancement requires both a lift and a shift in competence

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Hard + Soft Skills

About SAP SE / SAP News Center / Human Resources

Soft Skills Will Be Essential for Future Careers

Soft skills will shape the workforce of the future

Written by Armin Hopp on 30 October 2017

MAR 24, 2015 @ 10:35 AM 74,629

2 Free Issues of Forbes

Why You Need Cultural Intelligence (And How To Develop It)

FUTURE OF WORK

Why soft skills are so important to the future of work

November 2, 2017

Harvard Business Review

CROSS-CULTURAL MANAGEMENT

Cultural Intelligence

by P. Christopher Earley and Elaine Mosakowski



Top 10 skills in 2020

1. Complex Problem Solving
2. Critical Thinking
3. Creativity
4. People Management
5. Coordinating with Others
6. Emotional Intelligence
7. Judgment and Decision Making
8. Service Orientation
9. Negotiation
10. Cognitive Flexibility

Source: Future of Jobs Report, World Economic Forum 2016

Higher Education is at a **New Crossroads**

- **Digital society - Teaching and memorizing facts is irrelevant today**
- **Being able to learn, analyze, think critically and make an argument is what matters**
- **Working in teams and with other people, across disciplines is an important skill.**
- **Management of knowledge and technology**

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Four dimensions - 12 Key Skills for the Digital Transformation*

Self

Learning Agility (LA)

Emotional Intelligence (EI)

Time Management (TM)

Context

Adaptability and Resilience (AR)

Contextual Intelligence (CL)

Uncertainty Management (UM)



Others

Empathy (EM)

Cultural Intelligence (CI)

Communications and Networking (CN)

Process

Planning and Executing (PE)

Sensemaking (SM)

Storytelling (ST)

*- Dr. Marco Serrato - Tecnológico de Monterrey (2018)

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How? - Higher education is under a profound disruption

De-Know-Polization: The End of the University's Monopoly of Knowledge

Guest author: Yesha Sivan

JAN 20, 2017 @ 10:56 AM 3,445

Time To End The Monopoly In Education

By Andrew J. Coulson



2 Free Issues of Forb

Expanding higher education

Time to end the academic arms race

School-leavers need other ways to learn and train besides going to university

Will Alternative Credentials Replace College Degrees?

No college, no problem?

For many employers and candidates, skills matter more than degrees

End of the university monopoly: credentials



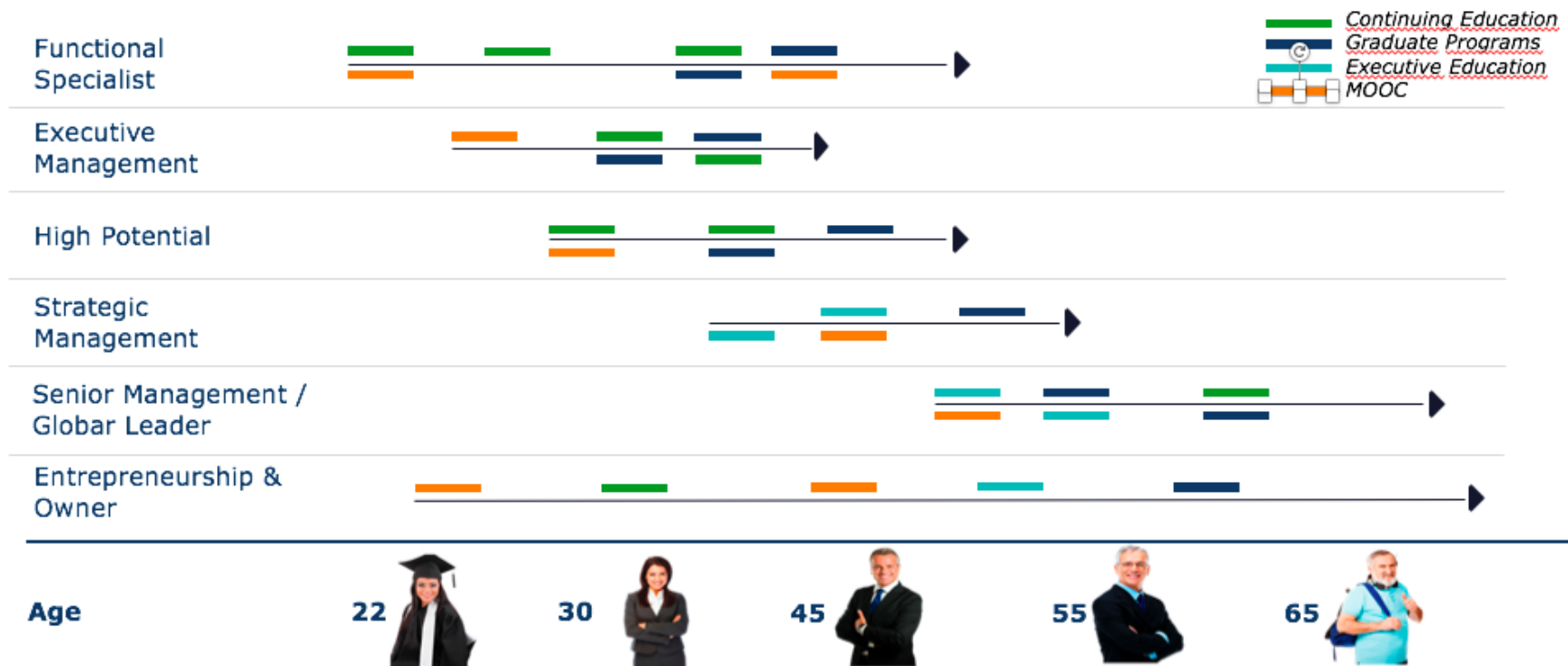
"Increased emphasis on certificates or badges obtained from online courses or workshops, even for university graduates."



"Employers will place more value on on-the-job learning such as work placements and on demand continuing education in the workplace. Portfolios are becoming more important than CVs."

The Future of Jobs and Jobs Training, Pew Research Center

Lifelong learning becomes crucial*



(*): Adapted from Research Committee, UNICON 2014 & Rennekamp, R. A., & Nall, M. (2013). Professional growth: A guide for professional Development

1. Context

2. Skills Requirements

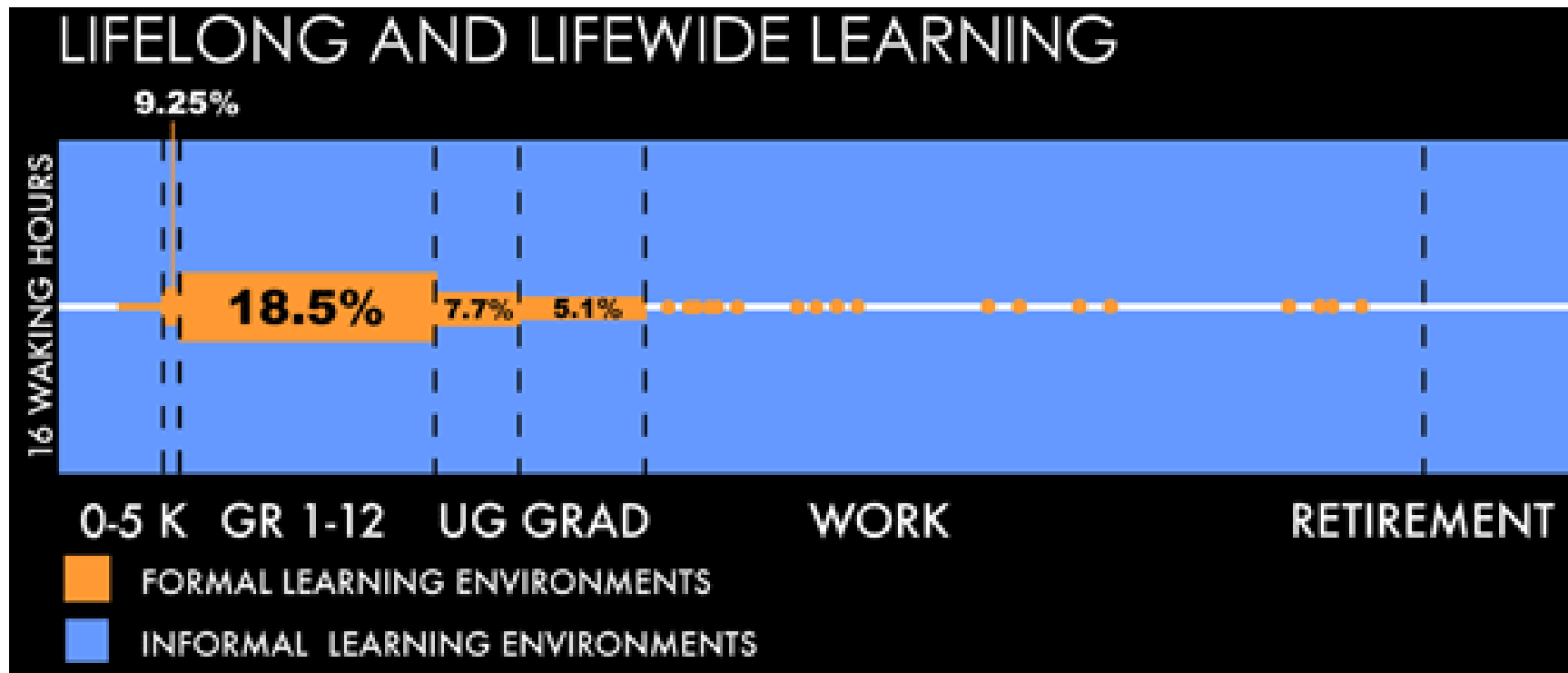
3. How? When?

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The Continuing Education landscape is changing – *new **players** and **value propositions***



Lifelong + lifewide learning



*LIFE – Learning in Informal and Formal
Environments Center (2016)*

Summary

Skills Requirements for the Digital Transformation



Focus on target audiences – Individuals & Organizations



Learning Solutions that take advantage of new context & technologies (*lifelong and lifewide learning*)



Develop our own talent - *Capability Roadmap*



Meaningful and Personalized Programs and Learning Experiences



Global, Regional and Local Focus

Calvin & Hobbes' wisdom - again

Explorers are we, intrepid and bold,
Out in the wild, amongst wonders untold.
Equipped with our wits, a map, and a snack,
We're searching for fun and we're on the right track!



- Our new role
- Our values & culture
- Context - VUCA
- *Skills!*
- The right resources
- The most important one:
the right attitude!

Thank you!

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