AI & Skills

Applied Machine Learning Days - EPFL

29.01.2020 - Isabelle Chappuis

Future Skills LAB

UNIL | Université de Lausanne
HEC Lausanne

Our Speakers today

AI & Skills from the companies's perspectives

Kenneth Younge

Professor

@EPFL

The Organizational Value of Training Managers in Data Science Methods

Christian Scharff

Partner

@ PwC

Upskilling in practice

Guillermo Barrenetxea

Open Innovation Director Data, Analytics & AI @ Swisscom

Education for Data-Driven Business

Mieke van de Capelle

CHRO

@Firmenich

The NOW of Work: how AI is transforming the Perfume and Taste industry

Our Speakers today

AI & Skills from the learners & educators' perspectives

Mara Pasquali

Advisor in Marketing and Communications

@ Independent

From "gut feeling" to "data-driven" decision making

Frédéric Baffou

Senior Lead Consultant Digital Strategy

@ Antaes Consulting

Learner experience and professional benefits from Applied Data Science: Machine Learning program

Pierre Vandergheynst

Vice-Presidence Education

@ EPFL

Education in the 21st century

Switzerland has the most highly skilled workers in the world. This is why

Which skills for tomorrow ?

One of the main preoccupations of HR Leaders in French speaking part of Switzerland

1 **Career management & employability**

2 *Human Skills Obsolescence*

3 **Availability of targeted reskilling education programs**

*Survey among 2300 HR leaders (363 answers)
October 2019

Human Skills Obsolescence = National Security Threat ?

Future Skills Lab

50%
Employers report
lack of skills in hires
ManpowerGroup [1]

25%
Obsolescence
of Jobs
McKinsey [2]

10%
Annual Skills
Obsolescence
World Economic Forum [3]

1   https://www.manpower.ch/sites/default/files/PDF/Infografics_Manpower-TalentShortage_2018_EN.pdf

2   https://www.mckinsey.com/~/media/mckinsey/featured%20insights/Future%20of%20Organizations/What%20the%20Future%20of%20work%20will%20mean%20for%20jobs%20skills%20and%20wages/MGI-Jobs-Lost-Jobs-Gained-Report-December-6-2017.ashx

3   https://www.weforum.org/agenda/2017/07/skill-reskill-prepare-for-future-of-work/

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2022 Skills Outlook

WØRLD
ECONOMIC
FORUM

COMMITTED TO
IMPROVING THE STATE
OF THE WORLD

Growing

1 Analytical thinking and innovation
2 Active learning and learning strategies
3 Creativity, originality and initiative
4 Technology design and programming
5 Critical thinking and analysis
6 Complex problem-solving
7 Leadership and social influence
8 Emotional intelligence
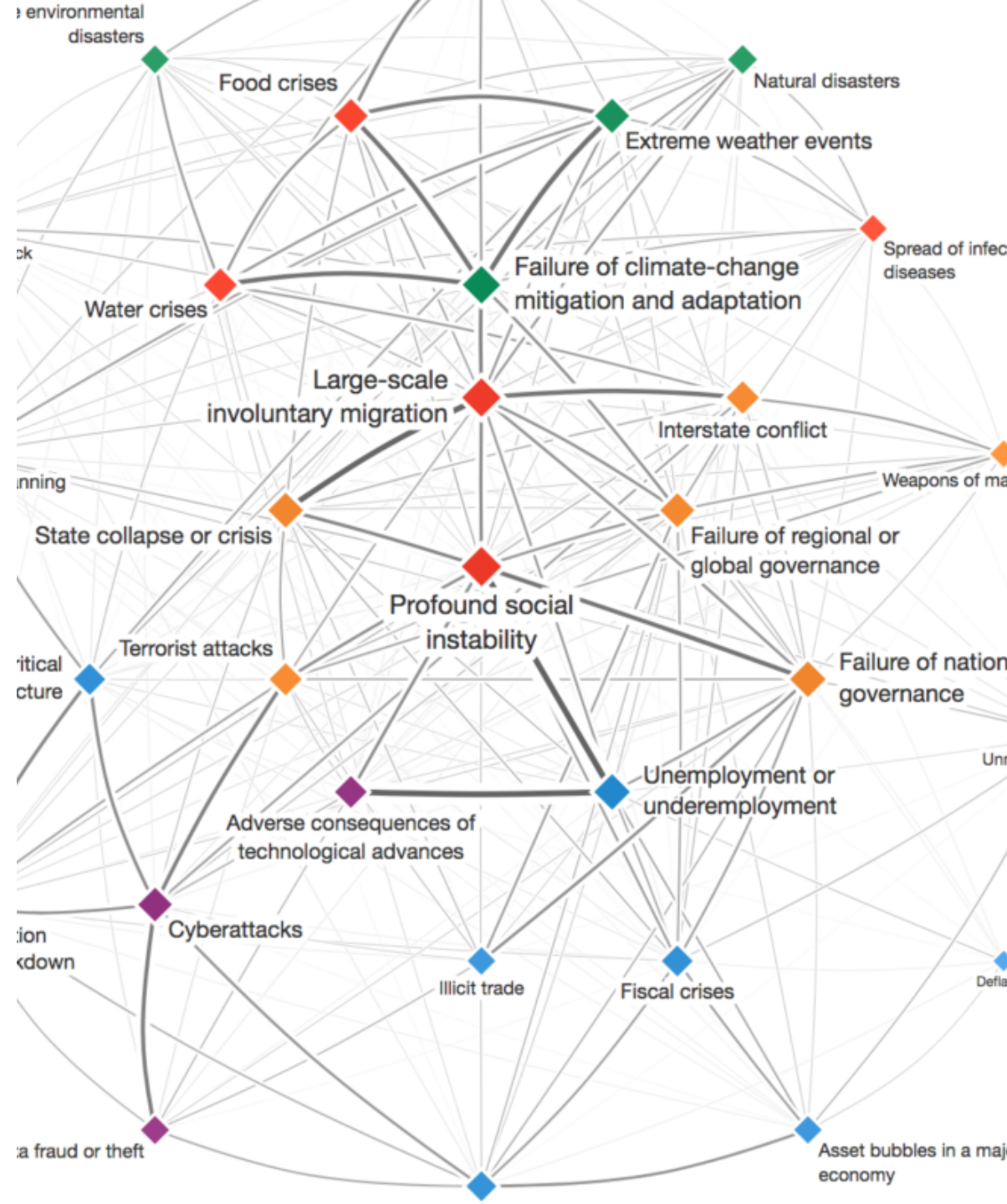9 Reasoning, problem-solving and ideation
10 Systems analysis and evaluation

Declining

1 Manual dexterity, endurance and precision
2 Memory, verbal, auditory and spatial abilities
3 Management of financial, material resources
4 Technology installation and maintenance
5 Reading, writing, math and active listening
6 Management of personnel
7 Quality control and safety awareness
8 Coordination and time management
9 Visual, auditory and speech abilities
10 Technology use, monitoring and control

Source: Future of Jobs Report 2018, World Economic Forum

The world has gone from "complicated" to "complex"

... and AI has a serious responsibility in the complexification!

- **With the exponential acceleration of technologies, the convergence of mega trends and the resulting exponential compression of time, the world has gone from complicated to complex, leaving employers and employees anxious and worried about the future of work**

- **Jobs are changing and the life span of skills is decreasing drastically.**

- **Human capital needs to be retrained all the time**

- *BUT WHICH ARE THE SKILLS OF TOMORROW?*