

## École Polytechnique Fédérale de Lausanne

Digital disruption in international governance: a role for Swiss research institutes



**Digitalisation** 



OUTLINE

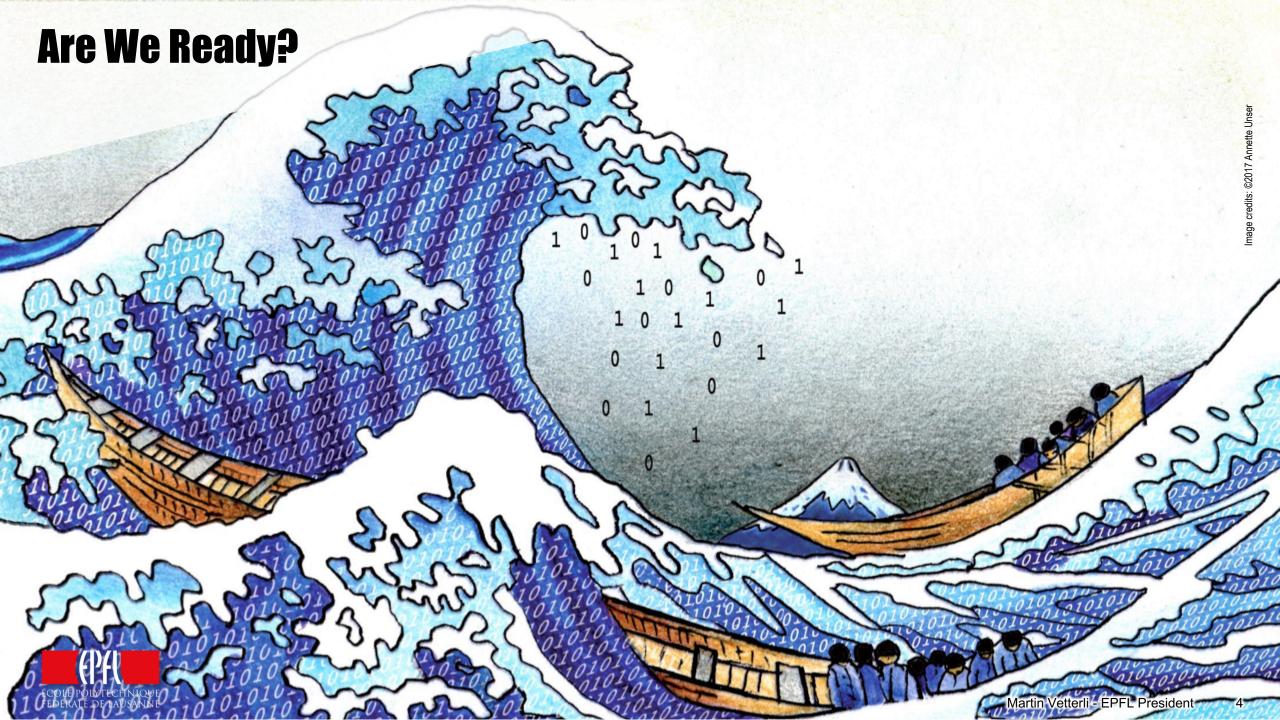
# Digital situation

**Unique selling proposition** 

The role of EPFL











## Cyberattack

- Russia accused of cyber-attack on chemical weapons watchdog
- Hack of DNA Website Exposes
   Data form 92 million accounts
- Cambrige Analytica





## **Democracy**

#### Fake news

- Difficulty to verify sources and accuracy of the information
- Danger for democracy



South Korea Declares War on 'Fake News,' Worrying Government Critics



Ho Chi Minh's compound in Vietnam had been "vicious." Yonhap/EPA, via Shutterstock

#### By Choe Sang-Hun

Oct. 2, 2018

SEOUL, South Korea — South Korea announced a sweeping crackdown on "fake news" on Tuesday, calling it "a destroyer of democracy."



## **International trade**

- Smart Contract
- Blockchain
- Bitcoin





## **Human rights**

**During a refugiee's** crisis, CICR needs to provide:

- Food
- Wifi
- Phone charger







OUTLINE

**Digital Situation** 

Unique selling proposition

The role of EPFL







#### **Commodities**

## Some of the commodities traded in the Lake Geneva region

- 35% of the world's **cereals** and oilseeds.
- 50% of the world's **coffee**.
- 50% of the world's **sugar**.
- 35% of the world's **rice**.
- 35% of the world's oil.

as well as natural gas, ethanol, cotton, etc.









### **Multilateralism**

Geneva as a center of the multilateralism



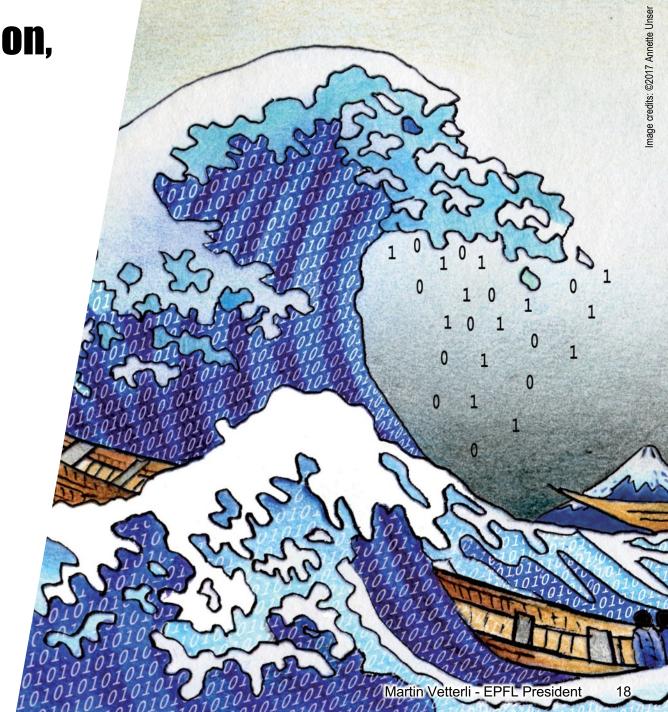




**Everybody talks about digitalization, EPFL is doing it!** 

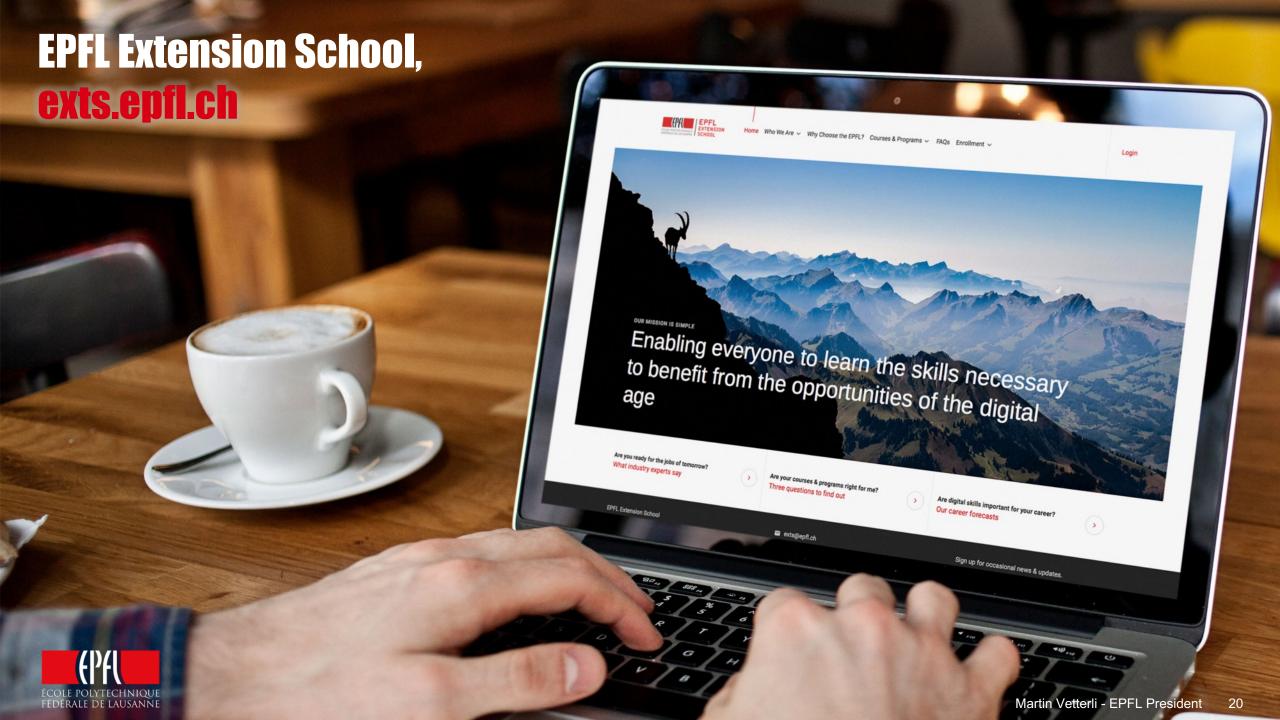
#### **Challenges**

- new skills required: education
- new methods: research
- new business models: innovation





# **EPFL #1** provider of MOOCs in Europe 93 MOOCs: • > 2 Million registered users • 2/3 are not students anymore, of which 90% have a job Martin Vetterli - EPFL President

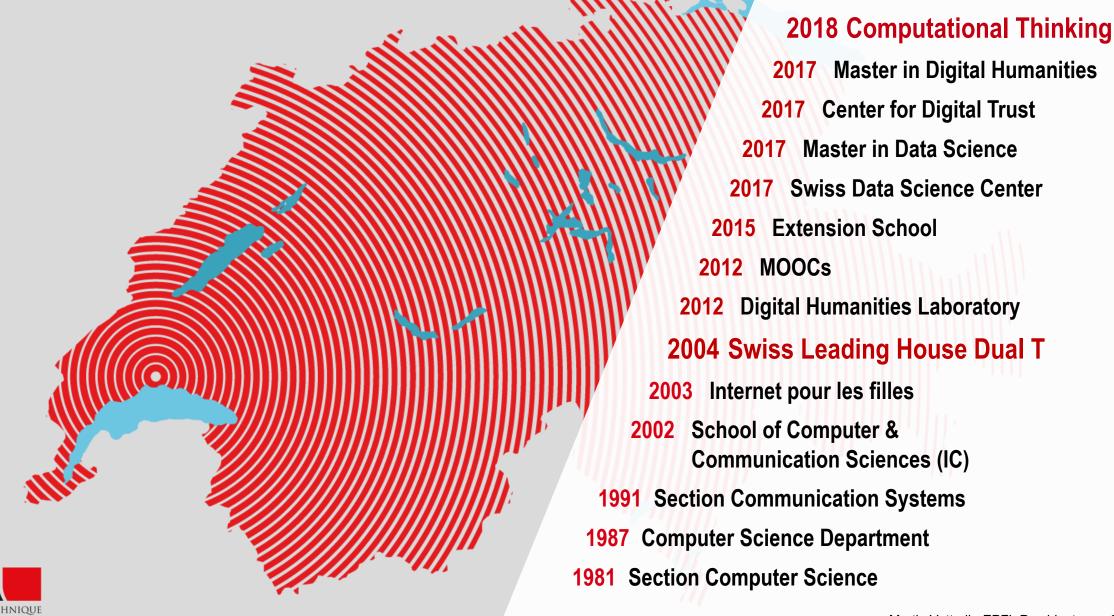


## **Center for Learning Sciences**

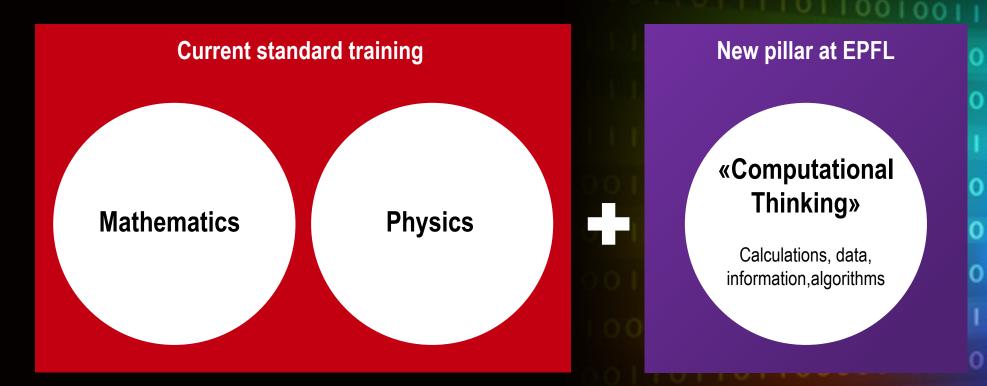




## A brief history of digital education at EPFL



## **Computational thinking**



Digitalisation affects all areas of science and technology.

The education of the future must prepare our students for this new reality.



## Highly technical question - Cybersecurity

- Creation of Center for Digital Trust (C4DT)
- Collaboration with CICR on training of lawyers
- Collaboration with DDPS on cybercampus
- In development: online cybersecurity course at Extension School, MSc program in cybersecurity (jointly with ETH Zurich)





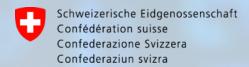






### **Conclusion**

## The partnership between the Confederation, the research institutions and the NGO world must be strengthened

























## Merci!

@MartinVetterli



## Backup



## **Highly technical question => EPFL as Centre for Digital Trust**





**General Data Protection Regulation** 

#### **Academic Environment**

Bringing together different research cultures and topics enables unexpected applications, opportunities for collaboration, and transdisciplinary projects























## **Digital Trust Vision – Technology transfer**













































