

## FOUNDATIONS OF ICT FOR DECISION MAKERS | C4DT

📅 23<sup>rd</sup> – 27<sup>th</sup> November 2020 | 🕒 09h – 17h | 🏠 EPFL Campus

### The Course

Current digital trends and innovation, including **artificial intelligence**, **cybersecurity**, **data privacy**, **blockchain** and **digital trust**, are rapidly changing and disrupting the way donors, employees, and beneficiaries interact with each other. Technology can be a powerful tool for philanthropic and non-profit organizations, accelerating their digital transformation through automating and streamlining business processes, using digital platforms, and leveraging data and analytics in new ways that enhance their efficiency and social impact.

Intended for professionals from the *philanthropic* and *non-profit* sectors, who see information and communication technologies (ICT) as an opportunity to better engage with beneficiaries and stakeholders, this **5-day course** will give you and your organization the ability and the toolset to take more leadership responsibilities in driving your digital transformation.



#### COURSE OBJECTIVES

- Learn fundamental ICT concepts and gain a sense of how you can use technology to enable your digital transformation.
- Deepen your understanding of ongoing discussions on the technical opportunities and risks of artificial intelligence, big data, blockchains and more.
- Gain a realistic understanding of cybersecurity and data security threats, through case studies related and adapted to your sector of activity.
- Assess your current digital approach to identify gaps and opportunities.
- Build consensus by demonstrating how digital strategy can transform your impact.



#### COURSE INFORMATION

The course is offered under EPFL's continuing education framework for professional education, in collaboration with the Formation Continue UNIL-EPFL (FCUE).

- 📅 5 days, 7 hours/day (with breaks)
- 📄 Certificate of attendance issued by the FCUE

📧 **Contact:**

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## COURSE CURRICULUM

### Fundamentals of ICT

- Computer processing, software, and bugs
- Software engineering (coding) practices and software licensing
- Computer networks, network security, and the Internet

### Data protection and privacy

- Data management, big data, clouds and the Internet of things (IoT)
- Cryptography and an outlook into a quantum future
- Privacy, data protection, including modern cryptography trends

### Cybersecurity and Digital Trust

- Decentralized trust: blockchain and smart contracts
- User experience: promoting trust and good behaviour
- Cyber-threats, cybersecurity and their consequences

### Towards artificial intelligence

- Data analysis, artificial intelligence (AI) and machine learning (ML)
- Data analysis risks and mitigation: false results, biases, and other threats
- Technologies underlying social networks (e.g. Facebook)



## COURSE SPEAKERS

The courses are developed by the **Center for Digital Trust (C4DT)** at EPFL, in close partnership with **Fondation Lombard Odier**. They will be taught by faculty with particular expertise in artificial intelligence, machine learning, blockchain and cryptography, cybersecurity, and privacy.

Faculty are carefully selected high-level ICT experts, able to engage with a non-technical audience. They are accomplished professors from **EPFL**, and seasoned industry professionals from C4DT partners such as **ELCA** and others.