

> Intelligence booklets: new confidence equilibria, between algorithms and the social contract

The 9th publication in the series of the Fondation Mines-Télécom intelligence booklets addresses the transversal theme of confidence in the digital age. Written over the course of a series of events in partnership with NUMA Paris and with the support of the Foundation's major corporate partners, the booklet questions changes in the notion of confidence and highlights current research being carried out in IMT's schools in the field.

Cybersecurity, blockchains, digital identity... In 27 pages, the intelligence booklet offers readers the opportunity to take a step back and examine hot media topics in order to question the foundation of our interactions and uses: confidence, which is currently being transformed.

In the first section, it examines the notion of trust and establishes a multidimensional definition. In particular, it differentiates 'confidence' linked to the social context we live in, from 'trust' which is played out on an individual level. This second form of confidence is very important in the digital economy, where confidence tends to be reduced to a calculation of risk, to the detriment of our ability to know when to trust.

In the second section, the booklet examines changes in confidence in the digital age. More particularly, it presents blockchain and introduces the associated notions of protocol, consensus and proof. As well as giving examples of uses in the fields of health, personal data and privacy, it provides an economic perspective and raises the question of how to make confidence a new common commodity.



It concludes with **a third section** in which humans are the central focus of reflection, addressing issues of governance, transitivity of confidence, confidence networks etc. New equilibria are being established and articulations sway between social consensus and consensus by algorithm.

This intelligence booklet, written by the independent expert Aymeric Poulain-Maubant, has benefitted from contributions from research professors at the IMT graduate schools: Claire Levallois-Barth (Télécom ParisTech), Patrick Waelbroeck (Télécom ParisTech), Maryline Laurent (Télécom SudParis), Armen Khatchatourov (Télécom Ecole de Management) and Bruno Salgues (Mines Saint-Etienne). The Foundation's partner enterprises, and in particular Accenture, Orange, La Poste Group and the Caisse des Dépôts, have also shared their expertise.

A public conference on confidence in the digital age will be independently organized by Fondation Mines-Télécom in partnership with the Caisse des Dépôts, which is a partner of the program. Between now and then, a series of popularized scientific articles on the work of researchers at IMT's schools will be published on l'MTech, IMT's Research & Innovation blog, over the summer.

See the intelligence booklet

New Confidence Equilibria – Between Algorithms and the Social Contract available for download for free

About Fondation Mines-Télécom www.fondation-mines-telecom.org

Fondation Mines-Télécom supports the development of IMT and that of its eight graduate schools in their training, research and innovation missions. It brings together businesses and graduates that wish to commit to concrete, transformative projects with a high societal and technological impact in the fields of digital technology, energy and industry of the future as well as acts of solidarity for students, thanks to the generosity of 1,700 individual donors.

Thanks to the support of numerous businesses, including the founding partners (Nokia, BNP Paribas and Orange), and that of graduates, Fondation Mines-Télécom finances numerous programs in the areas of training (grants, open-innovation program for students, MOOCs), research (financing theses and research chairs), innovation (support for start-ups and incubation) and foresight, as well as actions in favor of campus development.

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