



Project no. 732027

VIRT-EU

Values and ethics in Innovation for Responsible Technology in Europe

Horizon 2020

ICT-35-2016

Enabling responsible ICT-related research and innovation

Start date: 1 January 2017 – Duration: 36 months

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**Initial publications in peer reviewed journals
and conference proceedings, according to the
criteria of the dissemination strategy.**

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Lead beneficiary: POLITO

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Project Consortium

Beneficiary no.	Beneficiary name	Short name
1 (Coordinator)	IT University of Copenhagen	ITU
2	London School of Economics	LSE
3	Uppsala Universitet	UU
4	Politecnico Di Torino	POLITO
5	Copenhagen Institute of Interaction Design	CIID
6	Open Rights Group	ORG

Dissemination Level

PU	Public	X
CO	Confidential, only for members of the consortium (including the Commission Services)	
EU-RES	Classified Information: RESTREINT UE (Commission Decision 2005/444/EC)	
EU-CON	Classified Information: CONFIDENTIEL UE (Commission Decision 2005/444/EC)	
EU-SEC	Classified Information: SECRET UE (Commission Decision 2005/444/EC)	

Dissemination Type

R	Document, report	X
DEM	Demonstrator, pilot, prototype	
DEC	Websites, patent filling, videos, etc.	
O	Other	
ETHICS	Ethics requirement	

Throughout the year, Virt-EU partners produced a significant amount of research and results. The work listed in this document has already been published in a range of scientific journals and conference proceedings.

1. Journal publications

Mantelero, A. (2018). "AI and Big Data: A blueprint for a human right, social and ethical impact assessment." In: *Computer Law & Security Review* (forthcoming)

Summary: This article considers the possibilities for an impact assessment of current and future AI and Big Data technologies rooted in the common ethical values recognised by international charters of human rights and fundamental freedoms.

Alessandro Mantelero, Vaciago Giuseppe (2017). "Legal aspects of information science, data science, and Big Data." In: *Frontiers in Data Science* / Matthias Dehmer, Frank Emmert-Streib. CRC Press, Boca Raton, pp. 1-46 - ISBN 9781498799324

Summary: There are many definitions of Big Data, which differ depending on the specific discipline. Most of the definitions focus on the growing technological ability to collect, process, and extract new and predictive knowledge from a bulk of data characterized by a great volume, velocity, and variety.

Alessandro Mantelero (2017). "Regulating Big Data. The guidelines of the Council of Europe in the context of the European data protection framework." In: *Computer Law & Security Report*, vol. 33 n. 5, pp. 584-602 - ISSN 0267-3649

Summary: This article examines the main provisions of the Guidelines of the Council of Europe in the context of the European data protection framework and highlights the approach adopted by the Consultative Committee, which contextualizes the traditional principles of data protection in the big data scenario and also takes into account the challenges of the big data paradigm.

Alessandro Mantelero (2017). "Towards a Big Data regulation based on social and ethical values. The Guidelines of the Council of Europe." In: *Revista De Bioética Y Derecho*, vol. 41, pp. 67-84 - ISSN 1886-5887

Summary: This article discusses the main provisions of the Guidelines on big data and data protection recently adopted by the Consultative Committee of the Council of Europe. After an analysis of the changes in data processing caused by the use of the predictive analytics, the author outlines the impact assessment model suggested by the Guidelines to tackle the potential risks of big data applications.

Piotr Brodka, Anna Chmiel, Matteo Magnani, Giancarlo Ragozini (2017). "Quantifying layer similarity in multiplex networks: a systematic study." In: *Royal Society open science*.

Summary: This article provides a taxonomy and experimental evaluation of approaches to compare layers in multiplex networks. Computing layer similarities is an important way of characterizing multiplex networks because various static properties and dynamic processes

depend on the relationships between layers. The taxonomy includes, systematizes and extends existing approaches, and is complemented by a set of practical guidelines on how to apply them.

Gandy Jr, O.H. and Nemorin, S., 2018. Toward a political economy of nudge: smart city variations. *Information, Communication & Society*, pp.1-15.

Summary: *Transformations in the strategies and techniques of governmentality have been implemented around the globe through different versions of behavioral interventions being characterized as “nudges.” Although the variety of areas in which the structuration of this so-called “libertarian paternalism” will occur is considerable, this paper will focus on the implementation of these practices within geopolitical areas being referred to as “smart cities.”*

2. Archival conference proceedings

Ann Light, Alison Powell, Irina Shklovski (2017). "Design for Existential Crisis in the Anthropocene Age." In *Proceedings of the 8th International Conference on Communities and Technologies C&T '17* (Troes, France): ACM

Summary: *The authors of this article ask how to design for the common good, focusing on human needs for meaning, fulfillment, dignity and decency, qualities which technology struggles to support but can easily undermine. They juxtapose the design of computing that offers hope with that which offers only distraction, propose four modes to design for (being attentive, critical, different and in it together) and conclude with a plea to avoid tools that encourage a blinkered existence at a time of great uncertainty and change.*

Ester Fritsch, Irina Shklovski, Rachel Douglas-Jones (2017). "Calling for a revolution: An analysis of IoT manifestos." In *Proceedings of the 2018 ACM Conference on Human Factors in Computing CHI 2018* (Montreal, Canada): ACM

Summary: *Manifestos are defining of a “moment of crisis” and their recent proliferation indicates a desire for change. Emerging from a sense of uncertainty, these manifestos create publics for debate, demand attention and call for change. While manifestos provide potential roadmaps for a better future, they also express a deep concern and even fear of the state of the world and the role of technology in it. This paper analyzes the messages manifesto authors have for their readers and highlights how practitioners are responding to unstable and rapidly changing times and detail what solutions they envision, and what conflicts these might bring about.*

Ann Light, Irina Shklovski, Alison Powell (2017). "Design for existential crisis". In *alt.chi Extended Abstracts of the Proceedings of the 2017 ACM Conference on Human Factors in Computing*. (Denver, CO.). ACM. **Best of Alt.CHI Award**

Summary: *This paper discusses aspects of humanity, such as the need for meaning, fulfillment, dignity and decency, which computers struggle to support but can easily undermine. Authors of this paper juxtapose design that offers hope with that which offers only distraction and conclude with a plea to avoid Bovine Design, or tools that encourage passivity, rote-behavior and a blinkered existence at a time of great uncertainty and change.*