

## Open Call for Papers

### Supranational Democracy

#### A Dialogue among Scholars, Civil Society and Creative Thinkers on Global Democratic Solutions to Global Challenges

## Abstract

### The IV Industrial Revolution and its technologies: a global challenge.

This could be the story of any industrial revolution. It all begins with a new, disruptive technology. Something able to change the world so profoundly, that just few can see it. But technology is useless until someone applies it to the production, so that its consequences can spread in the world. As in any industrial revolution, first comes the innovative technology, then the economy will use it, the society will enjoy and suffer, and the politics will be late in understanding.

We are living the fourth industrial revolution, where a full set of disruptive technologies is changing every aspect of our lives, it's changing the industry and the production processes, it's changing the interaction between people, getting the human kind closer and farther at the same time, it's changing the economy, the lifestyle, the politics. It's too widespread. It's not like the other industrial revolutions. There is something new. It involves every industrial sector, every system, every society.

New hardware technologies are pushing a deep change in production processes. The use of advanced manufacturing solutions, augmented reality and additive manufacturing is enabling a profound change in manufacturing processes, where robots and machines are characterized by a high cognitive ability: they are smart, they are able to interact and adapt to the situation, change their behavior and cooperate. The additive manufacturing and the digital fabrication are turning upside down the traditional production methods and augmented reality is enhancing the ability to understand the process and interact.

New software technologies are enabling the hardware technologies to their full potential and opening the way to a cyber-physical system, where computational and physical resources are deeply integrated and coordinated in a network of interacting systems, dramatically increasing the ability to learn, adapt, control, function and be reliable and safe. A full integration and interconnection between a physical world and a digital, virtual world is made possible by simulation and virtual reality software, big data analysis, internet of things, cloud systems.

We are already living the dawn of all of it, every time we use a smartphone, a 3d printer, a smart device. Understanding the technologies, their environment and how they can interact is essential to perceive their impact on society and how to react to the inevitable changes that they will bring. If it's not possible to foresee all the changes that those technologies will bring, their understanding can lead us to a human technology-oriented model, allowing us to use the technology and not be dominated by it.

One thing looks clear already: the fourth industrial revolution will have a worldwide impact. It feeds on a global, cyber-physical interconnected environment, which cannot be limited by physical borders. Every political approach which does not take this into account is fated to fail. The fourth industrial revolution claims a global approach and launches the challenge for a global governance.

# Author Bio

**Andrea Spedicati** is the co-founder and co-administrator of AR dream, an Italian innovative start-up operating in the field of Additive Manufacturing and Digital Fabrication.

He has a Master Degree Pegasus in Aerospace Engineering and he worked five years in Hamburg, Germany, for Airbus Operation, where he developed technical and managerial skills, dealing with multicultural teams and projects.

In 2013, he took a sabbatical year and traveled around the world for eleven months, visiting twenty countries with different cultures and habits, learning a new language and writing a blog.

Being an eclectic and creative person, he has a wide range of interests including Politics, History and Philosophy, Economy, Anthropology and Evolution.

## Author Information and Contacts

**Name:** Andrea Spedicati

**Date of birth:** 04/11/1980

**Gender:** Male

**Nationality:** Italian

**Email:** [andreaspedicati@gmail.com](mailto:andreaspedicati@gmail.com)

**Mobile:** +39 3494749422

**4. Una descrizione sintetica per bullet points dei main findings del paper che sarà utilizzata per preparare le conclusioni a chiusura dell'evento.**

- The Fourth Industrial Revolution is not only a technological process, but a complex transformation with social and political consequences. Its effects will spread on all social dimensions and individual level.
- Cyber-Physical Systems have the potential to improve society and human condition, to help and empower people, but they also have the risk to increase the ability to influence and modify people's behavior on an unprecedented scale for profit or political purposes.
- The positive outcomes of the Fourth Industrial Revolution will depend on how the new social and political conflicts will be tackled on a planet scale. Technology develops along path decided by economic and political actors able to perform huge economic investment and years-long researches: national or supranational governance, or huge multinationals.