Robotics at the heart of disruptive technology

Written by Rajnish Singh on 27 November 2015 in Opinion

Robotics can offer tremendous opportunities, but it also poses many unanswered questions.

As long ago as ancient Greece, when legend told of Jason and the Argonauts' fight against the bronze giant Talos, robots have been a source of inspiration in popular culture.

Now, in the 21st century, the European Commission is also inspired by the importance of robots in helping Europe deal with current and future challenges facing society and policymakers.

As part of its digital agenda, the Commission is actively promoting research and innovation in creating "better and safer" robots, and wants to build a scientific base from where to "push the limits of the technology".
The Commission's DG Connect sees androids as a rapidly developing market driven by the development of innovative products in areas as diverse as manufacturing, surgery, healthcare, driverless cars and agriculture.

According to DG Connect, the rapid increase in the use of robots in homes, hospitals and industry "provides an inspiring vision about how they can benefit society as a whole."

Already, the Commission is supporting more than 120 projects and collaborating with member states, industry, universities and research institutes.

Integral to the spread of robotic technology is 3D printing. This technology allows specialised parts to be produced anywhere in the world as long as you have an internet connection, and the space for the 'printing machine'.

According to Dumitru Fornea, the Romanian European Economic Social Committee (EESC) rapporteur on 3D printing, "additive manufacturing (AM) is one of the key enabling technologies that will shape new approaches to manufacturing and the products and factories of the future...that can also enable Europe to re-shore production from lower wage regions."

The Romanian warns that if the EU does not take action now to embrace this technology, "it will lose its competitive edge and fall behind in the race for new markets."

However, Fornea accepts that 3D printing will pose challenges for society. "AM will not only have a disruptive impact on economy, industry and trade, but also on existing European and international legal systems."

The EESC rapporteur wants to see the establishment of a new EU and national regulatory 'framework' to deal with issues such as standards and certification, intellectual property, consumer protection and labour relations.

Though Fornea is pretty certain 3D printing will have a direct impact on traditional production methods, he admits "their impact on employment figures is very hard to identify; as yet no studies have been carried out."

Reflecting on the major changes robotics and 3D printing can have on society and jobs, the EESC rapporteur believes policymakers have to come up with new "societal innovations and new organisational models to represent workers' interests."

According to Fornea, one of the immediate things the EU can do is help society adjust to the onset of this new technology. "People need to be prepared for the challenges of the digital society and disruptive technologies through cultural, educational and training programmes."

**About the author**

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