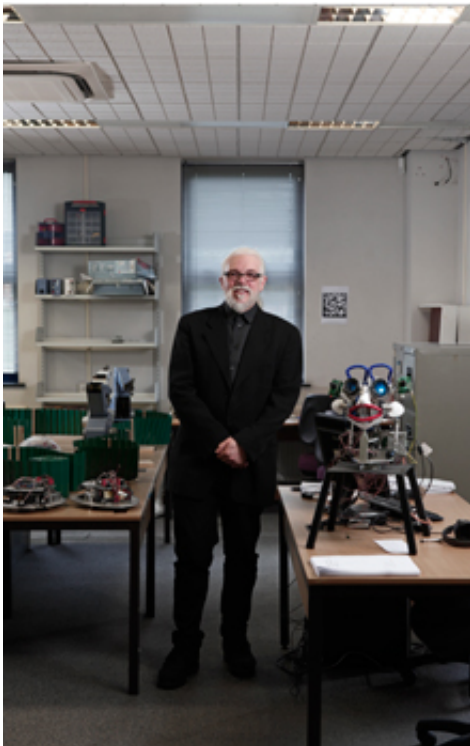


Robot revolution raises urgent societal issues not yet addressed by policy

December 11 2015, by Clare Parkin



Professor Noel Sharkey

Rapid developments in the automation of our everyday lives have prompted a world leading multidisciplinary group of technology scholars to form the Foundation for Responsible Robotics (FRR).

Noel Sharkey, Professor of artificial intelligence and robots at Sheffield Robotics, University of Sheffield, is the co-founder and chair of the new

FRR executive board. He explained that we are on the cusp of a robotics revolution with governments and corporations looking to robotics as a powerful new economic driver.

"Despite the disruptive impact of the increasing automation in our work places, our streets and our homes, only lip service is being paid to the long list of potential societal hazards," he warned.

With increasing advances in the technology, robots are moving out of factories to automate many aspects of our daily lives. The International Federation for Robotics predicts the number of service robots will rise to 31 million by 2018: from healthcare to the care of children and the elderly, from cooking and preparing food to making and serving cocktails, from domestic cleaning to agriculture and farming, from policing and killing in armed conflict to monitoring climate change and protecting endangered species.

The Federation also says that driverless cars and drones will change our roads forever and revolutionise our transport and delivery services.

"We urgently need to promote responsibility for the robots embedded in our society," said Dr Aimee van Wynsberghe, co-founder and President of FRR.

"Robots are only as responsible as the humans who build and use them. We must ensure that the future practice of robotics is for the benefit of mankind rather than for short term gains. The policies governing robotics must maintain ethical and societal standards of fairness and justice."

Recent reports from the Bank of England and the Bank of America have warned that the new technologies could result in mass unemployment. Last month the chief economist for the Bank of England, Andy Haldane,

said that as many as 15 million jobs could be replaced by new technologies. The governor of the bank of Italy has recently echoed these remarks.

Professor Noel Sharkey added: "We are rushing headlong into the robotics revolution without consideration for the many unforeseen problems lying around the corner. It is time now to step back and think hard about the future of the technology before it sneaks up and bites us when we are least expecting it. We must strive for responsible and accountable developments in robotics without stifling innovation."

FRR is also concerned about maintaining progress and innovation in [robotics research](#).

"The public needs to be assured that new developments will be created responsibly and with due consideration of their human rights and freedom of choice," said Professor Sharkey. "Early mistakes could set the field back by many years and stifle research."

"The biggest concern in the UK Government's robotics strategy is about the economic impact of the emerging technology," added Amanda Sharkey from the Department of Computer Science at the University of Sheffield.

"They are proposing UK investment in massive innovation of the technology with no mention of any joined up thinking or commissions on its societal impact or its potential dangers for the fundamental rights of citizens."

It is difficult for policy makers and the legislators to keep up with the rapidly emerging developments and so it is vitally important that the scientists, researchers and manufacturers develop a socially responsible attitude to their work. It is for reasons like these that more than 20 of the

world's leading emerging technology thinkers have formed the Foundation for Responsible Robotics to bring the various communities together and to offer advice and guidance.

Provided by University of Sheffield

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