



PODCAST on CPS

Voice 1: Sarah

Voice 2: Brian

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VOICE 2

You're listening to the European Parliamentary Research Service podcast on intelligent robots.

VOICE 1

What if we had to put our safety in the hands of a robot?

VOICE 2

As intelligent robotic systems linked to the internet are increasingly infiltrating our everyday lives, the question remains: how safe are these technologies? And could they actually cause more problems than they solve? Stay with us!

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VOICE 1

In a science fiction future, we'll arrive at the hotel in our driverless car, get our keys from a friendly robot butler who can welcome guests in 19 languages, and follow him to our room as he carries our bags.

VOICE 2

Except, of course, this butler robot is already science fact! His name is Mario and it has been working in the Marriott hotel in Ghent, Belgium, since June 2015.

VOICE 1

Robots are appearing in hotels around the world, but the applications of cyber-physical systems go well beyond the world of tourism. So what kind of technology are we talking about?

VOICE 2

What we call cyber-physical systems are intelligent robotic systems linked to the internet and capable of making their own decisions based on the information they can gather from their environment.

VOICE 1

Thanks to this ability to sense their environment, robots can help disaster-relief workers, by accessing dangerous sites to save victims. Driverless cars, immune to tiredness and road rage, are another example of autonomous robots which could increase our safety.

VOICE 2

In fact, if the company's plans go ahead, we may soon see Uber driverless cabs circulating on our streets!

VOICE 1

But robots can also be used in the medical world, to monitor patients or administer medication when needed. But what if there's a system failure? Or hackers get into it?

VOICE 2

Well, that could result in patients getting a fatal dose from a robot nurse, or drivers being killed by their own cars, as happened recently when a Tesla car in autopilot mode failed to recognize another car against a bright sky.

VOICE 1

Drones, which are another type of intelligent robots used by governments for border surveillance and other security tasks, could also be hacked or used to fly explosives and attack citizens.

VOICE 2

So it's clear that security improvements are still needed. Besides, with the expansion of cyber-physical systems and their increasing application, larger and larger amounts of personal data are being stored in gigantic databases. So there's also the question of who will be able to access this information and for what purpose? And will we change our behaviour out of fear of being watched?

VOICE 1

Although such an Orwellian scenario can't be completely ruled out, technology is working on answers to these questions. Quantum cryptography, for example, would increase the protection of our data, making it almost impossible for hackers to access it.

VOICE 2

But one of the main questions, next to privacy and safety, is liability. In other words, who is responsible if a robot makes a mistake? If we go back to the Tesla accident: who was to blame there? The driver? The manufacturer? Or the company which engineered the autopilot software?

VOICE 1

Currently, some car manufacturers are taking responsibility for accidents that occur with their driverless cars, and in some countries, such as Germany, Sweden and the UK, legislation has already been reviewed to allow for the testing of driverless cars on public highways. But we're only at the beginning...

VOICE 2

As with every new technology, legislation will be needed to ensure that the possible negative effects do not outweigh the positives. But in the end, there's few doubts that robots are coming to make our lives easier and safer!

VOICE 1

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