

Will AI make us irrelevant?

Dr Simone Stumpf, Reader in Responsible and Interactive AI at Glasgow University gave an interesting, challenging and informative talk to Allander Probus on the development and implications of Artificial Intelligence for all of us.

Whether we realise it or not, we are already being affected by AI, perhaps through email, Netflix, heating controls, security systems or, intriguingly, SPARRA (a predictive system for GPs now covering 80% of Scotland's population)

Computing and AI have been around since the 1950s, originally with limited applications and rules using small amounts of data and low computing power.

However, since the 1990s the availability of computing power and data has expanded greatly making it possible to feed basic rules and lots of data into an AI system to "train" it to find patterns and correlations which can then be used to derive or predict likely outcomes from fresh input.

This kind of "predictive" AI can take data and classify, cluster, forecast or spot anomalies in what it has been given. An example is SPARRA (**S**cottish **P**atients **A**t **R**isk of **R**eadmission or **A**dmission) that takes patient-level data on hospital admission, prescriptions, A&E and Outpatient attendances, long-term conditions, Multiple deprivation index and age and predicts the likelihood of someone being admitted to hospital. This helps to anticipate those who might benefit from early interventions.

With this level of computing power people already ask whether computers might eventually become as "intelligent" as humans. The AI founder and codebreaker Alan Turing proposed a test where a computer program could be considered intelligent if it could interact with a human who could not determine whether they were dealing with a computer. We are not yet at that stage.

Although AI is already a useful tool and changes many tasks it can certainly go wrong and much of Dr Stumpf's research is in the area of assessing the accuracy, reliability and "fairness" of AI systems, though "fairness" is a very subjective concept.

Bad or biased selection of input data can lead to incorrect or unfair AI predictions. Often bias can be unconscious so careful analysis of the model used is vital to corroborate the AI predictions.

Along with such analysis there is now EU legislation being developed to evaluate the risk/harm of new AI systems e.g. control of drones for land use or for bombing targets, or in law enforcement.

In summary, AI systems have the potential to transform our lives for the better but we need to be very clear about how they work and hopefully maintain development control.

To finish on a positive note; although many routine jobs have been eliminated by computers there have been many new, different jobs created. Admittedly, AI impacts what people would consider "higher-level" jobs but it is not unreasonable to expect more, different AI-led jobs to follow.