



## Press Release

*Issued: Wednesday 5 February 2020*

---

### Older people switch off from machine learning, research suggests

Older people pick up new skills better when they believe they are learning from another person, rather than from a computer, a study suggests.

People were slower and less accurate in a task when they thought they were interacting with a machine and not a human, the research found.

The study also found people changed their answers more, and were less likely to remember details an hour after the task was finished, when they believed instructions came from a computer.

Researchers at the University of Edinburgh tested the problem solving skills of 24 older adults aged 60-85 years. Participants were given spoken instructions and asked to arrange information and complete a task.

Researchers used a technique – known as the Wizard of Oz system – to create the illusion that the task they were performing was being set by either a computer or a person, when on both occasions they were in fact interacting with a human.

Results showed that participants' outcomes were poorer when they believed they were learning with a computer.

They were faster, more accurate and took fewer turns to complete the tasks when they believed the instructions were created and provided by a person.

Experts say that people's perception about who or what system they were working had a medium to large effect on people's differences in performance.

Researchers say the findings help to understand better how efficiently and accurately older adults learn with technology.

The study, which was carried out at the University of Edinburgh's School of Philosophy, Psychology and Language Sciences, may also aid the development of computerised systems to help and support older people.

Dr Catherine Crompton, of the University of Edinburgh's Centre for Clinical Brain Sciences, said: "An increasing number of systems to help older adults live independently depend on computerised activities, although little is known about how people interact with these systems and how they learn from them. These findings suggest that beliefs affect how efficiently older people learn with technology, which could be taken into account when making technology systems user-friendly."

The study is published in *Computers in Human Behaviour*: <https://doi.org/10.1016/j.chb.2019.07.006>

The study was supported by the Engineering and Physical Sciences Research Council (EPSRC).

**For further information, please contact: Joanne Morrison, Press and PR Office, tel +44 131 651 4266, [joanne.morrison@ed.ac.uk](mailto:joanne.morrison@ed.ac.uk)**



@EdinburghUni



edinburghuniversity



@UniversityOfEdinburgh



@university-of-edinburgh