

Meet Lindsey: She'll be your guide today

November 26 2018



Lindsey the Robot at The Collection Museum in Lincoln, UK. Credit: University of Lincoln

A 5ft 2ins tall magenta robot, equipped with sensors and cameras, will guide visitors through exhibitions at a Lincoln museum from today.

Programmed by robotics experts from the University of Lincoln,



Lindsey will be giving tours at The Collection, which is run by Lincolnshire County Council, for the next three years.

She will find the best routes around the <u>museum</u>, pausing at exhibits to offer facts and take basic questions from visitors. Her functionality will develop autonomously over the three years as she learns new behaviours and trends from the people she interacts with.

Lindsey is the latest in a family of robots developed by the Lincoln Centre for Autonomous Systems, with others working in warehouses, on farms, and care homes. The <u>robot</u> employs the latest Artificial Intelligence and robotics technologies, advanced in <u>research projects</u> by the researchers at the University's School of Computer Science. They have programmed the robot to be able to navigate the museum on its own and recharge itself, accounting for potential obstacles such as people, exhibits and bags left on the floor, while learning from interactions to develop a better understanding of what visitors are interested in.

These advances are part of the wider project to develop robots which can operate autonomously around humans, and build upon outcomes of the collaborative EU-funded £7.2 million STRANDS project which created the technologies for mobile robots that are able to operate independently. The project is the beginning of a long-term partnership between Lincolnshire County Council and the University of Lincoln, to advance robotics technology to support education of the public and allow them to engage with the latest digital advances.

Professor of Intelligent Robotics & Interactive Systems, Marc Hanheide, who is leading the project commented: "Despite all the progress in robotics research in the past years, taking a robot out of the lab and 'into the wild' of public space like 'The Collection' museum is still a most challenging endeavour. Lindsey will operate entirely autonomously and



navigate the gallery on its own. We hope to learn a lot about the requirements for robots engaging with the public and the specific ways visitors are interacting with the robot. I helps us tremendously to further develop the long-term autonomy and adaptation of our AI-enabled robots."

James Sharples, Business Transformation Manager at Lincolnshire County Council said of the project: "The Collection Museum is excited to be involved in this long term <u>project</u> with Lincoln University. Combining history and technology Lindsey will add a unique experience for people of all ages visiting the site, making learning about the past more engaging and interactive."

Provided by University of Lincoln

Citation: Meet Lindsey: She'll be your guide today (2018, November 26) retrieved 24 April 2024 from https://phys.org/news/2018-11-lindsey-shell-today.html

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