Living with Machines: harnessing the hive mind

What did Victorians mean by the word 'machine'? That is one of the questions that the <u>Living with Machines</u> project has been grappling with over the past year, using the power of crowdsourcing to glean information from 19th century newspapers.
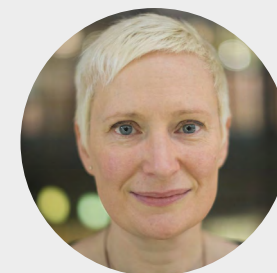
Living with Machines is a five-year collaboration between the Turing, the British Library and four UK universities. It aims to shed new light on the human impact of the Industrial Revolution, using the latest computational tools to analyse historical newspapers, books, maps and census records.

The **<u>crowdsourcing initiatives</u>**, which officially launched on the Zooniverse platform in December 2020, ask volunteers to pore over digitised newspapers and answer questions posed by the researchers. In two of the tasks, participants were asked to read articles and add information about any mentioned machines. Some of the results were surprising: objects such as prams, weighing scales and even scaffolding were all referred to as machines. More than 1,700 volunteers have taken part in the various crowdsourcing tasks, which have also included finding newspaper stories about industrial accidents, and classifying newspaper snippets as 'advertisement or not'. The researchers are currently co-curating an exhibition at Leeds City Museum, opening in July 2022, that will spotlight some of the initial results.

As well as allowing the public to engage directly with the research, these crowdsourcing tasks are providing the Living with Machines team with precious data with which to train its machine learning algorithms. Over time, the aim is to use these algorithms to automatically extract information from digitised newspapers en masse, providing deeper insights into what it was like to live through the Industrial Revolution.
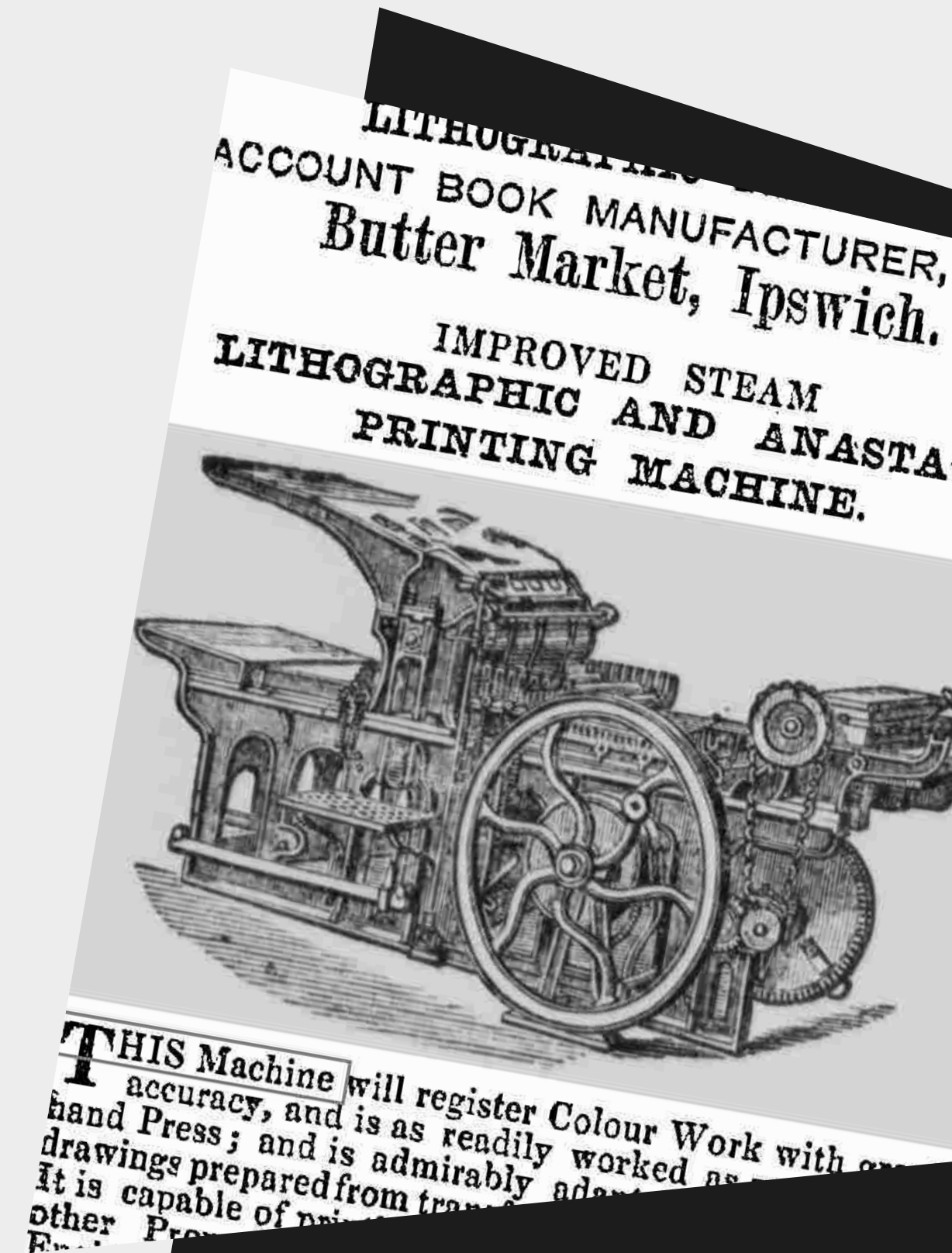

"Historical newspapers are a treasure trove of information. With tens of millions of pages now digitised, we need to develop new methods to analyse them at scale. Our collaboration with the Turing is giving us the tools to do that."

Mia Ridge
Living with Machines Co-Investigator and Digital Curator for Western Heritage Collections, British Library

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