

acas working
for everyone

**Mind over machines:
the impact of new
technology on
employment relations**

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1

Technology improves efficiency and the quality of work ...but we need to consider the impact on employee engagement

2

Technology can result in work intensification... but can result in isolation and impact on wellbeing?

3

The question of communication the benefits (and any drawbacks) of technological change to staff: for example: better kit may also come with increased monitoring.

Are the robots coming?

- up to **30% of UK jobs at high risk** of automation by the early 2030s
- risks appear highest in sectors such as **transportation and storage** (56%), manufacturing (46%) and wholesale and retail (44%), but lower in sectors like health and social work (17%)
- for individual workers, the key differentiating factor is **education**. For those with just GCSE-level education or lower, the estimated potential risk of automation is as high as 46% in the UK, but this falls to only around 12% for those with degrees

(Price Cooper Waterhouse report: “Will robots steal our jobs?” 2 March 2016)

The North/South divide

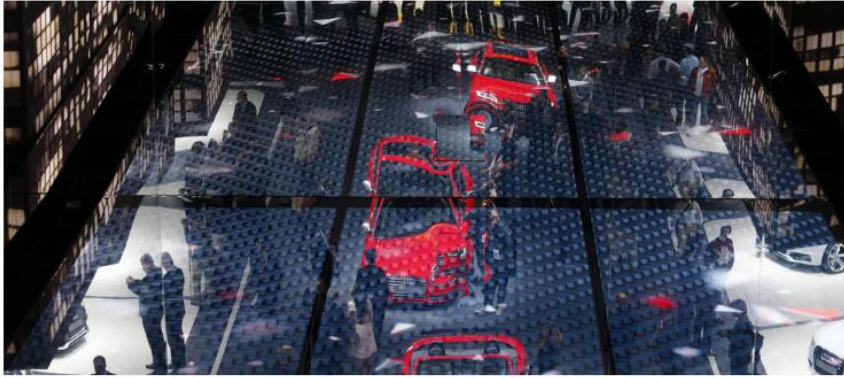
- **1 in 5 existing jobs in British cities** are likely to be displaced by 2030 as a result of automation and globalisation –
- **3.6m jobs affected** in total – with retail occupations, customer service roles and warehouse jobs among those most at threat
- Around **18% of jobs are under threat in Southern cities**, compared to **23%** in cities elsewhere in the country

(Centre for Cities 'Cities Outlook 2018', Jan 2018)

Meet Emma: your *female* robot cleaner

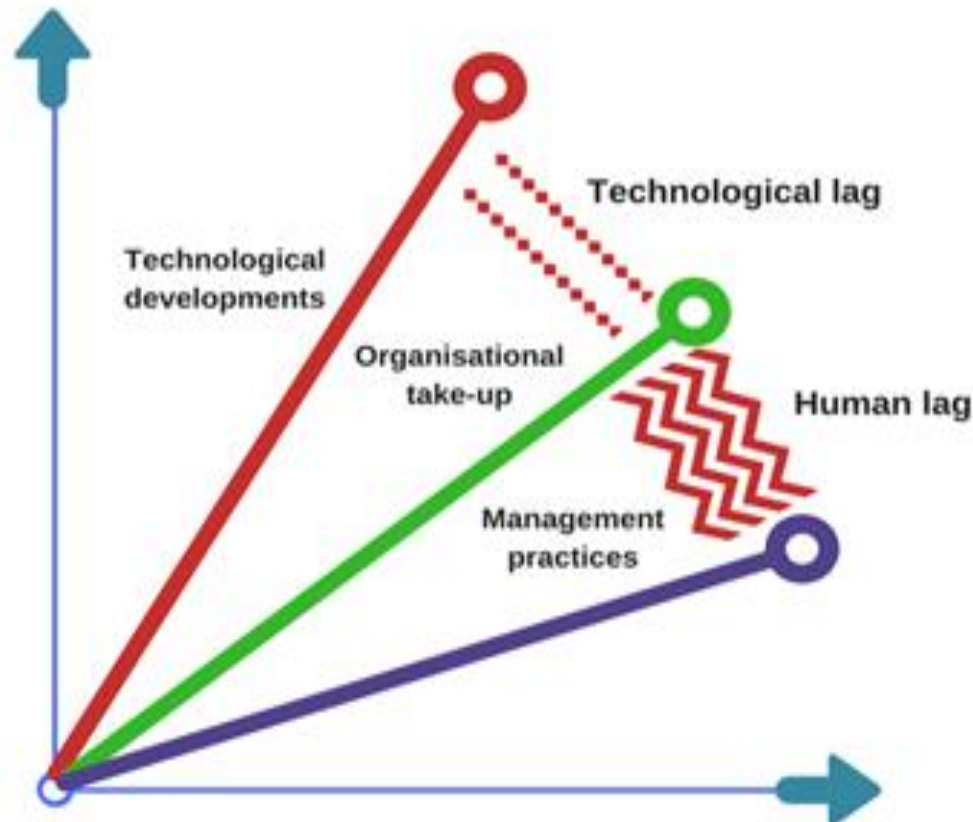


Alibaba is building a vending machine to sell something you might not expect - cars



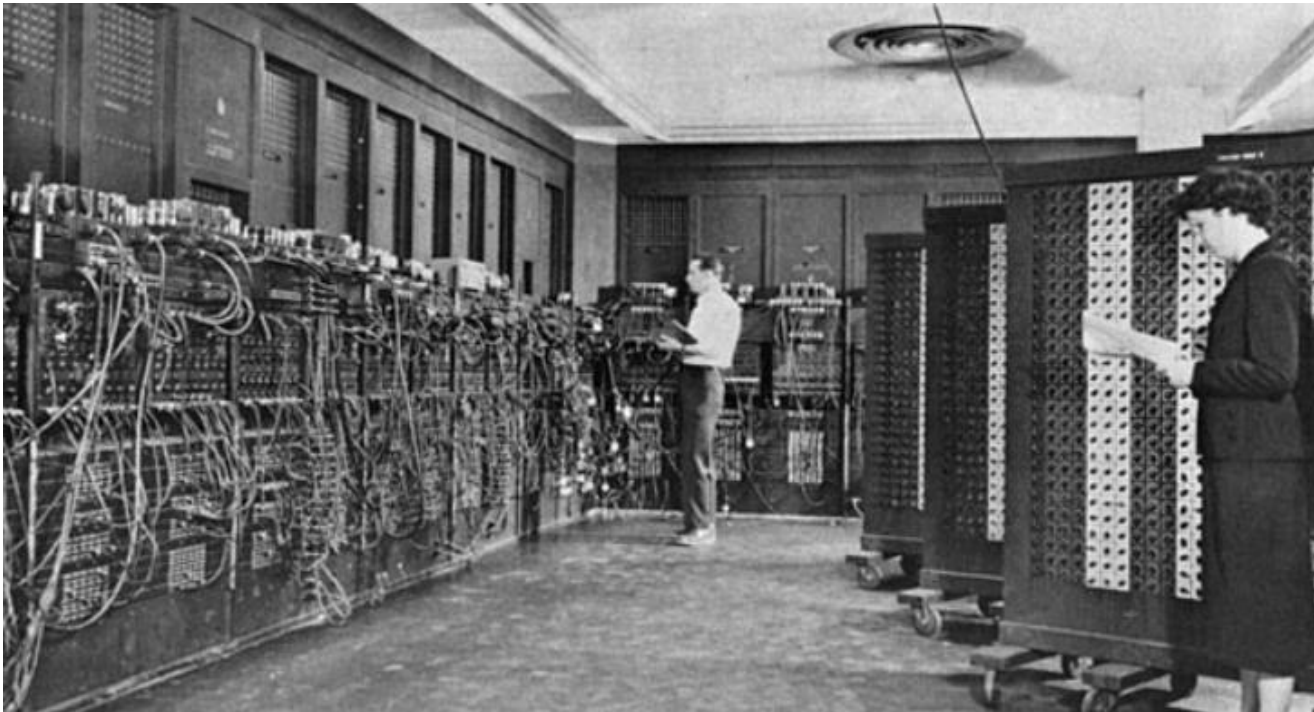
Can HR adapt?

- Technological lag: work behind home in use of skype etc
- Human lag: Our reaction to the employee dimensions if further lagging behind.
- A new form of



My personal interest ...

- Can we really trust this thing?



*First
digital
computer,
America
1946*

Technology Automation and Digitisation: the here and now and the people



‘Mind Over Machines, New technology and employment relations’, IPA and Acas

The evidence, interviews and case studies

- **Jaguar Land Rover**
- **Siemens** plant in Congleton
- District nursing service at **Whittington NHS Trust**

1. A low tech innovation: *NHS Whittington Trust*



While work may have become less physically demanding, there has been a potential increase in the *mental demands* of work:

- The decline of **social interaction** and peer support at work
- Increased **anxiety and stress** for workers should the technology fail or malfunction for any reason.
- Significant growth in remote and flexible working arrangements, potentially leading to the **blurring of home and work** boundaries.

2. High tech: JLR

- In some sectors, particularly in manufacturing, robots are already transforming the way jobs are carried out.
- They often make physical tasks easier and can **reduce the number of health and safety incidents** at work.



- All three of the case studies provide evidence of the various ways in which technology can improve the **quality of work** for employees.

Well designed jobs

- ‘**Well designed work**’ which is found to be one of the key contributors to employee productivity.
- It has the potential to greatly undermine workers’ **autonomy** and engagement *if not carefully handled*.
- There’s a clear need to consider the **human implications** of new technologies, particularly when it makes tasks ‘easier’.



3. Invisible tech: algorithms at Siemens

- Can HR jobs like **recruitment** be done better by software?
- Do we have to get used to a **virtual presence** looking over our shoulders?
- Do algorithms have the **unconscious bias** of the person who programmed them?



“there’s nothing you can do with it, because they are giving you a list of the order of how to do the work. You can’t turn round and say ‘I think we should do it in this order’”.

Employee

“[Future roles] will be much more engineering and technically based, maybe more data driven as well. Like Preactor – it’s more setting up algorithms and setting up patterns.”

Manager

What's to be done?



- Addressing the **human lag** in the take up of new technologies:
 - Are staff being **supported** enough?
- **Challenging**, testing and monitoring new technologies
 - Are new technologies working in a **fair** manner?
- Factoring in **human interaction** in shaping new technologies
 - Have staff been **consulted** and offered appropriate training?

The report in full



Where to find the report

www.acas.org.uk/automation

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