



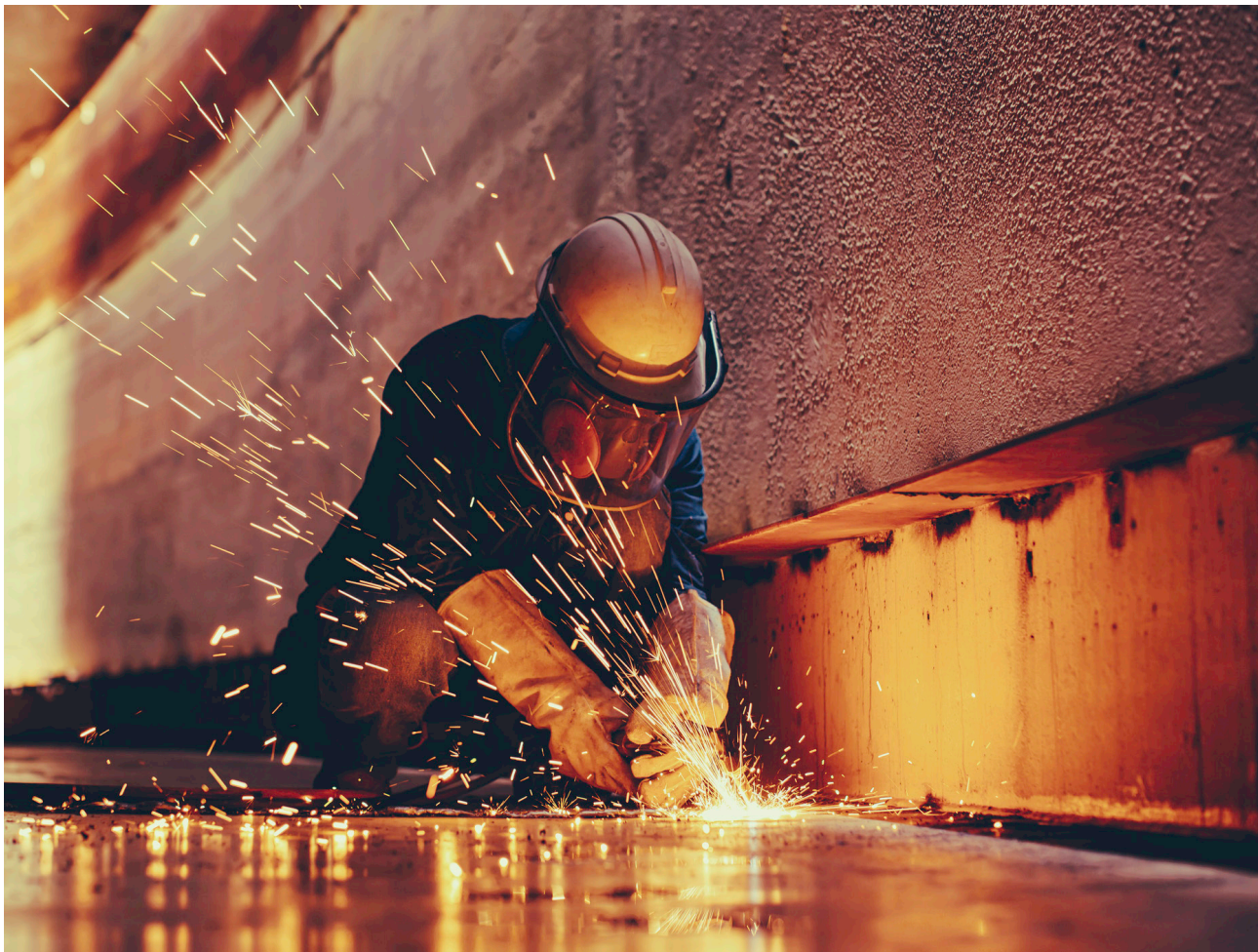
**Institute for the  
Future of Work**

Explainer series

# Reframing Skills

*Sen's Capability Approach in an age of automation*

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We are living through the greatest technological transition since industrialisation, with AI and automation precipitating major transformations in the nature and experience of work. Real wages, training hours and worker engagement are falling, economic inactivity remains high, and the skills mismatch is growing. Structural transformation driven by technology, overlaid by the pandemic and the cost of living crisis, raises new questions about how to recognise, develop and reward people's skills.

The country's uncertain navigation of these multiple challenges mirrors a problematic mainstream narrative on automation that overwhelmingly focuses on the number of jobs that will be lost or gained and too often assumes that future jobs will be good jobs. This narrative also assumes a 'technological determinism' — that change will play out in inevitable ways, as something 'done' to people, with little attention paid to their choice, potential or context. In a similar way, the prevalent skills narrative assumes that training is 'done' to people, based on predetermined needs that organisations might have.

Developed by economist Amartya Sen and originally conceived as a framework to assess how well societies are developing, the Capability Approach offers a fresh perspective. Work at IFOW has focused on applying it to the question of engaging a modern workforce in transition. This is appropriate now because automation has the potential to either augment or diminish people's agency and experience of work.

Recent research from different disciplines - economics, management, psychology, health and computer science - has begun to align around the importance of shaping automation to augment human capabilities and affirm human agency. Importantly, because of the emphasis on the socio-technical nature of automation, the Capability Approach highlights the vast permutations offered by automation, and our agency to choose which of these are worth pursuing. In more than one sense, it reminds us that we should be able to shape our own futures.

This invites a fresh perspective on how we value human skills, abilities and experience. There is increasing consensus that collaboration, communication, critical thinking and creativity tend to be less automatable and are growing in importance. However, these skills also tend to be undervalued, both by society and the labour market. Refocusing on people's potential, and their choices and values is one way of opening new conversations about what we value and reward in human activity.

Applied to the automation of work, the Capability Approach expands our outlook in three key ways. Each focuses our attention on characteristics and mediators of automation which are particularly important in shaping better outcomes:

## Job quality as well as quantity

The Capability Approach offers a wider understanding of people's experience of the technological transition than job replacement. Beyond 'upskilling,' a broad range of automation impacts are arising in practice in ways which change people's experience of work even if they remain in the same role. IFOW and others' research shows that automation has the potential to either improve or diminish the dimensions of job quality. There is increasing evidence that job quality is important (and that this is declining in major dimensions) and associated with a range of better outcomes, including life and job satisfaction and wellbeing, workforce engagement and retention.

## Opportunity as well as efficiency

A Capability Approach forefronts human flourishing in this transition. With a wider view than efficiency, it offers the potential to create and improve jobs and 'good' automation'. Many employers have assumed that increased use of automation will bring increased productivity, and that this will bring benefits to workers through increased wages. However, research suggests that this linkage is not automatic.

New research carried out as part of the [Pissarides Review](#) tends to back up earlier work by Acemoglu and Brynjolfsson that automation only increases productivity when other factors are in place to support its deployment. These include 'regional innovation readiness' factors such as good broadband and good educational provision, as well as the human resource management factors discussed below. Reflecting this, the Capability Approach highlights that people's ability to benefit from technological innovation varies from person to person due to their individual context and the personal, cultural or environmental 'conversion factors' that they can - or cannot - bring into play.

This reminds us that social and technical aspects of automation are interdependent and should be treated as part of a complex system. In this way, the Capability Approach highlights that people's opportunities to work in jobs that they value depend on the resources available, the institutions they are a part of, and the other factors that might shape their ability to exploit these opportunities.

## High discretion automation as well as agency

A conventional view of technology requires workers to see themselves as subject to it and having to re-fit themselves via skills training to conform to industrial demands, determined by somebody else. The Capability Approach sees workers as active participants, and highlights the importance of protecting their agency and dignity at work.

This shift speaks to a number of entrenched challenges in the UK, including poor infrastructure for collaborative working, under-investment in people, low levels of engagement and cultural deference to life-long learning. New research undertaken as part of the Pissarides Review highlights that when human resource management

practices including higher levels of consultation and information sharing are present, outcomes significantly improve at both an individual and firm level. These include innovative job creation and enhancing job quality.

Supporting this further, the notion of agency aligns with related concepts such as 'autonomy' and 'job crafting' in the job quality literature, 'empowerment' in HR literature, 'high-performance systems' in management literature, and 'high discretion augmentation' in the automation literature. From a skills perspective, multi-disciplinary research points to the particular success of learning programmes that have been co-determined, partly because it gives workers the ability to articulate their own role and contribution.

## Conclusion

Challenging our conventional narratives, the Capability Approach offers a fresh perspective on how societies can promote and assess their progress through the new technological revolution. It emphasises people's potential to shape better work for themselves and others.

Increasingly supported by a strong evidence base, the Capability Approach draws our attention to wider impacts of transition than job loss by also focusing on the quality of work and the purpose it offers. It offers a wider lens to examine the real barriers that people face on this journey, and forefronts their potential to overcome these barriers, with the right support. An ideal complement to the technical Pissarides frictions framework, matches become good matches.

In these ways, the Capability Approach offers a pathway towards implementing 'good' automation and building a society in which everyone can flourish through this new technological transition.



# Institute for the Future of Work

IFOW is an independent research and development institute exploring how new technologies are transforming work and working lives, co-founded by Nobel prize-winning economist Sir Christopher Pissarides, technologist Naomi Climer CBE and former employment barrister, Anna Thomas.

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**Our mission** is to shape a fairer future through better work.

**Our goal** is a good society in which everyone can flourish through this new technological revolution.

**Our belief** is that creating and sustaining good work is the best way to achieve this goal and ensure that innovation and social good advance together.

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