

## **Breadth v Depth in an AI world: Does modern society need generalist or specialist graduates?**

### Summary

The third Keele Debate examined whether contemporary society requires graduates with broad interdisciplinary capabilities or deep specialist expertise. Panellists explored how rapid technological change- in particular the rise of artificial intelligence- is reshaping labour markets and redefining the role of universities. While some speakers emphasised adaptability, critical thinking and transferable skills, others highlighted the continued importance of disciplinary depth. The discussion demonstrated that the relationship between breadth and depth is no longer a choice but a balance shaped by technological disruption, employer expectations and the evolving mission of higher education.

### Introduction

Held on 23 March 2026 in the Westminster Theatre, Chancellor's Building, the third Keele Debate brought together students, staff and local people to consider the future of graduates in an AI-led world. As part of the Keele Debates series, the event aimed to stimulate conversation regarding the challenges facing higher education and wider society. Nearly 200 attendees participated in person, with additional engagement online, highlighting the significance of the topic for the University community.

### The Panel

1. **Charles Clarke** - Former Secretary of State for Education and Skills
2. **Chris Havergal** - Editor, Times Higher Education
3. **Sally Bucknall** - Culture and Inclusiveness Director, EY; Deputy Pro-Chancellor, Keele University
4. **Professor John Domingue** - Professor of Computer Science at The Open University,

Chaired by **Professor Kevin Shakesheff** - Vice-Chancellor, Keele University.

## Key Themes

### a) AI is reshaping what “knowledge” means

Charles Clarke argued that universities could prioritise critical thinking. He stressed that individuals could not “simply accept what’s delivered to them” but instead cultivate independent judgement. AI, he suggested, could be used as a tool that supports rather than replaces human reasoning. This perspective highlights the importance of a broad intellectual foundation, including logic, statistics and awareness.

### b) The future graduate

Professor John Domingue reframed the debate by suggesting that the central divide is no longer between generalists and specialists but rather between those who can “drive AI systems” and those who cannot. He likened future graduates to “Formula 1 drivers,” whose value lies in their ability to manage and evaluate AI tools effectively. This perspective reflects a shift away from static knowledge towards continuous adaptability and the capacity to generate immediate value.

Sally Bucknall emphasised that employers increasingly prioritise “learning velocity” - the capacity to learn- over static subject knowledge. With many traditional entry-level tasks becoming automated, graduates could demonstrate value through collaboration, communication and problem-solving rather than routine work.

## Questions from the Audience

Audience contributions broadened the discussion by raising practical concerns about the implications of AI for students, universities, and wider society. Key questions included:

- How points towards the disappearance of entry-level roles affect graduate employability?
- Points towards AI increase inequality between those who can effectively use it and those who cannot?
- Could universities prioritise technical AI skills or broader human capabilities?
- How can institutions balance employability with the intrinsic value of education?
- What role could universities play in preparing students for an uncertain and rapidly changing future?

Recurring themes included the risk of inequality- in particular the divide between “drivers” and “passengers” in the AI economy- as well as concerns about how students can gain experience as traditional entry-level pathways diminish. Participants also questioned whether universities are adapting quickly enough to meet these challenges. These discussions highlighted unresolved tensions between universities, employers, and policymakers regarding responsibility for preparing graduates for an AI-driven world..

## Arguments For and Against

### **Arguments for breadth**

Advocates of generalist education emphasised adaptability, resilience and the capacity to navigate uncertainty. Clarke argued that critical thinking and intellectual breadth are essential for evaluating AI-generated information. Bucknall's emphasis on "learning velocity" further supports the case for breadth as a foundation for long-term employability.

### **Arguments for depth**

Arguments for specialist education centred on credibility, expertise and professional trust. Chris Havergal noted that disciplinary engagement cultivates analytical rigour, and communication- skills that remain indispensable in fields such as healthcare, law and engineering. Graduates risk becoming over-reliant on AI.

## Student Perspective

From a student perspective, the debate raised pressing questions about the future of education, employability and the value of a university degree. The expectation that graduates could contribute value immediately- without the traditional buffer of entry-level experience- creates understandable anxiety.

Automation is reshaping early career roles, reducing conventional pathways into employment while increasing demand for adaptability, creativity and interpersonal skills. This shift has generated uncertainty around how best to balance academic achievement with the development of practical, technological and interpersonal competencies.

The debate also prompted reflection on the broader purpose of university education. While employability remains important, students continue to value personal growth, intellectual exploration and interdisciplinary learning. The discussion suggests that these elements are increasingly interconnected in preparing graduates for a rapidly changing world.

## Strategic Takeaway

The debate highlights several strategic implications for Keele University in relation to the future of graduate skills in an AI-driven context.

The discussion suggests that AI literacy may become an increasingly important component of graduate capability. This raises questions about how such skills are embedded within curricula and points towards a more integrated approach in which students develop the ability to critically evaluate AI outputs, understand algorithmic bias and apply AI tools within disciplinary contexts.

The emphasis on adaptability and “learning velocity” suggests that interdisciplinary learning may play a growing role in preparing students for uncertain and rapidly evolving labour markets. Keele’s existing strengths in this area provide a foundation but also raise questions about how far such approaches should be expanded and embedded across programmes.

The debate also points towards a potential shift in assessment and curriculum design, with greater emphasis on authentic, real-world tasks that require students to combine human judgement with AI-supported analysis. This highlights the need to consider how universities evaluate not just knowledge, but the application and critical use of emerging technologies.

Finally, the discussion suggests that closer engagement with employers may become increasingly important, while also raising questions about how universities balance responsiveness to labour market demands with their broader educational mission.

Collectively, these themes reflect a broader transition in higher education, where institutions are required to balance disciplinary depth with adaptability, and stability with innovation. Rather than offering a single solution, the debate highlights a set of evolving strategic questions that universities will need to navigate over time.

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