

1) Name of institution

The Open University

2) Name of the initiative

Responsible by Design — embedding green and ethical AI skills in curriculum design

3) Initiative outline

The [Responsible by Design \(RBD\) framework](#) embeds ethical, environmental and social considerations into curriculum design, following sector-wide examples such as the Association for Learning Technology’s (ALT) Framework for Ethical Learning Technology. RBD complements existing approaches to critical AI literacy by focusing on how educators design learning activities and assessments. Rather than asking only whether GenAI can be used, RBD encourages consideration of why, how and at what cost technology is deployed.

4) Context/history/need for initiative

The transition to a green economy is reshaping graduates’ expectations across all disciplines. Green skills encompass the knowledge, values and capabilities required to support a sustainable and resource-efficient society, including technical expertise, systems thinking and ethical awareness. At The Open University (OU), the rapid emergence of generative artificial intelligence (GenAI) provided a context through which green skills could be meaningfully developed. While AI offers significant benefits for learning and productivity, it also has substantial environmental and social implications, from the need for extensive material and water resources, to the impact on creative and intellectual property. These present an opportunity to engage students in critical reflection on technology use.

5) What happens

Implementation began within the OU Learning Design Team, where workshops and design discussions were used to integrate RBD into curriculum development processes. For example, structured design prompts, tutorial discussion activities and practical guidance to help embed critical reflection within learning activities. A key strength of the framework is its simplicity: the six-pillar structure provides an accessible entry point for educators across disciplines, enabling widespread adoption without requiring specialist expertise.

Through RBD-informed learning activities, students develop key green skills that align with both employability and sustainability competencies. Importantly, students are encouraged to critically evaluate whether AI use is proportionate and educationally valuable within a given context. Educators are encouraged to design learning that supports students to consider questions such as:

What resources are required to use this technology? Who benefits and who may be disadvantaged?
What are the environmental implications?



6) Green Skills developed or applied

The approach taken reflects broader international perspectives on green skills development. UNICEF highlight the importance of inclusive, context-sensitive approaches that empower individuals to participate in a green economy, noting that green transitions require both technical skills and the ability to navigate complex social and economic challenges. RBD supports this by embedding reflective and values-driven practices into all areas of learning.

7) Contributions to leverage points

This initiative aligns strongly with Leverage Point 9 (LP9): Responsible data and technology solutions. Project Drawdown emphasises that climate action must be embedded across all roles. RBD operationalises LP9 by equipping students to act as responsible users and decision-makers in relation to digital technologies, recognising that their everyday interactions with data and AI systems have environmental and societal consequences.

The RBD framework supports key considerations including sustainability, bias, exploitation of people and resources, access, equity, opting out, transparency and proportionate use. The sustainability-focused pillar highlights the energy and resource intensity of AI systems, prompting students to evaluate trade-offs between efficiency and environmental harms. This reflects LP9's emphasis on responsible technological choices, as well as Drawdown's call for employees to assess and improve the environmental performance of the systems they use and design.

8) Impact, successes, challenges

Beyond awareness-raising, RBD encourages students to see themselves as active participants in shaping more sustainable and equitable technological futures. It helps to empower students to drive climate action within organisations, rather than restricting responsibility to sustainability specialists.

Challenges remain, particularly in evidencing long-term impact. This reflects a wider challenge in green skills development, where outcomes are often linked to values, judgement and agency rather than easily quantifiable knowledge.

Despite these challenges, the RBD framework demonstrates a scalable and adaptable approach to embedding green skills across higher education. By making the environmental and social implications of technology visible, it enables students to engage with the kinds of complex decision-making required in a green transition. It also illustrates how LP9 can be enacted in practice. Not simply through technical competence, but through the cultivation of responsible, reflective and systems-oriented approaches to data and technology. RBD was recognised as a winner of ALT's Ethical Edtech Award 2025, where judges praised its practical simplicity.

9) Advice for others

For other institutions, a key lesson is that embedding green skills does not necessarily require extensive curriculum redesign. It can begin with simple, structured prompts that make the environmental, ethical and social consequences of technology use visible to students within everyday learning design. This is where RBD makes its strongest contribution: preparing graduates to make responsible technology decisions in every discipline, every workplace and every role.