

Extending the Reach of Interdisciplinary Education

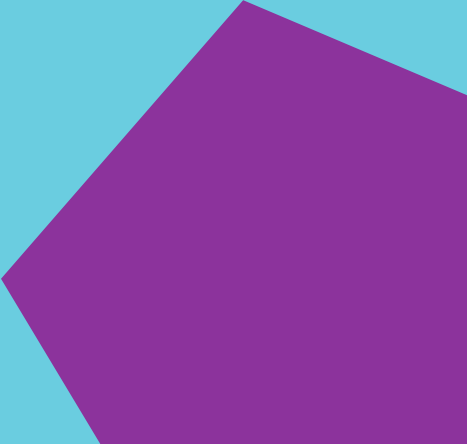
Engaging New Audiences both Within
and Beyond Academia

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Today's discussion

- The versatility of interdisciplinary (ID) courses –and what that tells us about their potential
 - Our journey in adapting pre-existing ID materials for new audiences, through 2 case studies:
 1. A sustainability course for students in Biology
 2. A course on digital trust for working professionals
 - Key lessons we've learned along the way
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UCIL online units



Units currently being repurposed...💡 ✂️ ◻️ ↺



Course on Sustainability for all 1st year students in the School of Biological Science (SBS)

Why?

- New QAA subject benchmarks require all disciplines to integrate **Education for Sustainable Development**.

How?

- Adapting the existing UCIL course, '**Creating a Sustainable World**', to meet the needs of SBS students.

Who?

- A collaboration between **UCIL** and **SBS academics and SBS students**.

Wildcard

☐

Online Content

☐

F2F Activity

☐

Case Study

Sustainability as an interdisciplinary concept

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Essential

☐

Desirable

☐

Not required

The Trade-Offs of Sustainability: Plastics

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Essential

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Desirable

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Not required

'The Great Acceleration': the rapid increase in the use of resources

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Essential

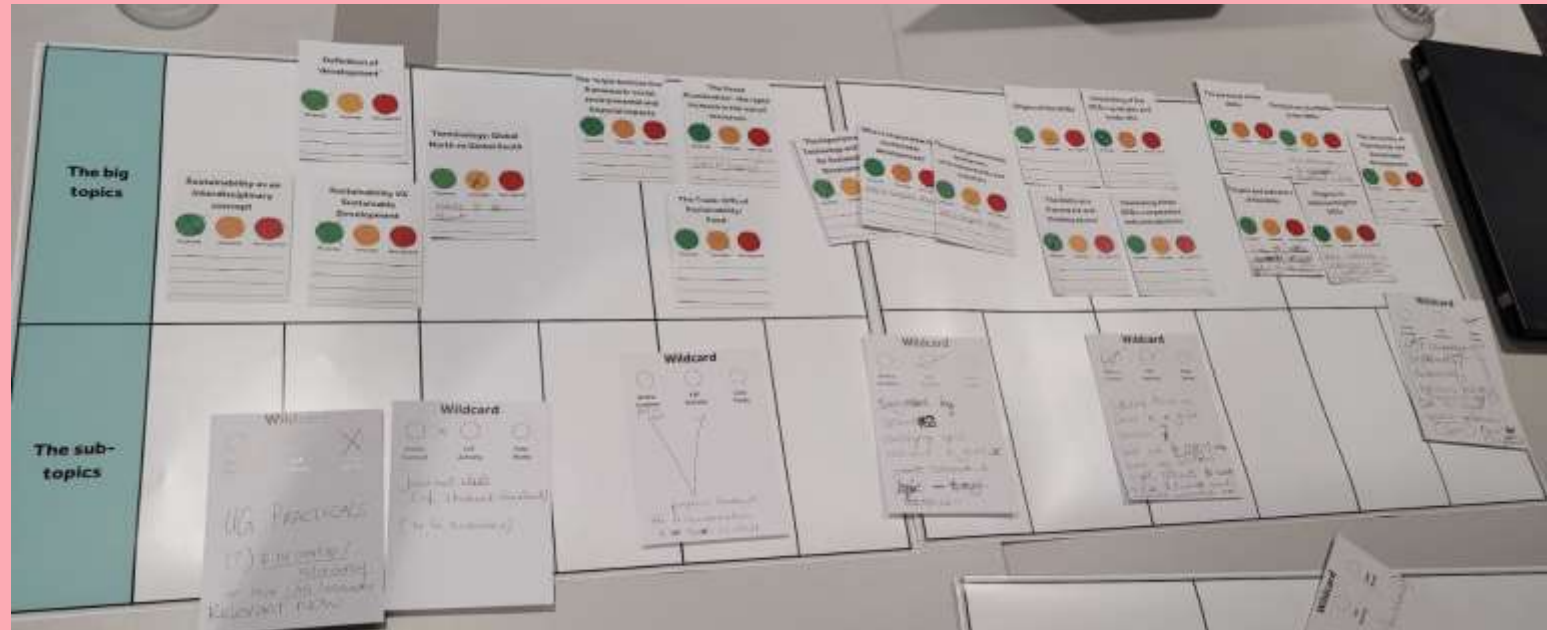
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Desirable

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Not required

Initial workshop: what to keep, remove, add, improve




Creating a Sustainable World


21st Century Challenges and the Sustainable Development Goals

The 'Creating a Sustainable World' course unit is made up of two core modules, each consisting of 3 to 5 chapters of content (as outlined below), a conclusion, active learning section and a bibliography.

Core Module 1: Sustainable Development - Meeting the Global Challenge




Introduction: Understanding Sustainable Development




The sustainability challenges facing humanity in the 21st Century




Origins and core principles of sustainable development



SDG17: Partnerships for sustainability and the SDGs



The University of Manchester, Sustainability and the SDGs



- Sustainability vs Sustainable development:** Sustainability is a long-term goal, whereas sustainable development is the means/growth required to achieve it.
- The 'triple bottom line' framework:** The environmental, social, and economic pillars of sustainable development.
- Think global, act local:** The importance of local and community-led initiatives, including student engagement, in addressing sustainability challenges.

- The Great Acceleration:** The surge in resource use and industrial activity over the past 70 years has intensified sustainability challenges.
- Cities as sustainability test sites:** Urban areas are viewed as key areas for experimenting with and implementing sustainable solutions.
- The added challenge of the climate crisis:** The heightening climate crisis calls for urgent, systemic changes in how we live, work, and govern.
- The impact of COVID-19:** The pandemic greatly disrupted progress in sustainability, but it also offered "silver linings" such as improved air quality.
- Green Recovery:** Post-pandemic rebuilding is seen as an opportunity to invest in sustainable infrastructure and policies that align economic recovery with environmental and social goals.

- The power of popular movements:** Grassroots activism are shaping global sustainability agendas and holding leaders accountable.
- Origins of the sustainable development concept:** Rooted in global efforts to integrate economic growth with environmental stewardship and social equity.
- The Politics of Sustainable Development:** National interests, inequalities, and political ideologies influence sustainable development priorities.
- The Trade Offs of Sustainability - plastics:** Reducing plastic use must be balanced with health, cost, and functionality concerns.
- The Trade Offs of Sustainability - food:** Revealing tensions between food security, environmental sustainability, and cultural practices.
- Greenwashing:** Encourages critical scrutiny of vague or misleading sustainability claims in marketing and policy.

- Sustainability as an interdisciplinary concept:** Requires input from natural and social sciences, economics, and humanities to address challenges.
- Who is responsible for sustainable development?** Responsibility is shared by individuals, institutions, and nations, but with varying capacities and influence.
- The role of governments, businesses, environmentalists, and scientists:** All contribute through policy, innovation, advocacy, and research.
- The importance of Technology and Data for Sustainable Development:** Essential for monitoring progress, informing decisions, and employing solutions.

- Institutional Commitment:** The University integrates social responsibility as a core goal, actively addressing global challenges through research, teaching, public engagement, and campus operations.
- SDG Engagement:** Demonstrating leadership in sustainability, the University has been consistently ranked among the top institutions globally for its social and environmental impact, reflecting its dedication to advancing the SDGs.

Core Module 2: The Sustainable Development Goals



The Sustainable Development Goals



Global Development in 17 Goals and 169 Targets



Leaving nobody behind: Partnership for the SDGs



- Origins of the SDGs:** Adopted by UN General Assembly as the core of the 2030 Agenda after three-year global collaboration.
- Quick overview of the 17 SDGs:** Framed by global partnership involving governments, the private sector, civil society, and individuals.
- Definition of 'development':** SDG units encourage critiquing the colonial history behind the term; the whole world is 'developing' to a sustainable future.
- The MDGs (2000) and critiques:** An unprecedented global framework to fight poverty with 8 targets. Views ranged from optimistic support to radical critique.
- Moving from the MDGs to the SDGs:** Multi-dimensional view of poverty; broader scopes; a global democratic perspective; adaptable to different settings.
- Terminology (critical use):**
 - Developing vs developed:** Oversimplified complex realities as living standards vary within countries; The SDGs encourage a global view of development challenges.
 - Global North vs global south:** More nuanced than 'first/second/third world' but still generalising; wealth and poverty don't always align with geography.

- The SDGs as a framework** (requiring systematic acts to be operationalised) and "thinking device" (to interpret global issues from multiple perspectives).
- Interdisciplinary perspective:** the many interpretations of the SDGs is from their holistic and interlinked nature, enabling fresh viewpoints but also creates challenges at all scales.
- Each SDG consists of targets:** numbered for outcomes and lettered for processes, and measurable indicators.
- Critiques of the SDGs:** The scale and number of targets and indicators make it a massive task, often viewed as unachievable without globally agreed methods.
- Proposed Alternative Classification Systems for the SDGs:** to make it more focused and manageable, Griggs and Sachs proposed simplified frameworks highlighting key topics like sustainability, inclusion, and governance.
- Interlinking of the SDGs:**
 - Complexities:** Achieving a goal/target affects others positively or negatively.
 - Synergies:** Goals can benefit each other through cross-sector cooperation;
 - Trade-offs:** Progress in one area may come at the expense of another,
 - Contradictions:** Some goals conflict, hindering simultaneous achievement.
- Progress in implementing the SDGs:**
 - Challenges:** Prioritisation of goals (limited resources); Good governance (critically managing interlinkages); urgent unsolved issues.
 - Successes:** Significant reduction in extreme poverty and child mortality; growing global cooperation.
- SDGs: the importance of data**
 - Recording progress; Our World in Data is the first broad interactive tracker;
 - Alternatives like ethnography provide rich insights but are hard to scale.
 - People left behind in data collection:** excluding marginalised groups and the wealthy skews results; attention must be given to five key factors.

- Global cooperation and customisation for each country are both necessary.
- Progress is challenged by the lack of global governance and the rise of nationalism.
- Funding the SDGs:** \$5-7 trillion required, with a major burden on the Global South; current contributions of international aid fall short of UN targets; COVID-19 disrupted funding priorities; debates going around responsibility and focus.
- The potential of the SDGs:** The SDGs hold strong potential for global change, but success depends on partnership, funding, and governance to truly leave no one behind.

'Knowledge Sharing Resource'



Course on Digital Trust and Security for working professionals


Why?

- There's currently an emphasis in HE on advancing **lifelong and flexible learning**. With the job market rapidly evolving ([The World Economic Forum, 2020](#)), short, focused courses are increasingly in demand and were recommended by the [European Commission \(2022\)](#).

How?

- Adapting the existing UCIL course, '**Trust and Security in a Digital World**', to meet the needs of industry professionals for upskilling and reskilling.

Who?

- A collaboration between **UCIL**, academics from **Criminology**, the **Flexible Learning Programme**, staff from **marketing, business engagement** as well as an **Industry Advisory Board**.
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Example of a workshop with our Industry Advisory Board

Delivery option 1

On-demand delivery
Everything released at once

Pros

- Flexible enrolment: Start whenever it suits you.
- Self-paced learning: Learner fully in control.

Cons

- Minimal evaluation: Limited engagement with peers and instructor.
- Automated assessments: Fewer options for personalised evaluation.

Your pros and cons:

Delivery option 2

Semi-flexible delivery
Content released at intervals

Pros

- Engagement opportunities: some interaction with peers and instructor.
- Diverse assessments: more options beyond automated grading.

Cons

- Fixed enrolment dates: Limited flexibility around start date.
- Structured deadlines: Key dates are fixed.

Your pros and cons:

Delivery option 3

Bespoke delivery
A fully customised experience

Pros

- More personalised learning: tailored to meet a group of learners' specific needs.
- In-person sessions: opportunities for face-to-face interaction.

Cons

- Higher cost.
- Limited places: especially with in-person components.

Your pros and cons:

Assessment card 1

Automated assessment
Examples:
Multiple choice, quizzes

What types of automated assessments could be used?

What are the benefits and drawbacks of automated assessments?

Assessment card 2

Human-graded assessment
Examples:
Portfolio, case-study

What types of human-graded assessments could be used?

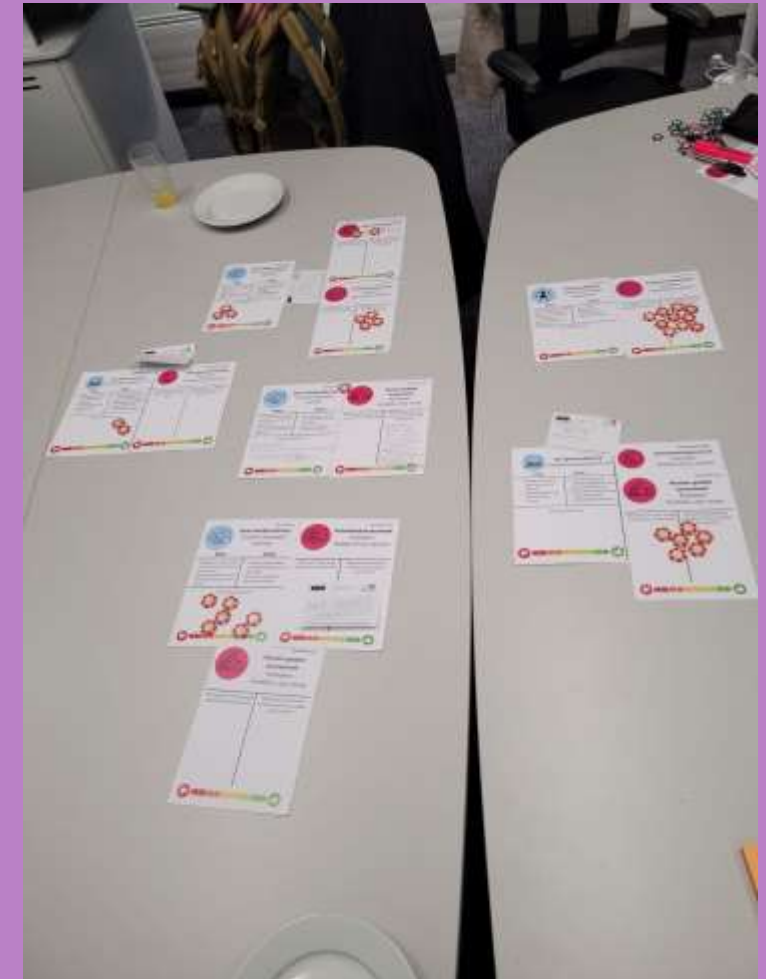
What are the benefits and drawbacks of human-graded assessments?

Assessment card 3

In-person assessment
Examples:
Presentation, debate

What types of in-person assessments could be used?

What are the benefits and drawbacks of in-person assessments?



Sustainability course: Keys Takeaways

What we loved: This project took us to the 'next level' of interdisciplinarity: making interdisciplinary content even more interdisciplinary for a specific cohort.

What we found challenging: Actively listening to a diverse range of voices, especially when perspectives occasionally conflicted.

What is rewarding: we are the common thread between the different versions of the course and our 'knowledge bank' continues to expand with each experience.

Digital Trust course: Key Takeaways

What we loved: Exploring how existing content could be creatively redeployed for a new, external audience.

What we found challenging: Complex projects demand clear coordination. With many stakeholders involved, defining roles and responsibilities upfront could have been handled more effectively.

What is rewarding: We didn't just repurpose content we're proud of—we also 'repackaged' it with a new delivery and assessment model to better suit our new audience.

Interdisciplinary materials can be effectively adapted to meet specific School needs and UK Higher Education priorities.

A 'new voice' matters—courses must feel relevant to their new audience.

Clear priorities from the start—tracking progress differs when content is pre-existing.

Conclusion

1. Repurposing and repackaging interdisciplinary materials is a **new and evolving area** for us.
2. We see **exciting potential** for the future of interdisciplinary education.
3. While it comes with challenges, the **opportunities and impact are significant**.
4. We'd love to hear from others with similar experiences to **exchange best practices**.