YOU HAVE KNOWLEDGE...NOW WHAT? SKILLS AND VALUES FOR NAVIGATING COMPLEX ENVIRONMENTAL CHALLENGES

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STER PROGRAMME

UNIVERSITY of LIFE SCIENCES in Lublin | DOCTORAL SCHOOL

POSITIONALITY:
IDENTITIES, CONTEXTS, AND COMMITMENTS

LEARNING OUTCOMES

Many in academia see their role as transferring knowledge. However, working with data and people also requires skills to critically engage with material, facilitate learning, dialogue, and reflection.

01

🎯 Skills you will practise:

- Critical thinking
- Analysis
- Reflection
- Collaboration and teamwork
- Dialogue and communication
- Presentation skills

02

🎯 You will develop the ability to:

- Understand environmental challenges as complex and interconnected
- Examine perspectives and power in environmental decision-making

03

🎯

- Translate values into action
- Understand the concept of transformative learning

04

🎯

- Engage with multidimensional frameworks of learning

MY EXPERIENCE OF NATURE ACTIVITY (CONES-SZYSZKI)

This activity invites you to engage with nature through your senses, memory, and personal experience.

Share a place in nature that feels meaningful to you, perhaps a park in Lublin, a lake in Mazury, a ski slope in the Alps, a beach in Croatia, or a forest near your village. What makes it special to you?

Image: Lubelszczyzna
Source: Author’s private collection

ENVIRONMENTAL CHALLENGES

Environmental challenges are deeply interconnected with social and economic inequalities. Shaped by both historical and ongoing processes, including the exploitation of people and natural resources, they reflect broader global systems that distribute power unevenly (Pashby & Sund, 2019).

They are connected to how our societies are organised

Environmental challenges are not only environmental

- Climate crisis
- Extreme weather events (heat waves, heavy rains, floods, droughts, tornadoes, tsunamis, etc.)
- Ecological destruction
- Biodiversity loss
- Pollution (air, water, soil)

(Steg, 2023)

Economic priorities

- Growth, production, and consumption are often prioritised over environmental limits.

Example:
Expansion of industrial agriculture increases food production, but leads to soil degradation, water overuse, intensive use of chemical inputs (e.g. pesticides), loss of biodiversity, etc.

ENVIRONMENTAL CHALLENGES

They are connected to how our societies are organised

Resource distribution and use

- Access to land, water, and energy is uneven and shapes environmental outcomes.

Example:
Extractive industries may control land and water resources, while local communities face environmental degradation.

An example from Plachimada in India shows how a Coca-Cola bottling plant extracted large amounts of groundwater, contributing to water scarcity, drying wells, and protests that led to the plant's closure, with communities still seeking compensation.

Image: A sign in front of Coca-Cola factory in Kerala, India
Source: Ruchi Shree (2012) Plachimada against Coke: People's struggle for Water.

ENVIRONMENTAL CHALLENGES

They are connected to how our societies are organised

Policies and institutions

- Environmental decisions are shaped by regulations, governance, and political priorities.

Example:
Countries such as Rwanda (in 2008) and Kenya (in 2017) have introduced strict bans on single-use plastic bags to reduce pollution, showing how policy can directly influence environmental practices.

Image: street market in Nairobi, Kenya, selling alternatives to plastic bags.
Source: Author’s private collection.

ENVIRONMENTAL CHALLENGES

They are connected to inequality

Environmental harm is caused by some countries, while others bear the consequences:

- Some regions (Europe, North America and China) contribute more to environmental damage than others.
- Countries referred to as the Global South (Asia, Africa, South America) are disproportionately affected by its impacts (e.g. climate crisis, extreme weather, food insecurity).
- Access to solutions and financial resources is uneven across regions.

Cyclon in Vanuatu in 2015.
Image: United Nations via Indgenous Times.

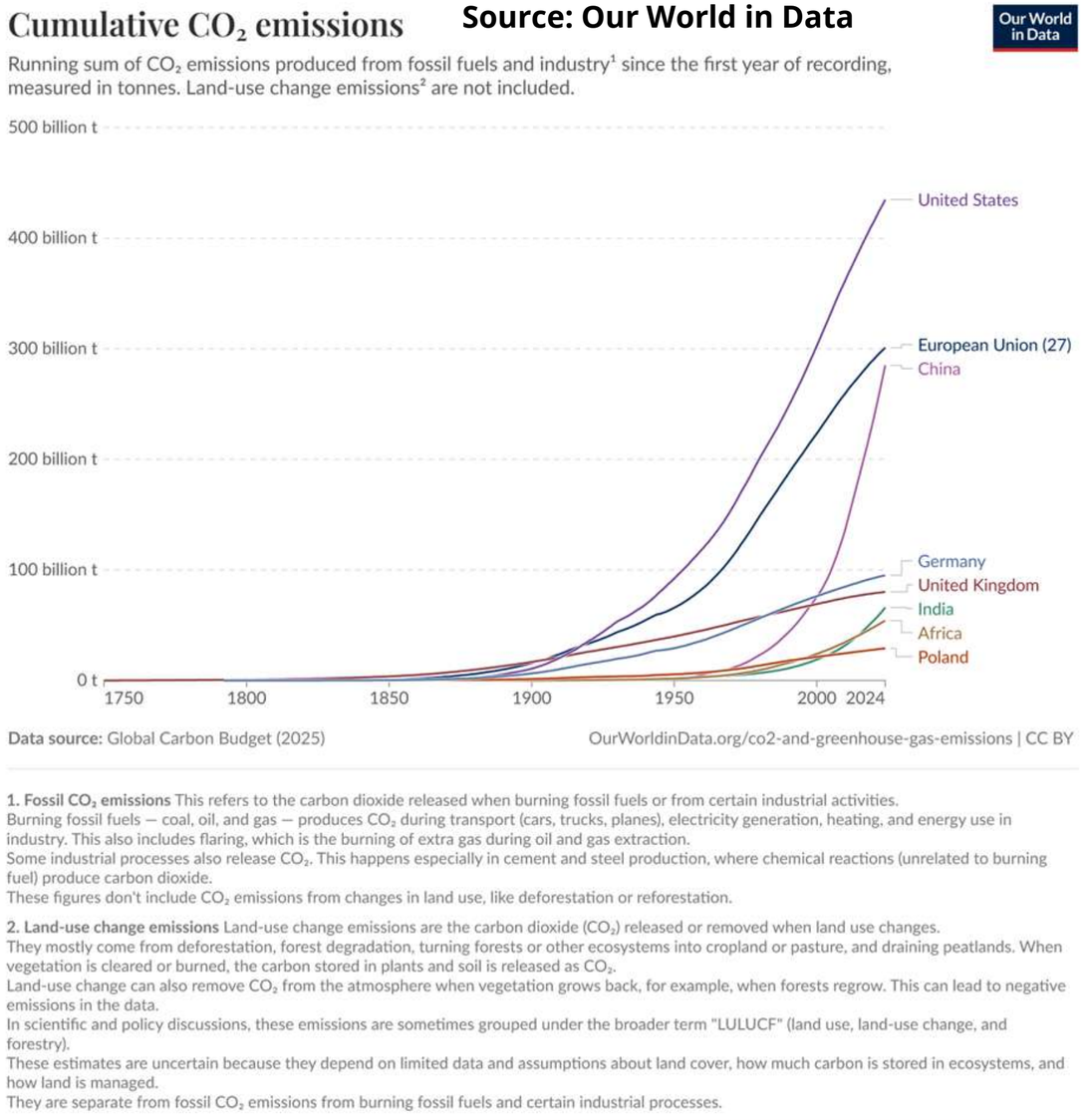
ENVIRONMENTAL CHALLENGES

They are shaped by historical processes

Patterns of resource extraction and industrialisation

- The graph shows that the United States, the European Union, and China are currently the largest contributors to cumulative CO_2 emissions.
- Historically, emissions were dominated by Europe and North America, especially during the early phases of industrialisation: By 1900, over 90% of global emissions came from Europe and the United States.
- This was supported by resource extraction and global economic relations shaped through colonial expansion.

Source: Our World in Data



ENVIRONMENTAL CHALLENGES

They are shaped by historical processes

Power, domination, and territorial control

- Territories and resources were occupied, and exploited by European states and empires (e.g. British, French, Belgian, Spanish, Portuguese, Prussian, Russian).

- Extraction operated across regions: from occupied lands in Africa, Asia, and South America to European metropoles.

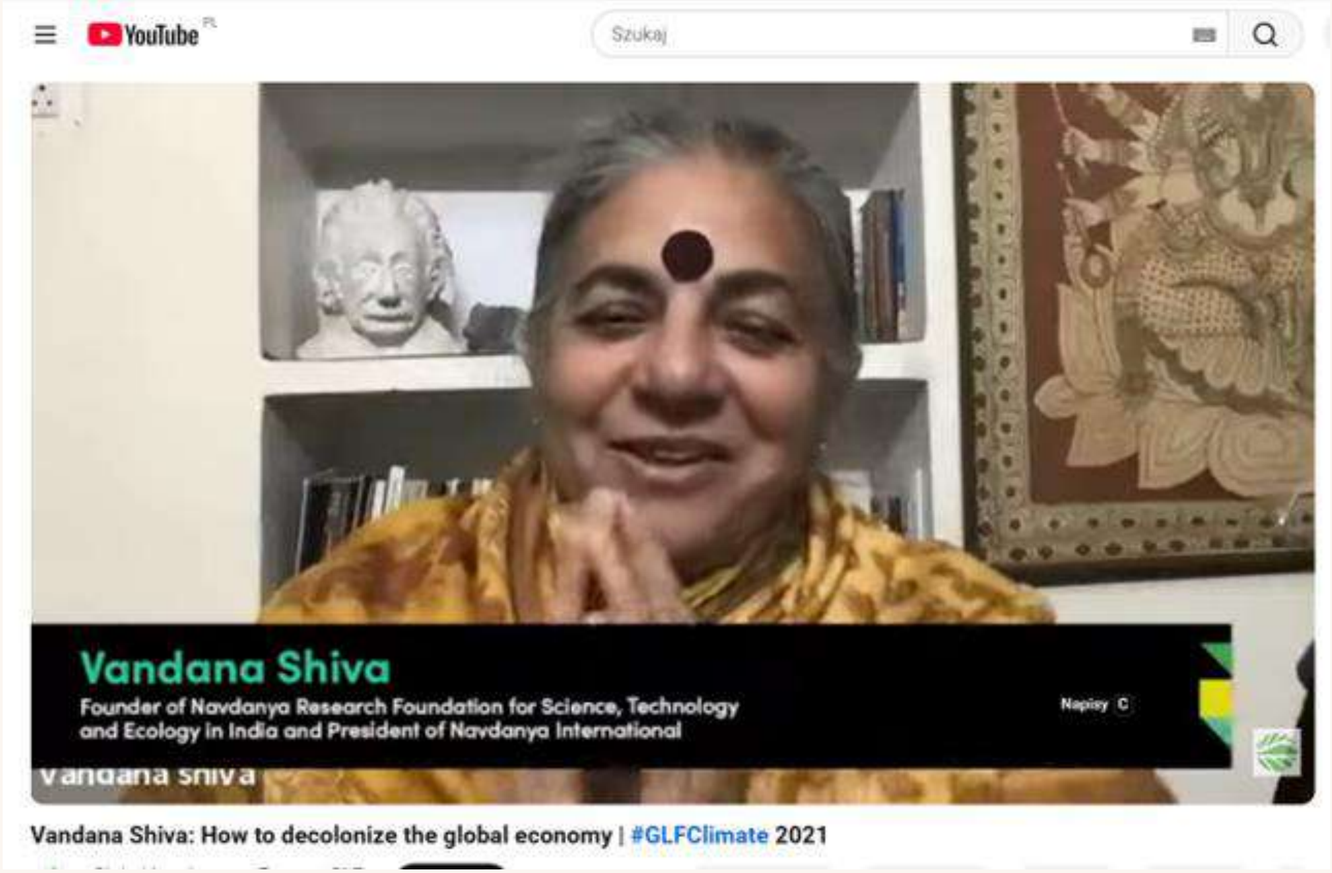
And within Europe itself, including:

- Ireland (1845–52): food continued to be exported to England while the potato crop failed, contributing to mass starvation, over a million deaths and large-scale emigration (Great Famine)
- Ukraine (1932–33): grain was forcibly taken from farmers and sent to Soviet Union contributing to widespread famine (Holodomor) and millions of deaths.

Image: Great Famine Memorial in Dublin, Ireland
Photo by Kathrina Schmidt.
Source: Wikimedia on Createive Commons.

ENVIRONMENTAL CHALLENGES SUMMARY

This short video offers one perspective on how we might rethink our relationship with nature, economy and different knowledge systems.



Title: Vandana Shiva: How to decolonize the global economy
https://www.youtube.com/watch?v=QBciZhOOr-8

SO WHAT DOES THIS MEAN FOR US?

Mentimeter activity

<u>QUESTIONS</u>

What ways of thinking about environmental challenges dr Vandana Shiva proposes?

Whose perspectives are often missing in environmental decision-making?

ENVIRONMENTAL CHALLENGES

What we can learn is that addressing environmental challenges requires both understanding how systems operate across levels:

- systemic
- collective (organisations, communities)
- individual levels

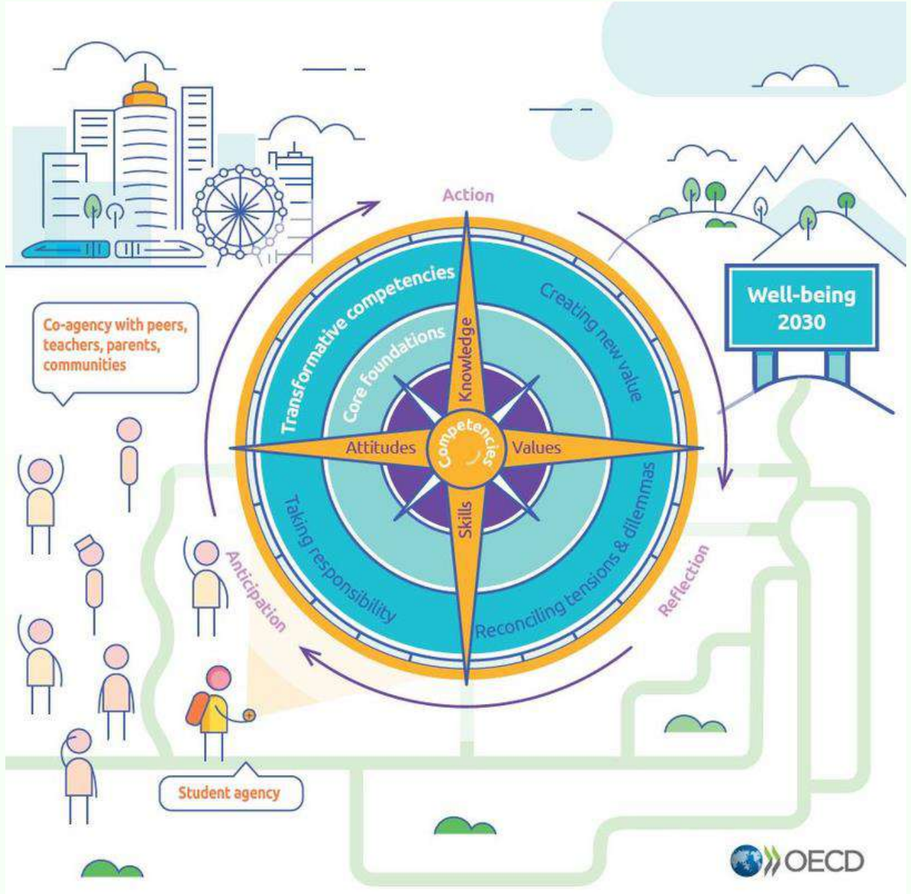
It also requires recognising their interconnected nature and that KNOWLEDGE alone is not enough. We need to be aware of VALUES and SKILLS to work across difference and engage with different ways of understanding and relating to the world.

It's about how we engage with different perspectives and navigate the power dynamics that shape whose knowledge is heard (ACTION).

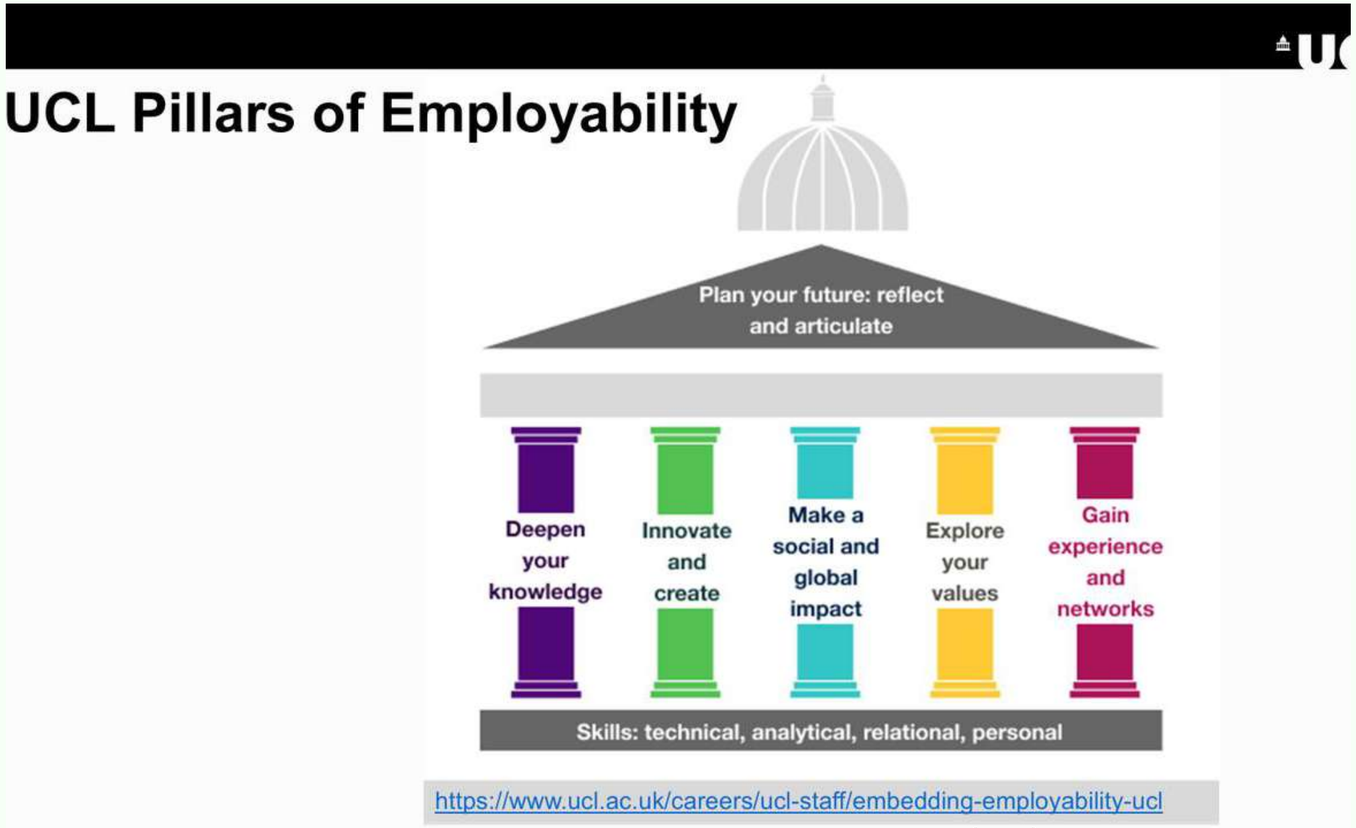
This is called transformative learning (White, Price & Hack, 2025)

IF ENVIRONMENTAL CHALLENGES INVOLVE MULTIPLE PERSPECTIVES AND POWER DYNAMICS, THEN THE KEY QUESTION BECOMES: WHAT VALUES AND SKILLS DO WE NEED TO WORK IN THIS WAY?

OECD LEARNING COMPASS 2030

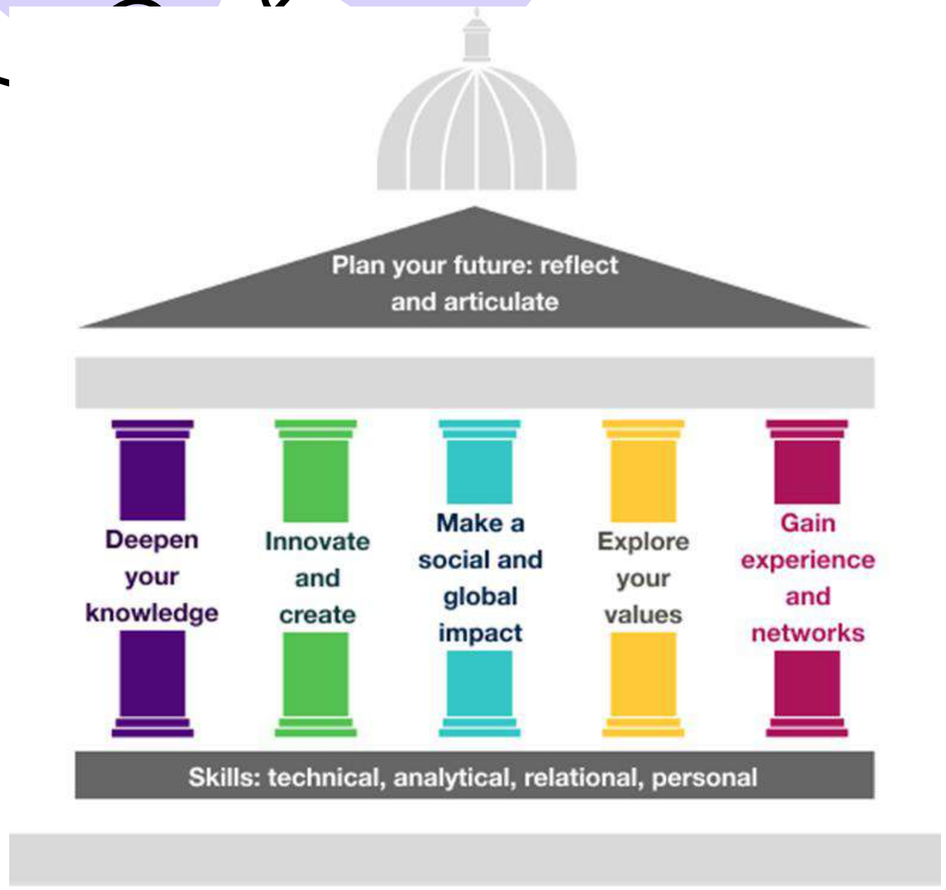


Source: OECD "Future of Education and SKills 2030 Project https://www.oecd.org/en/about/projects/future-of-education-and-skills-2030.html#publications



Source: University College London (UCL)

SKILLS AWARENESS



Relational skills:
Communication, Teamwork, Leadership

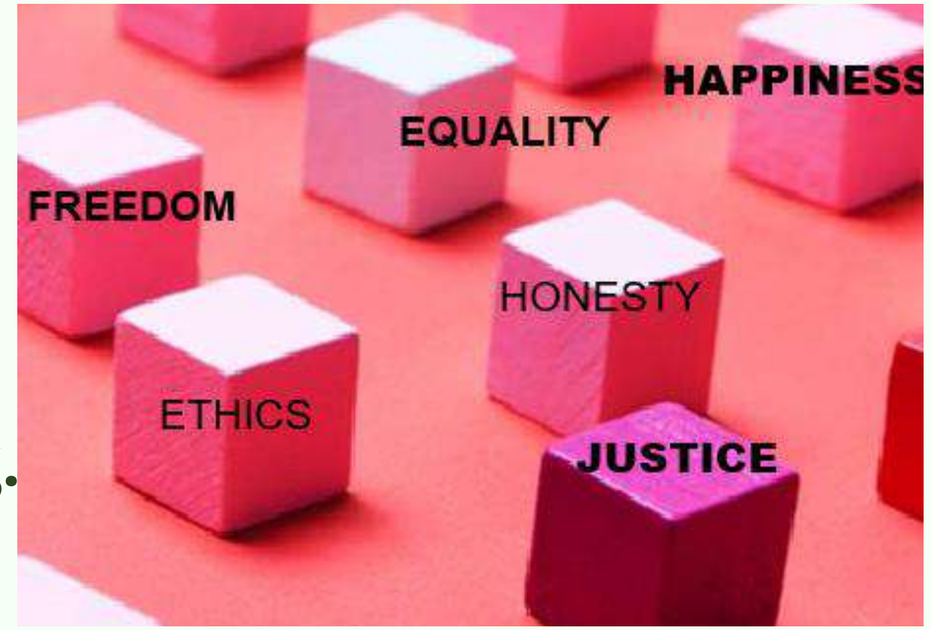
Analytical skills:
Critical thinking, Data skills

Personal skills:
Building resourcefulness and resilience
Adaptability
Planning and organising

Technical skills:
AI literacy, Competent use of digital tools and software, Awareness of your digital footprint

WHAT ARE VALUES?

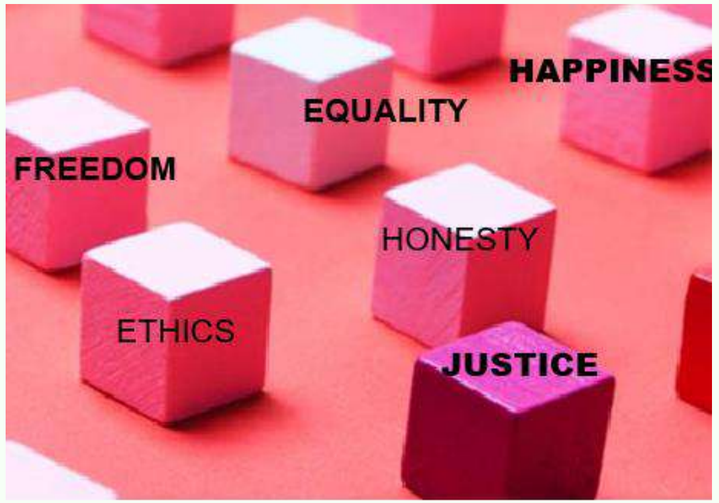
- **Principles, virtues, ideals, desirable goals (Tappolet & Rossi, 2016).**
- **Guide our choices, behaviours, and life decisions (Schwartz, 2016).**
- **Influence how we understand right and wrong.**
- **They are shaped by our social and cultural environments (Boer & Boehnke, 2016).**



EXPLORE YOUR VALUES

Accountability
Achievement
Adaptability
Adventure
Ambition
Authenticity
Balance
Beauty
Belonging
Career
Caring
Collaboration
Commitment
Community
Compassion
Confidence
Cooperation
Control
Courage
Creativity
Curiosity
Dignity
Diversity
Environment
Equality
Ethics
Excellence
Faith
Fairness
Family
Forgiveness
Freedom
Friendship
Fun
Generosity
Gratitude
Growth
Harmony
Health
Honesty
Hope
Humility
Inclusion
Independence
Integrity
Intuition
Joy
Justice
Knowledge
Leadership
Love
Order
Patriotism
Peace Power
Recognition
Reliability
Respect
Responsibility
Risk-taking
Safety
Security
Spirituality
Sportsmanship
Stewardship
Success
Sustainability
Teamwork
Tradition
Travel
Trust
Truth
Wealth
Well-being
Wisdom

Please choose 5 values most important to you



FROM VALUES TO ACTION

(adapted from the Good Project)

What is one small action you will take this week to live one of your values more intentionally?

Take a moment to reflect:

- What is something you want to start doing?
- What is something you want to do more intentionally?

Choose the values identified earlier and for each value, add a verb (action) that shows how you want it to guide your behaviour.

UCL Pillars Framework

https://www.ucl.ac.uk/careers/ucl-staff/embedding-employability-ucl

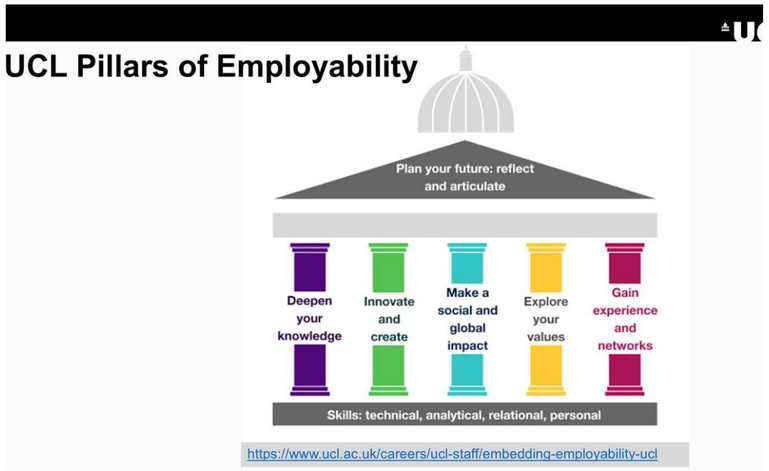
Make a social and global impact

Engage in a rich diversity of local and global opportunities, connecting with wider communities

- Consider **cross-cultural awareness**: how do other cultures and environments shape, intersect and interact? Explore initiatives such as equality, diversity and social justice
- Connect to a local or global **community** e.g. through the Students' Union clubs, societies, volunteering and student networks
- Consider social, environment and economic issues as part of **sustainability** and **social responsibility**. Familiarise yourself with the UN Sustainable Development goals

Want to build on this Pillar? Get started with the Make a social and global impact Pathway.

UCL Pillars Framework

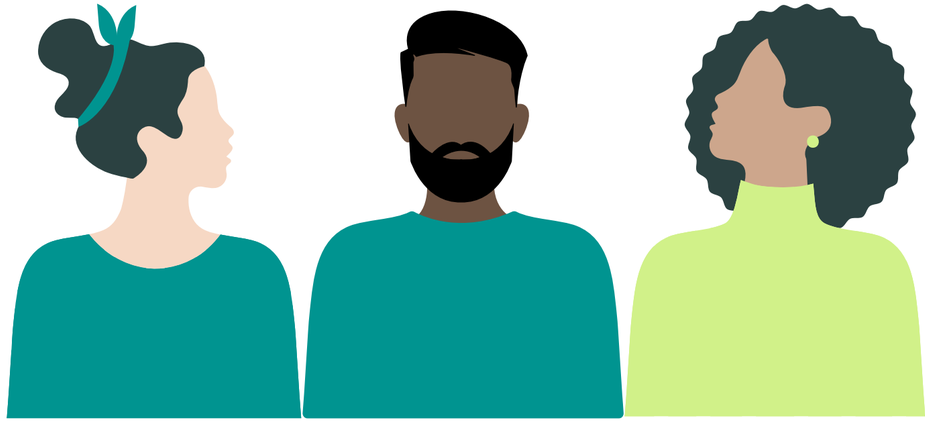


Gain experience and networks

Take part in different activities and build your network to test out different roles - all experience counts!

- Find out what **motivates you**
- Explore preferred **sectors and roles** - check out careers events, volunteering, research, work experience/work-related learning
- Attend **networking** events
- Take on lots of different **opportunities**: Students' Union clubs, societies, sports, extracurricular activities, ExtendED learning opportunities, part-time work - whatever appeals to you!

Group Work

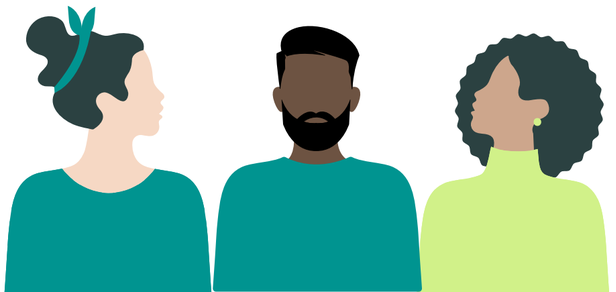


Working with Complexity: Analysing Texts

Dolina Bawole Serce (Buffalo Heart Valley)

From Forests to Oceans: Meet five Earth Defenders (starting with Valentino Engobo)

From Forests to Oceans: Meet five Earth Defenders (starting with Maria Socorro)



Vanuatu takes stand on UN climate change resolution

Elon Musk champions desalination at World Water Forum: "Freshwater crisis is solvable

Looming water supply 'bankruptcy' puts billions at risk, UN report warns

Revealed: Big tech's new datacentres will take water from the world's driest areas

Looking Beyond the Surface: Ethical and Critical Approaches to Environmental Issues

Adapted and inspired by HEADS UP framework (Andreotti, 2012; Pashby & Sund, 2019)

🔍 1. Understanding the context (BACKGROUND)

- What is the article/case study about?
- What area(s) does it engage with (e.g. environment, society, economy, technology, community)?
- What key issue or opportunity is being addressed?

🧩 2. Factors and context

- What internal and external factors shape this situation or initiative?
- What elements connect to historical processes (if it's relevant to your scenario, it can be colonialism, extraction, slavery, or power dynamics between countries)
- How does this case link to wider local and global issues (human rights, environmental degradation, poverty, etc.)

🔗 3. Interconnected responsibility

- In what ways are we connected to this issue or initiative -directly or indirectly? (e.g. through our use of technology, consumption patterns, or living in countries that contribute to CO_2 emissions)
- How could we choose to engage with this issue or initiative? (e.g. by raising awareness of this issue or if positive supporting the initiative, getting involved in practical ways such as volunteering)
- In what ways might governments or institutions (past or present) be connected to this situation?

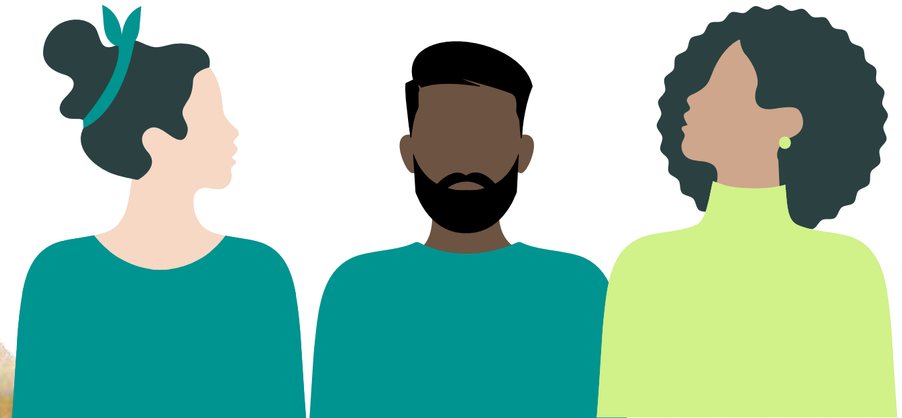
👥 4. Perspectives and power

- Whose perspectives are most visible in this text?
- Which groups are involved in shaping decisions or actions?
- Whose voices might be missing, less visible, or marginalised?

🌱 5. Values, practices, and possibilities

- ·What values are reflected in this initiative or context or what values are being degraded?
- What can we learn from this example for addressing environmental challenges?

Group Work Presentations



REFLECTION TIME

Mentimeter activity

QUESTIONS

What's one important thing that you've learned from the presentations?
What’s one small action you could take this week to respond to environmental challenges?

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Thank you very much!

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