The Critical Sustainability Stories (CriSS) Tool

– Guidance for Users

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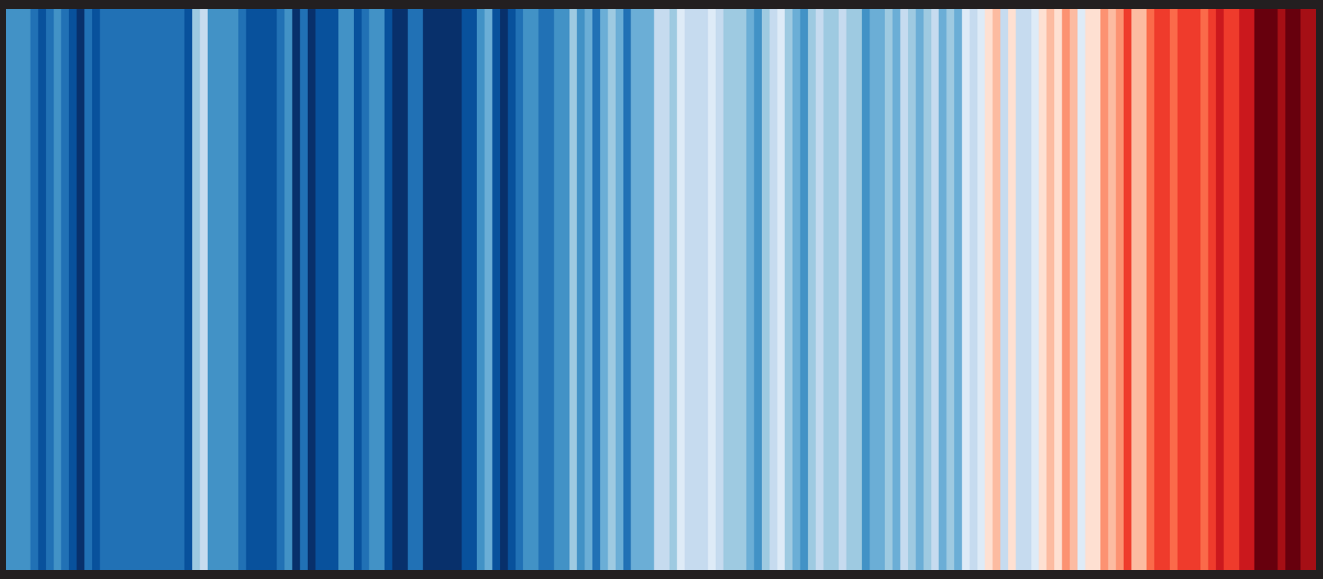

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This project was funded by the Arts and Humanities Research Council through the Creative Media Labs: Innovation in Screen Storytelling in the Age of Interactivity and Immersion programme XR Stories at the University of York.

If you have questions about the Critical Sustainability Stories Tool or would like to work with Dr Alexandra Dales and Dr Rory Padfield please contact as via the details above.

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The Critical Sustainability Stories (CriSS) Tool

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WHAT DOES THIS GUIDE DO?

The guide is a result of a research project 'Sustainability Stories: Investigating the UK Creative Industry and the Communication of Sustainability' which was funded by the Arts and Humanities Research Council through the Creative Media Labs: Innovation in Screen Storytelling in the Age of Interactivity and Immersion programme XR Stories at the University of York.

This guide aims to support communicators in using the Critical Sustainability Stories Tool (CriSS) developed by Dr Alexandra Dales (York St John University) and Dr Rory Padfield (The University of Leeds). This guide does the following:

Providing clarity about the CriSS Tool:

The guide sets out the purpose and explains the different components of the tool and how they work together.

Explaining how to use the CriSS Tool:

The guide outlines how users can engage with the CriSS Tool and how to implement it effectively and efficiently when developing stories about sustainability and climate issues.

Introducing strategies for finding information:

The guide includes advice on how to research information, plus links to information sources useful for the development of new sustainability and climate related stories.

Supporting communicator learning:

The guide includes explanations of critical thinking and links to information that can help users understand the concepts and principles behind the tool. CriSS supports learning and promotes the creation of new knowledge.

How To Use The Critical Sustainability Stories Tool

WHAT IS THE CRITICAL SUSTAINABILITY STORIES (CRISS) TOOL?

The CriSS tool is designed to help communicators consider the messaging and information used within stories so that they are told in a way that incorporates a rigorous and organised approach to complex ideas, and involves evidence-based research and expert knowledge. The CriSS tool invites users to reflect, discuss, and learn about sustainability and climate issues, a process designed to advance their research skills and global challenge literacy. Use of the CriSS Tool will ultimately increase the inclusion of evidence-based research and expert knowledge, and therefore the quality and reliability of content on sustainability and climate change challenges for audiences.

THE CRITICAL SUSTAINABILITY STORIES (CRISS) TOOL AIMS TO:

- Increase storyteller engagements with academic research and knowledge from experts by experience ('expert knowledge spheres')
- Advance communicator skills through developing critical thinking
- Grow professional discourse on sustainability transitions and climate change in the creative sector (and thereby global challenge literacy)
- Improve quality of knowledge content available to audiences and thereby increase global challenge literacy of audiences
- Close the information deficit between rigorous research/ expert knowledge spheres and wider society

WHO CAN USE THE CRITICAL SUSTAINABILITY STORIES TOOL?

The CriSS Tool has been designed for professional communicators and storytellers who are developing stories about sustainability and climate challenges. Communicators are recognised to be a diverse cohort of actors (e.g., broadcasters, heritage interpreters and curators, artists, musicians, film makers, extended reality (XR) producers, advertisers, professional storytellers) involved in the design and production of a similarly broad range of creative content (e.g., TV, film, virtual production, multimedia arts, advertising, theatre, museums and galleries, social media, and immersive and interactive digital technologies) that operate across economic sectors and for a variety of purposes.

The Critical Sustainability Stories Tool

CRITICAL ACTIVITY

Critical Content

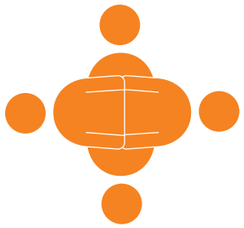
How does the story describe the sustainability/climate issue(s)?

How will the story offer explanation for, or evaluation of, the issue?

How does the story explore connections between different sustainability/climate issues?

How does the story make connections between different contexts (e.g., specific places, local and global scales)?

Does the story explore strategies or actions for tackling the sustainability/ climate issue?



AUDIENCE

Target audience

Who is the target audience(s) for the story?

Behaviour change

Does the story include prompts to change audience behaviour?

What types of behaviour change does the story target (e.g., collective, or individual)?

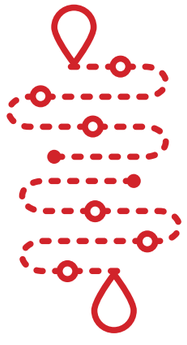
How might audience behaviour change be measured/ assessed?

Language

How can language in the story be used to inform the audience?

Script

How will you balance emotion and factual information for the audience through the script?



STORYTELLING

Reflection

How is critical thinking, and learning and reflection encouraged during production of the story?

Advisory groups

How might advisory groups help to develop the story?

Experts by experience

How might experts by experience (i.e., communities, industry experts, academic researchers) advance the content of your story?

Are you speaking to stakeholders with knowledge of the issue?

Technology

Is the technology used in the production of the story helping or hindering critical communication to the audience?

CONTEXT

Location

How does the location at which the sustainability/ climate issue occurs shape the story?

How does the scale (local, national, regional, global) at which the issue occurs impact the story?

Representation

Are diverse and contrasting stakeholder experiences shared in the story?

How does the story explore diverse communities impacted by sustainability/ climate issues?

Relationships and impact

How does the story examine the relationships and connections between places?

Time

How does the timeframe (past/present/ future) shape the story?

QUALITY OF INFORMATION

Evidence

Is the information in the story evidence-based?

Knowledge categories

What categories of information are included in the story (e.g., historical, economic, social, political, legal, environmental, social justice)?

How will you use the information available to you to accurately represent the sustainability/ climate issue?

Accuracy

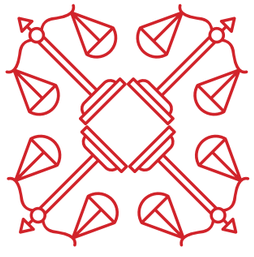
Is all data reliable, verifiable, and representative of reality?

Transparency

Are you able to be transparent with the audience about information sources?

Trust

How will you generate trust in the story amongst the audience?



JUSTICE

Ethics

Has information for the story been collected in an ethical manner?

Justice

How does your story explore social justice for communities affected by sustainability/ climate issues?

How does your story explore environmental justice?

Responsibility

How will the story explore who is responsible for the sustainability or climate issue (e.g., individuals, organisations, governments, systems of activity and interaction)?

Adaptation and mitigation

How does the story consider adaptations or mitigation measures (e.g., social, economic, or environmental) associated with aspects of sustainability and climate change?

How can I use the CriSS Tool?

The CriSS Tool has six themes – Critical Activity, Audience, Storytelling Journey, Context, Quality of Information and Justice – and each include five to six questions. Each theme has been designed to prompt reflection and comprehensive discussion of sustainability and climate issues being explored within new creative content. You can find out more about the rationale for each theme in the accompanying Sustainability Stories project report available at **https://xrstories.co.uk/about/publications/.**

The CriSS Tool themes do not need to be worked through in a linear way, but rather users can start with the theme that they are most interested in first.

The CriSS Tool can be used for as long as it is needed and throughout the story development process.

Each question within the six themes acts as prompt for deeper consideration of: a) aspects of sustainability, and climate change (e.g., social justice, or the environmental and ecological processes that connect different parts of the world); and b) how evidence-based research and expert knowledge may shape different aspects of the story that is being developed.

Users can use the CrISS Tool in the following ways:

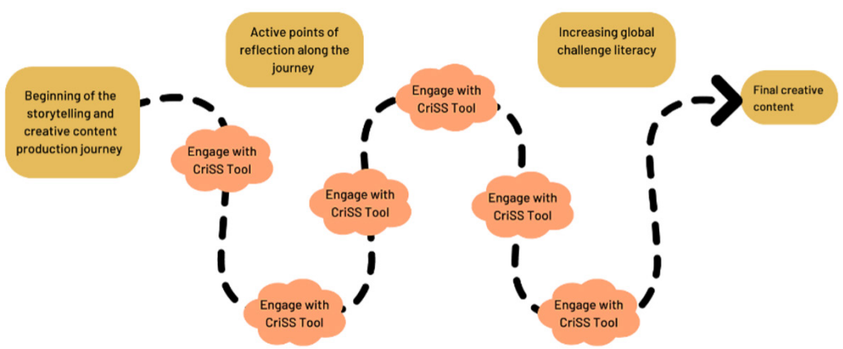
- On an individual basis or when working as part of a production team

Individual users can:

- Scan all questions and highlight those which jump out/ seem most relevant
- Identify which questions prompt direct action (e.g., to collect specific data, or lead to further discussions)
- Select the themes and/or specific questions to create actions along the timeline of a production journey
- When working in groups or as team leaders' users can:
- Use the tool to organise discussions with stakeholders/ collaborators
- Return to the tool periodically to refresh thinking and focus individually and when working in teams
- Create space for reflection and discussion in groups and individually
- Be used to show audiences, funders, stakeholders and collaborators that a structured and informed approach to considering sustainability and climate change issues was employed in the development of creative content
- Show how content and production journeys have incorporated rigor and connections to evidence-based data and research
- Be used within grant applications for project funding to demonstrate an organised approach to

In sum, the CriSS Tool is designed to be flexible to support the very diverse contexts and production processes involved in story creation. The figure below demonstrates the iterative nature of the tool, and the questions within the six themes may become more or less relevant at different points during the production journey.

Figure 1. Schematic of the story production journey



Guidance on critical thinking and how to identify reliable, trustworthy information

What does it mean to be critical?

Critical communication outputs utilise evidence-based information to inform, educate and/or inspire change in audiences. Identifying trustworthy and relevant information is key to ensuring that the output can grow audience understanding and generate both behavioural change and collective action that is progressive in addressing sustainability and the climate crisis.

Key critical thinking activities

Being critical
Questioning material and not agreeing with it simply because the material is published.

Synthesize
Combining information from a range of sources.

Classify and list
Grouping information and identifying a name based on their commonalities.

Define key terms
Defining terms used so that readers understand what is meant to avoid misinterpretation.

Projection
A prediction of future change.

Compare and contrast
Looking for similarities and differences between things.

Academic argument
Making a point that is impersonal, logical, and evidence-based to analyse, make a case or convince a reader/ listener.

Identifying trends
The general direction that something is developing or changing over time.

Source: The activities listed above were inspired by the Manchester academic phase bank resource https://www.phrasebank.manchester.ac.uk/

Strategies for finding trustworthy information.

Finding trustworthy sources of information is essential when developing a story about sustainability or climate change.

It is important to gather information from credible sources and to not rely upon a single study or source. Instead, drawing information from a range of reliable sources increases the accuracy, reliability and trustworthiness of the story produced.

The topic of your story will guide the kind of research you will need to do, and the information and resources you need to use to produce your story.

Here are different ways to find the information you need:

Identify the question or problem that you want to explore/ communicate.

1. Browse the websites and publications/ resources of reputable organisations and stakeholders that have done work on related questions/ problems to those that you are interested in.
2. Read newspapers and magazines to identify current events and up to date links to reports but consider their biases and ensure that you support the information that you find with more reliable/ trusted sources of information.
3. Explore online scholarly databases for peer reviewed research materials. Google Scholar is a great start. Some of the research may not be accessible if you do not have an institutional account. Libraries can support you with accessing materials or direct you to a researcher/ university partner whom you can collaborate with.

Potential sources of trustworthy information.

Here are examples of the types of resources you can access, and the type of information associated with them:

Stakeholders (including experts by experience, underrepresented communities, i.e., those with direct knowledge understanding and experience of the issue)

Academic researchers (see note below on how to find academics with the expertise you need)

Newspapers, magazines, periodicals (off and online)

Books (check your local university library for access and librarian support)

Published reports (of organisations, government, businesses, charities, communities)

Websites (of organisations, government, businesses, charities, communities)

Research papers in academic journals (check your local university library for access and librarian support)

Existing creative content (always check for supporting data sources)

Assessing the trustworthiness of information

Here are some examples of how to assess the trustworthiness of the information you may gather.

Academic articles

Aim to identify articles that have been published in peer reviewed scholarly journals as they have been independently assessed and reviewed, and as such can be considered highly trustworthy. There are nonpeer- reviewed journals, but these should be considered less trustworthy.

Books

Books are typically trustworthy as the publisher takes responsibility for their truthfulness. Books that include a bibliography of sources are typically more trustworthy. Avoid fiction books as they are not based on real life or real events. If using an autobiography or similar, they may be non-fiction, but they present the views from one angle, and so this will need to be acknowledged.

Reports

Reports offer useful and up to date information. However, it is important to consider the institution that published the report. Are they biased by political or financial ties? Also, assess whether the report discloses the methods used and how many participants (if relevant) were included.

Websites

Websites can provide good information – if they are referenced. If news/information is provided without sources, then it may not be trustworthy or reliable. Consider whether the site is valid and trustworthy. Is the website sponsored? Are the names of those who wrote the content disclosed? When was the website last updated? Does the website sell something that may impact the information?

Newspapers and magazines

Newspaper or magazine articles are a good source of current information but consider if the content is published by or reported by a reputable media organisation. News organisations often have stakeholders and political slants which may impact on what information is shared and how it is presented.

Evaluating the credibility of a source – key questions to ask

When you find an information source, it is essential that you assess its credibility. To do this, work through these key questions:

When was the material published?

Is the piece relevant? If it was published more than 10 years ago, it is unlikely to provide credible and up to date material.

What is the depth of the material?

How long is the article? Does it contain an abstract? Is data included?

Who is the target audience?

The target audience of a piece may bias what information is presented.

What is the aim of the piece?

What is the goal of the piece? Is material being presented in a way to persuade the reader of a certain frame/ way of thinking?

Who is the author?

Is the author reputable? Have they published any other materials? What are their qualifications?

Is the material in the piece supported?

Does the piece include a list of references/ further reading? Can the claims being made be supported/ proven?

Key Resources

Where to find useful and relevant information about Climate Change and Sustainability

350.org

Using the power of collective individuals internationally to stop oil and gas development and move to 100 percent renewable energy. Website: https://350.org/

Tools, resources, graphics and photos: https://350.org/resources/

C40

C40 brings together a network of megacities from around the world, allowing them to drive climate action through collaboration and knowledge sharing. Website: https://www.c40.org/.

News and insights from cities around the world and their climate action work: https://www.c40.org/news/

Climate Alliance

Climate Alliance is one of the largest European city networks dedicated to climate action. The Alliance promotes actions to slow climate change in both European municipalities and the Amazon River basin. Website: https://www.climatealliance.org/home.html

Tools and methods for climate action: https://www.climatealliance.org/activities/tools-and-methods.html

Climate and Development Knowledge Network (CDKN)

The Climate and Development Knowledge Network works to enhance the quality of life for the poorest and most vulnerable to climate change. Website: https://cdkn.org/

Achieving the SDGs at the community level report: https://cdkn.org/resource/voices-frontline-covid-19-what-can-we-learn-about-achieving-sdgs-community-level-synthesis-report

Climate Cardinals

Climate Cardinals' mission is to translate climate information into the native language of those who don't speak English. Website: https://www.climatecardinals.org/

Documents with translations: https://drive.google.com/drive/folders/1cQfnSJgoSwEGa-dfe8-gqzune_TqhlLh

Key Resources

Citizen's Climate Lobby

Citizens' Climate Lobby pushes for nonpartisan policies to address climate change. Website: https://citizensclimatelobby.org/

Climate advocacy training: https://citizensclimatelobby.org/climate-advocate-training/

Projects and resources across several topic areas impacting the climate: https://www.theclimategroup.org/energy

Climate Group

The Climate Group is working toward net-zero emissions by 2050 by holding organizations accountable for climate commitments they make. Website: https://www.theclimategroup.org/.

Earthrise Studio

Earthrise is an organisation that tells stories of hope, of new possibility. It aims to humanise the impacts of the climate crisis by sharing the diverse experiences of those living on the frontlines of climate change. https://www.earthrise.studio/

Gender Climate Change

Gender CC acknowledges that women play an important role in fighting climate change. This global network of organizations, experts, and activists are working to integrate gender justice into climate justice by raising awareness and empowering women. Website: https://www.gendercc.net/home.html.

Information and resources about women and climate change: https://www.gendercc.net/gender-climate.html

Health and Environment Alliance

HEAL works to shape laws and policies that protect planetary and human health and raise awareness about the benefits of mitigating climate change. Website: https://www.env-health.org/.

Publications and resources: https://www.env-health.org/publications/

Julies Bicycle

Julie's Bicycle supports the global Creative Climate Movement, helping artists use their creativity to become climate activists. Website: https://juliesbicycle.com/

Resources: https://juliesbicycle.com/resources/

The Creative Industry Green Tools

The Creative Industry Green Tools, a set of free online carbon calculators. Website: https://ig-tools.com/login

United Nations Climate change (UNFCC)

The UNFCCC secretariat (UN Climate Change) is the United Nations entity tasked with supporting the global response to the threat of climate change. Secretariat website: https://unfccc.int

Resources pooled by the secretariat: https://unfccc.int/resource

United Nations Educational, Scientific and Cultural Organization (UNESCO)

The United Nations Educational, Scientific and Cultural Organization [a] is a specialised agency of the United Nations (UN) aimed at promoting world peace and security through international cooperation in education, arts, sciences and culture. Website: https://www.unesco.org/en

UNESCO skill development and climate change action plans: https://unevoc.unesco.org/pub/skills_development_and_climate_change_action_plans.pdf

United Nations Framework Convention on Climate Change (UNFCCC) Technology Executive Committee (TEC)

The Technology Executive Committee (TEC) is the policy arm of the Technology Mechanism. It focuses on identifying policies that can accelerate the development and transfer of low-emission and climate resilient technologies. Website: https://unfccc.int/ttclear/tec

Report on strengthening national systems to enhance action on climate change: https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/TEC_documents/5be1bf880cc34d52a4315206d54a711b/60d1580f741a4bc783da5a00cf64a879.pdf

Yale Program on Climate Change Communication

Conduct scientific studies on public opinion and behaviour; inform the decision-making of governments, media, companies, and advocates; educate the public about climate change; and help build public and political will for climate action. Website: https://climatecommunication.yale.edu/.

Visualisations and data tools: https://climatecommunication.yale.edu/visualizations-data/

Intergovernmental Panel on Climate Change

The Intergovernmental Panel on Climate Change (IPCC) is the United Nations body for assessing the science related to climate change. Website: https://www.ipcc.ch/

Recent report including 'Current Status and Trends', 'Long-term Climate and Development Futures', and 'Near-term Responses in a Changing Climate': https://www.ipcc.ch/report/sixth-assessment-report-cycle/

Doughnut Economics

Doughnut Economics proposes an alternative economic mindset that offers a way of thinking to bring about the regenerative and distributive dynamics that this century calls for. Website: https://doughnuteconomics.org/about-doughnut-economics

Tools to enable action: https://doughnuteconomics.org/tools

Living Well within Limits (LiLi)

LiLi is a project that aims to foster a public discussion about the meaning of a "good life" and what it could look like in a society that operates within the means of the living planet. Website: https://goodlife.leeds.ac.uk/

A paper highlighting current planetary boundaries for over 150 nations: https://www.nature.com/articles/s41893-018-0021-4

Circular Economy

The Ellen MacArthur Foundation is a non-profit organization that is dedicated to promoting the concept of a circular economy. This aims to eradicate waste and pollution, maximize the value of products and materials through reusing and recycling them, while also restoring natural resources. Website: https://ellenmacarthurfoundation.org/

Key concepts: https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/key-ideas

Information on Critical Thinking:

Critical language/key terms:

The University of Manchester:

Manchester University Academic Phrasebook: https://www.phrasebank.manchester.ac.uk/

What is critical thinking?

The Foundation for Critical Thinking

https://www.criticalthinking.org/pages/defining-critical-thinking/766#google_vignette

The University of Leeds: https://library.leeds.ac.uk/info/1401/academic_skills/105/critical_thinking

Assessing the quality of the information collected:

Assessing the credibility of a source

Columbia University credibility guide: www.cc-seas.columbia.edu/integrity/evaluating-credibility

Guidance on how to search for reliable information.

University of Manchester: https://www.escholar.manchester.ac.uk/learning-objects/mle/packages/searching/

Evaluating Sources of Information

University of Manchester: https://www.escholar.manchester.ac.uk/learning-objects/mle/evaluating-sources/story_html5.html

A to Z of key terms

Augmented reality
An interactive experience that combines the real world and computer-generated content.

Climate Change
Long-term changes in the Earth's climate, including changes in temperature, precipitation, and weather patterns, that are primarily caused by human activities, such as the burning of fossil fuels and deforestation (NASA, n.d.). These activities lead to an increase in greenhouse gas emissions, which trap heat in the Earth's atmosphere and cause the planet to warm up. This warming has wide-ranging effects on the planet, including rising sea levels, more frequent and severe weather events, and changes to ecosystems and the distribution of plant and animal species.

Baseline
A starting point used for comparisons between two-time points.

Critical thinking
The act of analysing available facts, evidence, observations, and arguments to form a judgement.

Narrative
An account of a series of related events or experiences.

Storytelling
The act of sharing stories using words and/or images.

Sustainability
Sustainability refers to the ability of "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987). This is a process that involves balancing economic, social, and environmental considerations to ensure that we can continue to thrive as a society while preserving natural resources and ecosystems for future generations (Brundtland, 1987).

Sustainable development
Describes the policies, projects and investments that provide benefits today without sacrificing environmental, social and personal health in the future.

Sustainability transition
Sustainability transition refers to 'long-term', multi-dimensional, and fundamental transformation processes through which established socio-technical systems shift to more sustainable modes of production and consumption" (Markard et al., 2012: 956).

Circular Economy
A systems solution framework designed around principles of i) Eliminate waste and pollution; ii) Circulate products and materials (at their highest value); and iii) Regenerate nature (Ellen MacArthur Foundation, n.d.).

Planetary Boundaries
A set of nine planetary boundaries within which humanity can continue to develop and thrive for generations to come. These boundaries are: 1) Climate change; 2) Biodiversity integrity loss; 3) Altered biogeochemical cycles; 4) Land system change; 5) Freshwater use; 6) Ocean acidification; 7) Chemical pollution and novel entities; 8) Ozone layer; and; 9) Atmospheric aerosol loading (O'Neill et al., 2018).

Doughnut Economics
Visual framework for sustainable development – shaped like a doughnut or lifebelt – combining the concept of planetary boundaries with the complementary concept of social boundaries (Raworth, 2017).

Key Terms References

Brundtland, G. H. (1987). Report of the World Commission on Environment and Development: Our Common Future. WCED available at: https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf

Ellen MacArthur Foundation. (n.d.). Circular Economy Introduction - Overview. https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview accessed on 20 March 2023

NASA. (n.d.). Climate Change: How Do We Know? Available at: https://climate.nasa.gov/evidence/ accessed on 20 March 2023

O'Neill, D., Fanning, A., Lamb, W. and Steinberger, J. (2018), "A good life for all within planetary boundaries", Nature Sustainability, pp. 88–95.

Raworth, K. (2017), Why it's time for Doughnut Economics. IPPR Progressive Review, 24: 216-222. https://doi.org/10.1111/newe.12058

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