

# A Digital Humanities Climate Coalition Toolkit for Researchers and Institutions



This toolkit is a guide to making your research practices more environmentally responsible. It is geared towards digital practices, but also touches on general areas such as travel and advocacy. We hope it will be relevant to researchers, educators, students, administrators, librarians, technicians, and others. The toolkit aims to highlight actionable solutions, while also critically reflecting on their nuances, in the broader context of climate justice. It is a community-developed work-in-progress, and you are warmly invited to contribute.

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## Minimal Computing

**‘We use “minimal computing” to refer to computing done under some set of significant constraints of hardware, software, education, network capacity, power, or other factors.’**

— GO:DH Minimal Computing group

This section introduces you to minimal computing principles. Minimal computing is a set of principles and practices that aim to reduce both environmental impact and barriers to access and engagement. It offers an important set of thinking tools to make responsible, frugal, and nuanced digital decisions.

### Key Recommendations

- Consider ways to reduce digital dependencies (software stacks), and in particular whether static websites and minimalist content management systems are appropriate for your project.
- When building and editing websites, use minimal web design principles and try to reduce client-side dynamic features.
- Evaluate green web hosting options.

## Maximal Computing

This section introduces you to “maximal computing,” which refers to any **computationally intensive work**, including working with AI, blockchains, and big data.

### Key Recommendations

- Develop a clear understanding of when it is appropriate to use AI and blockchain for a humanities research problem.
- When you do need to use maximal computing, consider using less-intensive processes like using smaller models and adapt existing infrastructures.
- Understand how to use efficiency metrics like T-scores, confusion matrices, accuracy, recall, Area under the ROC curve, LOGLOSS.

## Grant Writing

This section addresses things you might consider when writing a grant, or planning a project from an internal budget. Our research cultures won’t change by themselves: we have to make it happen. By planning our projects responsibly now (rather than waiting for funders to ask for environmental impact statements), we can model the change we want to see in the world.

### Key Recommendations

- Researchers should include climate impacts in our funding applications.
- Where there is no dedicated section to do so, other sections (such as Justification of Resources and Data Management Plan) can be used as a workaround.
- Funders should update application processes to ensure the research they fund is aligned with climate targets.
- The timescale is tight, so projects already underway should also review their climate impacts (if this was not done at the application stage).
- The data, tools and skills to design climate optimal research is not yet widespread. Temporary suspension of carbon intensive activities is recommended as we build capacity.

## Working Practices

The research process represents a long path of decision-making that can and should involve assessment of the project or activity’s environmental footprint. This section is intended to help you make informed decisions about the research process as a whole, from using devices to communicating with your team. See also the Decision Trees and Grant Writing sections.

### Key Recommendations

- The easiest way to reduce your devices’ impact on the environment is to use them longer, so use a resource such as iFixit to investigate their longevity and repairability.
- Many new convenient technologies, such as 5G and videoconferencing, come with increased data traffic, which means more carbon cost.

## Advocating within your institution

**Knowledge will never be able to replace respect in man’s dealings with ecological systems.**

— Roy Rappaport, quoted in Steward Brand’s *Cybernetic Frontiers* (1974)

### Put your institution in context

Our institutions are taking action. Most European universities have now set net zero targets and milestones, as part of broader sustainability strategies. They are integrating climate risks and opportunities into governance and strategy, and embedding climate change across their curriculums. Within institutions like these, advocacy is not about putting climate change on the agenda.

The EAUC has also recently developed a sector-specific framework for reporting net zero progress. Despite all this, the Higher Education sector is not where it needs to be. GHG comparisons are challenging across and within institutions. Implementation plans are often still very high level. In some cases, there appear to be unrealistic expectations about how much can be achieved with more energetic messaging. Milestones are not granular enough, and global GHG emissions peaking in 2025 is not widely discussed, nor are the implications for HE should this global target be missed. Moving our institutions in the right direction means building coalitions, building capacity, keeping sustainability and climate justice high on every agenda, and supporting and holding accountable internal and external stakeholders. For more suggestions, see the online toolkit, and please contribute your own insights and experiences.

**The Digital Humanities Climate Coalition** is a collaborative and cross-institutional initiative focused on understanding and minimising the environmental impact of DH research. Participants are based at HE institutions and DH Centres across the UK, Ireland, and Northern Europe. DHCC is also a community interest group with the new UK-Ireland Digital Humanities Association. The Association not only provides a great context for our work but also a platform to engage a broader section of the UK and Ireland DH community, and we look forward to taking the DHCC forward collaboratively.

If you would like to be part of the CIG please drop us a line at [cdcs@ed.ac.uk](mailto:cdcs@ed.ac.uk). If you’d like to be kept in the loop about DHCC activities, ask to be added to the email list. We plan to have some regular informal conversations in 2023 to explore further developing the toolkit and other next steps.

