THE UNIVERSITY of EDINBURGH
Centre for Data, Culture & Society

DH & RSE SUMMER SCHOOL

CENTRE FOR DATA, CULTURE & SOCIETY & DIGITAL HUMANITIES CLIMATE COALITION: AN INTRODUCTION

Dr Lisa Otty
Director of the Centre for Data, Culture & Society

BUILDING CAPACITY FOR DATA-LED AND APPLIED DIGITAL RESEARCH ACROSS THE ARTS, HUMANITIES AND SOCIAL SCIENCES.

EST. 2019
CENTRALLY POSITIONED
CENTRALLY FUNDED

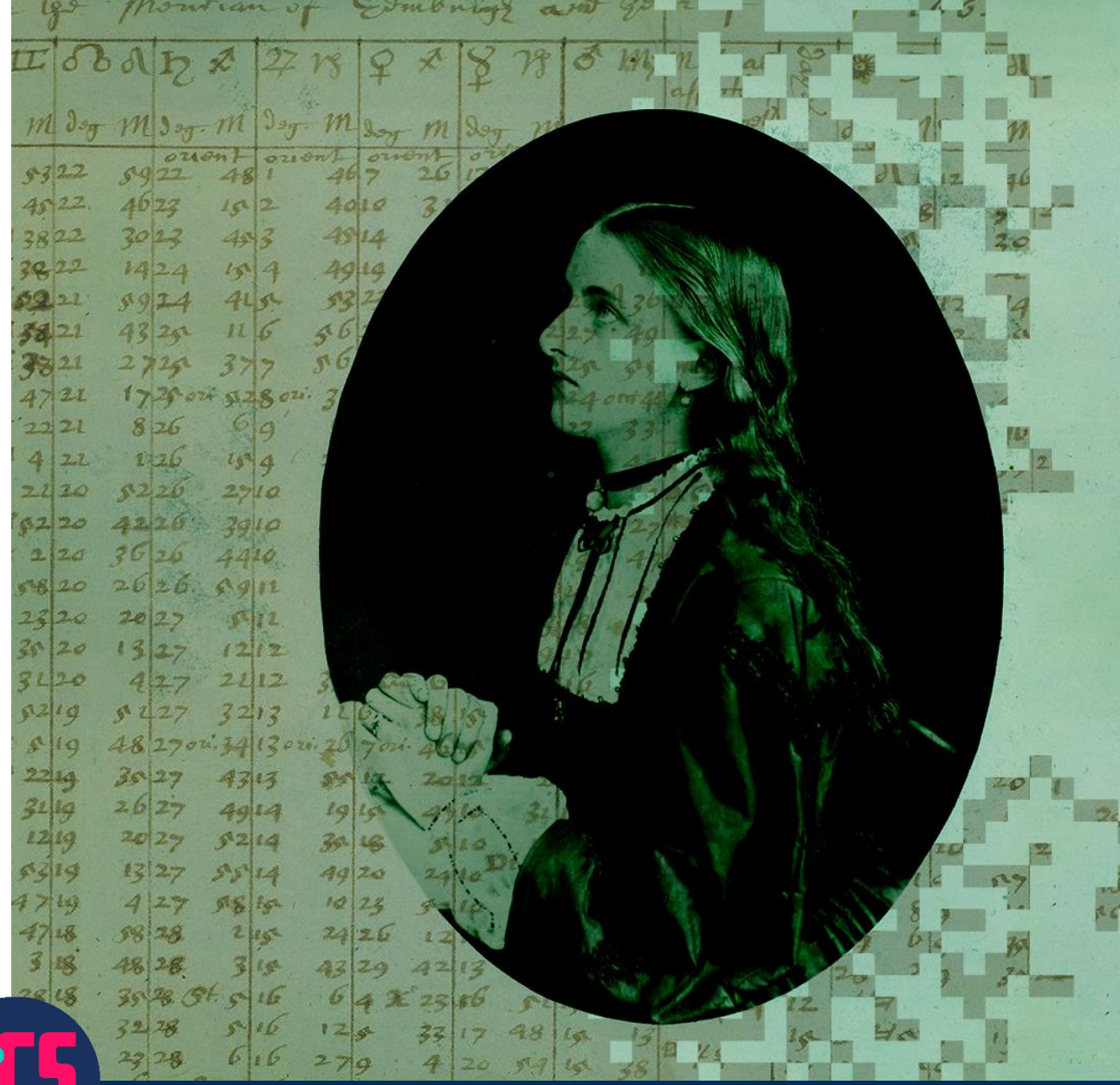
TEAM OF 6 INCLUDING RSE, ANALYSTS AND TRAINERS

OUR APPROACH

- The challenges around technology today are social, ethical and cultural. We need humanists, artists and social scientists to engage deeply with the datafication of our world, and the tools and processes that this requires.

- We are not ‘teaching humanists technical skills’ we are facilitating a conversation between arts, humanities and technology.

- No assumptions about technical background, beginner friendly, experimental.



COMMUNITY-LED AND RESPONSIVE TO COMMUNITY NEEDS

TECHNICAL SERVICES & GUIDANCE
PROJECT SUPPORT
FLEXIBLE FUNDING
TRAINING
NETWORK DEVELOPMENT

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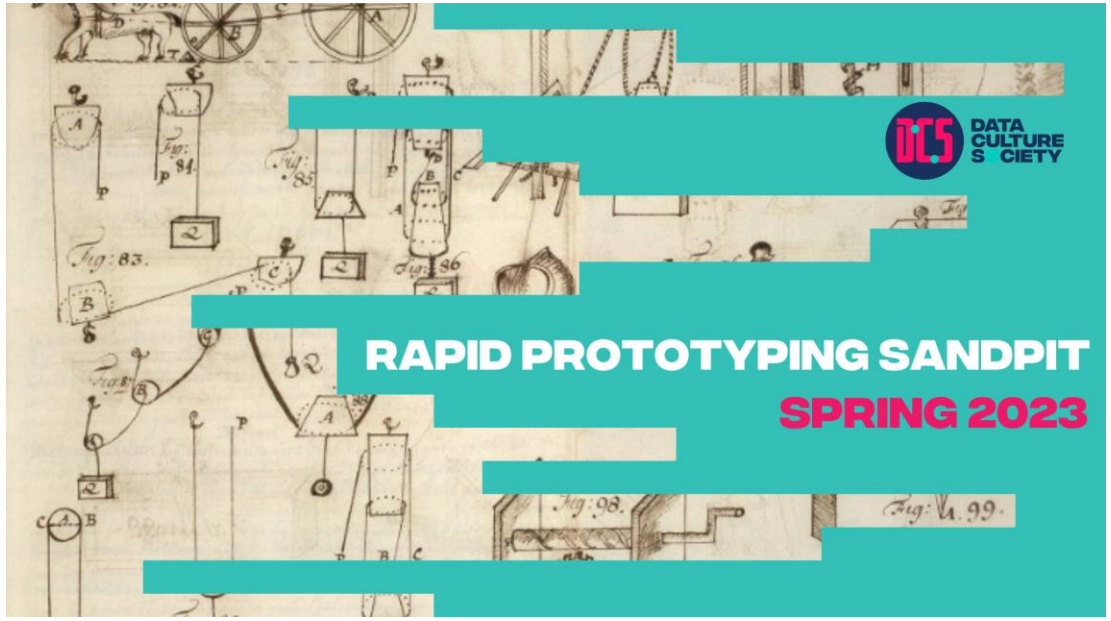


TECHNICAL SUPPORT

- Data clinics
- Research Technologists
- Research Sandpits & Prototyping
- Online resources

OTHER SUPPORT

- Bursaries & Seed Funding
- Events / Inspiration
- Connections & Signposting

TRAINING

- c.65 Training courses per year
- For researchers/by researchers
- Varied formats including, method of the month, silent discos, intensive courses.
- Topics include (but are not limited to):
  - Digitised historic records
  - Text mining
  - Image Recognition
  - Mapping
  - 3D modelling
  - Geographic data
  - Analysing historical data
  - Visualising cultural data

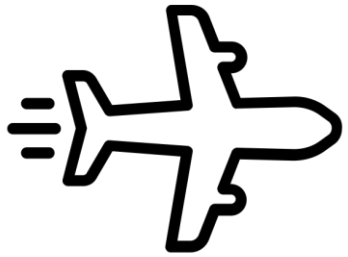
EDINBURGH FUTURES INSTITUTE

- Opened 2024
- Convening SHAPE and STEM to address social challenges
- Cross cutting themes of human-focused technology, ethics, and climate.

ENVIRONMENTAL IMPACTS OF ICT

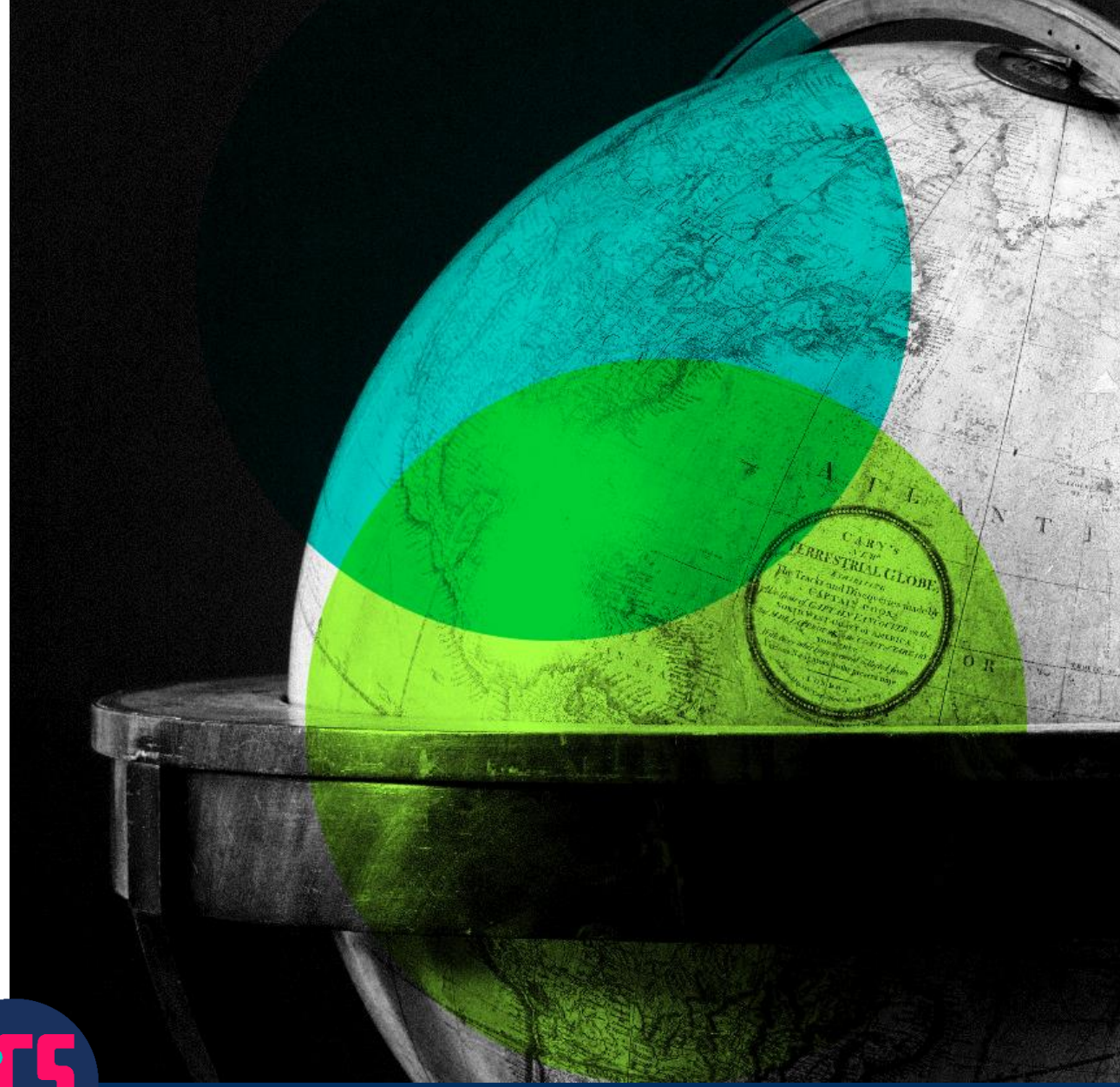
- Digital is material: hardware, servers, data centres
- ICT impacts on the climate in many ways: mining, water consumption, energy emissions, e-waste, embodied carbon etc.

c.3 – 5%



c. 2.5%

* Based on Freitag et al. (2021)



MEASURING CARBON EMISSIONS: THE THREE SCOPES

How to measure carbon emissions, communicated through the medium of hot beverages

Scope 1

Emissions from burning fossil fuels to make hot coffee

Scope 2

Emissions from electricity generated on your behalf, to make coffee

Scope 3

Emissions from activity in your supply chain, so you can have coffee

Measuring carbon emissions - Green Web Foundation

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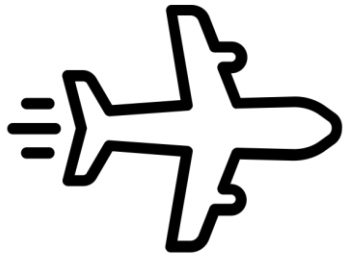

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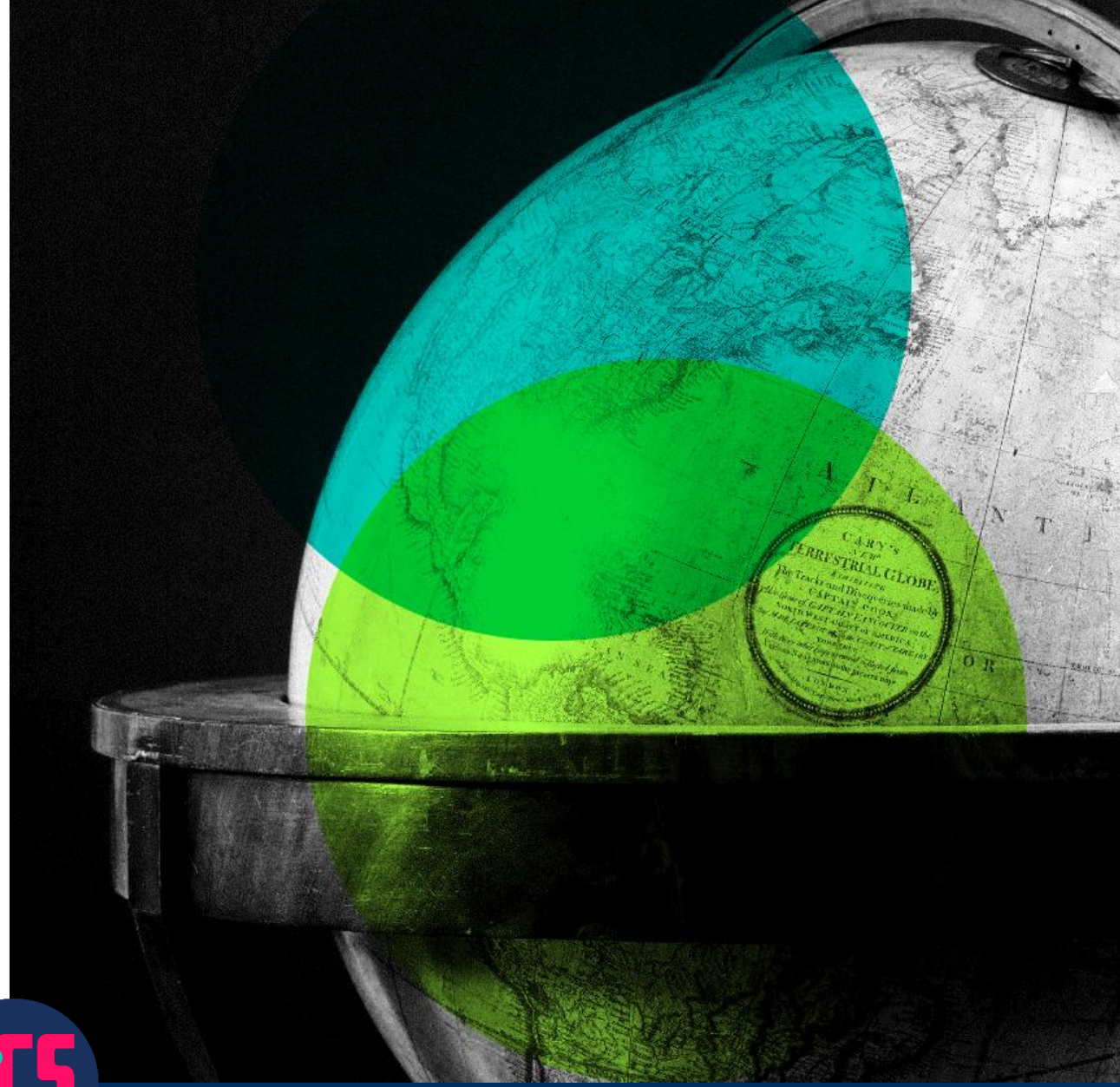
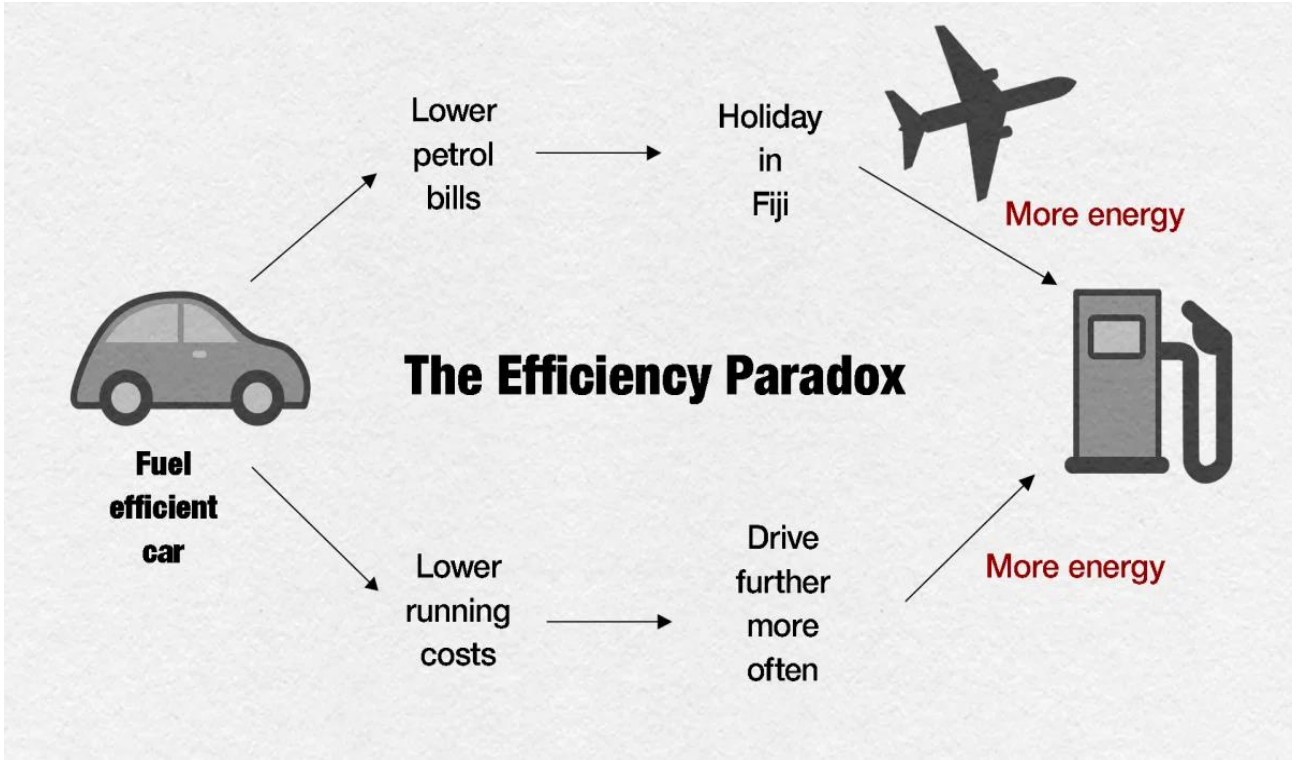


THE REBOUND EFFECT / JEVONS PARADOX



The direct and indirect impacts of the rebound effect. Graphic: Ben Godden

POLICY & RESEARCH CONTEXT

- 2010 The OECD Recommendation on Information and Communication Technologies Report links ICT to environment sustainability, arguing that we need to understand and act on the positive and negative relationships between the two
- 2015 Paris Climate Agreement: 174 countries and the EU agreed to limit global warming to well below 2°Celsius, and to pursue efforts to limit it to below 1.5°
- 2019 Many UK universities and other organisations issue climate emergency declarations
- 2020 UKRI Environmental Sustainability Strategy
- 2021 UKRI Net Zero Digital Research Infrastructure Scoping Project
- 2024 UK research and innovation (R&I) sector co-develop an environmental sustainability concordat, coordinated by Wellcome, UKRI, and other funders Heidelberg Agreement on Environmental Sustainability in Research.

digital humanities climate coalition

- ‘Digital Humanities and the Climate Crisis: a Manifesto’ Spring 2021
- UK DH community workshop in October 2021, coinciding with COP26 in Glasgow
- Partnership between Sussex Humanities Lab, School of Advanced Studies (University of London), University of Edinburgh, and University of Southampton, since 2021
- Community Interest Group of the UK-Ireland Digital Humanities Association

digital humanities climate coalition

DHCC Toolkit

WHAT

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 or their nuances, in the broader context of climate justice. It is a community-developed work-in-progress, and you are warmly invited to contribute.

DHCC

Introduction

I Want To ...

Minimal Computing

Maximal Computing

Grant Writing

Working Practices

Advocating within your Institution

Climate Change FAQs

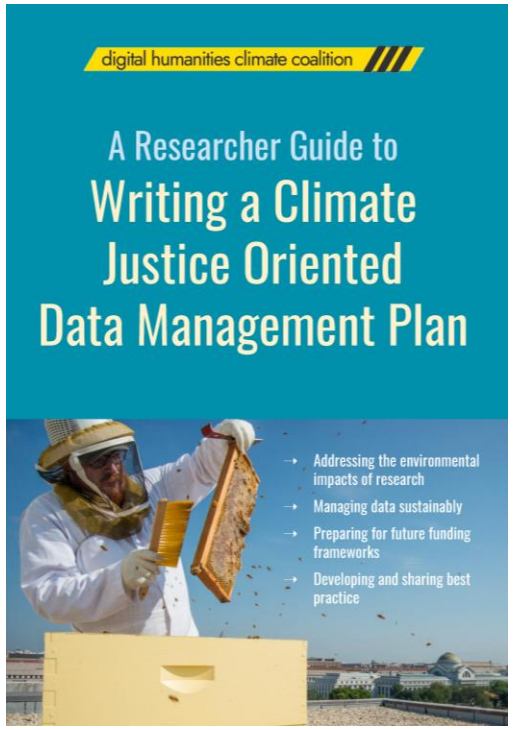
Teaching

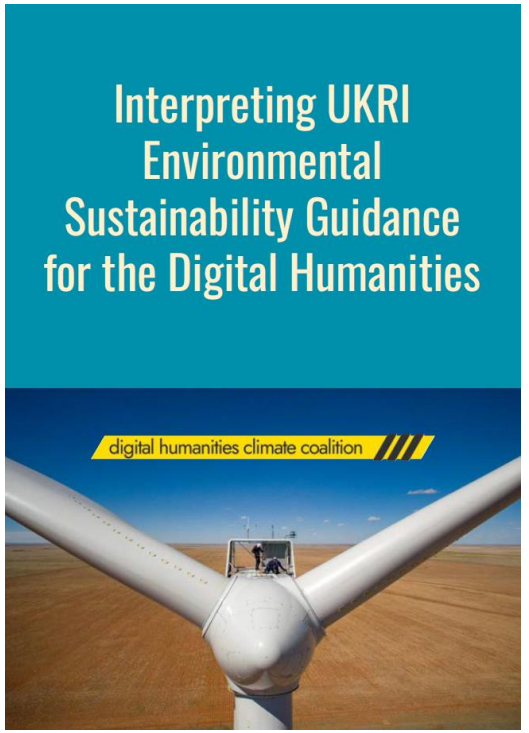
Case Studies

About DHCC ->

Github

INCLUDES





HOW WE ARE DRAWING ON THE TOOLKIT TODAY

- Presentation from Chris Ohge, one of the DHCC collective, on minimal computing
- Deep dive into maximal computing with a talk on sustainability for HPC, with Andy from EPCC
- Discussion of practical actions that RSEs can take across the research software lifecycle
- Reflection on what we can do as a community

HOW YOU CAN GET INVOLVED WITH THIS WORK

Monthly Open Community Call
Mailing list
Feeding into policy e.g. Concordat drafts, funder guidance
Workshops based on the toolkit at various conferences and universities, British Library, Julie's Bicycle, AHRC all staff away day

Ask to join the mailing list: cdcs@ed.ac.uk

DATA CULTURE SOCIETY

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Edinburgh Futures Institute