

# Minecraft Cambridge: Archiving a Pixelated Pandemic

Caylin Smith, Head of Digital Preservation, University of Cambridge Libraries and Archives

Every Object An Orchestra: A Software Preservation & Emulation Showcase, online, 28 April 2026



# Journey to Creating New Services for Digital Collections

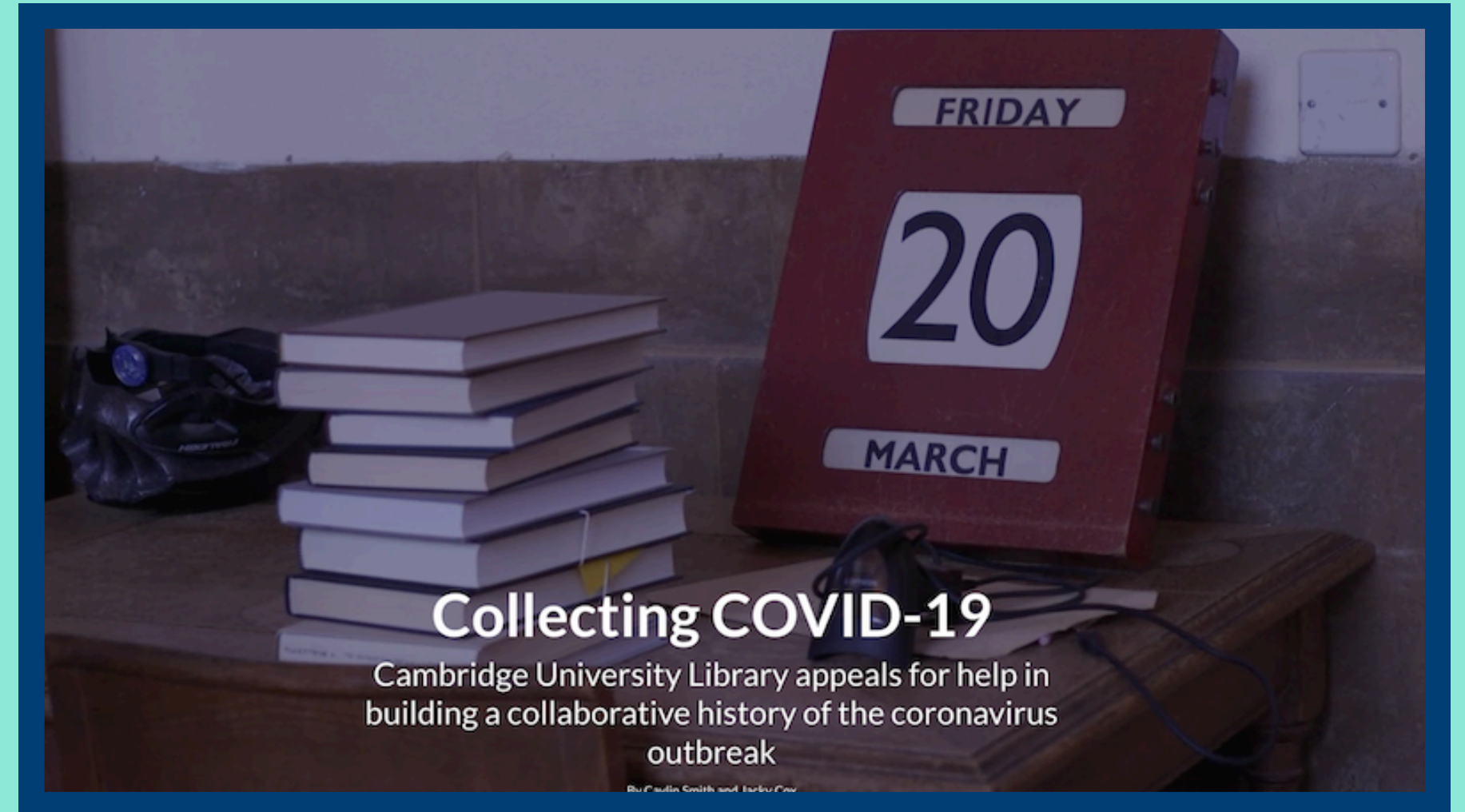




# Collecting COVID-19

*"Do remember the University Library in the weeks to come as we build this community archive together. We may be physically closed to our readers, but our digital collections are available to access online, and we look forward to welcoming you back to the Library in the future."*

Jacky Cox, Keeper of the University Archives



## Collecting COVID-19

Cambridge University Library appeals for help in building a collaborative history of the coronavirus outbreak

### Collecting criteria

- Print and digital deposits created
  - in response to the pandemic
  - by the University or city of Cambridge communities
- Majority of collection was digitally deposited
- No restrictions put on format, type, or content

### Digital materials

- Photos, videos, pamphlets, newsletters, Holy Week hymn, web content, childrens' artworks
- Minecraft Cambridge is the most-complex work deposited
- Said 'no' to a WhatsApp group chat

### How we collected

- shared Google Drives
  - 1 per depositor
  - Metadata spreadsheet
  - T's and C's
- CUL Digital Preservation email account
- FAQ webpage
- News item on University website
- UK Web Archive



Minecraft  
Cambridge



- Developed by Mojang Studios
  - Launched in 2009; fully released in 2011
  - Intellectual property purchased by Microsoft in 2014
- 3D, multi-player
- Example of a sandbox videogame
  - Open world
  - Lots of creative freedom
  - Objectives set by the creator(s)--if any at all
- Different modes
- Available on a variety of operating systems and consoles
  - Minecraft Classic (open)
  - Java Edition (Windows, Mac, Linux), mobile devices, Xbox, Nintendo Switch, PlayStation...
- Different versions
  - VR, education, different markets
- Key stats
  - \$3 billion in game sales over its lifetime
  - 131 million monthly active users
  - One of the most-popular videogames of all time

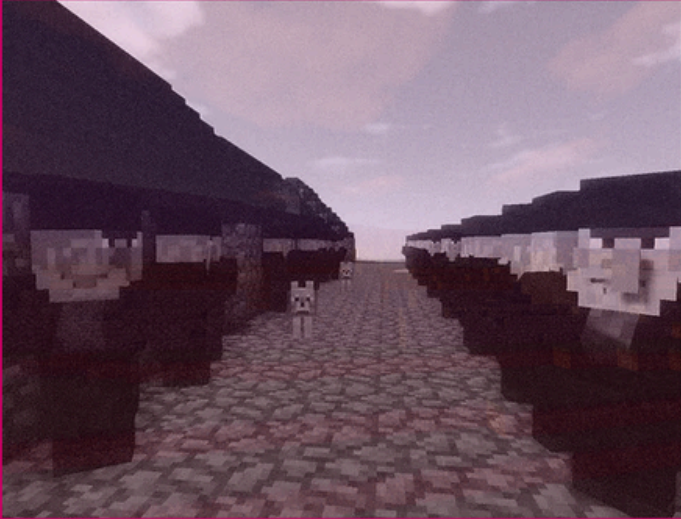
# Other Uses for Minecraft

## CRAFTING THE PAST

Welcome to Crafting the Past. We digitally recreate sites in Minecraft so that you can discover Scotland's history, heritage and archaeology. Download the free maps to start exploring.

[Learn more](#)


### FEATURE: ST KILDA




St Kilda (Scottish Gaelic: Hiort) is a group of five remote islands, located 200 km off the west coast of Scotland. Thanks to soil samples, ruins and finds such as pottery and tools, archaeologists know that the islands were continuously inhabited for at least two millennia. The last residents were evacuated in 1930, but the island still attracts artists, filmmakers, writers and musicians – and now – gamers.

Explore the main island of Hirta, which has been recreated on a 1:2 scale. Woven into the experience are six narratives representing different periods through St Kilda's past. Why not hear the oral histories told by characters from St Kilda's past or take part in a virtual archaeological dig?

[See more](#)


 Cambridge University Press & Assessment · Follow  
20 January 2022 · 🌐

We're thrilled to share that our new #Minecraft game, 'Adventures in English with Cambridge', is now the first #education game available to buy in the Minecraft Marketplace. Designed by Cambridge Assessment English, a [University of Cambridge](#) department in collaboration with [Microsoft](#), it has won gold in the K12 category at the Reimagine Education awards, the largest global awards programme for educational innovators. "Young learners exploring our world will be able to prac... [See more](#)



14 likes · 7 shares

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 Write a comment... [🗨️](#) [😊](#) [🎬](#) [👍](#)

Started as a *Camfession*

Server set up by a Computer Science student

Used by over 1,000 members of the Cambridge University community

What was deposited

- Camfess Minecraft server overworld as it was on September 21, 2020
- Metadata about its creation and compatibility with Minecraft software

Emails with depositor

First videogame in CUL collections



**Camfess**

20 March at 12:27 · ⚙️

[#Camfession10334](#)

Can we Please get a uni-wide Minecraft server I just wanna build w/ my bros 😭



# MINECRAFT

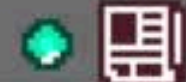
JAVA EDITION

1.3 Sugar!

Singleplayer

Multiplayer

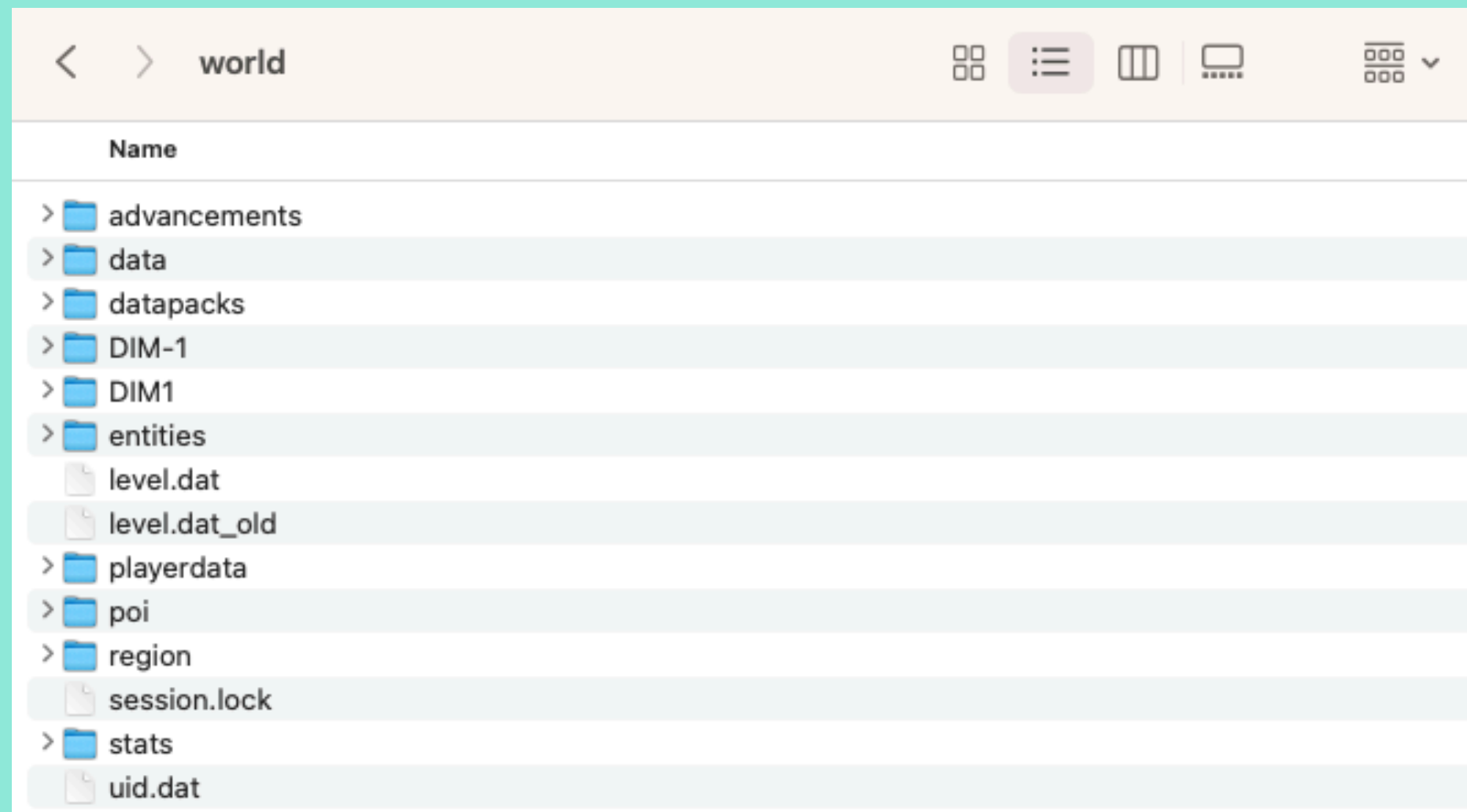
Minecraft Realms



Options...

Quit Game






All of the files in the world file

Name	Date modified	Type	Size
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00d78572-30ff-42d3-8ad9-93d14fa23b70.dat	31/10/2023 10:01	DAT File	3 KB
0a3f1b03-cd54-4041-bc15-027fb7ba0047.dat	31/10/2023 10:02	DAT File	4 KB
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Over 1000 files in playerdata folder

 **Camfess**  
20 March at 12:27 · ⚙️

#Camfession10334  
Can we Please get a uni-wide Minecraft server I just wanna build w/ my bros 🥺

 **Camfess**  
21 March 2020 · 🌐

Hi everyone! Admins here again, we've got a compsci to setup an official Camfess Minecraft server to help get you through the social distancing!

The IP address is: camfess.samsga.me

Obviously, please be nice and respectful to everyone on there as you would in real life at University. If there are any problems then let us know and we'll get the Minecraft server operator to deal with it appropriately.... **See more**

👍❤️🥺 232 124 comments 1 share

👍 Like    💬 Comment    ➦ Share

Home

## Students recreate Catz in Minecraft Cambridge

Monday 6 July 2020

A group of St Catharine's undergraduate students has constructed an impressively accurate version of the College as part of the University-wide virtual community of over 1,000 users on Minecraft.

 **Cambridge Alumni** · Follow  
13 April 2020 · 🌐

In case you haven't seen this already, we're loving how our current students have been staying connected through Minecraft. 🥰 What are your tips for staying connected?



There are multiple servers, the largest being camfess.samsga.me


👍❤️🥺 46 2 comments 10 shares

👍 Like    💬 Comment    ➦ Share

### Camfess sets up official Minecraft server to combat isolation blues, and it's glorious

Can our Easter exams be assessed on our ability to slay zombies?

2 YEARS AGO


 Max Leadbetter | Features  
**CAMBRIDGE**

CompSci Samuel Sully, who studies at Robinson College, has set up an official Camfess Minecraft server for Cambridge students to use whilst the University is closed during Easter term. Inspired by #Camfession10334 (see below), Samuel took up the gauntlet and set up an entire online multiplayer server within a day. And to think it still takes me a solid 5 minutes to figure out how to insert a footnote on Word...

 **Cambridge Computer Science**  
@Cambridge\_CL


Can you name this college?! Since Computer Science undergrad @samueljsully set up a Cambridge @Minecraft server after lockdown, hundreds of students have been #StayingConnected by recreating Cambridge on Minecraft. See the answer (and another building to guess) tomorrow.



 **University of Cambridge** · Follow  
10 April 2020 · 🌐

👉 Hundreds of Cambridge students are staying connected with friends thanks to a Minecraft server created by one of our undergrads, with some students re-creating their Colleges 🥰 We'd love to know how you're staying connected!

Department of Computer Science and Technology, University of Cambridge



It was set up by a CompSci student responding to an online call out

👍❤️🥺 947 199 comments 139 shares

👍 Like    💬 Comment    ➦ Share

# Preservation Planning

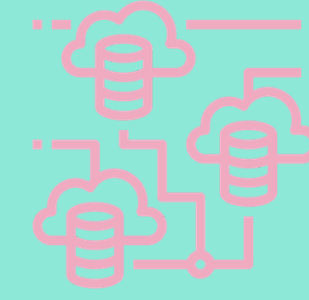
- Functional entity of the OAIS model
  - requirements to mitigate risks and issues that could hinder the long-term preservation and access within an evolving technology landscape.
- Policy and concrete actions
  - OAIS provides general guidance
  - “the decision making procedures [for preservation planning] are still largely ad-hoc actions. Especially, the process of selecting the most suitable preservation action tool as one of the key issues in preservation planning has not been sufficiently standardised in practice” (Becker et al. 2009)
- Important for an institution to have its own vision for preservation planning
  - There is no agreed approach to what constitutes ‘good’ preservation planning
  - The lack of real-life case studies for preservation planning
  - The amount of global and local unknown risks and issues that could hinder long-term preservation and access.
- Minimum Viable Preservation
  - “Minimum Viable Preservation” by Matthew Addis on DPC blog
  - “Preservation planning for emerging formats at the British Library”, Day, Pennock, Smith, Cooke, and Jenkins, iPres 2018
  - “Preserving Complex Digital Objects Revisited”, Falcao, Smith, and Thomson, iPres 2022
- Minimum Viable Preservation... Planning
  - Bit-level preservation but not content-- or limited--content level preservation
  - Create a ‘plan,’ get feedback, iterate where necessary



# What's Involved



**Minecraft 'launcher'**



**Repository**



**Minecraft world**



**Minecraft server**



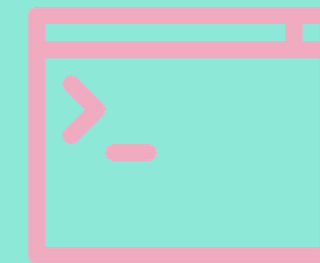
**Archives Management System**



**Emails**



**Minecraft licence**



**Terminal**



**Web content**

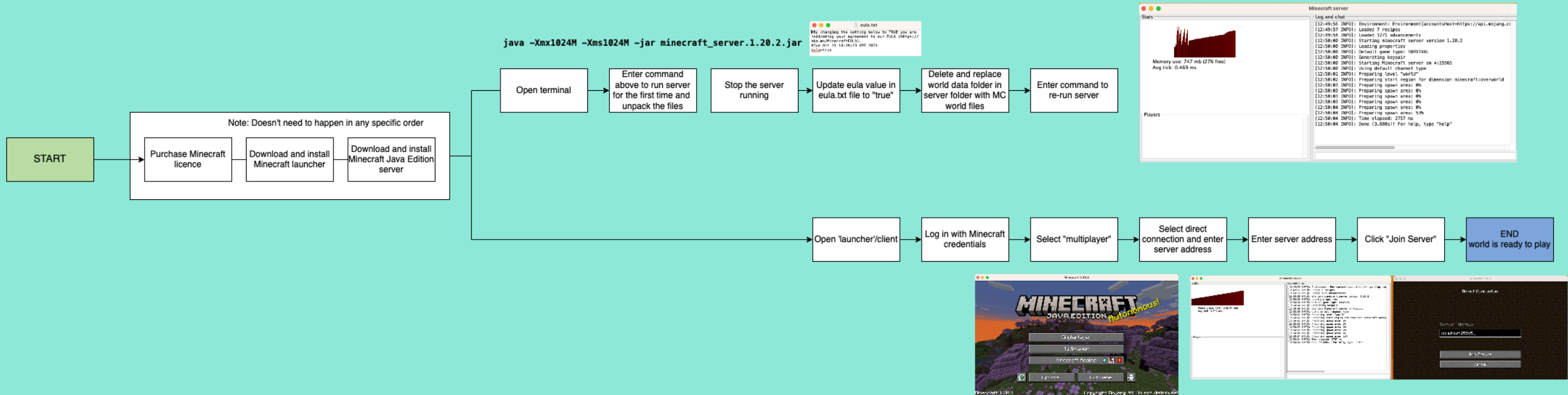


**Open source software**



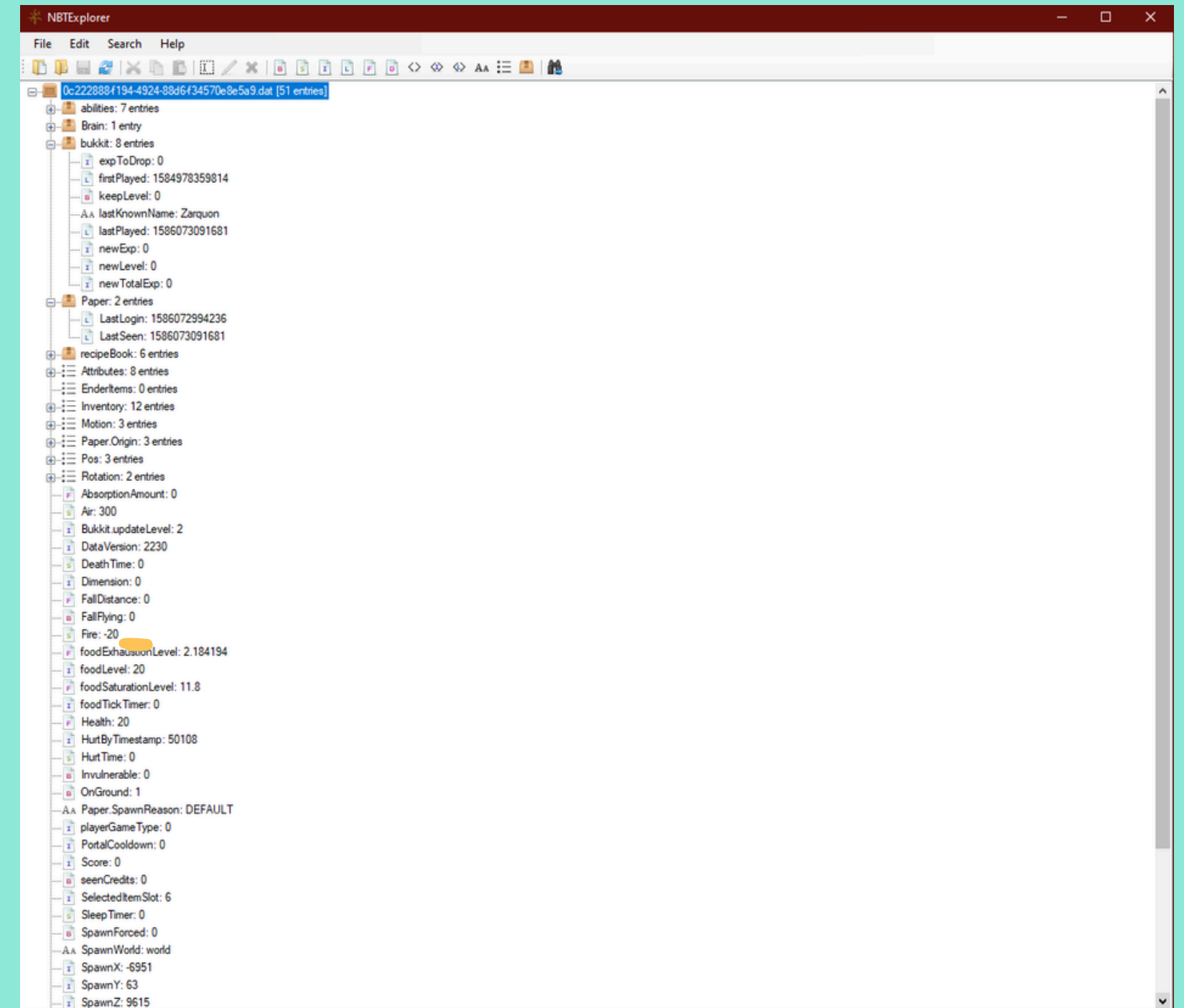
**Guidance**

# Running Minecraft Cambridge in Minecraft Java Edition at CUL



# Bit and (sorta) Content Level Preservation

- Create README file with instructions on how to install Minecraft Cambridge world using Minecraft Java Edition
- Assign 'hard basket' metadata flag to SIP
- Ingest world file to preservation and repository workflows
  - preservation copy (files as received from depositor)
  - access copy (world file with player data files removed)
  - Depositor emails
  - README file
- Accession into ArchivesSpace
  - Do not publish record to ArchivesSearch



Identifying player data

# Concluding thoughts

- Lots of effort for a single collection item
  - Balancing building scalable solutions vs. solutions for one or few items
  - Majority of digital items are from the digitisation workflow and institutional repository
- Risks of providing access to content that could contain personally identifiable information
- Likely a temporary solution for access
  - dependant on Microsoft software to run
- Lots of focus on bit-level preservation (which is very important) and less on content level preservation (also very important)
- New or repurposed spaces needed for digital collection items
  - where can the noisy content be accessed in academic and research libraries?



*Image from Digital Storytelling exhibition at British Library;  
Curated by Giulia Rossi, Stella Wisdom, and Ian Cooke*

# Thank you!

## Any questions?



[DigitalPreservation@lib.cam.ac.uk](mailto:DigitalPreservation@lib.cam.ac.uk)



<https://www.lib.cam.ac.uk/digitalpreservation>



<https://digitalpreservation-blog.lib.cam.ac.uk/>

