The Open Digital Archaeology Textbook Environment

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Contents

notice

This volume goes hand-in-glove with a computational environnent built on the DHBox.

THIS IS A DRAFT VERSION

About the Authors

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At Carleton etc

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blah

Michael Carter

blah

Beth Compton

blah

Editorial Board

Getting Started

How to use this text

yadda

How to contribute changes, or make your own version

bigglybeep

How to access and use the computational environment

link to site, instructions, also repo, also dhbox-on-a-stick

Colophon

how this site was made

Introduction

Digital archaeology as a field rests upon the creative use of primarily open-source and/or open-access materials to archive, reuse, visualize, analyze and communicate archaeological data. This reliance on open-source and open-access is a political stance that emerges in opposition to archaeology's past complicity in colonial enterprises and scholarship; digital archaeology resists the digital neo-colonialism of Google, Facebook, and similar tech giants that typically promote disciplinary silos and closed data repositories. Specifically, digital archaeology encourages innovative, reflective, and critical use of open access data and the development of digital tools that facilitate linkages and analysis across varied digital sources.

To that end, this document you are reading is integrated with a cloud-based digital exploratory laboratory of multiple cloud-computing tools with teaching materials that instructors will be able to use 'out-of-the-box' with a single click, or to remix as circumstances dictate. Part of our inspiration comes from the 'DHBox' project from CUNY (City University of New York, (link), a project that is creating a 'digital humanities laboratory' in the cloud. While the tools of the digital humanities are congruent with those of digital archaeology, they are typically configured to work with texts rather than material culture in which archaeologists specialise. The second inspiration is the open-access guide 'The Programming Historian', which is a series of how-tos and tutorials (link) pitched at historians confronting digital sources for the first time. A key challenge scholars face in carrying out novel digital analysis is how to install or configure software; each 'Programming Historian' tutorial therefore explains in length and in detail how to configure software. The present e-textbook merges the best of both approaches to create a singular experience for instructors and students: a one-click digital laboratory approach, where installation of materials is not an issue, and with carefully designed tutorials and lessons on theory and practice in digital archaeology.

Chapter 1

Going Digital

> Digital archaeology should exist to assist us in the performance of archaeology as a whole. It should not be a secret knowledge, nor a distinct school of thought, but rather simply seen as archaeology done well, using all of the tools available to and in better recovering, understanding and presenting the past. In the end, there is no such thing as digital archaeology. What exists, or at least what should exist, are intelligent and practical ways of applying the use of computers to archaeology that better enable us to pursue both our theoretical questions and our methodological applications. (Evans and Daly 2006)

While we agree with the first part of the sentiment, the second part is rather up for debate. Digital tools exist in a meshwork of legal and cultural obligations, and moreso than any other tool humans have yet come up with, have the capability to exert their own agency upon the user. Digital tools and their use are not theory-free or without theoretical implications. There is no such thing as neutral, when digital tools are employed.

blah

more blah

1.1 Project management basics

blah

1.2 Github & Version control

blah

1.2.1 discussion

1.2.2 exercises

1.3 Failing Productively

blah

1.3.1 discussion

1.3.2 exercises

1.4 Open Notebook Research & Scholarly Communication

blah

1.4.1 discussion

1.4.2 exercises

1.5 Introduction to Digital Libraries, Archives & Repositories

yadda

1.6 Command Line Methods for Working with APIs

yadda

1.6.1 Working with Open Context

yadda

1.6.2 Working with Omeka

yadda

1.6.3 Working with tDAR

yadda

1.6.4 Working with ADS

1.6.5 Exercises

yadda

1.7 The Ethics of Big Data in Archaeology

Ethics! Lots of Ethics!

1.7.1 discussion

1.7.2 exercises

Chapter 2

Making Data Useful

blah blah introd

2.1 Designing Data Collection

yada yada

2.1.1 discussion

2.1.2 exercises

2.2 Cleaning Data with Open Refine

blahde blah blah

2.2.1 discussion

2.2.2 exercises

2.3 Linked Open Data and Data Publishing

yargble blarble floss

2.3.1 discussion

2.3.2 exercises

Chapter 3

Finding and Communicating the Compelling Story

blah blah blah

3.1 Statistical Computing with R and Python Notebooks; Reproducible code

blah

3.1.1 discussion

3.1.2 exercises

3.2 D3, Processing, and Data Driven Documents

blerg

3.2.1 discussion

3.2.2 exercises

3.3 Storytelling and the Archaeological CMS: Omeka, Kora

blargle

3.3.1 Omeka

bla

3.3.2 Kora

3.3.3 Exercises

3.4 Web Mapping with Leaflet

...I wonder if we should talk about GIS & Pandas, etc... or in R?

3.4.1 discussion

3.4.2 exercises

3.5 Place-based Interpretation with Locative Augmented Reality

yep.

3.5.1 discussion

3.5.2 exercises

3.6 Archaeogaming and Virtual Archaeology

yay archaeogaming

3.6.1 discussion

3.6.2 exercises

3.7 Social media as Public Engagement & Scholarly Communication in Archaeology

boo socmed

3.7.1 discussion

3.7.2 exercises

Chapter 4

Eliding the Digital and the Physical

crazytown

4.1 3D Photogrammetry & Structure from Motion

vsfm

4.1.1 discussion

4.1.2 exercises

4.2 3D Printing, the Internet of Things and "Maker" Archaeology

yay

4.2.1 discussion

4.2.2 exercises

4.3 Artificial Intelligence in Digital Archaeology

4.3.1 agent models

blah

4.3.2 discussion

blah

4.3.3 exercises

blah

4.3.4 machine learning for image captioning and other classificatory tasks

blah

4.3.5 discussion

blah

4.3.6 exercises

Chapter 5

Digital Archaeology's Place in the World

blerg

5.1 Marketing Digital Archaeology

blag

5.1.1 discussion

5.1.2 exercises

5.2 Sustainability & Power in Digital Archaeology

the big ticket item.

5.2.1 discussion

5.2.2 exercises

Chapter 6

On the Horizons: Where Digital Archaeology Might Go Next

blargble

References

Evans, Thomas Laurence, and Patrick Daly, eds. 2006. *Digital Archaeology: Bridging Method and Theory.* Psychology Press.