The Open Digital Archaeology Textbook Environment

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Contents

notice **5**

About the Authors **7**

Getting Started **9**
How to use this text . . . 9
How to contribute changes, or make your own version . . . 9
How to access and use the computational environment . . . 9
Colophon . . . 9

Introduction **11**

Part One: Going Digital **13**

1 Project management basics **15**
1.1 Github & Version control . . . 15
1.2 Failing Productively . . . 15
1.3 Open Notebook Research & Scholarly Communication . . . 15

2 The Ethics of Big Data in Archaeology **17**

3 Introduction to Digital Libraries, Archives & Repositories **19**
3.1 Command Line Methods for Working with APIs . . . 19
3.2 Working with Open Context . . . 19
3.3 Working with Omeka . . . 19
3.4 Working with tDAR . . . 19
3.5 Working with ADS . . . 19

Part Two: Making Data Useful **21**

4 Designing Data Collection **23**

5 Cleaning Data with Open Refine **25**

6 Linked Open Data and Data Publishing **27**

Part Three: Finding and Communicating the Compelling Story **29**

7 Statistical Computing with R and Python Notebooks; Reproducible code **31**

8 D3, Processing, and Data Driven Documents **33**

9 Storytelling and the Archaeological CMS: Omeka, Kora **35**

10 Web Mapping with Leaflet **37**

11 Place-based Interpretation with Locative Augmented Reality **39**

12 Archaeogaming and Virtual Archaeology **41**

13 Social media as Public Engagement & Scholarly Communication in Archaeology **43**

Part Four: Eliding the Digital and the Physical **45**

14 3D Photogrammetry & Structure from Motion **47**

15 3D Printing, the Internet of Things and "Maker" Archaeology **49**

16 Artificial Intelligence in Digital Archaeology **51**
16.1 agent models 51
16.2 machine learning for image captioning and other classificatory tasks 51

Part Five: Digital Archaeology's Place in the World **53**

17 Marketing Digital Archaeology **55**

18 Sustainability & Power in Digital Archaeology **57**

notice

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

THIS IS A DRAFT VERSION

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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.

Part One: Going Digital

In this section, blah blah blah.

blah

more blah

Chapter 1

Project management basics

blah

1.1 Github & Version control

blah ### discussion

1.1.1 exercises

1.2 Failing Productively

blah

1.2.1 discussion

1.2.2 exercises

1.3 Open Notebook Research & Scholarly Communication

blah

1.3.1 discussion

1.3.2 exercises

Chapter 2

The Ethics of Big Data in Archaeology

Ethics! Lots of Ethics!

2.0.1 discussion

2.0.2 exercises

Chapter 3

Introduction to Digital Libraries, Archives & Repositories

yadda

3.1 Command Line Methods for Working with APIs

yadda

3.2 Working with Open Context

yadda

3.3 Working with Omeka

yadda

3.4 Working with tDAR

yadda

3.5 Working with ADS

yadda

Part Two: Making Data Useful

blah blah introd

Chapter 4

Designing Data Collection

yada yada

4.0.1 discussion

4.0.2 exercises

Chapter 5

Cleaning Data with Open Refine

blahde blah blah

5.0.1 discussion

5.0.2 exercises

Chapter 6

Linked Open Data and Data Publishing

yargble blarble floss

6.0.1 discussion

6.0.2 exercises

Part Three: Finding and Communicating the Compelling Story

blah blah blah

Chapter 7

Statistical Computing with R and Python Notebooks; Reproducible code

blah ### discussion

7.0.1 exercises

Chapter 8

D3, Processing, and Data Driven Documents

blerg ### discussion

8.0.1 exercises

Chapter 9

Storytelling and the Archaeological CMS: Omeka, Kora

blargle

Chapter 10

Web Mapping with Leaflet

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

10.0.1 discussion

10.0.2 exercises

Chapter 11

Place-based Interpretation with Locative Augmented Reality

yep.

11.0.1 discussion

11.0.2 exercises

Chapter 12

Archaeogaming and Virtual Archaeology

yay archaeogaming

12.0.1 discussion

12.0.2 exercises

Chapter 13

Social media as Public Engagement & Scholarly Communication in Archaeology

boo socmed

13.0.1 discussion

13.0.2 exercises

Part Four: Eliding the Digital and the Physical

crazytown

Chapter 14

3D Photogrammetry & Structure from Motion

vsfm

14.0.1 discussion

14.0.2 exercises

Chapter 15

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

yay ### discussion

15.0.1 exercises

Chapter 16

Artificial Intelligence in Digital Archaeology

16.1 agent models

blah

16.1.1 discussion

blah

16.1.2 exercises

blah

16.2 machine learning for image captioning and other classificatory tasks

blah

16.2.1 discussion

blah ### exercises

Part Five: Digital Archaeology's Place in the World

blerg

Chapter 17

Marketing Digital Archaeology

blag ### discussion

17.0.1 exercises

Chapter 18

Sustainability & Power in Digital Archaeology

the big ticket item.

18.0.1 discussion

18.0.2 exercises