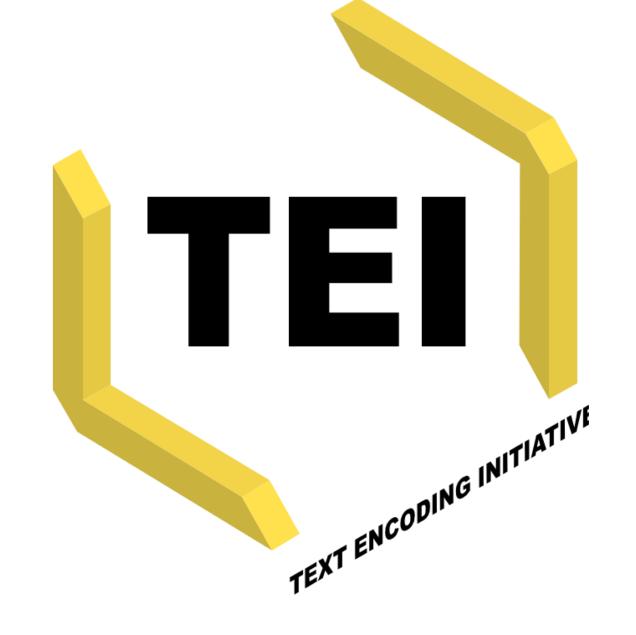
# WHAT IS TEXT ENCODING AND WHY SHOULD I CARE?

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#### HI!

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Undergrad in English Honours and Gender Studies @ Uvic

Digital Humanities programmer for projects such as The Map of Early Modern London, Linked Early Modern Drama Online, The Winnifred Eaton Archive, and The Endings Project

Brief conceptual introduction to encoding, XML, and TEI

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Examples of projects that use the TEI

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Examples of projects that use the TEI

Pointers to further resources on learning about the TEI



## TEXT ENCODING AND THE TEI

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We do this all the time!

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E.g. different types of punctuation for levels of quotation

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And they are subject to varying interpretations

• E.g. I think these quotation marks denote a term, but maybe the author is just being sarcastic...

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Distribution

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Flexibility

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#### THE CRITICAL STAKES OF ENCODING TEXTS

Reinforcing hegemonic/dominant readings of the text

Colonial understanding of the "text" itself

Texts may not want to be "free"--the problems of open access

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#### **ACTIVITY: PART 1**

Handout: John Stow's Survey of London (1598) (sig. L2r)

16 options

6 colours

CHOOSE 6 of the ITEMS at the bottom and mark each with a DIFFERENT COLOUR

THe next ward towardes the south, is Cornhill warde, so called of a corne market, time out of mind there holden, and is a part of the principall high streete, beginning at the west end of Leaden hall, stretching downe west on both the sides by the south end of Finckes lane, on the right hand, and by the North ende of Birchouers lane, on the left part of which lanes, to wit, to the middle of them is of this ward and so down to the Stockes market, and this is the bounds of this Ward. The vpper, or East part of this Warde, and also a part of Lymestreete warde hath beene (as I saide) a market place, especially for Corne, and since for all kinde of victuals, as is partly shewed in Limestreete warde, yet it appeareth of record, that in the yere 1522. the Rippars of Rie and other places solde their fresh fish in Leaden hall market, vpon Cornhil, but forren Butchers were not admitted, there to sel flesh

### **ACTIVITY: PART 2**

For each of those 6 things you've checked off, find those in the document and

DRAW BOXES around each item.

DIRECTION = BLUE PUNCTUATION = RED:

THe next ward towardes the south,

RULES	CORRECT	INCORRECT
Boxes CANNOT OVERLAP (but their edges can touch)		
Boxes CAN nest		

#### Cornhill VVarde.



He nert ward towardes the fouth, is Corps hill warde, so called of a come market, time Cornhill ward out of mind there holden, and is a part of the principall high Areete, beginning at the well end of Leaden hall, Kretching downe well on both the sides by the fouth end of Finckes lane, on the right hand, and by the Dorth ende of Birchouers lane, on the

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And is often described in genealogical terms

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### XML IS EVERYWHERE

HTML (HyperText Markup Language: Every website)

KML (Keyhole Markup Language: Google Maps)

RDF (Resource Description Framework: Library catalogues)

SVG (Scalable Vector Graphics: Digital Images)

OOXML (Open Office XML: This presentation, word documents, et cetera)



There is nothing inherent about the function of XML

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Anyone can conceive of an XML dialect (e.g. it is extensible)

Think of the hierarchy of the book:

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Book

Chapters

Think of the hierarchy of the book:

- Chapters
  - Sections

Think of the hierarchy of the book:

- Chapters
  - Sections
    - Paragraphs

Think of the hierarchy of the book:

- Chapters
  - Sections
    - Paragraphs
      - Sentences

Think of the hierarchy of the book:

- Chapters
  - Sections
    - Paragraphs
      - Sentences
      - Words

Think of the hierarchy of the book:

- Chapters
  - Sections
    - Paragraphs
      - Sentences
      - Words
        - Letters

<book>

```
<book>
     <chapter>
```

```
</chapter>
</book>
```

```
<book>
    <chapter>
        <section type="subsection">
        </section>
    </chapter>
</book>
```

```
<book>
    <chapter>
        <section type="subsection">
            <paragraph>
            </paragraph>
        </section>
    </chapter>
</book>
```

```
<book>
    <chapter>
        <section type="subsection">
            <paragraph>
                <sentence>
                </sentence>
            </paragraph>
        </section>
    </chapter>
</book>
```

```
<book>
    <chapter>
        <section type="subsection">
            <paragraph>
                <sentence>
                     <word>
                     </word>
                </sentence>
            </paragraph>
        </section>
    </chapter>
</book>
```

## **XML**

```
<book>
    <chapter>
        <section type="subsection">
            <paragraph>
                <sentence>
                     <word>
                         <letter></letter>
                     </word>
                </sentence>
            </paragraph>
        </section>
    </chapter>
</book>
```

The two pointy brackets is called an **element** 

• E.g. <book> would be called the book element

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All elements have **start** and **end tags** 

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#### Elements can also have attributes and each attribute must have a value

- E.g. <book type= "primary"> has a type attribute with the value of primary
- (Think of attributes as you would in everyday life; people don't have "height" or "age" without a value)

### Elements cannot overlap

- <sentence><word>Word1</word></sentence> is right
- <sentence><word>Word1</sentence></word> is wrong

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#### Elements **nest** and use genealogical terms

• I.e this bit of XML

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<book>
<chapter></chapter>
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Can be described as "chapter is a child of book" OR "book is a parent of chapter"

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```
<book>
<chapter></chapter>
</book>
```

Can be described as "chapter is a child of book" OR "book is a parent of chapter"

#### There is **always** a **root** element

That is, there is always one element that encloses everything

```
<div>
    <head><ref target="mol:CORN1">Cornhill VVarde</ref>.</head>
    <hi rendition="#stow_1598_CORN1_dropCap">T</hi>He next ward towardes the fouth, is <ref target="mol:CORN1"><hi
rendition="#stow_1598_CORN1_R">Corn
        <lb rend="hidden" type="hyphenInWord"/>hill</hi> warde</ref>,<label place="margin-right"><ref target="mol:CORN1">Cornhill
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        <lb/>out of mind there holden, and is a part of
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        <lb/>North ende of <ref rendition="#stow_1598_CORN1_R" target="mol:BIRC1">Birchouers lane</ref>, on the
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        <lb/>ward and fo down to the <ref target="mol:STOC1">Stockes market</ref>, and this is the bounds
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       <fw type="signature">L 2</fw>
       <fw type="catchword">till</fw>
   </div>
```

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<head><ref target="mol:CORN1">Cornhill VVarde</ref>.</head>
   <hi rendition="#stow_1598_CORN1_dropCap">T</hi>He next ward towardes the fouth, is <ref target="mol:CORN1"><hi
rendition="#stow_1598_CORN1_R">Corn
       <lb rend="hidden" type="hyphenInWord"/>hill
warde</ref>,<label place="margin-right"><ref target="mol:CORN1">Cornhill
ward</ref></label> fo called of a corne market, time
       <lb/>out of mind there holden, and is a part of
       <lb/>the principall high ftreete, beginning at the
       <lb/>weft end of <ref target="mol:LEAD1">Leaden hall</ref>, ftretching downe
       <lb/>weft on both the fides by the fouth end of
       <lb/><hi rendition="#stow_1598_CORN1_R"><ref target="mol:FINC1">Finckes lane</ref>,</hi> on the right hand, and by the
       <lb/>North ende of <ref rendition="#stow_1598_CORN1_R" target="mol:BIRC1">Birchouers lane</ref>, on the
       <lb/>left part of which lanes, to wit, to the middle of them is of this
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```

### Cornhill VVarde.



THe next ward towardes the south, is Cornhill warde, so called of a corne Cornhill ward market, time out of mind there helden, and is a part of the principall high streete, beginning at the west end of Lealen hall, stretching downe west on both the sides by the south end of *Finckes lane*, on the right hand, and by the North ende of *Birchouers lane*, on the left part of which lanes, to wit, to the middle of them is of this ward and so down to the Stockes market, and this is the bounds of this Ward. The vpper, or East part of this Warde, and also a part of *Lymestreete warde* hath beene (as I saide) a market place, especially for Corne, and since for all kinde of victuals, as is partly shewed in Limestreete warde, yet it appeareth of record, that in the yere 1522. the Rippars of *Rie* and other places solde their fresh fish in Leaden hall market, vpon *Cornhil*, but forren Butchers were not admitted, there to sel flesh

## Cornhill VVarde.



Г

He next ward towardes the forth, is *Cornhill* warde, so called of a corne man, time out of mind there holden, and is a part of the principall high streete, beginning at the west end of Leaden hall, stretching downe west on both the sides by the south end of *Finckes lane*, on the right hand, and by the North ende of *Birchouers lane*, on the

left part of which lanes, to wit, to the middle of them is of this ward and so down to the Stockes market, and this is the bounds of this Ward. The vpper, or East part of this Warde, and also a part of *Lymestreete warde* hath beene (as I saide) a market place, especially for Corne, and since for all kinde of victuals, as is partly shewed in *Limestreete warde*, yet it appeareth of record, that in the yere 1522. the Rippars of *Rie* and other places solde their fresh fish in Leaden hall market, vpon *Cornhil*, but forren Butchers were not admitted, there to sel flesh

Cornhill ward

### Cornhill VVarde.



Г

Se next ward towardes the fouth, is Cornhill warde, so called of a corne market, time out of mind there holden, and is a part of the principall high streete, beginning at the west end of Leaden hall, stretching downe west on both the sides by the south end of Finckes lane, on the right hand, and by the North ende of Birchouers lane, on the

left part of which lanes, to wit, to the middle of them is of this ward and so down to the Stockes market, and this is the bounds of this Ward. The upper, or Last part of this Warde, and als so a part of Lymestreete warde hath beene (as I saide) a market place, especially for Corne, and since for all kinde of victuals, as is partly shewed in Limestreete warde, yet it appeareth of record, that in the yere 1522. the Rippars of Rie and other places solde their fresh sish in Leaden hall market, upon Cornhil, but forren Butchers were not admitted, there to sel slesh

Cornhill ward

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A non-profit organization

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A community or consortium of users

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Website: https://tei-c.org/

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- Metadata: various classification schemes, provenance, manuscript description, etc
- +++++

## QUICK HISTORY OF THE TEI

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The Text Encoding Initiative (originally called the Guidelines for Text Encoding and Interchange)

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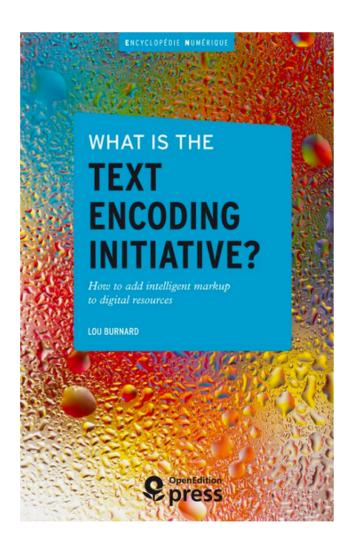
Started in the late 1980s in response to the boom in "humanities computing"

#### QUICK HISTORY OF THE TEL

The Text Encoding Initiative (originally called the Guidelines for Text Encoding and Interchange)

Started in the late 1980s in response to the boom in "humanities computing"

Wanted to provide a framework and a set of principles for encoding texts that could be widely adopted



Within the noisy market place of the *Digital Humanities*, the TEI is a kind of senior member, an annoying parental figure for some, a benevolent one for others, something just too old-fashioned even to be considered for others. Yet, over the last decade, it has become increasingly clear that the TEI is part of what makes the digital humanities happen.

(Burnard, "Conclusion", para. 1)

The TEI is **not** a language that describes how a text should be displayed online or in print. It should always concern the performative and expressive significance of the input, not the aesthetics of the output.

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 Caveat: There are many, many tools for transforming TEI into other formats (Word documents, PDFs, and, of course, websites)

## THE PROBLEM

What colours did your group use for encoding different things?

The same colours as another group?

## THE PROBLEM

Recall the XML that describes the book from earlier

#### **XML**

```
<book>
    <chapter>
        <section type="subsection">
            <paragraph>
                <sentence>
                     <word>
                         <letter></letter>
                     </word>
                </sentence>
            </paragraph>
        </section>
    </chapter>
</book>
```

## THE PROBLEM

How else could it be written?

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How else could it be written?

All texts must be called <text>

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All divisions (whether they be chapters, sections, et cetera) must be called <div>

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All paragraphs must be called

All words must be called <w>

All texts must be called <text>

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+++

Root <TEI> element

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A <teiHeader> that describes both the *file* and the *primary* source that you are transcribing (if applicable)

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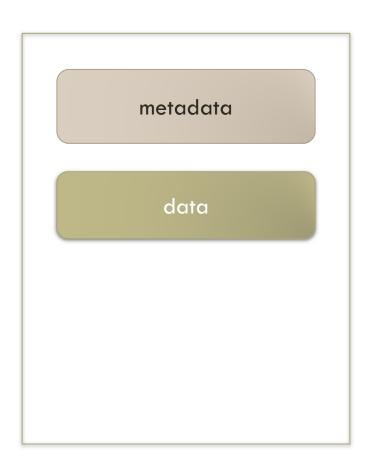
A <teiHeader> that describes both the *file* and the *primary* source that you are transcribing (if applicable)

A <text> that contains the text of the document

Within text, you can have a <front>, <body>, or <back>

#### TELLIS FOR DATA AND METADATA

```
<TEI>
   <teiHeader>
   </teiHeader>
   <text>
   </text>
</TEI>
```



#### BASIC TEI FILE

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 \( <TEI \text{ xmlns="http://www.tei-c.org/ns/1.0"} \)</pre>
     <teiHeader>
         <fileDesc>
4 🗢
            <titleStmt>
5 🗢
               <title>The Most Basic TEI File</title>
            </titleStmt>
7
            <publicationStmt>
8 🗢
               Not for publication, really.
9
            </publicationStmt>
10
            <sourceDesc>
11 ▽
               No source, born digitally for demonstrative purposes.
12
            </sourceDesc>
13
         </fileDesc>
14
     </teiHeader>
15
     <text>
16 🗢
         <body>
17 🗸
            Hello, world!
18
         </body>
19
     </text>
20
   </TEI>
21
22
```

Note that the TEI is huge (569 elements)

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E.g. Drama projects will use the drama tagset (<sp> for speech, <speaker> for speaker, et cetera) and discard the linguistic/dictionary tagset (<entry> for dictionary entries, <m> for morpheme, etc).

## THAT WAS A LOT OF INFORMATION IN A VERY SHORT TIME

Any questions?



## SAMPLE TEI PROJECTS

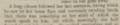












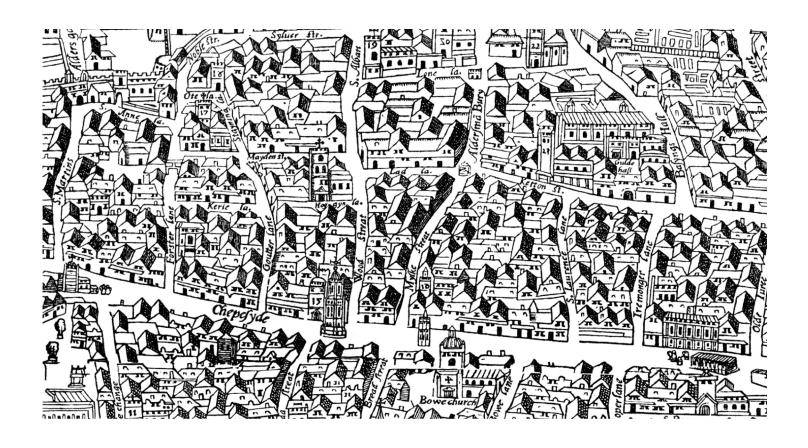


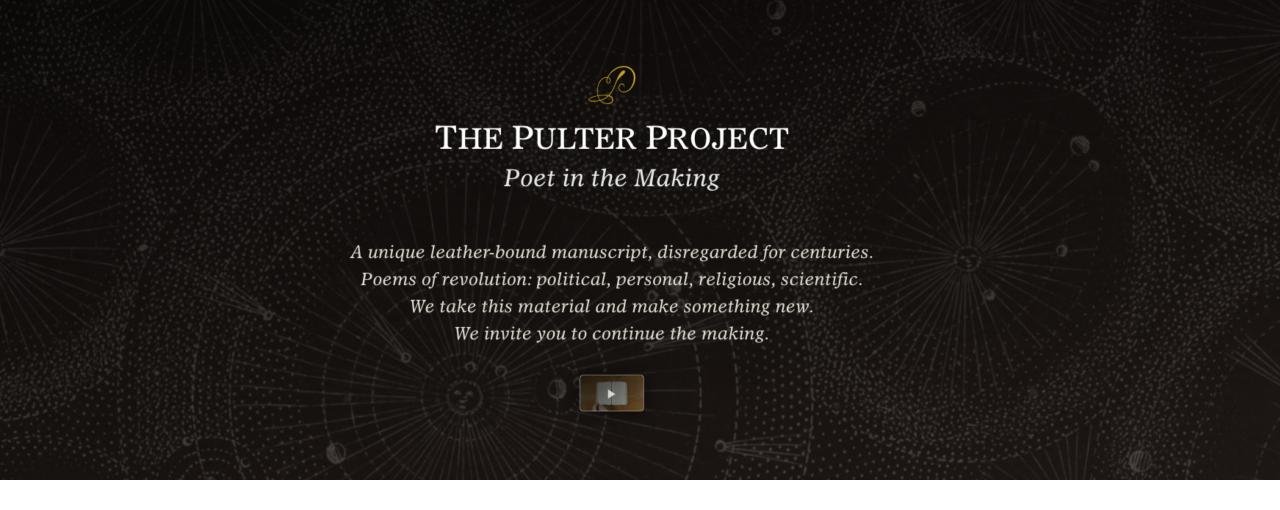
## THE SHELLEY-GODWIN ARCHIVE

at vanishes among the reewless gales . ar, far above, piescing the infinite sky out Blanc oppears, the I nowy & Jerene, subject mountains their unearthly forms le round it- ice & roch - brown charmshy fre son waves, unfathomable deeps The as the overhanging steaven, that spread no wind am ong the accumulated teeps, ast desarts, he opled by the storms alone are when the eagle brings some hunters by end the wolf watches her - how hideously rocks are heaper around, rude base & high hastly & scarred & owen, is this the same There the old Earth quake Tomor taught her un? were these theer togs? or did a soa young fire envelope once this silent snow? me can reply - all seems eternal now. his wilderness has a mysterious torque hich teacher awful doubt, or faith some simple, is screw that man may be Inch a faith with Nature recorded.

My own, my human mind . which fait now senders & recures fast influen Hoseine an unfore seeing intercha With the clear universe of Things a legion of swift thought, whose wa How float above the clarkness, & nor rear the still cave of the witch Po Tee king among the shadows that Shoot of the things That are, some for Some specte, some faint mage; the From which they fler recalls them - the Some say that gleams if a remoter Visit the soul in sleep - that death i and that its shapes the busy though Those who wake & his . Stock on . Las some unknown omnificance un The vail of life & death! or do in dream, I does the mighter be I meat far around, & inaccessity Driven like a homelep chow from the

# THE MAP OF EARLY MODERN LONDON





## THE PULTER PROJECT

## HE DO THE POLICE IN DIFFERENT VOICES



#### RESOURCES

```
The TEI's website: <a href="https://tei-c.org">https://tei-c.org</a>
```

TEI by Example: http://teibyexample.org/

Lou Burnard, What is the Text Encoding Initiative?: <a href="https://books.openedition.org/oep/679?lang=en">https://books.openedition.org/oep/679?lang=en</a>

Teach Yourself TEI: <a href="http://www.tei-c.org/support/learn/teach-yourself-tei/">http://www.tei-c.org/support/learn/teach-yourself-tei/</a>

DHSI @ UVic: <a href="http://www.dhsi.org/courses.php">http://www.dhsi.org/courses.php</a> (Scholarships available through DHSI for UBC students)

#### FURTHER READING

Kirschenbaum, Matthew. "What is Digital Humanities and What's It Doing in English Departments?" *ADE Bulletin*, no. 150, 2010.

MacPherson, Tara. "Why are the Digital Humanities So White?" Debates in the Digital Humanities, ed. Matthew K. Gold, University of Minnesota Press, 2015. [Both collections (2012, 2016) are very good]

Johnson, Jessica Marie. "Markup Bodies: Black [Life] Studies and Slavery [Death] Studies at the Digital Crossroads." Social Text, vol. 36, no. 4, 2018, pp. 57-79.

bianco, jamie skye. "Man and His Tool, Again? Queer and Feminist Notes on Practices in the Digital Humanities and Object Orientations Everywhere." Digital Humanities Quarterly, 2015. [This is an interactive article:

http://www.spikenlilli.com/projects/dhq/queerfemnotes.html]

#### THANKS!

Department of English Language and Literatures

Martin Holmes, Janelle Jenstad, The Endings Project, Uvic's Humanities Media and Computing Center, and Mary Chapman.