

Digital Approaches to Historical Inquiries 4th Class



Gifts to federal employees from foreign sources

• Title of Nobility Clause (U.S. Constitution, Article I, Statute 9):

"[N]o Person holding any Office of Profit or Trust under them, shall, without the Consent of the Congress, accept of any present, Emolument, Office, or Title, of any kind whatever, from any King, Prince, or foreign State."

- Foreign Gifts and Decorations Act (1966; 5 USC 7342)
- Reporting system for gifts over certain minimum threshold.
 - Reported by the Office of Protocol (Department of State) in the Federal Register



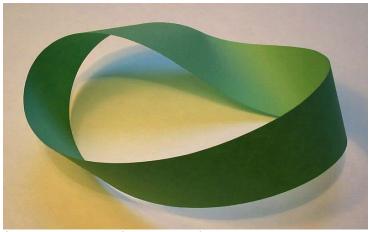
Cartoon by Cameron Cottril



Trump and Michael T. Flynn

What makes Historical Data(sets) special?

- Proxy
 - Dissimilar sources
- Fragmented
 - Sparse
- Interdependent (with time)
 - Multi-scalar/geo-locations unknown



A Möbius strip (wikimedia)

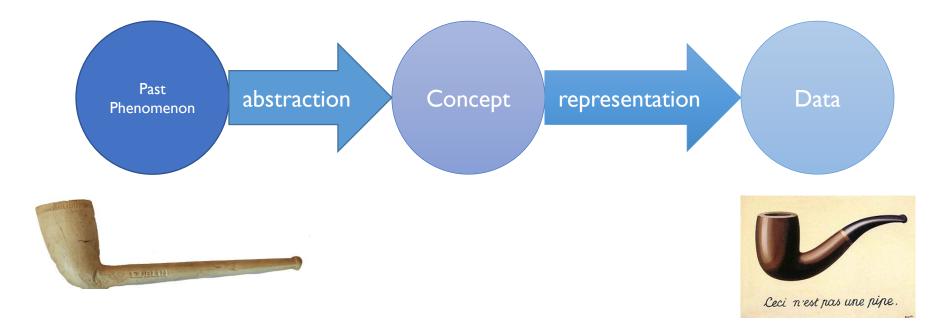


Magritte (1928/1929)

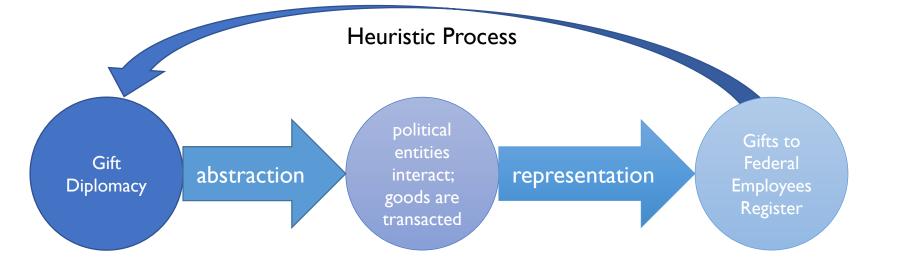


Fragment of P52 (earliest record of New Testament; wikimedia)

Proxies, Phenomena and Abstractions



Gift Diplomacy





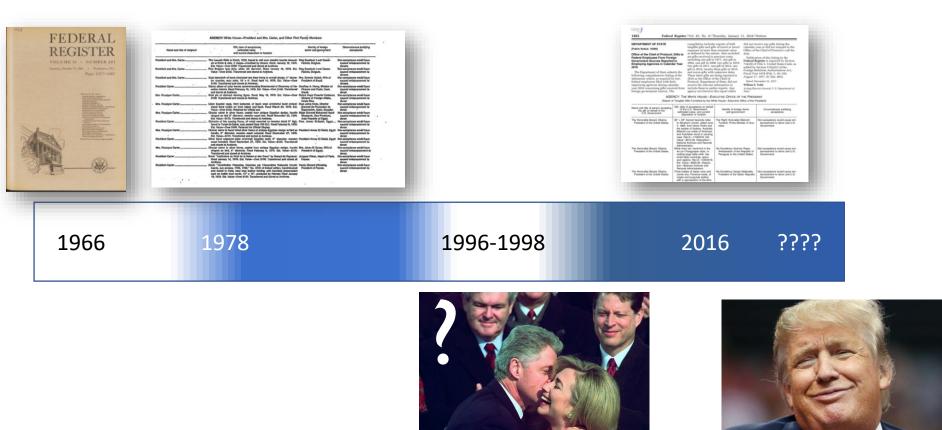
Public Miss: 1998) Office of the chick of Pontonic, Gin to Department Sciences Reported Sciences Sciences and Sciences and		tampha gifts and gifts de Ursvel conserved in merinda Valva are gifts received in previous years are gifts received in previous years including one gift in 1977, one gift in 1970, one gift in 2014, one gift in 2014, one gift is 1980 and 1980 and 1980 and 1980 and 1980 and 1980 and 1980 and 1980 and 1980 and 1980 and			not receive any gifts during the ndar year or did not respond to the	
				Office of the Chief of Protocol's call for data. Publication of this listing in the intermediate of the second second second particle of This Island States Cade, as added by Section 515(4)(1) of the Foreign Relations Authoritation Act, August 17, 1977, 49 Sat, Bool, Dated, Decomber 22, 2097. William K. Tohd, Acting Director General, U.S. Department of States. Department States. Department States. States. Department States.		
						[Report o
Name and title of person accepting the gift on behalf of the U.S. Government	Gift, date of acceptance on behalf of the U.S. Government, estimated value, and current disposition or location		identity of foreign donor and government		Circumstances justifying acceptance	
The Honorable Barack Obama, President of the United States.	36" × 28" framed tacsimile letter to Absaham Lincoln, dated June 4, 1863, from Henry Parts and the people of Stycher, Australia. Billiards cue made of Ameetam and Australian wood in carrying case. Rec:6—1195016. Est Value—4515.00. Disposition— National Archives and Records Administration.		The Right Honorable Malcolm Tumbull, Prime Minister of Aus- tralia.		Non-acceptance would cause em- barrassment to donor and U.S. Government.	
The Honorable Barack Obama, President of the United States.	Administration. White irone set, hand-knit in the Ao po'i Paraguagan style, in- cluding large table cloth, two small table coverings, apron and napkins. Rec/d=1/28/2016. Est, Value=5560.00. Disposi- tion—National Archives and Records Administration.		His Excellency German Rojas, Ambassador of the Republic of Paraguay to the United States.		Non-acceptance would cause em- barrassment to donor and U.S. Government.	
The Honorable Barack Obama, President of the United States.	Three bottles of Italian wine and carrier box, Florence-made, of maple and burgundy leather, with a reproduction of the litho-		His Excellency Sergio Mattarella, President of the Italian Republic.		Non-acceptance would cause em- barrassment to donor and U.S. Government.	

Dissimilar Sources

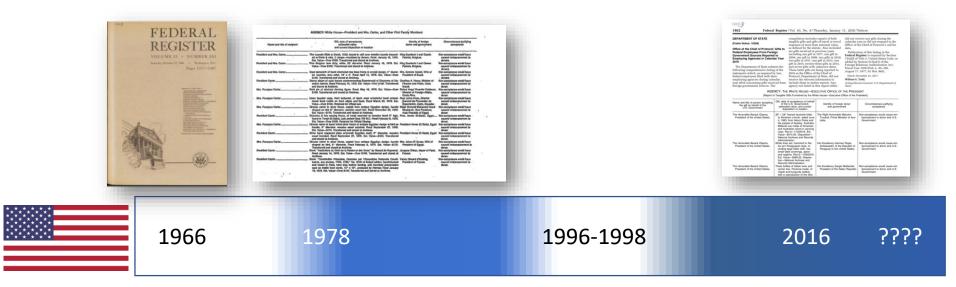




Fragmented



Sparse







Interdependent

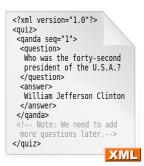
- Temporal:
 - Phenomenon takes place in time
 - Datestamp?
 - What system?
 - Contextual?
 - Phenomenon takes place over time
 - How to trace the phenomenon longitudinally?
 - Snapshots?
 - Dynamic?
 - Multi-levelled?
- Geographically
- Linguistically
- Other phenomena
 - Diplomatic Gift Giving and Economy or Identity or Popularity or...

President and Mrs. Carter	The Louvain Bible in Dutch, 1553, bound in calf over wooden boards decorat- King Baudoui	n I and Queen
•	ed w/fillets & rolls, 2 clasps-inscribed by donors. Recd. January 18, 1978. Fabiola, Be	lgium.
* • *	Est. ValueOver \$100. Transferred and stored at Archives.	-
President and Mrs. Carter		a I and Queen
	Value—Over \$100. Transferred and stored at Archives. Fabiola, Be	lgium.





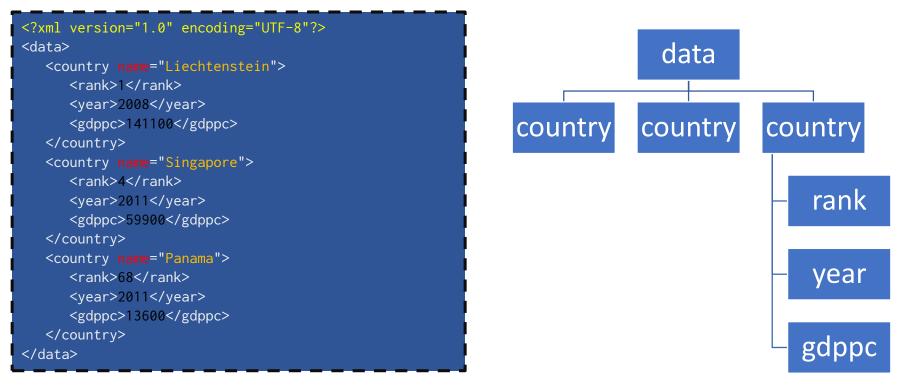
Markup languages



- Describe data, but "don't do anything" (not a programming language)
- Many different types:
 - HTML
 - Tex
 - Wiki-markup
- XML
 - eXtensible: can be extended (not a single pre-defined markup language)
 - **Markup:** from marking up a document, with <tags>...</tags>
 - Language: both human and machine readable, based in the Standard Generalized Markup Language (ISO 8879:1986)
- Authored by the World Wide Web Consortium, learn all about XML in their tutorial.
- XML is a widely used format for data interchange
 - Comparable to JSON, but <u>not the same</u>

XML

example adapted from **Python's ElementTree** documentation



<?xml version="1.0" encoding="UTF-8"?> → xml prolog

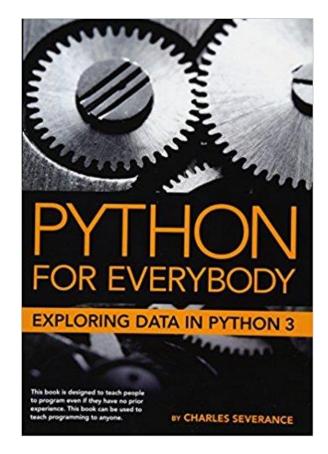
<data> → tag <data> ... </data>: → element name: → attribute

Liechtenstein: \rightarrow attribute value

 $I \rightarrow text$

Step - I: learn the basics of Python

- This how-to pre-supposes you understand the basics of Python, such as:
 - What variables are
 - What variable types are (e.g. integer, string)
 - What functions are
 - How to make for-loops
 - What an if-statement is
 - What a dictionary is in Python
- If you don't, you can still do this how-to, but you may not understand (some of) the code and why we use it.
- There are a LOT of Python tutorials out there
 - Learn Python!
 - Learn Python 3!
 - I learned Python from <u>Dr. Chuck</u>.
 - <u>www.py4e.com</u>



Step 0: download the how-to folder, extract it to your workfolder, and access your files folder with Anaconda.

- You can find the files for this tutorial at <u>www.shoresoftime.com/dighist</u> in the schedule for the 4th class.
- Unzip them to a folder of your choice in your P: drive (tip: keep the path short)
- Open Anaconda console and navigate to the location



- Tip: anything following # in Python is a "comment", it will be ignored by the computer when reading through your program.
- Test it yourself:
 - Run helloworld.py

Step I: access the xml-tree on the web



import urllib.request

url = 'http://www.shoresoftime.com/ObamaGifts.xml'
response = urllib.request.urlopen(url)

- All these steps can be found in the how-to folder, e.g. step I.py
- Try it yourself:
 - Open the .py file for editing
 - Write a function that will allow you to print the contents of *response* to the Anaconda console to see what you downloaded
 - hint: the python command to print to console is print()
 - Run the program
- **NB** Python or Anaconda does not have a built in virus scanner, so make sure, before you download anything, you can trust its source.



Step 2: save the xml-tree

import urllib.request

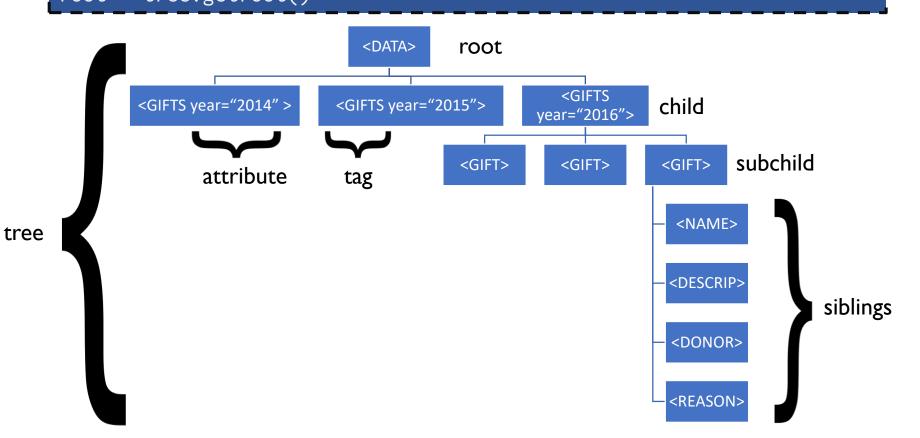
```
url = 'http://www.shoresoftime.com/ObamaGifts.xml'
response = urllib.request.urlopen(url)
contents = response.read()
file = open("ObamaGifts.xml", 'wb')
file.write(contents)
file.close()
```

- Run the program
- NB this is a very long route to take to save a xml file, we could also have navigated to the page and simply saved it via the browser. Still, it is good to have a bit of practice for when you will need to automate webpage accessing and downloading.

Step 3: Open the tree



import xml.etree.ElementTree as etree
with open('ObamaGifts.xml', 'rb') as xml_file:
 tree = etree.parse(xml_file)
root = tree.getroot()





Step 4: Look inside the tree

```
import xml.etree.ElementTree as etree
with open('ObamaGifts.xml', 'rb') as xml_file:
    tree = etree.parse(xml_file)
```

```
root = tree.getroot()
```

```
for child in root:
    print (child.tag)
```

- Run program
- Try it yourself:
 - Print the attribute of the GIFTS child
 - Hint: the abbreviation used here is attrib



Step 5: Look at the whole tree

```
import xml.etree.ElementTree as etree
with open('ObamaGifts.xml', 'rb') as xml_file:
    tree = etree.parse(xml_file)
```

```
root = tree.getroot()
```

```
for element in tree.iter():
    print (element.tag)
```

- Run program
- Try it yourself:
 - Print the tag and the text of the elements
 - Hint: you can separate variables (or strings) to print with a , e.g. print (x, y)

Step 6: Cut the tree in pieces (it won't hurt)

No one understands

OVe

```
import xml.etree.ElementTree as etree
with open('ObamaGifts.xml', 'rb') as xml_file:
    tree = etree.parse(xml_file)
root = tree.getroot()
for child in root:
    print (child.tag)
    for attribute, value in child.attrib.items():
        if value != "2016": continue
        for subchild in child.iter():
            print (subchild.tag, subchild.text)
```

- Run program
- Try it yourself:
 - Change the != operator to ==, what happens?

Step 7: How many gifts are under the tree?



import xml.etree.ElementTree as etree
with open('ObamaGifts.xml', 'rb') as xml_file:
 tree = etree.parse(xml_file)

```
root = tree.getroot()
giftevent = 0
gifts =root.findall(".//GIFT")
```

for gift in gifts: if "Barack Obama" in gift[0].text: giftevent = giftevent + 1 giftevent = str(giftevent) print ("Barack Obama had " + giftevent + " foreign gift parties during his presidency.")

- Run program
- Try it yourself:
 - How many gift events did Hillary have during the same time?
 - Tip: she is the only Hillary in this database

Assignment III

- Remember: these federal employees are not even supposed to accept gifts from foreign sources!
- End goal of this assignment is to have an exhaustive list of all the reasons these people have for still accepting gifts.
- Aim is to be able to extract information from an XML file as well as find solution to a programming question online.
- Spend 2 hours on this
- By next Tuesday, hand in, via a direct message to me in Slack:
 - your solution/the current output of your script (even if it is an error)
 - your script (even if it does not function)
 - a short overview of how you got to where you did (resources used, alternative solutions tried, etc.)

See you next week!