And how do they relate?

WHO WE ARE

Paul Youngman, German
Sara Spernkle, Computer Science

WHO YOU ARE

- Major
- Year
- Why are you taking the course?
- And what are your strengths and weaknesses in group work

KONRAD ZUSE’S Z3 1941

COLOSSUS 1943

ENIAC 1944
The Humanities are academic disciplines that **analyze**, **interpret**, and **critique**, and are often **speculative** in nature.

Which fields count?

- Ancient and Modern Languages
- Literature
- Philosophy
- Religion
- Performing Arts
- Theater
- Art
- Art History
- History
- Music

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**SCIENCE VERSUS HUMANITIES**

**Science**: The organized, systematic enterprise that gathers or discovers knowledge about the world and condenses the knowledge into testable laws and principles.

- Rocks
- Insects
- Machines

**Humanities**: The most original and valuable scholarship is usually interpretation and explanation of already existing knowledge or recovery.

- Truth
- Love
- Beauty

Can any biological study of conception and pregnancy specify the ethical, theological, or even political "moment" of life’s legal or moral inception?

How, in a purely logical sense, can the factual anthropology/sociobiology of morals resolve, or even usefully help adjudicate questions like...

What moral code **ought** we follow?
How, in a purely logical sense, can the factual anthropology/sociobiology of morals resolve, or even usefully help adjudicate questions like...  

What moral code *ought* we follow?  

What ethical duties *define* a life well-lived?

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**SO WHAT'S THE PROBLEM?**

“TO BE”  

Science: IS  

Humanities: OUGHT

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**WHAT DOES COMPUTING GOT TO DO WITH IT (THE HUMANITIES)?**

1. What patterns are of interest to literary scholars?  
2. Can we distinguish between patterns that are, for example, characteristic of the English language, and those that are characteristic of a particular author, work, topic, or time?  
3. Can we extract patterns that are based in things like plot or syntax?  
4. Or can we just find patterns of words?  
5. When is a correlation meaningful, and when is it coincidental?

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**WHAT IS COMPUTER SCIENCE?**

"Computer Science is no more about computers than astronomy is about telescopes." -- Edsger Dijkstra

- CS = Complexity Science

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**CS IS COMPLEXITY SCIENCE OR THE STUDY OF COMPLEXITY**

- How can it be done?  
  - Based on information  
  - Managing, manipulating data  
  - Possible algorithms  
- How well can it be done?  
  - Most efficient algorithm in terms of time and/or memory  
- Can it be done at all?  
  - Often, proof is a program--an implementation of the above
WHAT COMPUTER SCIENCE IS ABOUT

Problem Solving!

From 30 Rock

DIGITAL HUMANITIES

We introduced you to the chocolate
We introduced you to the peanut butter
Now, we’re going to introduce you to the peanut butter cup ...

WHAT IS DIGITAL HUMANITIES?

Fundamental Question:
Given that so much of our cultural output has moved into a digitized, networked platform, what does it mean in terms of the production of those materials, their availability, their validity, and the analysis of those materials?

WHAT IS DIGITAL HUMANITIES?

Traditional Humanities:
Authoring
Narrative
Textual models
Monographs

Digital Humanities:
Building
Images
Multimedial
Collaborative Projects

SHORT HISTORY OF DIGITAL HUMANITIES?

1940s - 80s: Humanities computing begins with archival projects
1980s-2000: Developed, critiqued, and disseminated ways of structuring humanities data to interface with computation
http://valley.lib.virginia.edu/

SHORT HISTORY OF DIGITAL HUMANITIES?

1990s: Games, immersive environments, multimedia expressions of humanities research like visualizations, geospatial representations, more simulated environments and network analyses

2000s: DH is a generative enterprise: one in which students and faculty alike are making things as they study and perform research, generating texts, yes, but also images, interactions, cross-media corpora, software and platforms.
HOW I GOT INVOLVED IN DH

Paul's story

Professor Paul Gregory in Philosophy had a problem
- Students need to be able to practice—at their convenience—symbolic logic and know if their answers are correct
- My research area: Web Application Testing
- Solution: let's make a web application!

HOW I GOT INVOLVED IN DH

UVA Trip
- TA's
  - Project Management and Software Development
  - Topic Modeling
  - 3D Modeling
  - Mapplication

COURSE OVERVIEW

1. There is no final paper.
   - Instead, you will work collaboratively as a team on a final project that will be presented online and at the Spring Term Fair.
2. You will be required to acquire technical skills.
   - While we do not assume any particular technical experience at the beginning of the semester, we will expect you to learn a number of skills as we go along. You should feel well-supported in learning these skills.
3. You'll have to do some things in public.
   - In digital humanities, we place a premium on experimenting (and sometimes failing) in public so that other people can learn from what we do and offer help if we need it. That's part of why we've asked you to create a blog and a Twitter account. Be sure you're OK with this before you commit to this class.
4. It is an experiment.
   - The W&L DH Initiative is working through a number of ideas about how to teach digital humanities. Among them is the conviction that students have the most fulfilling experiences when they are invited to participate in solving novel problems with real-world stakes. Unfortunately or fortunately, involvement in this kind of experience entails some patience with potential quirks, including:
     - an evolving syllabus
     - technical glitches
     - outright failure

HOW IS THIS COURSE DIFFERENT?

GRADING

Grading Policy: Course grades will be calculated according to the following:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Participation/Attendance</td>
<td>10%</td>
</tr>
<tr>
<td>Blog Entries</td>
<td>15%</td>
</tr>
<tr>
<td>Labs</td>
<td>20%</td>
</tr>
<tr>
<td>Team Project</td>
<td>35%</td>
</tr>
</tbody>
</table>

- Proposal 8%
- Preliminary data collection, implementation, and analysis 11%
- Web presentation, including final implementation, results, and analysis 10%
- Oral presentation 8%
- Poster 5%
- Post-project analysis 5%
LOOKING AHEAD

- This afternoon’s lab
  - Parmly 405
- Thursday – Scholars Lab
  - Meet on top level of parking deck at 9:00 a.m.