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# The Digital Musing of a History Buff

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# The Digital Musing of a History Buff

## **Abstract**

Perhaps the best part of studying Computer Science (CS) is that it is not an isolated discipline; CS exists to produce systems and applications that support the business and interests of nearly every person in the world. Any area of inquiry is open to fanciful and meaningful exploration by computer scientists. In a very real sense, the world is the oyster of those who can use digital tools developed by CS.

In his talk, Dr. Kann will explore how he uses those digital tools to advance his enthusiasm for history. The talk will highlight some of the work he has done with students on digital representations of interest to both CS students and others who are history buffs. While the range of applications he has worked on is much more extensive, here he will largely focus on map applications.

Dr. Kann will also talk about basic digital tools, such as image maps, that can be used by people without a CS background. For example, he'll share how easy it is to create tools such as "<http://270towin.com>", and show how they could be applied to areas such as political science (polling maps), health science (epidemiology), sociology (networks), etc.

By giving this talk, Professor Kann hopes to excite those students who might be interested in doing a research topic in digital applications. While mainly geared towards CS students, hopefully students or faculty from other disciplines will see a connection and pair with CS students to develop applications of mutual interest. [*event description*]

## **Keywords**

Public History, Maps, Image Maps, History web site

## **Disciplines**

Instructional Media Design | Public History

## **Comments**

Given as a presentation as part of the Computer Science Colloquium Series in Fall 2016.

# The Digital Musing of a History Buff



Charles W. Kann

Slides available at: <http://public.gettysburg.edu/~ckann/talks/The Digital Musing of a History Buff.pptx>

# Purpose of Talk

- To see if I can get students and/or other faculty interested in pursuing common interests in the digital scholarship area.
- Note: The type of problems I am interested in would have to be something I could assign as research to a CS student. The IT department at Gettysburg College provides a great support from Eric Remy and his support team for help in adding interactivity to classes.
- The library provides a great asset in helping with Digital Scholarship project. Contact R. C. Miessler or Janelle Janelle Wertzberger for assistance.

# Digital Scholarship

- Data manipulation and storage
- Representation
  - I generally only deal with representation
  - This talk will cover just mapping.

# My Areas of Interest in DS

- Using maps for representations and structuring of information.
- Time Lines/Time Maps
  - 3rd or 4th dimension to a map
- Photos and video representations
  - 3-D photos, Photosynth
- Creating Interesting Cross Disciplinary Problems
  - Includes all phases of PM
  - Creating games and animations (Clif's research)
- Creating representations that would be of interest to CS major
  - No Word Press type application (generally speaking)

# Talk Overview

- What are maps?
  - Geographic Picture
  - GIS
  - Linear Maps
  - Overlay Maps
  - X-Y Maps
  - Other Maps
- Current Map Applications
  - Map-Picture Overlay (MPO)
  - Gettysburg Battlefield Monuments
- Overlay Maps (using Image Maps and Open Layers)
  - Civil War in the West
  - Political map
- Linear Maps
- Pictures as Maps
  - X-Y Maps (pictures)
- Other Map Applications
  - Decision Trees

# What are Maps?

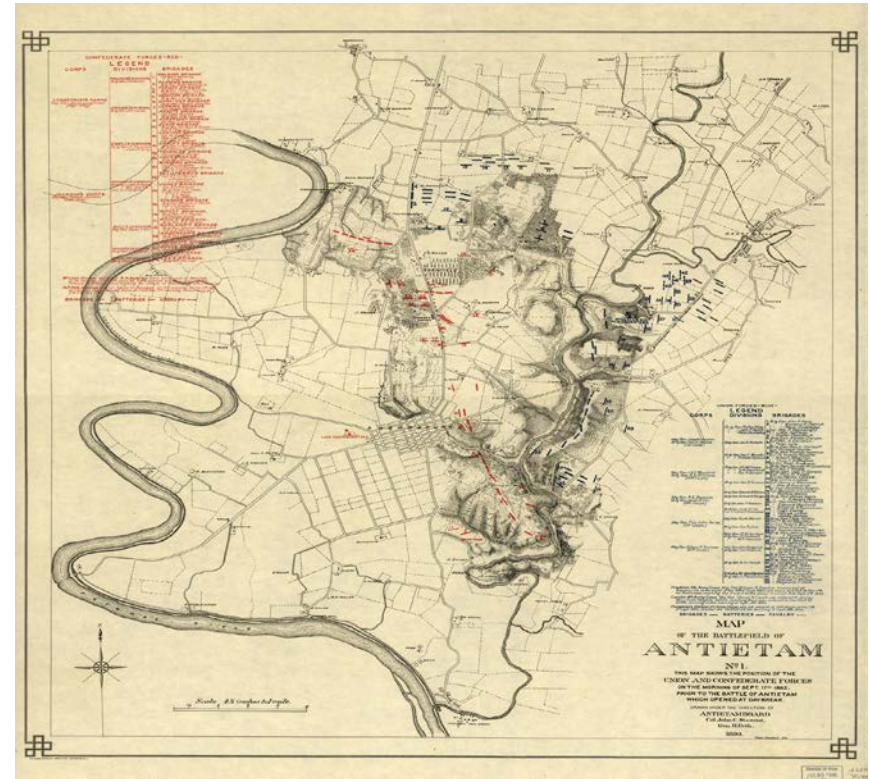
- A diagrammatic representation of an area of land or sea showing physical features, cities, roads, etc. - (Wikipedia)
- An association of an element of a set with an element of another set. (Mathematics)
- A symbolic depiction highlighting relationships between elements of some space. - Wikipedia
  - This is the definition I will use.



# Types of maps — Geographic Picture

## □ Geographic Pictures

- Older Maps
- Atlases
- Note this map is also contains information layered on the map, which is either helpful or bothersome.



# Types of maps – GIS

## Graphical Information System (GIS)

- Google Maps, Bing Maps, MapQuest, Etc.
- Maps as Layers (Open Layers)



# Types of maps – Linear Maps

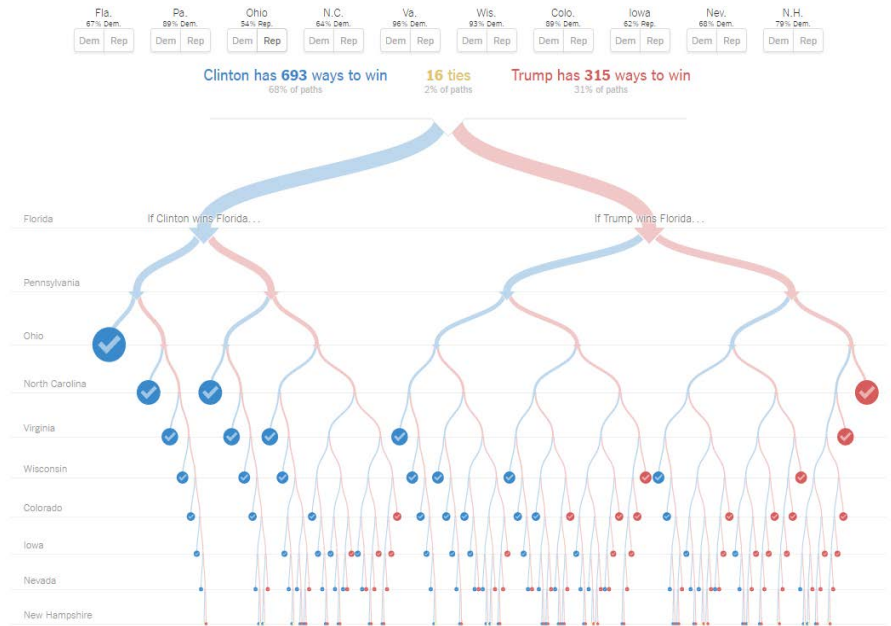
□ Linear Maps are generally not to scale, nor do they represent true geographic representations

- Historical Maps
- Metro Maps
- Directions



# Types of maps — X-Y Maps

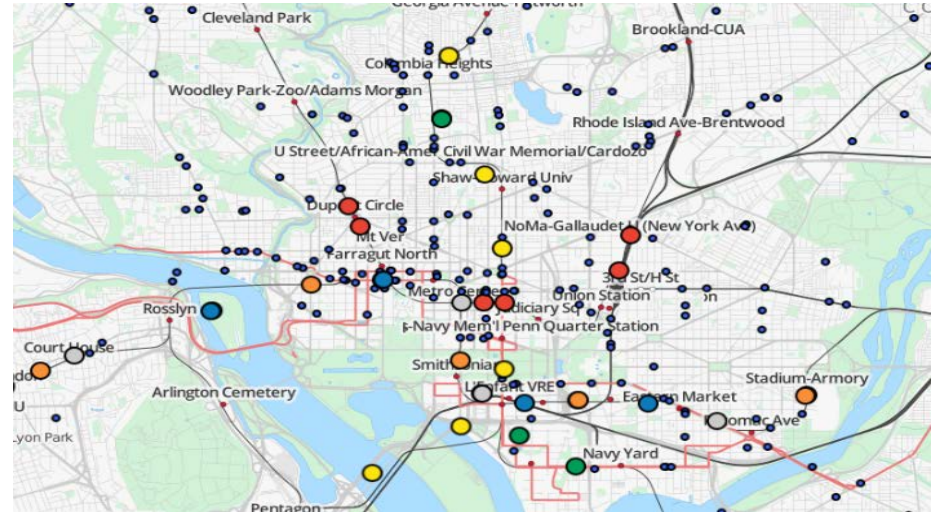
- X-Y maps are not geographic
  - Pictures (not of maps)
  - Can be overlaid like an old overhead projector
- Other Map Application
  - Decision Trees
  - MRI (3-D)
  - Human Genome



# Types of maps – Overlay Maps

□ Overlay maps are two maps which share coordinates (Lat-Long or X-Y) displayed together

- Washington Metro
- MPO



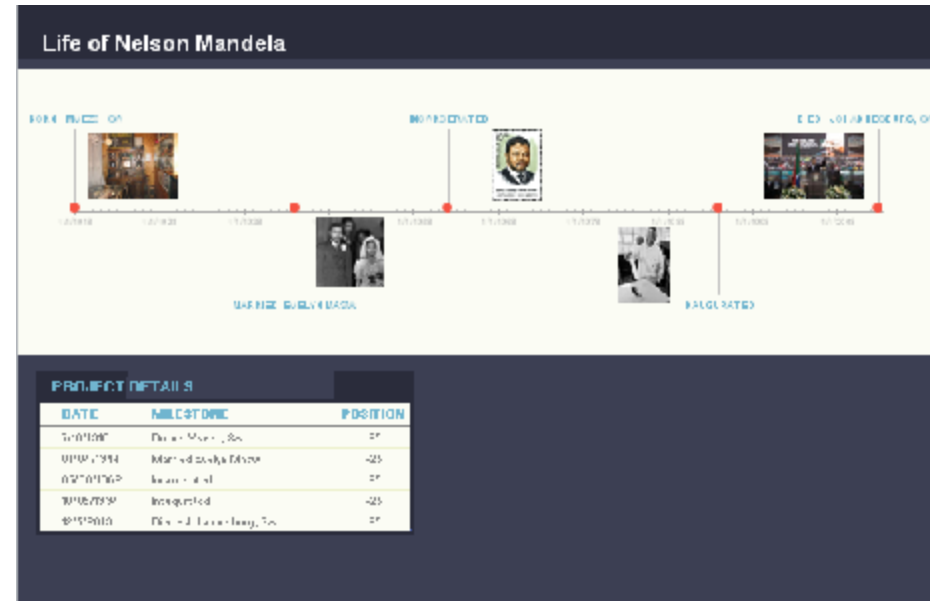
# Current and Recent Work on Maps

- [MPO](#)
- [Monuments](#)



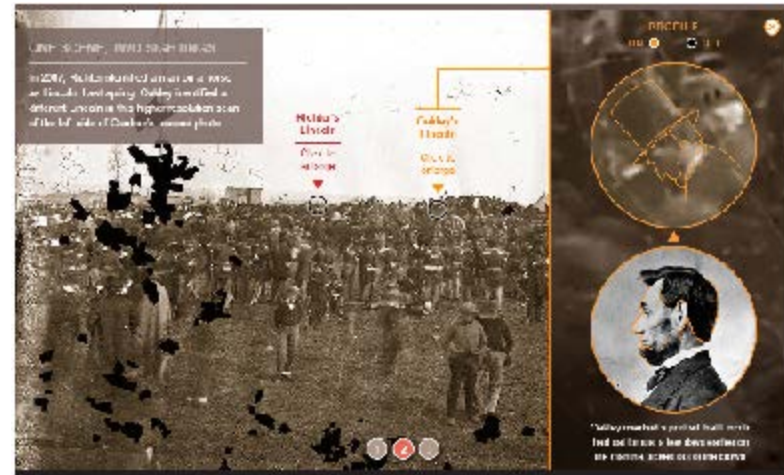
# Easy to Implement Tools

- Image Maps
- Excel Templates
- The goal is to enable researchers and non-professionals users to integrate easy to use tools into their passion.



# My Favorite Digital Scholarship Representation

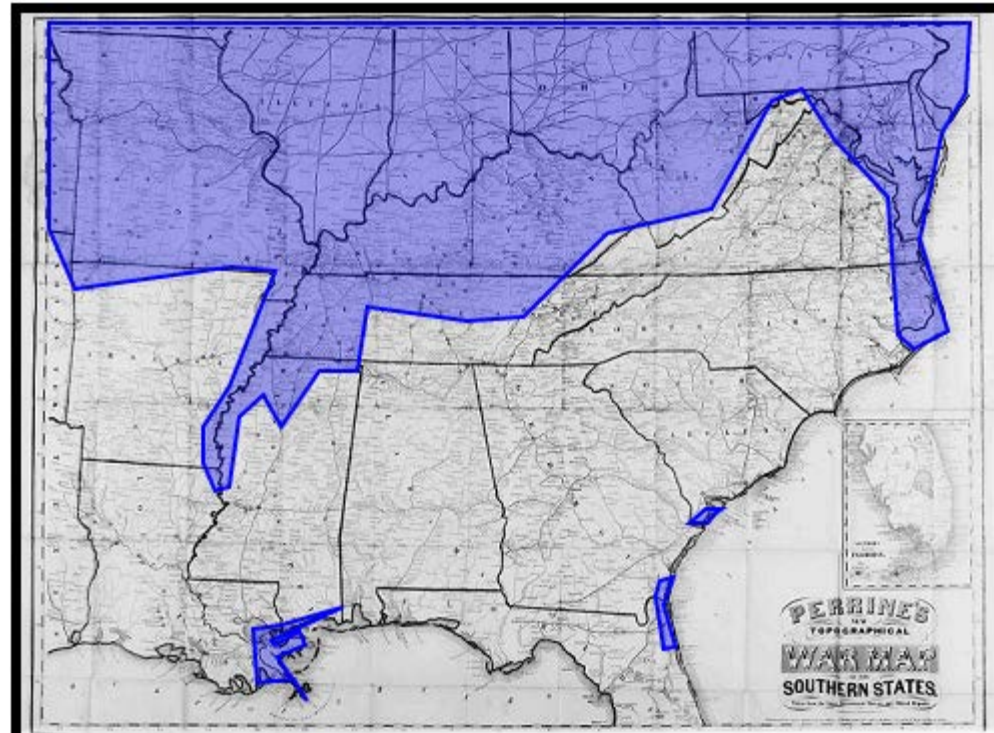
- [Seeking Lincoln at Gettysburg...](#)





# Image Map Applications

- [Presidents at Mt. Rushmore](#)
- [Clickable US Map](#)
- [Civil War in the West](#)
- [Civil War with Popups](#)



# Interests and Future Work

- Creating tools for novice end users to represent information
- Completing and Using MPO
- Continue working on mapping and battlefield applications
- Story Arc
- Battle editor
- Helping researchers and other buffs to integrate easy to use tools into their passion.
- So ask me...

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