

# Adapting HUBzero for the Arts and Humanities

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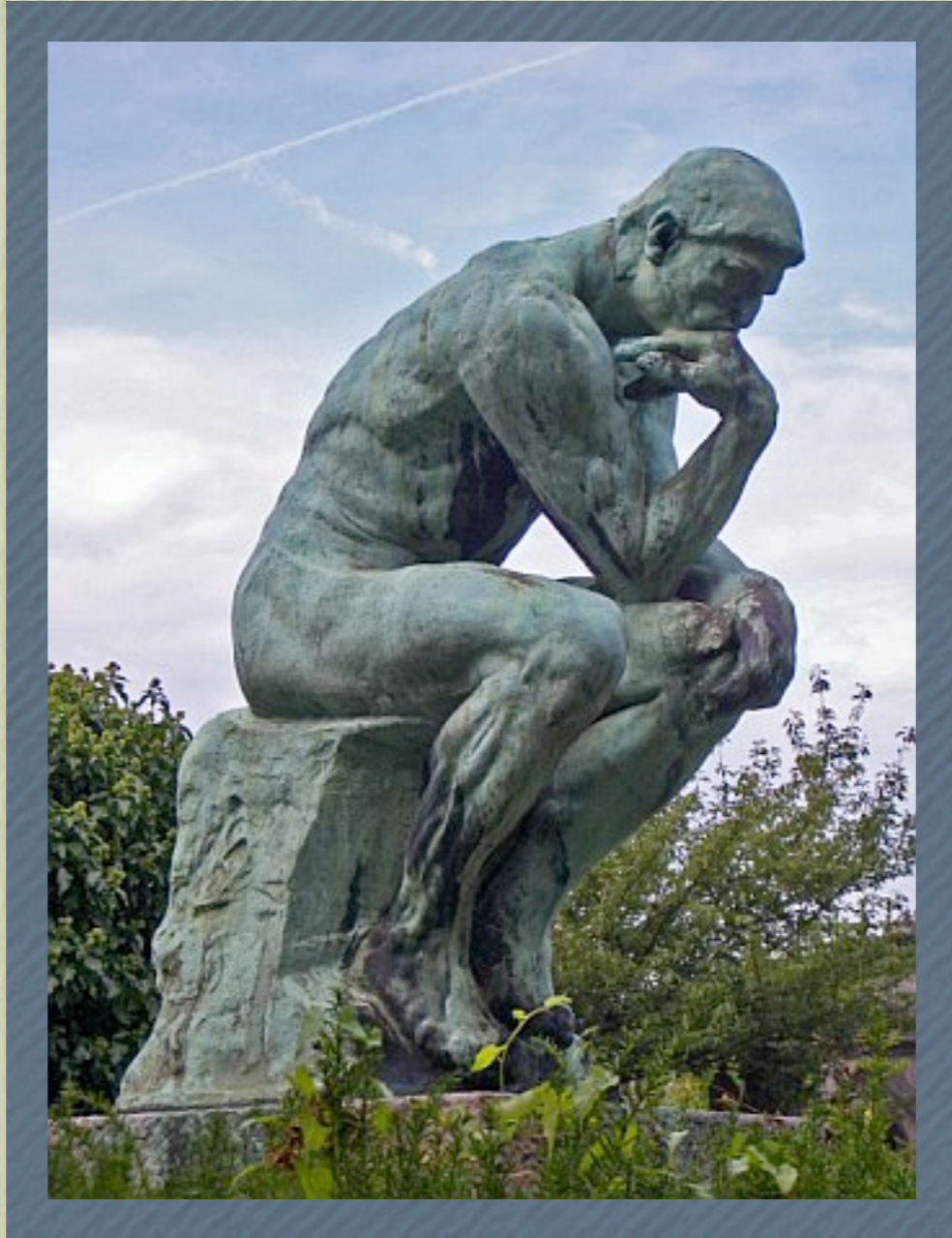
Bruce Barton, University of Wisconsin-Madison



# Broad outline

- What does scholarship look like in Humanities 2.0?
- Project Bamboo
- Adapting HUBzero for use as a Bamboo Work Space







*The merry Wives of Windsor.*

you would desires to acquainted withall;  
*Page.* I warrant you, hee's the man should fight with him.  
*Sir.* O sweet *Ann Page.*  
*Shal.* It appears so by his weapons; keep them a sunder, here comes Doctor *Caus.*  
*Page.* Nay good Master Parson, keepe your weapon.  
*Shal.* So doe you, good Master Doctor.  
*Hos.* Disarme them, and let them question; let them keepe their limbs whole, and hacke out English.  
*Cai.* I pray you let-a-mee speake a word with your care; wherefore will you not meet a me?  
*Enan.* I Pray you vse your patience in good time.  
*Caus.* By gar, you are de Coward: de Iacke dog: Iohn Ape.  
*Enan.* Pray you let vs unt be laughing-stocks to other mens humors; I desire you in friendship, and I will one way or other make you amends; I will knog your Vrial about your knaues Cogs-cumbe.  
*Cai.* *Diabie; Iock Rugby:* mine *Hos de Iartee;* haue I not say for him, to kill him? haue I not at de place I did appoint?  
*Enan.* As I am a Christians soule, now looke you; this is the place appointed, ile be iudgement by mine *Hos of the Garter.*  
*Hos.* Peace, I say, *Gallia and Galle, French and Welch,* Soule-Cures, and Body-Curer.  
*Cai.* I, dat is very good, excellent.  
*Hos.* Peace, I say, heare mine *Hos of the Garter,* Am I politicke? Am I suble? Am I a Machiuell? Shall I loue my Doctor? No, he giues me the Potions and the Motions. Shall I loue my *Parson my Priest?* my *Sir Iohn?* No, hee giues me the Prouerbes, and the No-verbs. Gae me thy hand (*Celestiall*) so; Boyes of Art, I haue deceiu'd; ou both; I haue directed you to wrong places; your hearts are mighty, your skinnes are whole, and let burn'd Sacke be the issue; Come, lay their swords to pawne, Follow me, Lad of peace, follow, follow, follow.

*Shal.*

*The merry Wives of Windsor.*

*Shal.* Trust me, a mad *Hos:* follow Gentlemen, follow.  
*Sir.* O sweet *Ann Page.*  
*Cai.* Ha'do I perctiue dat? Haue you make-a de. lot of vs, ha, ha?  
*Enan.* This is well, he has made vs his vlowting-flog; I desire you that we may be friends; and let vs knog our praines together to be reuenge on this same scall scurvy-cogging-companion the *Hos of the Garter.*  
*Cai.* By gar, with all my heart; he promise to bring mee where is *Ann Page,* by gar he deceiue me too.  
*Enan.* Well, I will smite his nooidles; pray you follow.

*Scena Secunda.*

*Miss Page, Robin, Ford, Page, Shallow, Slender, Hos, Enan, Caus.*

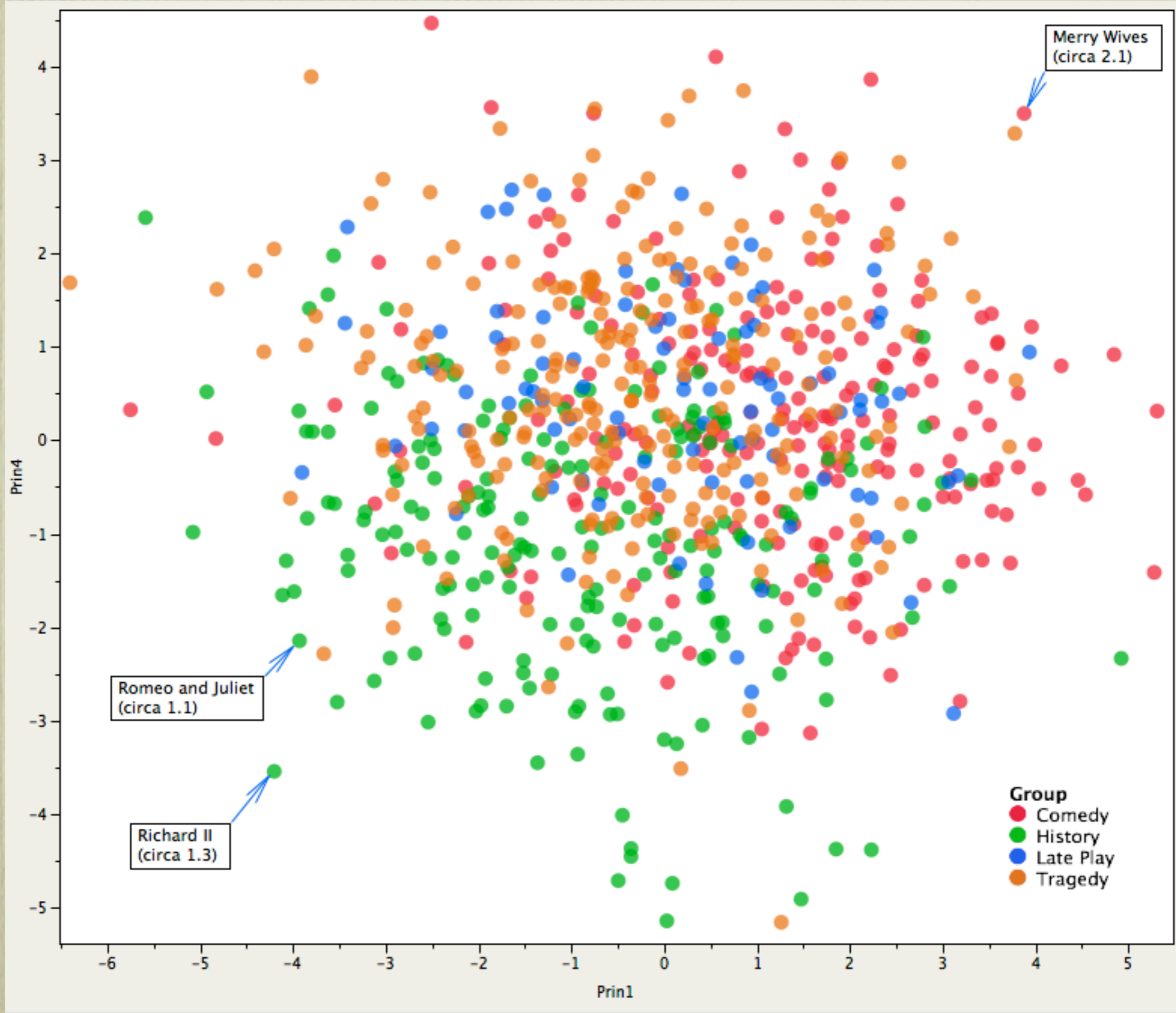
*Miss Page.* Nay keepe your way (*little Gallant*) you were wont to be a follower; but now you are a Leader: whether had you rather lead mine eyes, or eye your masters heeles?  
*Rob.* I had rather (*forsooth,* goe before you like a man) then follow him like a dwarfe. (*Courter.*)  
*Miss Page.* O you are a flattering boy, now I see you'll be a *Ford.* Well met mistress *Page,* whether go you?  
*Miss Page.* Truly Sir, to see your wife, is she at home?  
*Ford.* I, and as idle as she may hang together for want of companie; I thinke if your husbands were dead, you two would marry.  
*Miss Page.* Be sure of that, two other husbands.  
*Ford.* Where had you this pretty weather-cocke?  
*Miss Pa.* I cannot tell what (*the dickens*) his name is my husband had him of, what doe you cal your Knights name?  
*Rob-Sir Iohn Falstaffe.* (*Gistrald*)  
*Ford.* Sir *Iohn Falstaffe.*  
*M.P.* He, he, I can neuer hit on's name; there is such a league between my goodman, and he; is your Wife at home in deed.

*E 3*

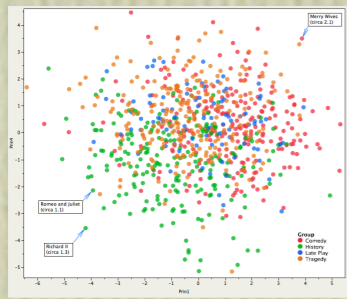
*Ford,*

Shakespeare, The Merry Wives of Windsor, 1630







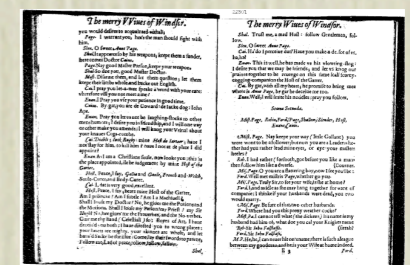


Visualization

DocuScope

PCA

Page image

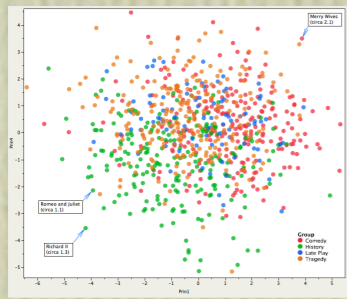




# DocuScope

- 100 categories of “representational effects”
- over 8,000,000 mappings of English words and strings of words into the categories, developed by a scholar of rhetoric at Carnegie Mellon over ten years
- marks and counts categories found in a text





Visualization

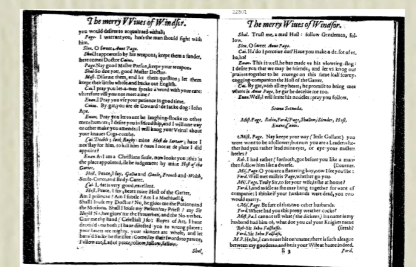
PCA

DocuScope

Text Creation Partnership

OCR

Page image





# Text Creation Partnership

- Made available 25,000+ structurally marked-up full-text transcriptions of early English books drawn from Early English Books Online, of which there are roughly 125,000 titles covering the period from 1473 - 1700
- eight years of work



Reading

PCA

Visualization

DocuScope

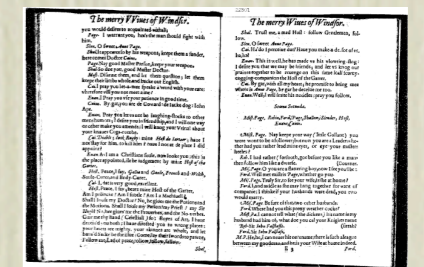
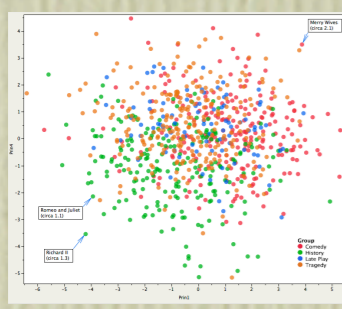
Sample selection and preparation

Spelling normalization

Text Creation Partnership

OCR

Page image





# Knobs?

- Let's try amplifying speeches by particular characters.



# three things to notice about humanities scholarship

1. collaboration and specialization

2. tools

3. objects

- provenance and relationships



# Project Bamboo

- collaboration of 10 research universities
  - Australian National University
  - Indiana University
  - Northwestern University
  - Tufts University
  - University of California, Berkeley
  - University of Chicago
  - University of Illinois, Urbana-Champaign
  - University of Maryland
  - University of Oxford
  - University of Wisconsin, Madison
- supported by the Andrew W. Mellon Foundation
- working to provide a computing ecosystem to support scholarship in the arts and humanities



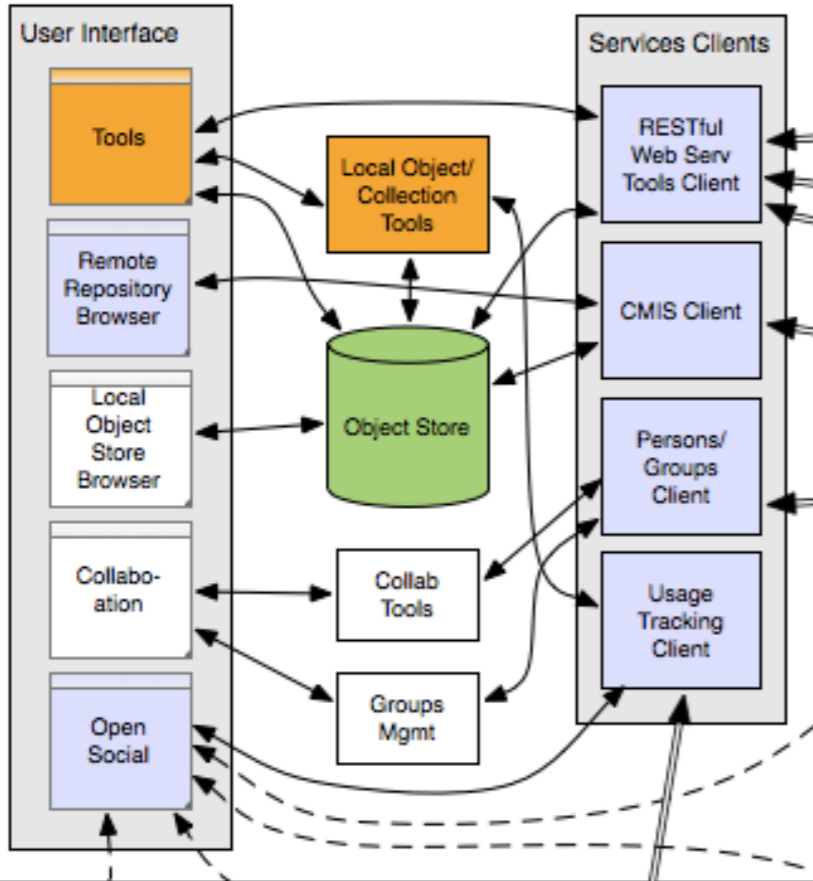
# Bamboo Ecosystem Strategy

- select and adapt existing platforms and tools
- wire these together through services

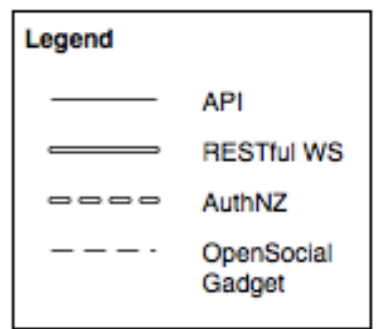
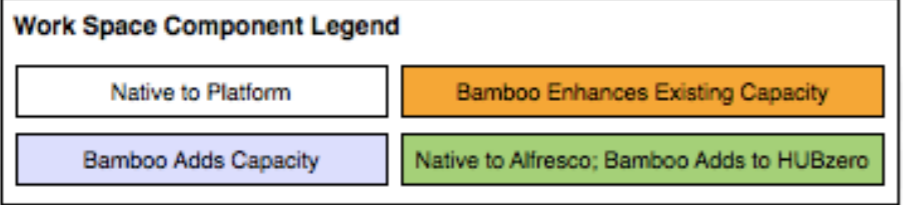
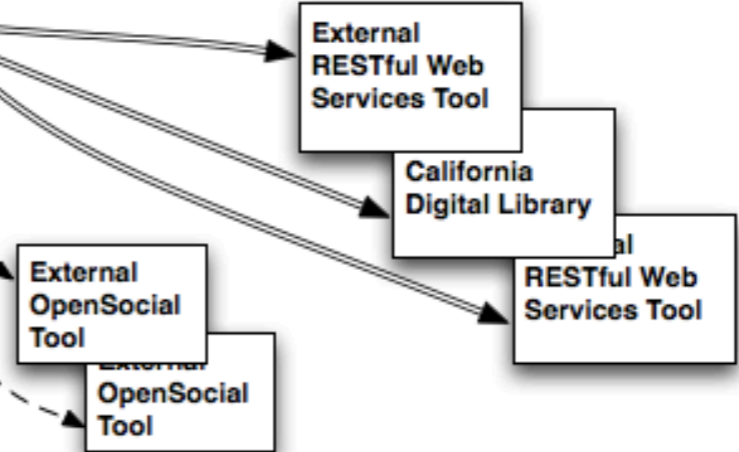
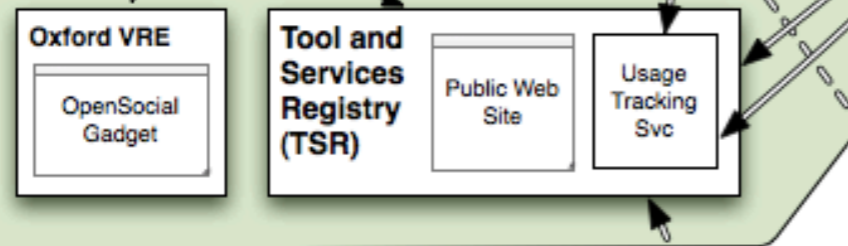
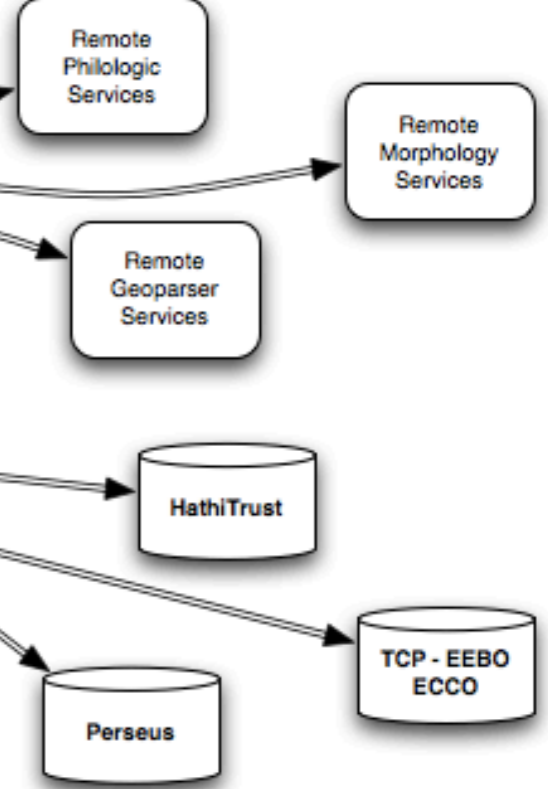
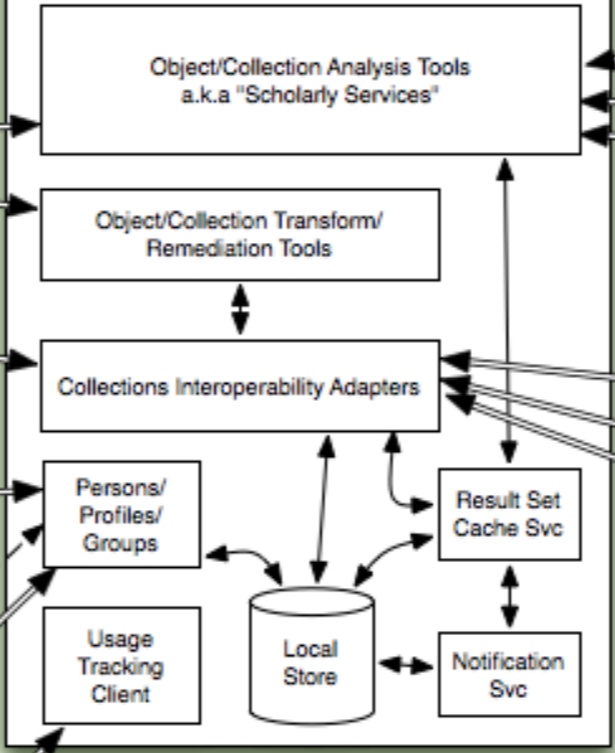


# Bamboo Ecosystem

## Bamboo Work Space



## Bamboo Service Platform





# adapting HUBzero

- object repository  $\Rightarrow$  Fedora Repository
- remote (and local) repository access  $\Rightarrow$  CMIS
- object marshaling to tools
- remote tool invocation  $\Rightarrow$  RESTful web services
- tool integration  $\Rightarrow$  OpenSocial
- ecosystem collaboration  $\Rightarrow$  Bamboo Person



# The End

- <http://projectbamboo.org>
- Jonathan Hope, Michael Witmore, “The Hundredth Psalm to the Tune of ‘Green Sleeves’”: Digital Approaches to Shakespeare’s Language of Genre, *Shakespeare Quarterly*, Vol. 61, No. 3, Fall 2010
- Mike Witmore’s blog: <http://winedarksea.org>
- [bhbarton@wisc.edu](mailto:bhbarton@wisc.edu)