SOFTWARE METHODOLOGIES IN DIGITAL HUMANITIES

User-centered approach

Roberto Therón
“We shape our tools, and then the tools shape us.”
The field of research in digital humanities is undergoing a rapid transformation in recent years:

- the volume, heterogeneity and complexity of datasets
- available infrastructures
- inclusion of citizens in the creation and consumption of the cultural resources offered
- etcetera

Present technologies make it possible to achieve projects that were impossible until recently, but the field is currently facing the challenge of proposing frameworks and systems to generalise and reproduce these proposals in other knowledge domains with similar but heterogeneous data sets.

**My View**
But... What is the state of the art regarding User-Centered Design in DH?
Well-designed digital tools facilitate the creation of new knowledge in the humanities. **Good design is user-centered, focused, and needs-driven, all of which depend on a rich understanding of the target audience or end user.**

As more digital libraries and digital humanities projects are developed, it is crucial to ensure that they are designed with the user experience in mind so that they are useful, sustainable, and can help generate new methodologies and knowledge in the humanities.

Decades of digitisation have made a wealth of digital cultural material available online. Yet search — the dominant interface to these collections — is incapable of representing this abundance. Search is ungenerous: it withholds information, and demands a query.

Scholarly collaboration is much studied but little understood.

Despite significant investments in the development of digital humanities tools, the use of these tools has remained a fringe element in humanities scholarship. [...] The results of the study reveal the variety of users interested in digital tools as well as their enthusiasm, reactions, and frustrations, including the expectations and confusion that has created barriers to tool use and to the wider adoption of new research methodologies.

Digital Humanities in the 21st Century: Digital Material as a Driving Force
‘Analysis’, ‘prototype’, ‘user feedback’ and ‘design’ are locked into endlessly iterative cycles of ‘task specification’ and ‘deliverables’. This language does not come from a theory of interface, but from a platform of principles in the software industry.

As digital visualization tools have become more ubiquitous, humanists have adopted many applications such as GIS mapping, graphs, and charts for statistical display that were developed in other disciplines. But, I will argue, such graphical tools are a kind of intellectual Trojan horse.

Performativity is based on the conviction that a system should be understood by what it does, not only how it is structured. As digital humanities matures, it can benefit from a re-engagement with the mainstream principles of critical theory on which a model of performative materiality is based. [...] How we might move towards integrating this model and critical principles into a model of humanistic interface design.

PRAGMATIC, BUT HIGHLY MECHANISTIC APPROACH, BASED ON FUNCTIONAL MODELS OF TASK AND GOAL THAT ARE INAPPROPRIATE IN THE HUMANITIES, WHERE "DISTRACTION, ENGAGEMENT, FLOW EXPERIENCE AND PLEASURE-DRIVEN ACTIVITY ARE NOT GOAL-ORIENTED, BUT MOTIVATED BY THE PROCESS"

https://www.youtube.com/watch?v=o3wEHPV9wMl
Roberto Theron and Laura Fontanillo

Diachronic-information visualization in historical dictionaries


https://www.youtube.com/watch?v=NUyR1_7k7sM
USER-CENTERED DESIGN

1. Competence analysis
2. Audience definition
3. User scenarios
4. Content survey
5. Process flows
6. Site map
7. Wireframes
8. Design
9. Prototyping
10. User testing
11. Review
12. Approval

UCD

PROTOTYPE & USER TESTING

DISCOVERY

CONCEPTING
Focus on user and need finding

Bias toward action and cycling through many solutions (fail early, fail forward)

Cyclical—loop through stages one or many times
INSPIRATION

Observe
Engage
Watch and Listen
IDEATION

Generate the broadest range of possibilities
Talk, sketch, write down or physically build
Separate generation of ideas from judgment of ideas
**Iterate - Building a Prototype**

“A prototype can be anything that a user can interact with – be it a wall of post-it notes, a gadget you put together, a role-playing activity, or even a storyboard.” - d.school
Get feedback on prototype - bring it back to the user
Enhance empathy
I added all of the product features that each of you demanded.

Now our product is a worthless hodgepodge of complexity.

I appreciate your input. I couldn't have failed without you.

Teamwork!

We need three more programmers.

Use agile programming methods.

Agile programming doesn't just mean doing more work with fewer people.

Find me some words that do mean that and ask again.
THANKS

Your user requirements include four hundred features.

Do you realize that no human would be able to use a product with that level of complexity?

Good point. I'd better add "easy to use" to the list.