### THE LANDSCAPE OF DIGITAL **ANNOTATIONS AND ITS MEANING NIELS-OLIVER WALKOWSKI S** CUTUCHIQUENO

Language Technologies and Digital Humanities 2016 - Ljubljana

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### DARIAH AND THE WORKING GROUP ON DIGITAL ANNOTATIONS

### OUTLINE

- the state of digital annotations
- a survey on digital annotation practices
- a systematology for the evaluation of annotation practices and the contextualization of annotation data
- some thoughts on the development of annotating

### **STATE OF DIGITAL ANNOTATIONS**



### **ACTIVITIES AND DEVELOPMENTS**

- ESFRI Projects, EUROPEANA and PELAGIOS
- W3C Open Annotation and Web Annotation
- annotator.js and hypothes.is
- research field specific community projects



### THE HIERARCHY BETWEEN ANNOTATED **OBJECT AND ANNOTATION**

Annotating, the act of creating associations between distinct pieces of information.

### Sanderson et al. 2013

### THE INTERCHANGEABILITY BETWEEN **BODY AND TARGET**

### Recogito

### Beginner's Tutoriai

### Text Annotation

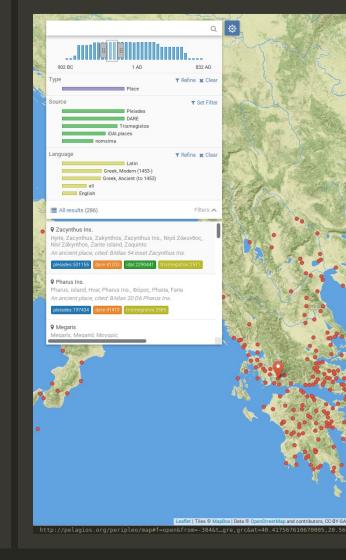
When you start working on a new text document, this is usually where you will want to begin (Fig.2). You can annotate place names in the text by word processing tool, you select by clicking and dragging with your mouse, or by double clicking on a word. After selecting a piece of text, a conf verify whether you want to annotate the selected text as a place name or not (1)



Fig.2 Text Annotation Area.

To delete an annotation, simply select it again. A popup dialog will ask for confirmation. Modifying an annotation (i.e. changing its start or end, or into one) is equally straightforward. Just select the place name the way you want it, and the popup dialog will ask you to confirm the change.









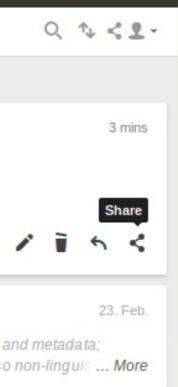
### **ANNOTATIONS AS FIRST-CLASS RESEARCH-PUBLICATIONS**

	>	S Public -		
	0	8	Public	
			close 🛞	
and physical documents.[citation needed]	1		View group activity and invite others	
g. One educational technique when analyzing prose literatur	re is to h		5P	
on that merely identifies the source.		tan	langtu	
		In linguistics, annotations include com these non-transcriptional annotations		
		it s	hould have more applications	

ighting, naming or labelling and commenting aspects of visual repres resentations (e.g. images).<sup>[2]</sup> This is especially important when expe Common Ground between interactants with different levels of knowl eech leads to significantly improved knowledge exchange compared

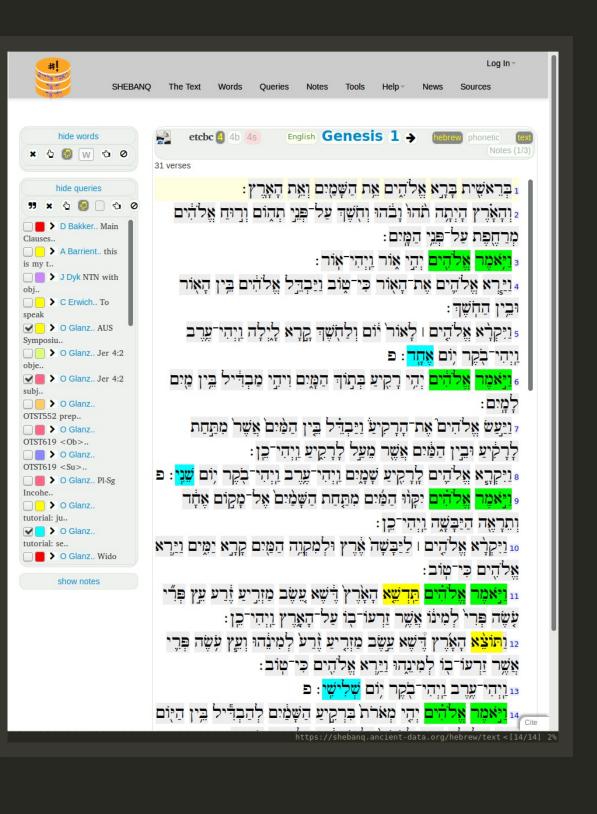
language metadata

Show replies (1)



5 <

## THE TEMPORAL PRECEDENCE OF THE ANNOTATED OBJECT



## THE VISIBILITY OF ANNOTATIONS AND THE RANGE OF ANNOTATION PRACTICES

collaboration, crowdsourcing and visibility



## THE MATRIX OF DIGITAL ANNOTATIONS AND ITS BINARITIES

- private or public
- formal or informal
- subjective or factual
- information content or resource content
- stable or dynamic

• ...

## **QUESTIONS TO ASK:**

- 1. what are annotations today or in the language of infrastructure projects, which best practices in annotating exist?
- 2. what needs to be known from annotation contexts so that annotation data can be reasonably used elsewhere? In technical terms, what are the metadata needs?

### THE MEANING IN ANNOTATIONS

... or which context dimensions create an impact on the interpretability of annotations

### UNS v of annotations

## **PREVIOUS EFFORTS ON THE** INTERPRETABILITY OF ANNOTATIONS IN THE DIGITAL HUMANITIES

- **Chiang**: A Multi-Dimensional Approach to the Study of Online Annotation
- **Bauer & Zierker**: Whipping Boys Explained. Literary Annotation and Digital Humanities
- Open Annotation: oa:motivatedBy oa:Motivation
- Agosti: A historical and contemporary study on annotations to derive key features for systems design
- **Gradmann**: Beyond Infrastructure

## DARIAH WORKING GROUP QUESTIONNAIRE

### DARIAH-EU / ... / WG Digital Annotation

Template: WG Digital Annotation - Use Cases

🖋 Bearbeiten 🏠 Favourite 💿 Beobachten 🖆 Teilen 🚥

Angelegt von Niels-Oliver Walkowski, zuletzt geändert am Jul 20, 2015

### Outline for the Description of Use Cases in the DARIAH Working Group on Digital Annotations

Please copy and past the outline into the wiki page of your Use Case and start answering the questions. Answer the questionnaire in a descriptive and in prose where not demanded otherwise (1 und 2). Especially in section 2 and 3 subjective answers are more than welcome. In case questions are unclear and you forgot to discuss during the evaluation phase of the outline (May/June) use the WG's mailinglist to look for support. Deadline for the Use Case description is the 30th of September. As originally planed during the 5th VCC meeting in Ljubljana there will be a Telko at least mid August (look out for Email on the mailinglist).

### 1 Administrative Information

- 1. Use Case Name
- 2. Website
- 3. Contact
- 4. Status (In preparation, Ongoing, Expired) In case your use case is in preparation please respond to guestions which relate to experiences that were made in terms of what you expect or might foresee
- 5. Freetext description of your use case which highlights the aspects that are important in your point of view

### 2 Research Context

- 1. Which disciplines or research areas are involved in the use case?
- 2. What are main concerns or issues that are investigated in the use case?

### 3 Annotations in the Use Case

- 1. What reasons encouraged the inclusion of annotation technology or annotation practices into the use case?
- 2. Which activities in the the use case include annotation practices?
- 3. What are the purposes for which the annotation data will be used?
- 4. Does the annotating successfully support the activities mentioned in 3.2 and comply with the purposes in 3.3?
- 5. How would you describe the persons who annotate and their capacities in terms of their relation to computational aspects in research?
- 6. Is annotating in the use case clearly linked to methodological concepts in the areas of research where the use case takes place? If yes, please enlist these concepts.
- 7. Which ideal resources are annotated in the use case (Information Resource Types apart from "Computer Files" class at http://nedimah.dcu.gr/index.php?p=navigate#)
- 8. What mental and/or computational steps are undertaken to create an annotation in your use case?
- 9. In retrospect, where was annotating most productive for your Use Case?
- 10. How would you describe the peculiarities of annotating in your use case?
- 11. In your spontaneous opinion, which are transferable aspects of annotating in your use case?
- 12. If anyone would like to reuse your annotation data who does not belong to your research or the field of your research; what are the aspects for each annotation that this person has to be aware of to make sense of your annotation data?
- 13. If you should group the annotation data in you use case, what are criteria that would enable to meaningful group you annotations?
- 14. Is it possible to understand the meanding of most annotation in your use case without any further information?
- 15. If not, does the inclusion of other annotations of the same annotating process provide sufficient context to understand the annotation?
- 16. If not, what kind of metadata attached to the annotation would facilitate its interpretation if no other context is provided?
- 17. How would you relate annotation activities to the "Activity Types" mentioned at http://nedimah.dcu.gr/index.php?p=navigates 18. Are there aspects of digital annotating in your use case where you can mark the benefit of digital annotating compared to annotating without digital tools or digital (representations of) objects?
- 19. If you were forced to really stress a difference between annotating in digital environments and annotating in non-digital environments how would you spontaneously describe this difference?



THE FABRICATION OF THE ANNOTATED OBJECT

### THE FRAGMENT DIMENSION

LAYERS OF MEANING BEHIND THE SURFACE OF ANNOTATED OBJECTS

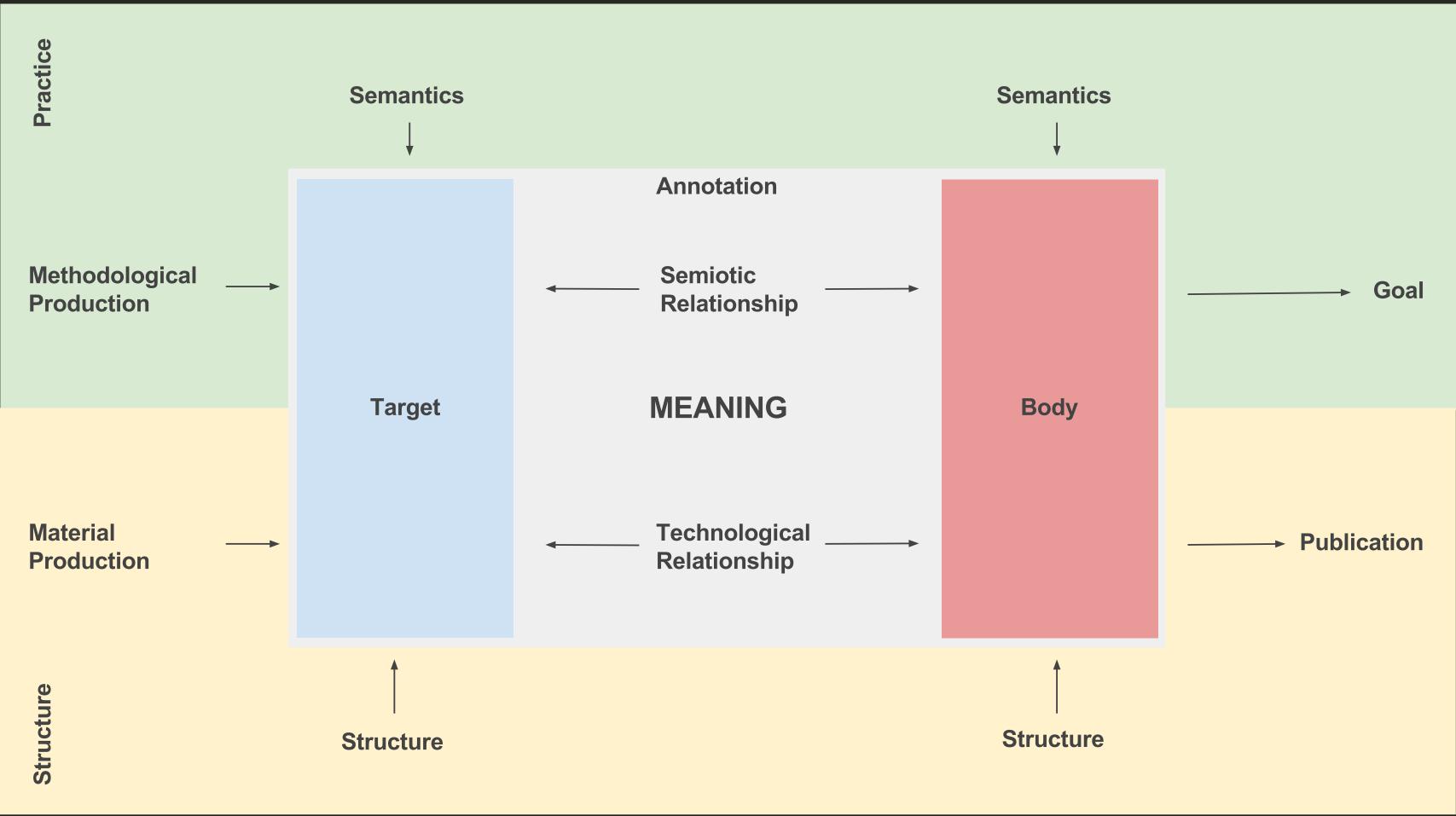
TRANSPARENCY ABOUT THE SEMANTICS IN THE ANNOTATION

THE DIALOGIC ASPECT OF ANNOTATIONS

## **OTHER CONTEXT DIMENSIONS**

- the user group and audience that is addressed
- the model, structure and renderability of the annotation itself
- the methodological research context in which annotations are created
- the type of availability of the annotated object
- the scientific goal of annotating





# **EMBEDDING THE SYSTEMATOLOGY**

the expressivenes of metadata schemes for the description of annotation data is often not sufficient

VS.

the comprehensive description of annotation in all its dimensions is not feasible

## MEANING RESIDES IN AND METADATA IS OFFERED BY

- the shape of infrastructures and social environments
- by human actions and computational processes in and between these environments
- communication about and formal semantics in these environments

as long as there is a certain sense of stability among them

## **AN ENVIRONMENTAL APPROACH TO** INTEROPERABILITY

- interoperability is not just formal semantics, it is also processes, human actions and understanding
- interoperability should be designed more by strategic publishing and communication goals of researchers

## WHAT'S THE MEANING OF DIGITAL ANNOTATIONS

- we will find out the methodological meaning by describing annotation scenarios in a way that is informed by this or other systematologies on the level of technology, practice and semantics
- comparable efforts take place in the context of the Digital Methods and Practices Observatory (DiMPO) and the Scholarly Domain Model (SDM)

### **DECOUPLING OF ANNOTATION DATA**

- not only does annotating extend its scope of application ...
- ... also annotation data is able to decouple more and more from the methodological frame of its creation

## ANNOTATIONS, THE *MASTER SIGNIFIER* OF SCIENTIFIC KNOWLEDGE WORK WITH DIGITAL TECHNOLOGIES

- today, digital annotating relates to any type of knowledge and knowledgwork in science
- they thereby give an example for how digital technologies tone down distinctions that were once more categorial

ork in science inctions that were

### **LTDH 2016**

"Language Technologies" OR "Digital Humanities" "Language Technologies" AND "Digital Humanities"

### THANK YOU !!! PRESENTATION ON CUTUCHIQUENO/OUTPUT TALK TO Y CUTUCHIQUENO

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