

IS1404 E-READ: Evolution of Reading in the Age of Digitization

Position paper

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WG(s): WG3

1. **Potential research contribution** in light of, or linked to

A. WG interest and Scientific programme

and

B. Action objectives (pages 7-10 in the MoU):

My professional and vocational background is discourse analysis, linguistic pragmatics, and philosophy of language, with strong emphasis on rhetoric and (especially) argumentation in the last ten, fifteen years. In this period, the field of argumentation started to become more “flexible” and open for new approaches, for approaches that are not based merely on logic (of one form or another), not even just on language. Visual argumentation, for example, started to develop in the nineties, and literary flourishes in the beginning of the new millennium (Groarke, Birdsell, van den Hove, Kjeldsen, Roque, Tseronis, ...). This is also the topic that raised my interest in different modes of reading (e.g. how information - different modes of information, coded in (potentially) different ways - is being grasped from an actual page (of one form or another), how these stimuli are being processed and organized, how the (final) meaning is being constructed), and finally brought me to E-Read.

Namely, strictly “logical” argument(ation) seems to be rather linear and posing no problems (though it has very limited use in every day life and human interaction).

Argument(ation) in and with “everyday language” may seem unproblematic as well, but here are a few complicating factors: words can be polysemous; historical, social, cultural and intellectual “common ground” of the participants may be different (and therefore not “common ground” at all); words and phrases may trigger different frames (Goffman) and mental spaces (Fauconnier) with the participants in the (argumentative) discussion (to name just a few “disturbing” factors).

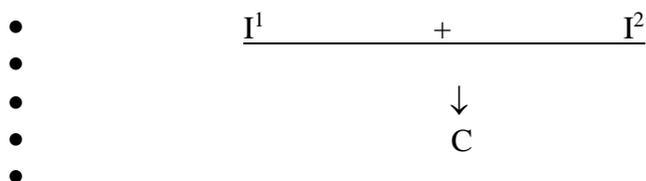
But with visuals (and here I see a comparison with tablets (= visual arguments), as opposed to printed books (= linguistic/language arguments) things change radically; if words **can be** polysemous, visuals **are basically** polysemous **and** polyphonic (Bakhtin, Ducrot), i.e. (at least) implicitly referring to other (previous) situations, discourses and visuals, or quoting them. What will in the case of visuals be actualized (negotiated?) as the argument in question, i.e. how its meaning will be constructed, increasingly **depends on historical, social, cultural and intellectual “common ground” of the participants** (let alone the (potential) neurological and cognitive basis of understanding and meaning construction), while visuals may trigger even more diverse and disparate frames and mental spaces with participants than verbal communication.

Let me illustrate my interest in the difference between reading from tablets and reading from paper with a parallel difference between visual argumentation and linguistic argumentation.

This is how the problem of visual argumentation was framed in Leo Groarke's paper, "The Elements of Argument: Six Steps to a Thick Theory", published in *What do we know about the world? – Rhetorical and Argumentative perspectives* (e-book: http://193.2.222.157/UserFilesUpload/file/digitalna_knjiznica/Dissertationes_25_ISBN_978-961-270-170-3_SWF/ISBN_978-961-270-170-3.html, pp. 25-43):

"Consider a debate spurred by an unusual fruit I discovered during a kayak ride on the Detroit River. When my description ("nothing I recognize; a bumpy, yellow skin") initiated a debate and competing hypotheses on the identity of the fruit, I went back and took the photographs reproduced below. **On the basis of these photographs**, the fruit was **quickly identified** as breadfruit. (my emphases)

"The argument that established this conclusion compared my photographs to similar photographs found in encyclopaedia accounts of breadfruit. One might summarize the reasoning as: "The fruit is breadfruit, for these photographs are like standard photographs of breadfruit." But this is just a verbal paraphrase. The actual reasoning – what convinces one of the conclusion - is the seeing of the sets of photographs in question. Using a variant of standard diagram techniques for argument analysis, we might map the structure of the argument as:



- where C is the conclusion that the fruit is a piece of breadfruit, I^1 is the set of photographs I took, and I^2 is the iconic photographs of breadfruit to which they were compared."

What I see as extremely problematic in the above quote is Groarke's claim that "The actual reasoning - what convinces one of the conclusion - is the seeing of the sets of photographs in question", and nothing else (or more). Following Wittgenstein who claimed (*Philosophical Investigations*, 1953, I-#663) that: "Only when one knows the story does one know the significance of picture", my research questions related to E-Read (though stemming from argumentation studies) would be:

- what do we really "see" when reading (browsing, skimming, ...) the tablet, i.e. a "unified" picture, a "fragmented" one, just parts of it (i.e. of what is actually available on the screen) ...?
- how do we see it, i.e. what do we see first, and what comes second, third ...?
- how is what we see being "organized" by our brain (and which parts of the brain are active in this process)?
- how is the meaning (of what we see, and what is being organized as something that we see) being constructed and (possibly) reconstructed?
- what are the neurological, cognitive (and, possibly, evolutionary) basis for this perceptual organization and (meaning) construction?

That is why I would be especially interested in working on visibility, legibility, attention, comprehension and metacognition, in short, in all experimental work planned in the project (mostly in WG2 and WG3).

2. Interest in

A. organizing and/or participating in a **short-term scientific mission (STSM)**.

Optional: pursuing what research questions/projects; where to/with whom; linked to what objective(s) of the Action:

I would be very interested **to participate** in as many as possible STSM's concerned with or/and focusing on experimental work:

- quantitative metrics: eye movements, pupil dilation, blink rate ...,
- measuring brain activity (EEG), especially if and when in combination with eye-tracker (it would be more than useful to use fMRI as well),
- measuring personal emotional engagement during reading (heart rate, pupil dilation, skin conductance response ...).

B. organizing and/or participating in a **Training School** (please indicate what kind of training [theoretical; methodological; technical]).

Optional: linked to what objective(s) of the Action:

I would be very interested **to participate** in as many as possible Training schools, theoretical, methodological or/and technical) concerned with or/and focusing on experimental work:

- quantitative metrics: eye movements, pupil dilation, blink rate ...,
- measuring brain activity (EEG), especially if and when in combination with eye-tracker (it would be more than useful to use fMRI as well),
- measuring personal emotional engagement during reading (heart rate, pupil dilation, skin conductance response ...).