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

Position paper

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WG(s): WG1

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

A. WG interest and Scientific programme:

Perception Science: According to MOU "e-booksellers and distributors generate statistical data on onscreen reading unimaginable in the analogue era (places for reading, time spent reading, speed of reading, ratio between books bought and read, language of reading, etc.)" Other techniques could be applied, as it is eye-tracking. A standard on luminance levels (from display and ambience) could be stablished as optimal. This research could be done in collaboration with WG4.

Dissemination of the action. There are some questions that can arose curiosity. We are focusing in e-read but what about e-writing? Had you ever seen how a Chinese writes an SMS at mobile? (luckily, nowadays they can make use of tactile screens)

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

I would like to get involved in the following objectives:
- To provide recommendations for optimal text/content design for educational publishing.
- To establish long-term theoretically and methodologically innovative research collaboration.

Some press publisher from Oslo, explained at a Meeting in 2012, that their children didn´t made a move to pass pages in a book, but instead a tablet movement with the finger. At some schools we can see some practices as to provide "every children with a tablet", but it is really adequate to use technology in every step of the learning process? Or it is respond to a way to pretend modernization until the limit?

"We are surrounded by technology in our everyday lives, in need of usable and user-friendly solutions. In a society where computers are pervasive, and digital interfaces and interactivity are everywhere, it is of increasing importance that we ensure inclusive, intuitive and efficient human-computer interaction" [1]

Expectable deliverables:
- Interdisciplinary paradigms for measuring the impact of digitization on text reading.
- Relevant indicators of reading (different kinds of texts) on paper vs. screens.

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 could be interested in participating in a STSM (stated that the agenda allows for it and a suitable lab is found). Research questions can be: eye-tracking at reading devices, or luminance configurations standards.

In wide lines, any lab experiment about Cognitive and visual ergonomics, or the interaction (computer-person) design, according to the goal "to provide educators and practitioners evidence-based knowledge of the effects of digitization on reading various text types for various purposes".

Previous related research:
Thesis about Image quality of computer tomography pictures, at COLORLAB Norway.
In example, at the medical sector, it is recommended for practitioners to [2] to respect the named rule of *20-20-20*: "Look away from the monitor at least every 20 minutes and focus on something over 20 feet away for 20 seconds"

An alternative STSM could be set in close collaboration with WG2 about MRI scans, and how the brain responds to different kind of graphical representations.

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:

Participating in a methodological Training School, about Asian learning methods, that could complement some research goals within the action. According to the MOU, "students from Asia, Canada and Oceania outperformed European students on several measures". Is a fact that the learning method differs, especially in Mathematics, but also in the wish of every student to clarify a point that is not clear.

Previous related stages: Museum of the Calculus Instruments Evolution, Pisa (Italy).
Participating in a technical Training School, as teacher of luminance - color related concepts in digital devices, if needed.

References:
[1] Master in Interaction Design www.hig.no
[2] E. A. Krupinski, The Handbook of Medical Imaging Perception, Cambridge Editorial