

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

## Position paper

Name: **Egon Werlen**

WG(s): **WG1, Skilled (PISA-age) reading**  
Participation in **WG3: Experiential and emotional aspects of reading**

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

#### A. WG interest and Scientific programme:

Within our research group in the Institute for Research in Open and Distance Learning and e-Learning (IFeL) I am setting up a laboratory tool to measure emotional aspects in reading and learning. This will include a software assessing facial emotions with the FACS (Facial Action Coding System; Ekman & Friesen, 2003), questionnaires and single questions. The laboratory tool is embedded in a general framework to measure cognitive and emotional load during reading and learning and is part of a basic experimental procedure, that can be used in laboratory and later on will be adapted for use in field trials and practice.

The resulting data will help to optimize digital reading content and also functional components of reading environments (e.g. devices). An important contribution can be made to multimodal representations (e.g. visual, non-visual) where text i.e. digital reading plays an essential part. Hence it is my intention to investigate in the relationship of digital reading with the multimodality of modern reading environments.

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

- Delivering a tool to measure emotion and emotional reactions of reading on digital devices.
  - Facial Action Coding System Method  
(6 basic emotions, dimensions of emotions and if possible combinations of emotions and other expressions e.g. attention)
  - Questionnaires (measuring mood, emotions/feelings)
  - Single questions that can be used repeatedly during experiments
- Delivering data from experiments that reflect different user scenarios.
  - e.g. screen size
  - differences in difficulty and usability
- Recommendations for the pedagogical field and industry.
  - e.g. how to create reading environments to induce helpful emotions
  - e.g. how to use helpful emotions for reading

### 2. **Interest in**

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

Organizing a STSM for FACS, i.e. measuring emotions on human faces during reading. The focus may be on experiments, field studies or implementations.

#### B. organizing and/or participating in a **Training School** (please indicate what kind of training

Organizing a Training School for researchers intending to measure emotions during reading. The main goal is to understand important aspects of measuring and interpreting emotions during reading (questionnaires, single questions, FACS-software).