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THE USE OF EMOTIONS IN STUDENT ASSESSMENT IN A VIRTUAL LEARNING ENVIRONMENT

Nadiesca Homrich Scherer
Jacques Nelson Corleta Schreiber
Rejane Frozza
Liane Mahlmann Kipper (Lecturer)
Santa Cruz do Sul University
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Nadiesca Homrich Scherer
Prof. Jacques Nelson Corleta Schreiber
Prof. Rejane Frozza
Prof. Liane Mahlmann Kipper (Lecturer)

University of Santa Cruz do Sul
Summary

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Introduction

• In distance learning, teachers and students communicate and interact through a Virtual Learning Environment (VLE).

• Knowing the student's emotions during the access to VLE may support the improvement of the quality of interaction.
Introduction

In the learning process there is a relationship between cognition and emotion.

• Longhi et al (2007), say "affection may assist in reasoning."

• Piaget (1983) says "Surely affectivity or its deprivation may be the cause of acceleration or delay in cognitive development."

• Picard et al. (2004) talk about the tendency to see the computer as a learning "motivator" by making use of emotions for better interaction.
Therefore, it is possible to see the importance of studies in the relationship between cognition and emotion in VLE.
Objective

To capture the emotions of the student, through a specific software during the process of interaction with the VLE, and together with the result of the assessment of student learning in an activity course, to realize the existence of the relationship between emotion and cognition, and use this information to make improvements in learning.
Theoretical Foundation

Affective Computing

Emotions in Human-computer Interaction
- Recognition of User’s Emotions
- Expression of Emotions in Machine

Summary of Emotions
- Simulation of Emotions in Machine
According to Nunes (2012), when computational tools may infer emotions of users in applications such as VLEs, it is possible to say that these tools promote affective computing.

In Nunes et al. (2011), say that in the process of learning...

• The teacher take on the role of mediator;
• Students seek more knowledge.
Theoretical Foundation

According to Duran et al. (2004), cognition is a knowing process that involves some aspects such as attention, perception, memory, judgment, reasoning, imagination, thought, and speech.

For the student to have improvement in the learning process, he/she must be motivated for cognitive processes to be achieved in all respects.
Method of Inference and the VLE

• To infer the emotion of the student in the Virtual Learning Environment, the method will use software that was developed at UNISC.

(Böhm, 2011)
The VLE was developed by a research group at UNISC. This environment has already expressed emotions through intelligent agents.
Methodology

Stages of work:

1. Capturing the emotion of the student by the use of software that makes the inference through facial expressions.
2. Integrating inference method with VLE.
3. Defining moments when the emotion of the student will be inferred.
4. Adapting the presentation of the content.
5. Assessing learning.
To Capture the emotion of the student by the use of software that makes the inference through facial expressions.

Integrating inference method with VLE.

Defining moments when the emotion of the student will be inferred.

Adapting the presentation of the content.

Assessing learning in order to prove the hypothesis in this paper.
Integrating inference method with VLE.

Capturing the emotion of the student by the use of software that makes the inference through facial expressions.

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Adapting the presentation of the content.

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Assessing learning in order to prove the hypothesis in this paper.
Conclusion

• This research aims to capture the emotion of the student through software that analyzes facial expressions;

• To make this software work with VLE, or taking part in it, which sets up an integration between both;

• To adapt the content of the VLE according to the inferred emotion;

• And to assess student learning to find out if the process was useful or not in improving student learning.
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• UNISC

• PPGSPI
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Thank you very much!

Liane Mählmann Kipper
(liane@unisc.br)