Dynamics of Threats and Users Response as a Result of Entertainment Activities
(An On-line Social Networks Case Study)

Zlatogor Minchev

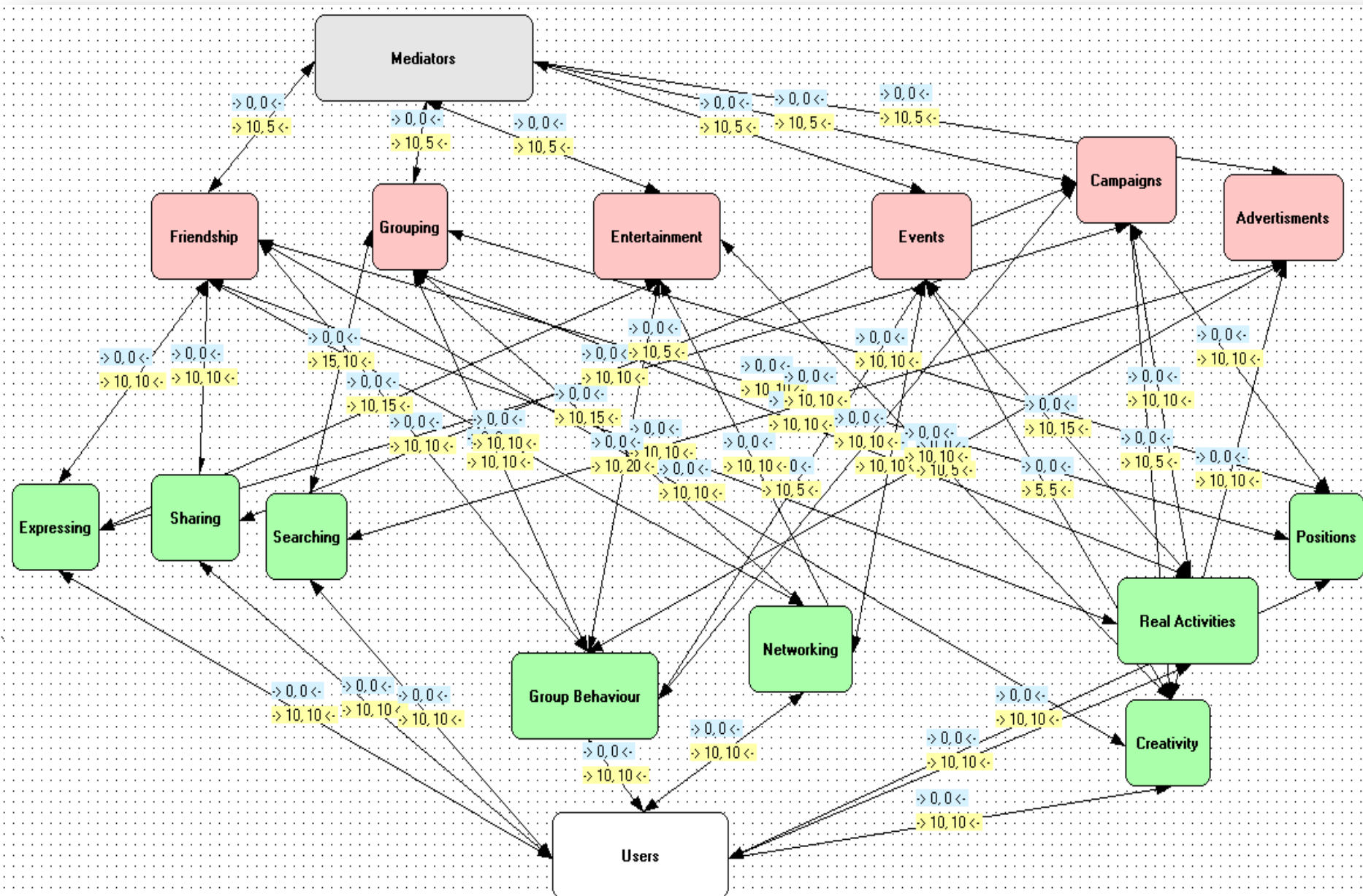*Institute of ICT, Bulgarian Academy of Sciences*

Bremen, Germany   **IFIP, TC14 Meeting**   **September 29, 2012**
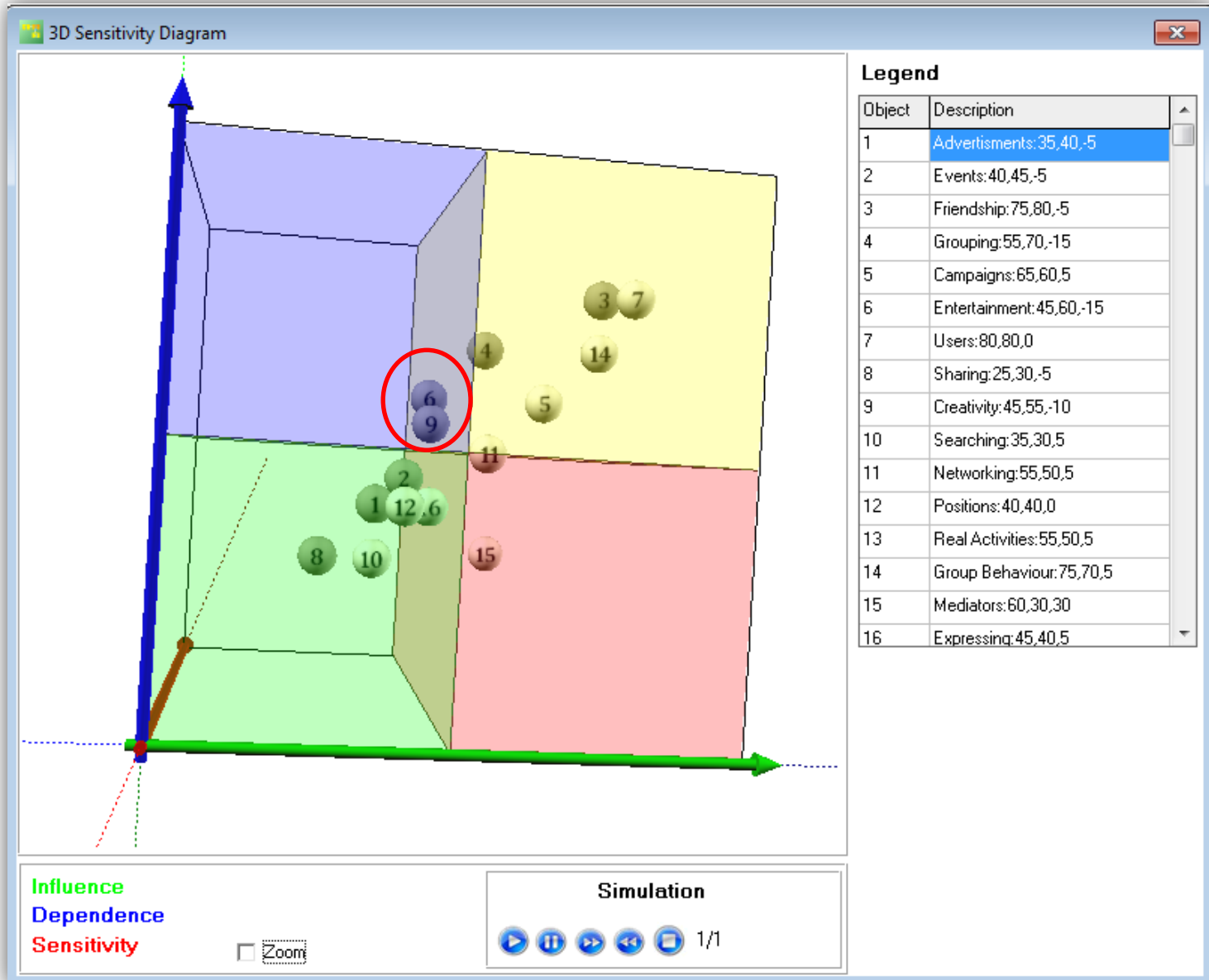
Outline

- ❑ **The Social Engineering Problem Experimental Modelling**

- ❑ **Identified Threats**

- ❑ **And how do users respond to these threats?**

- ❑ **A Pilot Study of the Problem**

- ❑ **Discussion**

The Social Engineering Problem Experimental Modelling

Identified Threats

And how do users
respond to these threats?

A Study on IT Threats and Users Behavior Dynamics in Online Social Networks, DMU03/22, 2011-2013
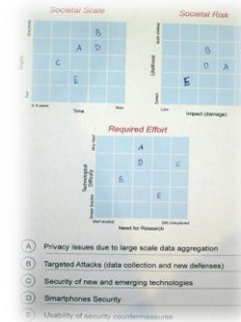

www.snfactor.com

www.syssec-project.eu

Some of Ours 2012 Activities
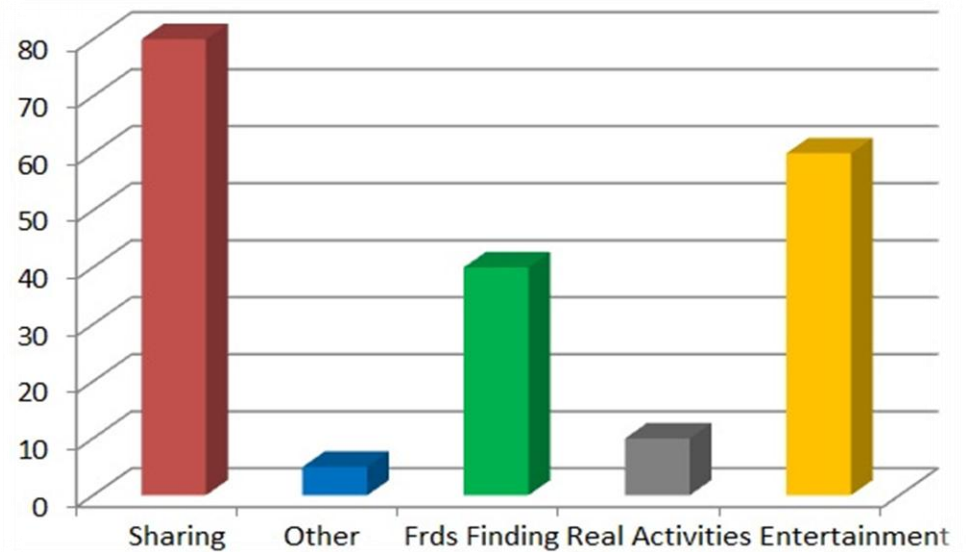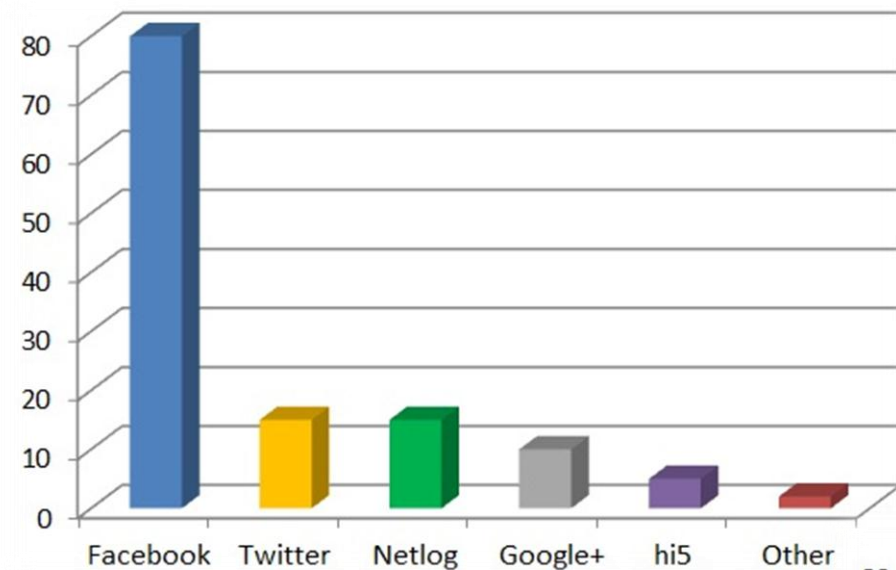
A Pilot Study of the Problem

Assembled Methodology
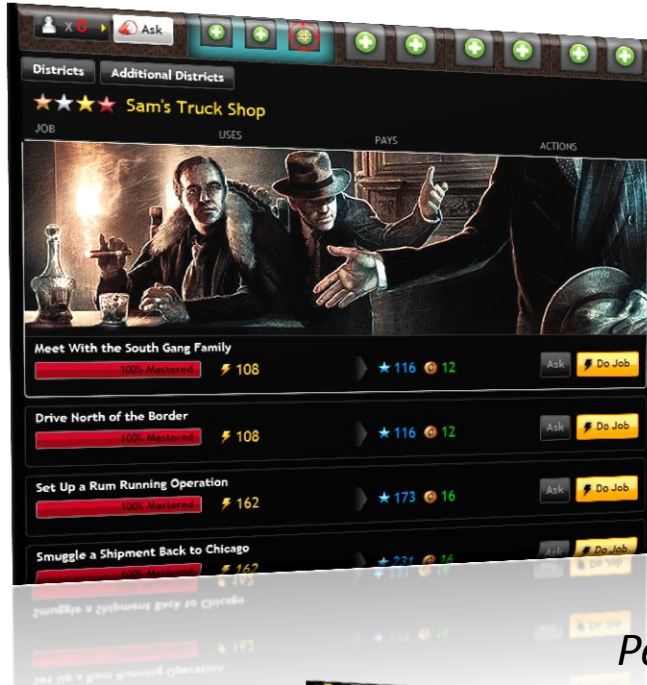
☐ **Questionnaires**

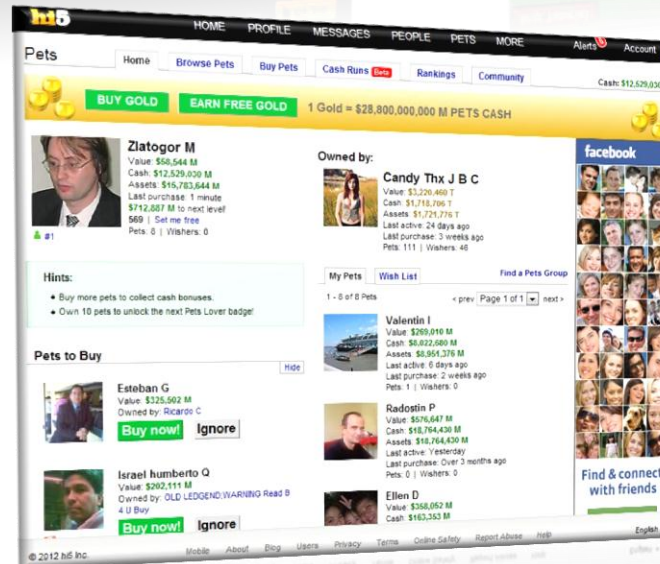☐ **Psychophysiological monitoring**

Some Initial Results

Mafia Wars

FarmVille

Pets

SNs Users Predispositions Assessment
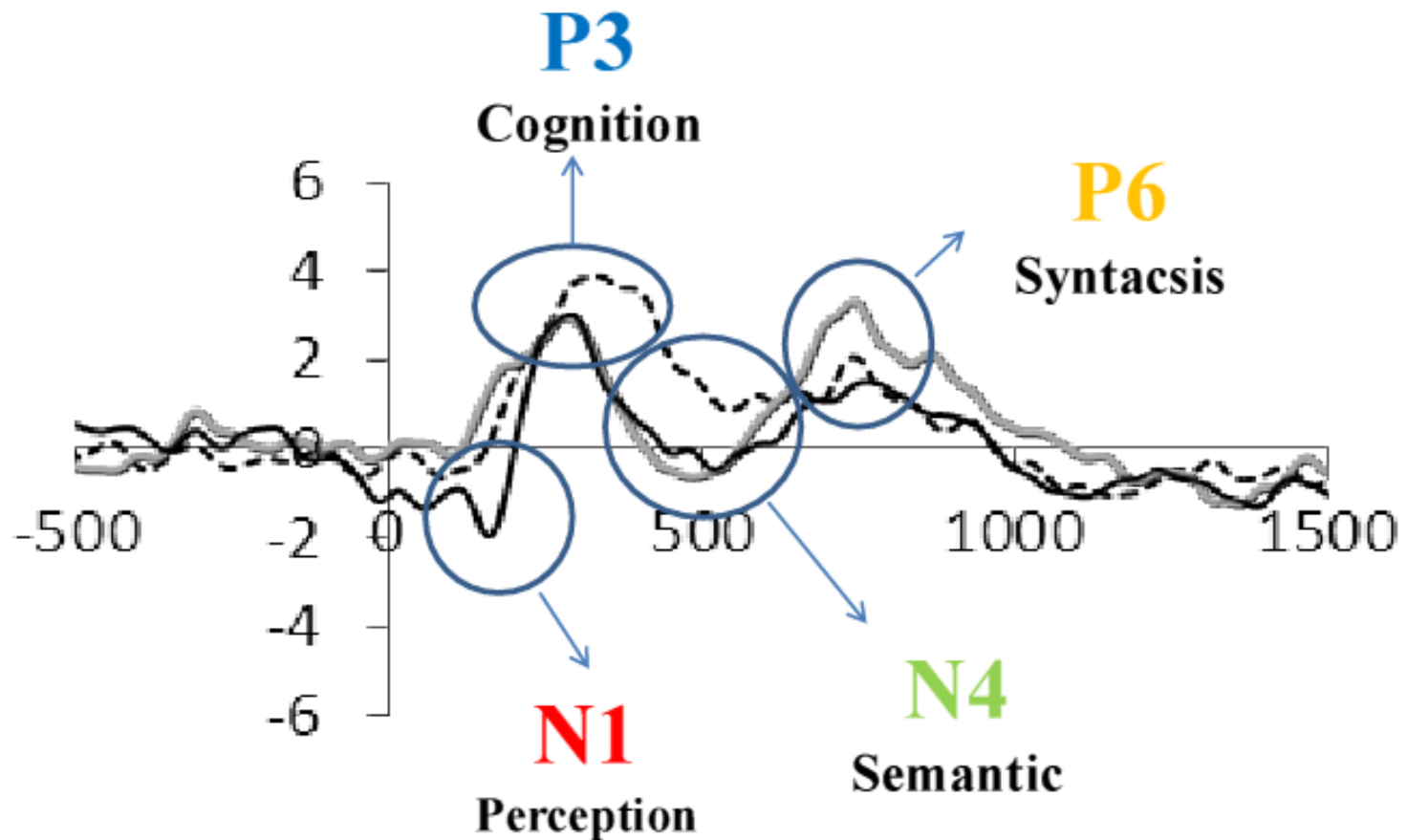
Event-Related Potential Components

Findings

1. The P3 amplitude prefers Twitter and Linked In.

2. Theta synchronization prefers Netlog and Twitter.

3. Alpha desynchronization prefers Netlog and Linked In.

4. **Facebook** may be considered as the most emotional text brand and **Twitter** as the most emotional logo brand.

5. The psychological monitoring notes **'sensation seeking' necessity** amongst SNs users **for omitting hidden depression**.

Games EEG Assessment

*The moments related to **successful activities** and gaining points(money) or experience are related to **enhanced alpha2** (10.5-13 Hz) oscillations. While, the **unsuccesses** to an **enhanced alpha1** (8-10.5Hz) oscillations.*

*Additionally, we have to note higher frequency oscillators of the **theta2** frequency range (6-8 Hz), which is generally related to **negative emotions** could also be a reason for the spectrum enhancement close to the alpha2 frequency range due to its relation within negative emotions.*

Discussion

The obtained results look interesting but there is a lot of noise which is difficult to be removed from q-based studies.

The psychological monitoring notes 'sensation seeking' necessity amongst SNs users for omitting hidden depression.

The EEG monitoring has shown reliable results regarding general assumption for negative and positive emotions findings in EEG spectrum and visual ERPs role.

All these different findings are proclaiming the importance of studying social engineering and in particular gaming (entertainment) influence to nowadays ICT users.

Acknowledgements

Thank you for the attention!