

Targeting

Our method based on the analysis of mouse movement is able to define psychological characteristics, personality traits giving online targeting and human resource management all new perspectives.

Importance

- ▶ efficiency of method
- ▶ targeting precision accelerates
- ▶ possibilities of creating personal or group profiles by monitoring computer mouse
- ▶ customizing advertisement is made easier

Scientific basis

- ▶ personality traits help define target groups
- ▶ personality traits can be recognized with movement characteristics
- ▶ movement characteristics defined through experiments
- ▶ movement characteristics are compared to three standardized psychological tests
- ▶ existing algorithms able to monitor webpage

Authentication

Our biometric authentication method is able to identify a person by analysis of his/her computer mouse movements.

Importance

- ▶ method replaces knowledge- or smartcard based verification/authentication
- ▶ no requirement for new hardware device
- ▶ relevant accuracy of method
- ▶ cheap, practical, innovative
- ▶ user-friendly

Scientific basis

- ▶ 2003: experiment with 100 students
 - > 400 movement characteristics concluded (fluency, angular offset etc.)
 - > 11 characteristics proved strong
- ▶ 2006 February: mouse movement samples from 1100 individuals recorded for accuracy improvement and testing

Contact

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Developing Pedagogy

Our basic research has realized results that computer mouse can be used as diagnostic and therapeutic tool for developmental and behavioral disorders of children.

Importance

- ▶ development of innovative software
- ▶ new, more efficient therapy for developmental or behavioral disorders
- ▶ easier tracking of individual improvement of fine motor movement skills
- ▶ feedback on development
- ▶ the replacement of paper-based tests

Scientific basis

- ▶ computer mouse analysis shows relevant attributes
- ▶ fine motor movement tracking is available through mouse movement tracking

Team

The Algernon Research Group gathers scientists from various fields, making the team not only interdisciplinary, but also multidisciplinary. The members of the group are all acclaimed experts in their own fields and joined through their interest of science and everyday life making the joint research a greater success.

Fields of Study

- ▶ Mathematics
- ▶ Graphology
- ▶ Information Technology
- ▶ Physics
- ▶ Psychology
- ▶ Sociology
- ▶ Marketing Research

