

**Moscow State University of Psychology and Education
Moscow, Russia**

Digital Media in the Education of Students with Special Needs

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Global Perspectives on Learning and Development with Digit@I Video-Editing Media

Participants:

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Institute of Education\University of London (UK)

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Research was conducted on the basis of:

- **Moscow State University of Psychology and Education**
 - **Faculty of Informational Technologies**
 - **Founded - 2001**
 - **Priority - educational programmes for students with disabilities**
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Students with disabilities at IT faculty

- **73 students (20% of total number)**
 - **Impairments**
 - **vision violations (47 %)**
 - **operations of the musculoskeletal system (22 %)**
 - **somatic diseases (31 %)**
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Case study
Video-Editing ICTs as a Means of Reflection
Development:
Exploring Digital Film-making by a Disabled
Student

- **Arthur K., 1989 born**
 - **Student of the IT faculty, program**
“Directing and production in cinema and
television” (2008-2013)
 - **Suffers from cerebral palsy**
 - **Graduation film «I love»** <http://vimeo.com/75342726>
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Data collection

- gathering information about the student and other participants of the film-making process;
 - gathering information about the video-editing technologies and software used in the film-making process;
 - interviews and interaction with the student on different stages of the film-making process;
 - interviews and interaction with the student's supervisors, professors, group mates;
 - interim and final versions of the film.
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TOOL vs SIGN in human activity

- “The tool serves for conveying man's activity to the object of his activity, it is directed outward, it must result in one change or another in the object, it is the means for man's external activity directed toward subjugating nature.
 - The sign changes nothing in the object of the psychological operation, it is a means of psychological action on behavior, one's own or another's, a means of internal activity directed toward mastering man himself; the sign is directed inward.” (Vygotsky, 1997).
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Mediated vs Mediating Activity

- Thus, the use of tools and the use of signs refer to different kinds of activity. Tools refer to **mediated** activity, while signs refer to **mediating** activity. (Vygotsky, 1997)
 - “Mediated activity is already mediated by mediators, which were given or established, i. e. are created before. ... It is therefore, related to the fruits of development. Mediating activity, in contrast, is an activity that is not mediated, but mediates the whole process; it is an activity of mediating, not of mediation” (Veresov, 2010).
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*“Vygotsky saw tools and symbols as two aspects of the same phenomena: a tool being technical and altering “the process of a natural adaptation by determining the form of labor operations”; the sign being psychological and altering “the entire flow and structure of mental functions”.
(Daniels, 2008, p. 9).*

Research questions:

- How ICTs can influence higher psychological functions and cognitive processes (e.g. reflection)?
 - What is the difference between the use of ICT as tools and as signs?
 - How ICTs are transformed from tools into signs?
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Understanding Reflection in CHT

- Reflection is an extremely important mechanism, since it always underlies new types of connections as well as correlation of functions. Reflection can neither emerge within an isolated personality, nor develop without communication. It only emerges in social interaction and is internalized by the individual (Vygotsky, 1997).

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