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Design Considerations for a Serious Game for Children after Hematopoietic Stem Cell Transplantation

Fares Kayali^{a,*}, Marisa Silbernagl^b, Konrad Peters^b, Ruth Mateus-Berr^a, Andrea Reithofer^a, Daniel Martinek^b, Anita Lawitschka^c, Helmut Hlavacs^b

^aUniversity of Applied Arts Vienna, Oskar-Kokoschka-Platz 2,1010 Vienna, Austria ^bUniversity of Vienna, Entertainment Computing, Waehringer Str. 29, 1090 Vienna,

Austria

^cSt. Anna Children's Hospital, Kinderspitalgasse 6, 1090 Vienna, Austria

Abstract

Children who are treated with hematopoietic stem cell transplantation (HSCT) are hospitalised for many weeks or even months. Discharge to home is important but sufficient home care is essential. Beside regular physical and laboratory checks in the outpatient clinic, information on the daily health status is mandatory for early detection of possible life threatening complication. The conventional practice is writing reports into a paper diary. This approach became unattractive for many computer-oriented children and often the compliance decreased over the long recovery time (more than 2 years). Thus we designed a game-based system to track medical data of these children.

We present the results of a three-stage method where we compare the data from sick children with data from healthy children. We describe an explorative design approach and evaluate gaming preferences through a survey and an art-based drawing approach. The results show a preference of animal and fantasy characters and a majority of children illustrate a na-

Email addresses: fares@igw.tuwien.ac.at (Fares Kayali),

marisa.silbernagl@univie.ac.at (Marisa Silbernagl), konrad.peters@univie.ac.at (Konrad Peters), ruth.mateus-berr@uni-ak.ac.at (Ruth Mateus-Berr),

 $\verb+ and reare ithof \verb+ er@gmx.at (And rea Reithofer), \verb+ daniel.martinek@univie.ac.at (And rea Reithofer), ad (And rea$

(Daniel Martinek), anita.lawitschka@stanna.at (Anita Lawitschka),

helmut.hlavacs@univie.ac.at (Helmut Hlavacs)

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^{*}Corresponding author

^{**}Principal corresponding author

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