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Second Screen Interaction is set to revolutionize the future of cash withdrawals

Press release

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Together with its industrial partners KEBA and PLOT, the CURE research company has been working on revolutionizing the user experience involved in operating a cash dispenser. Banknote denominations can be selected by a simple swipe gesture. This is possible due to the AIR research project, which enables the use of one's own smart phone for cash withdrawals. As a result, the overall experience for the user will attain a new dimension.

Aims of the "Second Screen Interaction with Kiosk Systems" research project

The "Second Screen Interaction with Kiosk Systems" research project is aimed at designing and evaluating future interaction processes with kiosk systems in general and cash dispensers in particular. Moreover, in this connection, users with all their needs, expectations and varied behavioral patterns form the focus of research interest.

Together with their industrial partners KEBA and PLOT, the researchers from CURE have developed prototypes for the interactive use of cash dispensers and mobile applications. These models have been tested during laboratory studies with regard to user-relevant criteria such as usability, user experience and acceptance. The smart phone of the user is employed as a so-called second screen in order to enable interaction with the first screen, which belongs to the cash dispenser.

In concrete terms this means that users can start the mobile application for a cash withdrawal on their smart phones. The special aspect of this procedure is that the required denominations of the banknotes can already be entered simply and problem-free by means of a swipe gesture. As soon as users arrive at the cash dispenser, their smart phones connect to it by means of an NFC tag and they can then withdraw the required sum. According to Manfred Tscheligi, the CURE CEO: *"The synergy of both screens has a positive effect on the user experience and facilitates interaction with the cash dispenser. This means that a tangible screen interaction revolution is moving ever-closer."*

Users prefer their own smart phones for cash withdrawals

The results of the research project show that as opposed to "traditional" manual cash dispensing transactions, users prefer machine control via their own smart phones. The reasons include intuitive utilization, simple handling and speed. The second screen interaction for kiosk systems offers mastery of several of the design hurdles endemic to traditional kiosk systems and possesses significant potential for far-reaching improvements in the user experience. Nevertheless, Georgine Beranek, who is responsible for the interaction design, stresses that: *"The concerns of users regarding trust, security and the*

private sphere must not be neglected." Indeed, accounting for such concerns and the design of the two-screen operating procedure to match user requirements will secure a satisfactory user experience.

AIR lends wings to the user experience

This high-potential research project is part of the "Advanced Interface Research" (AIR) scheme. Among other sources, AIR is funded by the Austrian "Competence Centers for Excellent Technologies" (COMET) research program and has the prime objective of finding new approaches to interaction with technological systems within the respective context of the user. The quality of the interaction per se and the overall user experience are to be enhanced.

Erich Pichler, head of KePlus Banking Automation Product Management and Systems at KEBA AG, explains the company's involvement in the project as follows: *"KEBA technologies are intended to help people make their private and working environments simpler. Therefore, KEBA places the spotlight on the user. This research project fits perfectly into this strategy and for us it is most important that we are able to cooperate with research bodies and industrial partners during its realization."*

For Reto Pazderka, the PLOT CEO, the modification of everyday processes using new technologies is especially exciting: *"Today, the realization of a solution for consumers on the interface between the mobile and stationary world is still a challenge, but tomorrow it will probably be the rule."*

The screen interaction of the future

In order to ensure that this type of screen interaction is future-proof, experience researchers have analyzed and evaluated a diversity of human-machine interaction methods. In future, generally valid guidelines should also apply to other kiosk systems and POS solutions. And naturally enough, have the constant aim of enhancing the usability (customer friendliness) and user experience of the respective application. A planned practical study will go into this topic in even greater depth.

KEBA AG company profile

Founded in 1968, KEBA AG is an internationally successful electronics company based in Linz/Austria with subsidiaries in Germany, Romania, Turkey, Italy, the Czech Republic, USA, Taiwan, Japan and China. In line with its credo, "Automation by innovation" KEBA has been developing and producing inventive, top quality automation solutions for over 40 years for industrial, banking, services and energy automation branches. Indeed, as a result of competence, experience and courage, KEBA is the technology and innovation leader in its market segments. Extensive development and production expertise represent a guarantee of highest quality.
http://www.keba.com

PLOT company profile

PLOT ist ein renommiertes österreichisches Unternehmen aus dem Bereich der Softwareentwicklung. PL.O.T kann bereits auf eine langjährige Tradition in Bezug auf die Entwicklung von Individualsoftware für große Dienstleistungsbetriebe zurückgreifen. Ausgehend vom Bereich der Finanzdienstleister – wie Banken und Versicherungen – spannt sich der Bogen der Kunden über Verkehrstelematik-Anwendungen bis hin zur öffentlichen Verwaltung (e-Government).

Im Rahmen von Forschungsprogrammen beschäftigt sich PLOT mit der Erstellung und Umsetzung innovativer Konzepte zu graphischen Benutzeroberflächen. Dabei wird das Hauptaugenmerk auf die Steigerung der Usability für alle Nutzergruppen gelegt.

http://www.plot.at

CURE company profile

CURE is a Vienna-based, independent research organization with competence in the areas of usability engineering, human-computer interaction, user interface design, user experience research and user-centered design that is among the best in Europe. One of CURE's major objectives is to create a bridge between R&D and practical applications. At CURE some 35 researchers from a variety of disciplines such as computer sciences, psychology, sociology, pedagogics and the design sciences are involved in project work and the company possesses one of the world's most modern usability and user experience laboratories. The main emphasis of CURE research is on the development and utilization of user experience engineering methods, research into use factors and methodological transfers to design optimization.

http://www.cure.at