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EDUCATION

- **Ph.D. in Computer Science** 10/2012
  Ecole Centrale de Lyon, France
- **M.S. in Educational Technology** 07/2009
  Beijing Jiaotong University, P.R. China
- **B.S. in Educational Technology & B.A. in English Language and Literature (Dual Degree)** 07/2006
  Beijing Normal University, P.R. China

RESEARCH EXPERIENCE

- **School of Education, Shaanxi Normal University,** 05/2015-present
- **Associate Research Fellow**
- **Post-doc Research, Technische Universitat of Berlin** 02/2014-01/2015

Assessment of IP-based Applications, Telekom Innovation Laboratories (T-Labs)

Keywords: Mobile privacy, logging, usability tests, user-centered design (UCD)

Topic: User-centric/User-centered Evaluations on Firefox OS

This research project is run by Deutsche Telekom (DT), collaborating with Mozilla Foundations, IXDS, etc., with the motivation of developing a competitive smartphone OS including DT specific requirements on privacy and security concept. The goal of our work package is to equip Firefox OS with logging and monitoring capabilities, and carry out research in the area of evaluating Firefox Operating System with human users.

My work revolves around the design and development of logging and device monitoring capabilities for dedicated user-centered studies. Different types of data are considered to collect: feedback information, usage information of users and device information such as status of system, sensors, etc. I also focus on the design and conduction of evaluations, which serve for privacy features on Firefox OS that are proposed with the aim of raising users' awareness and personalizing control of privacy on smart phones. Both usability lab studies (qualitative studies) and online surveys (quantitative studies) are considered and conducted to investigate users' attitudes and behaviors on privacy issues. Collaboration with respective teams at DT and Mozilla,

and contribution of developed codes to Mozilla's FFOS code-base are also involved in my work.

- **Post-doc Research, Universite Claude Bernard Lyon 1** 10/2012-12/2013

  LIRIS/SILEX, CNRS, UMR5205

  Keywords: Reflexive user interface (Supportive user interface), users' interaction histories, data visualization, activity modeling, image navigation, user-centered design (UCD)

  Topic: Trace-based Histories Navigation in Large Image Databases to Facilitate User's Reflection on Activity

The project Egonomy focuses on developing an natural, intuitive and intelligent engine to help user interact with information in large image database. It is run by 9 partners including ART&FACT, the RMN (La Réunion des musées nationaux), LIRIS, LUTIN, IRI, etc. The goal of our work package is to track user's navigation histories in large web-based image databases and propose a reflexive user interface (RUI) to facilitate user's reflection on his/her activities.

In my work, I use an iterative and user-centered method to design, implement, and evaluate the RUI, and the evaluations have been conducted with image professionals and iconographers as participants. This integrated interfaces are written in JavaScript, using jQuery and HTML, which not only integrate in and run on Firefox, but also work on other browsers.

- **Ph.D. Research, Ecole Centrale de Lyon** 09/2009-10/2012

  LIRIS/SILEX, CNRS, UMR5205

  Keywords: Wearable user interface, hand gesture, contextualization, ubiquitous computing

  Dissertation: Context-based Innovative Mobile User Interfaces

This thesis focuses on wearable user interfaces in augmented reality based on the camera-glasses device unit and the camera-projector device unit, and addresses the issues involved in design, implementation and user performance.

Wearable user interface concepts and related prototypes have been proposed, realized and evaluated in this thesis and three main contributions have been made. First, MobilePaperAccess is a wearable camera-glasses interaction system, enabling interactive application with mobility. User can access to digital information from paper interface extending the input space. I investigate and compare different input techniques based on the study of MobilePaperAccess. Second, PlayAllAround is a wearable camera-projector system that enables visual interaction with mobility. The issues on how let the scalability inform the design of mobile projection interaction have been explored in this study. Third, existing hand input researches in such wearable camera-projector system revolve around the investigation in the stable setting like sitting or standing, satisfying insufficiently the requirements of interaction in the sophisticated real life especially when people is moving. Besides, increased mobile phone users show behaviors of using their phone while walking. Thus, I propose a wearable camera-projector system, with which the user can interact by inputting with

finger gestures like hover gesture and pinch gesture on projected surfaces. The lab-based evaluation has been organized, which mainly compares two gestures (pinch gesture and hover gesture) under three situations (sitting, standing and walking).

- **M.S. Research, Beijing Jiaotong University** 09/2007-07/2009

  School of Computer and Information Technology

  Keywords: Mobile learning, ubiquitous computing

  Thesis Topic: Design and Development of Mobile Learning System

  I have proposed a framework and guidelines to instruct the design of mobile learning system based on systematic instructional design methods. By using this framework and guidelines, I design and implement a mobile learning system. I explore the functionality of this mobile learning system, and investigate transmission contents, sharing approaches of learning resources, context-awareness methods to facilitate learning, and collaboration among users. This system is composed of web applications and mobile applications on Android OS.

- **B.S. Research, Beijing Normal University**

  School of Educational Technology 05/2005-07/2006

  Keywords: Software test

  Research Topic: Function Test Approaches on Education Software Platform

  School of Foreign Languages and Literatures 06/2005-07/2006

  Keywords: Transliteration

  Research Topic: Methodology of Transliteration on Spells in Fantasy Novels

MAJOR RESEARCH INTERSTS

User Interface Design, Wearable Computing, Ubiquitous Computing, User Studies, Ergonomic, Cognitive Psychology

PUBLICATIONS

1. ***[Journal]*** **Zhou, Y.,** Xu, T., David, B., Chalon, R. Interaction-on-the-go: a fine-grained exploration on wearable PROCAM Interfaces and Gestures in Mobile Situations, Universal Access in the Information Society, 2016 (doi: 10.1007/ s10209-015-0448-6) (SCI IF: 0.475)
2. ***[Journal]*** **Zhou, Y**., Xu, T., David, B., Chalon, R. Innovative Wearable Interfaces: An Exploratory Analysis of Paper-based Interfaces with Camera-glasses Device Unit, Journal of Personal and Ubiquitous Computing, 2013. (doi: 10.1007/ s00779-013-0697-4) (SCI IF: 1.616)
3. ***[Journal]*** Xu, T., **Zhou, Y.**,David, B., Chalon, R., A Smart Brain: an Intelligence Context Inference Engine for Context-aware Middleware, the International Journal of Sensor Networks, to appear, (SCI IF: 1.386)
4. **Zhou Y.**, Xu T., David B T., Chalon R. Where the Mobile Projection Interaction is going to? The Past, Present and Future of Mobile Projected Interface. **HCII 2014**, Springer-Verlag Berlin/Heidelberg (2014)
5. **Zhou Y.,** David B T., Chalon R. PlayAllAround: Wearable One-hand Gesture Input

and Scalable Projected Interfaces. **ERGO-IHM 2012** Ergonomie et Interaction Homme-Machine, Bidart 16 octobre - Biarritz 17, 18, 19 october, ACM Digital Library (2012)

6. **Zhou Y.,** David B T., Chalon R. MobilePaperAccess: Ubiquitous Paper-based Interfaces for Mobile Interactions. The 3rd International Conference on Ambient Systems, Networks and Technologies (**ANT 2012**), August 27-29, 2012, Niagara Falls, Ontario, Canda, Procedia Computer Science, Volume 10, Elsevier B.V., 2012, Pages 282-291.
7. **Zhou Y.,** David B T., Chalon R. Innovative User Interfaces for Wearable Computers in Real Augmented Environment. HCI International 2011, 9-14 July 2011, Orlando, Florida, USA. In J.A. Jacko (Ed.): Human-Computer Interaction, Part II, **HCII 2011**, LNCS 6762, pp. 500-509, Springer-Verlag Berlin/Heidelberg (2011)
8. Xu, T., **Zhou, Y.**, David, B., Chalon, R. Supporting Activity Context Recognition in Context-aware Middleware, Workshops at the Twenty-Seventh AAAI Conference on Artificial Intelligence (**AAAI'13**), Bellevue, Washington, USA. (2013)
9. Xu, T., Hui, L.J., David, B., Chalon, R., **Zhou, Y.** A context-ware middleware for interaction devices deployment in AmI, the 15th International Conference on Human-Computer Interaction (**HCII'13**), Las Vegas, Nevada, USA (2013)
10. David, B., Xu, T., Hui, L.J., **Zhou, Y.,** Chalon, R., Zhang, B., Yin, C., Wang, C. User-oriented System for Smart City approaches, **HMS 2013**, Las Vegas, Nevada, USA (2013)
11. David B T., Yin C., **Zhou Y.,** Xu T., Zhang B., Jin H., Chalon, R. SMART-CITY: problematics, techniques and case studies, **ICCM 2012** 8th International Conference on Computing Technology and Information Management, April 24-26, 2012, Seoul, Korea (2012)
12. Zhang B., David B.T., Chalon R., Yin C., **Zhou Y.** Contextual Mobile Learning for professionals working in 'Smart City'. Workshop SCiLearn at The 11th International Conference on Web-based Learning (**ICWL'12**), 2-4 September 2012, Sinaia, Romania, (2012)
13. David B T., **Zhou Y.,** Xu T., Chalon R. Mobile User Interfaces and their Utilization in a Smart City, **ICOMP'11** - The 2011 International Conference on Internet Computing as part of WorldComp'2011 Conference, Las Vegas 18-21 July 2011. (2011)
14. Xu T., David B T., Chalon R., **Zhou Y.** A Context-aware Middleware for Ambient Intelligence. In Proceedings of 12th International Middleware Conference, Lisbon, Portugal. **Middleware Posters'2011**. (2011)

TEACHING EXPERIENCE

- **February 2008 – June 2008 Teaching Assistant**

School of Educational Technology, Beijing Jiaotong University
Assisted the course "C Language and Programming: Principles and Practices"

SKILLS AND QUALIFICATIONS

- Languages:
  - Chinese (native language)
  - English (fluent in written, spoken and read English)
    - Test for English Major Band 8 (TEM 8)
    - College English Test Band 6 (CET 6)
    - IELTS: 6.5 (2009)
  - French (fluent in spoken and read French)
- Programming and Tools:
  - Languages:
    - C, JavaScript, HTML, CSS. (proficient)
    - C++, C#, XAML, Java. (prior experience)
  - Tools/Libraries: OpenCV, ARToolKit, Gtkmm, Firebug, GDB.
  - Software: Visual Studio 2008, 2010, SPSS.

HONORS AND AWARDS

- Beijing Jiaotong University "Merit Student" scholarship (awarded to top 15%) 2008
- Beijing Jiaotong University "Excellent Class" awards (organizer and leader) 2008
- Beijing Jiaotong University athletic meeting 800m awards (awarded to top 20%) 2008
- Beijing Normal University "Merit Student" scholarship (awarded to top 10%) 2003

OTHER EXPERIENCE

- Participant student in RJC'IHM 2010 (5th HCI young researcher conference in France) 05/2010
- Developer and maintenance student of site www.cuanet.org.cn (China Network Application Association) 03/2008-06/2009
- Designer and developer of Beijing Jiaotong University Student Management Information System 12/2007-06/2009
- Receptionist and volunteer student to welcome and receive students and teachers from Group T college in Leuven, Belgium 04/2005