

Nigel Bevan's Impact on Enlightenment of UX Practice in China

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Abstract

This article tells a story that reveals 20 years of friendship and collaboration between Nigel and the author in the backdrop of the early enlightenment of usability engineering in China. Nigel's contributions to the now thriving UX practice in this important part of the world are highlighted in this article as well.

Keywords

Nigel Bevan, usability, user experience, practice, China, UsabilityNet



Introduction

Nigel Bevan has been gone for over a year. I often think of him, acutely feeling the loss by his untimely departure. I've always hoped that I'd be asked to write something for and about him.

Nigel was my friend and mentor for over 20 years. It was he who encouraged me to delve into the field of usability and user experience (UX) in the late 1990s when he helped create the Sino-European Usability Center—the first usability engineering center in China. Therefore, from my perspective, he has influenced the beginning and growth of UX practice in China. I am so delighted to have been given this opportunity to reflect on those precious experiences that will forever remain in my fond memory of Nigel.

My HCI Experiences

Let me start with my human-computer interaction (HCI) experience. My disciplinary background is in computer science. I began to teach in my university's computer science department in 1982. Changing my research focus to HCI was half chance and half interest. I first heard of HCI in 1989 by sheer chance when I received a call for papers for the INTERACT 1990 conference. This led me to leave behind my previous research on distributed computing and instead to turn to HCI. At first, I taught myself HCI from reading papers and books and researching visualization of distributed programs. Later, during my visit to Germany and the UK in 1992–94, I was able to study and do in-depth research on HCI. I was lucky to be among the very few people who were the first to engage in HCI in China in the early 1990s.

After returning to China in 1994, I continued my research on visual context facilitated human-computer dialogue and began teaching my first graduate HCI course. At that time, the Chinese government called on the scientific research in universities to address the main problem of improving the national economy. So, I was also actively thinking about how to link my work to the applied industry practices. Around 1997, a website on EU science and technology programs drew my attention to the kinds of usability engineering projects that Nigel coordinated or was involved in, such as INUSE, RESPECT, TRUMP, and so on. I felt that these types of projects would closely relate to the emerging HCI practice for Chinese industry. Therefore, I contacted Nigel for advice and for more information. He agreed with my judgment and encouraged me to continue my efforts in this direction. Today I remember, on a sunny afternoon in 1998 during a department meeting, the secretary handed me a big white plastic covered international parcel. It turned out that Nigel had forwarded a bunch of printed materials on usability and user-centered design (UCD) emanating from those EU projects, which made me feel that I had received a real treasure. That set of materials formed an important basis for my initial, systematic study of usability engineering and also strengthened the transition from my original academically oriented research to combining academic research and industrial practice. So, I taught myself usability engineering and launched my graduate course on this topic.

During that time, I thought a lot about how to promote an understanding and acceptance of usability engineering in China. The model adopted in those projects coordinated by Nigel were very inspirational and convincingly demonstrated the value of usability, giving rise to our successful experience of usability engineering practice in industry. The materials revealed close contacts with industrial enterprises by running pilot projects, conducting exploratory research in actual product design and development projects, and applying best practice principles. A repository and a support network had evidently also been established through training programs and demonstration projects. These efforts were further assisted by the power of the ISO standards that were led by the efforts of the HCI community to influence this advanced approach for more enterprises. That information inspired us to begin to identify similar opportunities in China.

Nigel Bevan and China

In 1999, I was appointed as the Chinese representative of IFIP TC.13 committee on HCI (<http://ifip-tc13.org/>) by the Chinese Institute of Electronics (<http://www.cie-info.org.cn/>). In August-September, I attended my first TC.13 meeting as well as the INTERACT 1999 conference in Edinburgh, UK. I met Nigel there for the very first time and attended his tutorial on usability engineering. At dinner, he asked me what I prefer to eat; I responded that I would like something typically Scottish. He therefore recommended that I should try haggis, which I still remember clearly. In November-December of that year, Nigel visited Dalian, where I am, as well as Beijing. During that time, Dalian was attempting to develop a software industry, ambitiously wanting to become an important city for the software industry in China. The city wanted to adopt advanced development concepts and methods; I was helping the Dalian municipal government set up the Dalian Software Industry Incubator. So, I arranged for Nigel to give a talk to the enterprises in the Dalian Software Park, and we met with officials representing the Information Industry Bureau of the local government. I then accompanied him to Beijing, where he visited the HCI laboratory and gave another talk at the Software Institute of the Chinese Academy of Sciences, one of the top academic institutions of software technology in China.

Nigel was leading the proposal UsabilityNet for the EU Fifth Framework Program in 1999, and he invited us (Dalian Maritime University, DMU) to participate as a partner from China. A total of 19 organizations from 15 countries participated in the proposal, mainly from the EU countries, with three non-EU partners from South Africa, Israel, and China. UsabilityNet (IST-1999-29067) was successful and was approved in 2000 with the proposed work carried out in 2001–2003. Its objective was to summarize the accumulated best practice of usability engineering in industry, assess and establish a repository of a set of UCD methods, and promote the best practice of usability engineering in the EU and beyond through the support network formed by the project partners. In November 2000, Nigel and I took the opportunity to attend a meeting on the CIF standard for usability test reporting in the US. We signed the agreement for DMU to participate in UsabilityNet in Washington DC. In that project, we established a support center for usability engineering in China, namely the Chinese Center for EU UsabilityNet (later renamed Sino-European Usability Center). This is responsible for the localization and dissemination of usability engineering practice in China and helps local industry master an advanced approach. At that time, in 2000, UsabilityNet was one of only three EU projects that Chinese organizations became involved in. That was the reason the counsellor for science and technology of the EU Delegation in China came to Dalian to visit us in person. According to the China-EU science and technology cooperation agreement, the work we undertook in this project was funded by the China-EU Science and Technology Cooperation Program of the Ministry of Science and Technology of China.

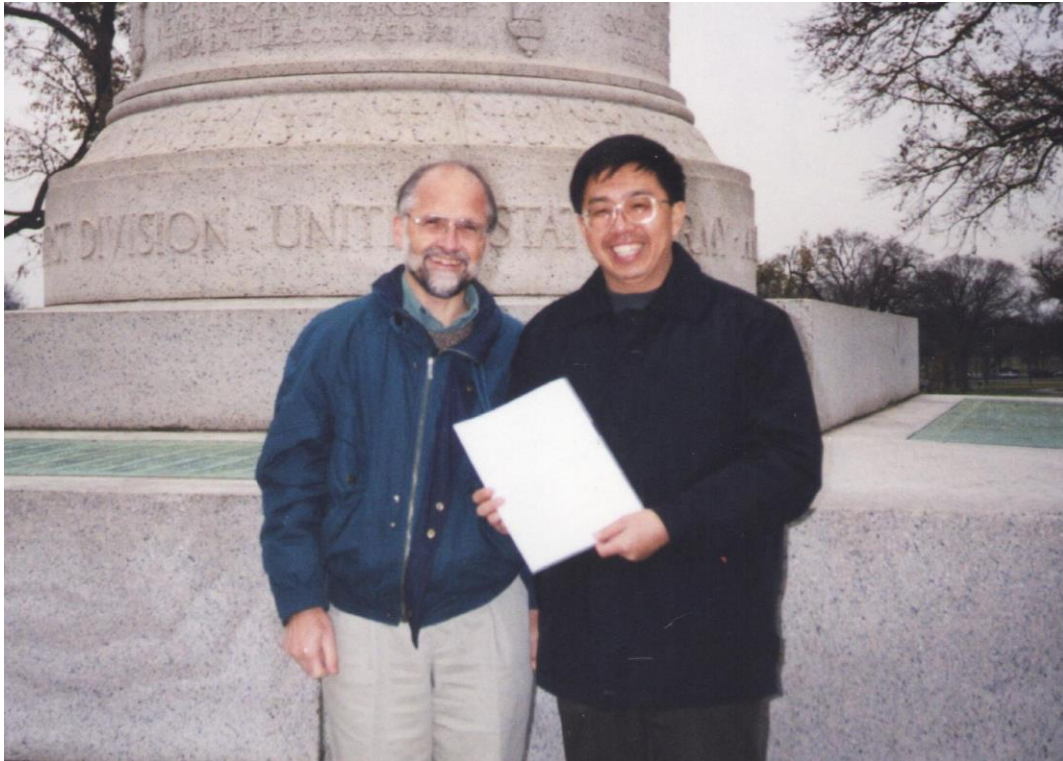


Figure 1. After Nigel and I attended a meeting on a usability standard in Gaithersburg, Maryland, we signed an agreement for Dalian Maritime University to join the EU Fifth Framework Program project UsabilityNet as a non-EU partner in Washington DC on November 19, 2000. This led to the foundation of the Sino-European Usability Center as the first usability engineering center in China.

In that way, with Nigel's assistance, we established the first usability engineering center in China in 2000. Full of enthusiasm and with the help of this center, especially that of UsabilityNet, we ran a series of promotions to present to industry and academia in the next few years. Our work was mainly focused on three aspects: publicity and dissemination, government programs and standards, and education and training.

In terms of publicity, in order to help people understand and accept the concept of usability and user experience and highlight the benefits of these to users as well as to the product/service providers, we sought to convey the message that good user experience can be achieved by adopting the UCD approach. We published a series of articles and presented at influential industry and academic fora in which we included a special issue in the IDG China ComputerWorld magazine (Liu, 2001) and a series of journal and conference papers. We gave talks at conferences, such as the national conference on Pervasive Computing in 2002, the YOCSEF Forum on Innovative Products and User Acceptance by the China Computer Federation (CCF, <https://www.ccf.org.cn/>) in 2003, and the Intel Ease of Use (EoU) Roundtable in 2003 and 2004. We held tutorials on usability engineering in enterprises. We also conducted accessibility assessments for Chinese government agency websites and gave talks to organizations for persons with disability. The books, *Software for Use* (Constantine & Lockwood, 1999) and *Usability Engineering* (Nielsen, 1993) were translated and published in 2003–2004. As the first published books on usability engineering in China, they influenced the spread of UX that was just beginning at that time in China. The Chinese translation of *Usability Engineering* was an important guidebook for everyone, but especially for the UX teams that had just been founded in some enterprises. It was in fact Nigel who had recommended *Usability Engineering* to us when we were considering which book to translate. At the same time, through the UXPA User Experience magazine (Liu, 2003, 2006) as well as via APCHI 2002 and HCI International

2003, we were able to actively introduce the situation in China (the situation being the progress that was made and difficulties faced in developing UX awareness for industry in China during this time), helping international counterparts understand, pay attention, and use the international resources to foster future UX development through international cooperation.

In terms of government programs and standards, we exerted influence through various government science and technology programs and national standards. We carried out demonstration projects and industry surveys, and we actively promoted usability engineering to encourage people to become acquainted with and accept UX standards in academia and industry. In 1999, we were involved in planning for future programs of the National Natural Science Foundation of China (<http://www.nsf.gov.cn/>), and we proposed that usability should be included in the part addressing HCI. In the 10th Five Years Key Programs for Science and Technology Development in China, as a demonstration, we conducted a usability evaluation for China's National Trunk Highway Systems' electronic toll collection systems. Influenced by Nigel, we attached great importance to the role of the ISO standards from the very beginning. Through participating in the ISO standard working groups and the National Standardization Technical Committee for Ergonomics (SAC/TC7), we assisted with the adoption of ISO standards for human-computer interaction and usability engineering, such as ISO 9241 (ISO, 1992-1999), ISO 13407 (ISO, 1999), ISO 18529 (ISO, 2000), and so on, as the Chinese national standards by accurate, equivalent translation. A survey of the local software industry based on the Usability Maturity Model (UMM; Earthy, 1999) was also conducted to understand the situation and requirements so as to develop a better strategy for promoting usability engineering in China and to provide suggestions to government and the software industry on policies and implementation for introducing UCD into software enterprises.

In terms of education and training, since receiving those materials from Nigel, we began teaching postgraduate courses on usability engineering in the late 1990s and have supervised theses on this topic ever since. We set up the first postgraduate program focusing on usability and interaction design in computer science schools in China. As the industry demand for UX professionals is still somewhat immature, our training of graduate students as software engineers with a usability engineering foundation has remained relatively conservative. However, the curriculum and our supervisory capabilities have vastly improved across all those years, helping us to prepare for the now rapidly growing demand for UX professionals in China. Amongst our early graduates, many have become the backbone of the UX teams in the companies that began UX practice.

It should be emphasized that Nigel's influence is evident in the work we have done since the early years. Nigel influenced our understanding of the basic concepts and principles of usability engineering and user experience in many ways. We learned a lot from the EU projects Nigel coordinated and those lessons have heavily influenced the way we promote UX. In addition, Nigel also provided us with direct professional help, guidance, and encouragement. During the implementation of the UsabilityNet project in 2001–2003, Nigel visited China several times, giving talks in enterprises and universities, and we often met at project meetings and on other international occasions. Every time we met, we would talk about the work in China. When hearing that our work had made new progress, he would always be very happy and would give us further encouragement. He always gave us pertinent advice on our ideas. He also tried to keep us up-to-date on the latest trends in the field and was eager to help us find and recommend resources.

It should also be noted that the establishment of the Sino-European Usability Center and the subsequent promotion of usability engineering in 2000 was somewhat "ahead of its time" in China. It happened at a time when the "climate" was quite immature; we therefore faced great difficulties for quite a few years, even life and death challenges. Now it seems to me that if Nigel hadn't inspired us early with enthusiasm, and if there hadn't been a strong support from the UsabilityNet's excellent resources, it's hard to imagine that these things could have happened in China at that time.

In around 2000, UX industry practices were non-existent, and the foundations of HCI were also quite weak. HCI took off in China in the early 1990s, but until the late 1990s, there was still no organization for this specialized field. People did not quite understand what HCI was and did not regard it as an important field for research and practice. I still remember that I proposed to set

up a technical committee for HCI to the China Computer Federation in 1998, but due to the small HCI community and the lack of consensus in understanding of what HCI is, these efforts were still fruitless in 2000.

At that time, the activities of UsabilityNet in China actually started on a nearly blank slate, facing all kinds of difficulties. First, people had no ideological basis for understanding HCI. People did not understand the concepts of usability and user experience, which were therefore not seen as an important issue in industry. Second, the lack of organizational support from professional organizations meant that we had no reliable platform or channel for our work. The only reason why we were able to do our initial work in a step-by-step fashion was because of the availability of the excellent UsabilityNet resources. The UCD methods provided by UsabilityNet were based on best industry practice, which represented the state of art in UX practice in the world at that time. The extensive industrial experience of the project partners, makes UsabilityNet relatively easy for the Chinese industry to understand and accept. At the same time, the connection of UsabilityNet and the authoritative ISO standards provided important support because at that time, in the Chinese industry, especially the software-related industry, certification for ISO 9000 quality management systems and the Capability Maturity Model for Software (CMM) were popular. That made it relatively easy to get attention and made it convenient for us to establish communication with industry. Although we were not heard in the first few years, the belief that "Today in developed countries is tomorrow in China" and the valuable support from UsabilityNet allowed us to remain optimistic and encouraged us to keep making unremitting efforts.

Finally, around 2004, the "spring" of UX in China finally emerged! First with the arrival of large multinational enterprises, and then the local enterprises found that the number of demands for UX projects increased dramatically, so they began to set up UX teams and recruit professional talents. The arrival of this "spring," although mainly driven by the economic and market globalization trends, emerged very quickly and somewhat unexpectedly, but the promotion work by UsabilityNet early in China indeed did much to enlighten organizations. The ideological foundation of UCD allowed us to be somewhat prepared when the spring finally came, instead of rushing into battle. Thank you, Nigel, for giving us this valuable "first push."

The series of early projects carried out under the auspices of UsabilityNet laid the foundation for the Sino-European Usability Center and its reputation at home and abroad. This, in turn, led us to the Sino-European Systems Usability Network (SESUN), the second EU project, which has enabled us to step into the "spring" and launch a wider push for UX in China. Andy Smith, Professor at Thames Valley University in the UK, learned about our work through UsabilityNet and invited us jointly to apply for the EU Asia-IT&C program project SESUN (CN/ Asia-IT&C /001; 88365). This is an international cooperation involving the UK, Ireland, Sweden, Germany, Austria, and China. We, as the Chinese partner, were committed to promote the development of UX in China through China-EU cooperation. During the period of 2005–2007, we carried out an even broader promotion in China, especially the five nation-wide rounds of seminar tours (one round every half year; each round covering at least three major cities). In the early stages of UX development in China, it helped those companies that adopted UX practice in the early days. This played an important role in fostering the enlightenment and growth of UX practice in Chinese industry.

Now, after 15 years of rapid development since 2004, as a result of the joint efforts of many parties, the field of user experience in China has undergone earth-shattering changes (Liu, 2014; Liu, Zhang, Zhang, & Chen, 2011). User experience nowadays is widely accepted by the industry. Thousands of professionals attended the user experience conferences (like User Friendly and IXDC) held every year. That this has happened in China, the world's largest manufacturing industry and consumer market, is just so meaningful! There is an old saying in China: "Don't forget the well-diggers when you drink from this well." Nigel should be a part of the UX field in China today. Nigel has always been humble, though, he never talked about his contributions. It is fair to say that, in the late 1990s, Nigel brought China from a blank slate into the forefront of the UX field, helped along by some early, highly motivated and enthusiastic pioneers in China who threw themselves into the study, dissemination, and exploration of usability engineering. This made an important ideological preparation for the start of China's rapid rise in the field of UX after 2004.

A Personal Tribute

I have had the privilege of having Nigel in my life as the best possible mentor, friend, and role model. From our many years of contact with each other, in my eyes, he was a pure and devoted scholar, dedicated and undistracted by other activities. He put his passion and energy into his favorite areas of UX and ISO standards regardless of the utility of these. He was sincere, modest, and totally lacked vanity. He was energetic and never seemed to need to adjust to jet lag after a long trip. He was adventurous, had the courage to tackle challenging hiking trails and was willing to sample all kinds of strange food, but I know he didn't like Chinese porridge.

A man who is no more, but whose spirit will always inspire us.

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About the Author



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Professor Liu works at Dalian Maritime University, China. He has been working in HCI since 1989 and founded Sino-European Usability Center in 2000. His area of experience is user experience design. He is awardee of ACM SIGCHI Lifetime Service Award (2017) and IFIP TC13 Pioneers Award (2013).