EMERGING MARKETS, TECHNOLOGY DESIGN AND GLOBAL COMMUNITIES INSIDE THE UNITED STATES

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ABSTRACT

Information technologies provided by internet startups and established brands offer fundamentally new communication and transaction capabilities for increasingly diverse customers and in often unexpected environments. This short paper relates findings from ethnographic interaction research conducted for a major New York-based multinational bank designing an innovative, technology-rich financial service machine for lower income, lower education and immigrant customers. The case study speaks to larger issues of emerging markets, new technology environments and the role of interaction ethnographers in modeling user experience and designing transformative and usable electronic services for newly connected U.S. and global communities. The author earned his Ph.D. in Cultural Anthropology from Stanford University and conducts interaction ethnography for Sapient Corporation.

Technology for New Markets

Information technologies provided by internet startups and established brands offer fundamentally new communication and transaction capabilities for increasingly diverse customers and in often unexpected environments (2). This short paper relates findings from ethnographic interaction research conducted for a major New York-based multinational bank with test market customers of a prototype financial service machine. The case study speaks to larger issues of emerging markets, new technology environments and the role of interaction ethnographers in modeling newly connected communities and designing innovative and usable electronic services for underserved U.S. and global communities.

Automated Check Cashing: Discovery and Evaluation Research

Located in 24 hour convenience stores in a mid-sized southern city, the Bank s prototype machines offer access to banking services for U.S. residents who lack traditional banking accounts. Observational research revealed patterns of mistaken assumptions about the willingness and ability of lower income, lower education and immigrant populations to embrace innovative, technology-enabled services combining videophone customer service, real time check authentication, multi-step registration and ordering forms, and remote accessed scanners.

Ethnography-based interaction research first examined target customers current practices, attitudes towards large banking institutions, and user requirements for an electronic-based service. Once the NTT machines were installed in convenience

stores city-wide, a research team of four user experience strategists observed and interviewed eighty-one customers interacting with the new service. The field researchers applied data collection and analysis methods from cultural anthropology and human computer interaction, including natural use observation, structured interviews, contextual behavioral mapping, and usage scenarios (7, 4, 6).

Background: Global Markets inside the United States
Although automated check cashing services are initially geared for the U.S. market, the Bank groups what they term the U.S. unbanked segment within its Global Services Division, suggesting a link between emerging domestic markets and new customers in Singapore, Italy and India. This connection between new foreign and domestic markets was reiterated by U.S. President Bill Clinton this summer as he promoted a HUD emerging markets initiative for underserved U.S. inner city neighborhoods. Does this unexpected geographic and cultural affinity, institutionalized by corporate and civic leaders, offer actionable insight into how to design usable digital services for new global technology and business markets?

Until now, U.S. residents without traditional bank accounts rely upon check cashing outlets, in supermarkets and free-standing stores, for many routine financial transactions, such as check cashing, money transfers and money orders. This community does not currently have access to traditional ATM machines and the convenience of 24 hour cash withdrawals popularized in the past decade.

Understanding End Users Aspirations
Front-end user research sought to understand current customer behaviors, frustrations with existing providers, attitudes towards large banks, and opportunities for new service and delivery methods. In addition to focus groups conducted in English and Spanish, target customers were asked to create collages depicting their current experiences and their vision of an improved service. These materials served as artifacts used to model experience, behavior and attitudes (3, 1).

Through customers drawings, words and collages of found images, we learned that current frustration centers around long lines, unfriendly and monolingual staff, a non-welcoming environment, and a perceived lack of safety inside as well as outside check cashing stores. An association with welfare services adds a negative image. Customers complain that many of the stores staff treat them like losers or people who have no other financial options. Thick bullet-proof glass heightens the sense of danger and discomfort. Customers depictions of their ideal service centered 24 hour access, proximity to work and home, friendly interactions, and a respectful environment.

The prototype machines, located in 24 hour stores in many neighborhoods, address customer desires for access and convenience. Some customers expect store clerks to provide the services directly and are surprised to learn that they have to use an automated machine, involving two different keyboards and a scanner that the instructional text refers to as a copier.

Evaluation Research Findings
In contrast to assumptions by Bank marketers and human computer interaction designers, most customers, regardless of age, education or income level, approach the new technology with tremendous eagerness. Unfortunately, faulty back end technology, poor user feedback and understaffed customer service frequently exasperate many customers good intentions. However, most customers exhibit willingness to overlook technical breakdowns in return for transactions and service not otherwise available to them.

Age differences did not correlate with successful completion or perceived satisfaction; however, some behaviors and attitudes were generation specific. Teenagers and young adults frequently lacked patience to read detailed instructions for multi-step processes. Some older adults, unaccustomed to ATM machines, approached the machines with significant trepidation that contributed to negative interactions.

Building Interfaces for New Markets
As the internet and other technologies increasingly offer communication and transaction services to new global markets, human computer interaction designers offer corporate and civic leaders critical insight into building successful user experiences (5) . The high cost of personal computers and English dominant internet sites present formidable obstacles to the global adoption of new technologies.

Bringing technology to underserved and emerging markets requires identifying real customer needs and designing high quality interactions that can be quickly learned and easily completed. Trained in qualitative research methods, interaction ethnographers are skilled at understanding diverse cultural contexts and identifying the opportunities for innovative, technology-enabled services that can replace existing frustrations and limitations.

The Role of Design Ethnography
Empirical customer research involving observation, interviews and participatory design offers actionable insight into customer behaviors and attitudes. Real data and behavioral analysis replace mistaken assumptions about the willingness of new markets to embrace new technologies. Interaction designers skilled in ethnography are helping digital service and product companies define their offerings and create unique solutions that appeal to diverse markets. Ethnographic and usability theories and methods allows design ethnographers to guide new digital service development from definition, through prototyping and implementation for established and newly connected communities.

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