

CHAPTER 1

Are You Experienced?

Chapter Outline

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ABSTRACT

Is technology universal? This is the question at the core of this book, and the reason behind its inception is mainly related to our perception of technological artifacts and the way our lives have become symbiotic with these. In a world where McDonalds is readily found in any major African city, and iPhones are available in China without any major design changes, does it make sense to talk about cultural specialization and the context in which it occurs?

Can technology be designed in a way that usability and appeal are universally appealing?

Keywords: Technology; user experience; user interface; market; audience; design; research

1.1 DIGITAL TO HUMAN EXPERIENCE

Is technology universal? This is the question at the core of this book, and the reason behind its inception is mainly related to our perception of technological artifacts. In a world where McDonalds is readily found in any major African city, and iPhones are available in China without any major design changes, does it make sense to talk about cultural specialization and the context in which it occurs?

Design, in all of its forms, is at the core of human experience. It drives our advancements as a species. We would not have contemporary mobile phones without the technology behind televisions, and we would not have television without the invention of the antenna. We are on a multithreaded path of complexity, paving it as we move forward technologically and socially (Fig. 1.1.1).



FIGURE 1.1.1

Technology is ubiquitous, cross-cultural, and cross-generational.

As a civilization, we are more interdependent and self-aware than ever before. The complexities of the world economy and the realities of a globalized market ensure that almost every single one of our products and artefacts is part of a value chain that can span dozens of countries worldwide. Although a MacBook may be primarily designed in California, it is assembled in China, with parts sourced from all over the world. Most products are inherently international and this renders them as much a product of full-blown globalization in terms of supply chain and production requirements as a result of the commercial and cultural crossroads that date back to our own inception as a species.

It is important that we consider technology as a “fully cultural process, soaked through with social meaning that only makes sense in the context of familiar kinds of behavior” (Ross, 1991, p. 3). In other words, the only way to consider the variability and variety of design is to study and analyze it according to the variety of individual contexts where technology is used and designed.

The day of the steam-powered, ash-spewing, gear-cranking machine is long gone. Ever since the dawn of the digital age, equipment has progressively become networked, embedded, and miniaturized. Technology is literally everywhere. And it can deliver us any information from any point in the world in a heartbeat.

Yet there are commonalities in human experience that surpass the technological upheaval. We experience the world around us using largely similar cognitive structures. Our brains make use of similar sub-structures when acquiring and processing information, including what we see and feel. The shirt we wear, the air temperature, the subtle pressure of a seat against the body, a television blaring in the background, the screaming neighbors next

door: these are all simultaneous peripheral stimuli that may be taking place at the moment, but we are seldom mindful of them, as our selective attention steers away from it (James, 1890). But one vibration from our mobile phone, in our pocket, and our awareness is immediately redirected.

The concept of experience is hotly debated amongst philosophers and cognitive scientists (Combs and Snygg, 1959; McDowell, 1994), and deals with complex issues of subjectivity and interaction with reality. It has passed into popular wisdom that experience differs between people. For example, two people can look at the same beer ad and focus on very different things: its mixed message, perhaps, or the famous actor employed. And both would be right. There is no right or wrong about a sensation or perception, and no prescriptive way to judge it but intrinsically. Anybody can describe what a color or smell means for him or her, but this is not held as a scientific account of the stimuli itself. For instance, the perception of colors is inherently different between individuals (Hardin, 1989), and deeply linked to cultural practice and perception (Gage, 1993). We are unable to describe red other than with analogies, and it has a completely different meaning depending on your upbringing and personal experiences. Red is a “qualia”: a figment of personal experience that can be likened to a “raw feel,” or something that is indescribable yet immediately perceived by our senses. Our reality is a compounded mix of qualia, making the way we experience the world deeply personal, yet rooted in the same stimuli. As such, what we see and feel is processed by our own flawed and unique systems in an intrinsically individual and subjective way, making experience a state, transient and immaterial, perennial and inconstant. The impact that a digital designer may have on it is usually of short duration. The world of interaction is one of details and nuances, where the success of the outcome is reflected in a split second when the user makes a decision on whether to install an app, or click on a subscription button.

However, apart from converting website visitors to clients, user experience design is meant to promote an *engaging and usable* experience, and for that it must be *relevant* for the user.

In this complex web of globalization and intertwining economics, technology plays a key role in aligning our experiences. We use similar devices across the globe, from tablets to smartphones, produced by only a handful of international companies, with very similar interaction guidelines and modes. The biggest difference lies in how we experience and use mobile and interactive technology, whether it is for work, entertainment, or even for immediate survival.

A Kenyan user may use his phone to receive SMSs with information on weather changes through the iCow service, while an Indian gamer may be absorbed by the latest edition of the Monster Strike Android game. Both can be using modest devices on a low bandwidth threshold and share their devices with their families on a shared data plan, with each member individually having a preference for different apps and services once online (Fig. 1.1.2).



FIGURE 1.1.2

iCow is a service designed in Africa providing agricultural information to Kenyan farmers. *Source: iCow.* Webpage screenshot from <http://www.icow.co.ke/>

Local and individual habits and assumptions constitute the basis for cross-cultural design as only understanding these will allow to appropriately design apps and services that respond to the needs and requirements of these users. International user research, as well as the qualitative outlook it provides on the preferences, activities, and goals, is the best means to understand a growing and ever more complex plethora of technology users.

Despite the interest and investment of recent years, that does not imply that all international and minority communities are equally represented in or able to access digital technology. Although the borders are dwindling, the digital divide is still ubiquitous, even in Western economies. In the United Kingdom, one of the most European countries with the highest proportion of adult usage, almost 6 million people reported never having used the Internet in 2015. According to a report by the Office for National Statistics, adults aged 16–24 years consistently show the highest rates of Internet use.



FIGURE 1.1.3

Accessibility is just another component of universal design: inclusive design that allows all to use a service or product.

The situation is much more extreme in Africa, where the average Internet penetration rate is 28.1%, with troubled Eritrea holding the record at 1% and Congo and Niger under 2% (on the other hand, over 60% of the Kenya, Mauritius, and Morocco populations are able to access the Internet, with several other countries boasting access rates of over 50%).

The situation is no different elsewhere in the globe, with over 55 countries in the lowest echelon of the Digital Access Index, which measures the infrastructure, affordability, knowledge and quality, and actual usage of information technology.

This is the actual context of a divided world, and one where technology is ubiquitous, but not universal. Digital services and products are produced on a global scale, but used in contexts that may not always have the best bandwidth, equipment, or technical literacy. This is where universal design, and specifically in the context of user experience, can respond to usability and utilization of web technology.

The definition of “universal design,” which lends this book its title, has been most popularized as a field mainly concerned with accessibility issues in buildings and facilities (Goldsmith, 2000; Staines, 2012) (Fig. 1.1.3).

However, it is an intrinsic part of the very concept of “universal design” that it is inclusive and available to all, regardless of their background, age, or ability, and its applicability extends far beyond architecture. It constitutes a social need, one that has alluded to in the academic and political world. One of the most emphatic examples has been proposed by the Council of Europe in a resolution passed in 2001 and again in 2007:

Universal Design is a strategy which aims to make the design and composition of different environments, products, communication, information technology and services accessible and understandable to, as well as usable by, everyone, to the greatest extent in the most independent and natural manner possible, preferably without the need for adaptation or specialised solutions.

The aim of Universal Design is to make the built environment, communication, products and services accessible and usable to the greatest extent possible. It promotes a shift towards user-centred design by following a holistic approach and aiming to accommodate the needs of people with disabilities, regardless of any changes they might experience in the course of their lives.

Consequently, Universal Design is a concept that extends beyond the issues of mere accessibility of buildings for people with disabilities and should become an integrated part of policies and planning in all aspects of society.

The political discourse has charged Universal Design with an institutional meaning and in the process reduced the scope of its application. This book aims at exploding that concept into an inclusive concept, one that brings in culture, research, and design into a single domain.

There are evident barriers in lack of training or low literacy levels that pull users away from the Internet, and these must be addressed in the appropriate context. What this book seeks to address is another aspect of the digital divide, that being the localization and globalization procedures of digital products.

Cultural and linguistic bias can place additional pressure on international Web users, making it harder to use and read information that can otherwise be assimilated easily by people in the same cultural context as the producer. Having software in the appropriate language, and understanding the habits of the users in the area, can play a decisive role in a product’s success and overcome key usability issues like specific text input requirements via keyboard or touch layouts.

Design for actual needs is the solution that can answer challenges in the poorest and less well-educated regions of the globe, and it constitutes a boon to overcome the challenge of differing languages and expectations.

The goal of making pages as accessible as possible is not the end of the journey, for, as Tim-Berner Lee stated during the launch of the Web Accessibility Initiative in 1997:

The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect.

The grand purpose for universal web design is to design in an inclusive manner, for all in society and, for international businesses, for *all societies*. There is a sea of good intentions, and many open questions about the implications. But as companies are becoming aware of the importance of design thinking, the need to understand the client across all business channels and international markets grows. This is allowing designers and researchers from California to Beijing to hone their expertise into a finely crafted symphony of experiences both micro and macro which resonate with the targeted users. Far from a pipe dream, inclusive design is a requirement in a world where all groups have a voice, and all voices demand to be heard.

1.2 REDEFINING LOCALIZATION

Long human words (the longer the better) were easy, unmistakable, and rarely changed their meanings . . . but short words were slippery, unpredictable, changing their meanings without any pattern.

Robert A. Heinlein, *Stranger in a Strange Land*

As an essential component of human-centered design, UX is often defined as the set of emotional and evaluative perceptions and responses that a user goes through while interacting with a given user interface (UI).

User experience is at the forefront of the emotional link between a digital design and the way somebody interacts with it, with key components being the look and feel, the perceptions and feelings towards the design, and the practicality of achieving the intended goals.

The ISO 9241-210 norm defines UX as “a person’s perceptions and responses that result from the use or anticipated use of a product, system or service.” Broad in its target, the psychological implications of this definition are nevertheless clear: UX is less a well-defined discipline than the combined sum of the user’s emotional response to a specific product. A typical user is not looking for the color scheme details of an app’s interface or interested in the harmonious streamlining of the checkout feature in a website: only the full, integrated experience matters. And, for the user, the product is only as good as its experience.

With appropriate metrics and an integrated perspective on product development, UX can help to differentiate a brand and maintain its identity by promoting improved usability and a greater adequacy to the user’s actual needs.

A design-oriented company stands a better chance of creating products that are not prone to feature-creep while remaining usable and attractive. As a result, support costs are reduced and customers are more satisfied. As an example, McAfee reported a 90% decrease of support calls after refactoring their UI. After consolidation and establishing proper searching tools geared toward better accessibility, IBM's complex internal information network acceptance improved exponentially.

A lot of Google's and Apple's success is owed to design. Interface minimalism and optimization with only what is required for the user's most common goals constituted the basis for sound success. These principles remained consistent between different locales, thereby maintaining the brand identity, regardless of the target language.

So the main question lies in asking whether localization is a part of the UX paradigm at all. This question actually incorporates two different aspects: Should internationalization be taken into account during the design stage and does localization impact the overall effect of a product's UX?

The answer is, obviously, yes. Text is an essential part of a complete multimedia system that includes image and text. Visually and linguistically, text plays a major role in the user's perception of a product.

The most refined and sophisticated UX can be wrecked by careless localization and haunted by issues and bugs. Fonts are lost, carefully complimentary labels suddenly appear juxtaposed, HTML is improperly adapted to target locales.

Therefore, internationalization is key to a consistent UX in a multilingual product. Internationalization defines the set of processes and techniques that are implicated in making a product capable of adaptation to different cultures. This is where UX implementation is at its trickiest.

No sound internationalization-friendly design can be adequately implemented without an accurate study of localization prioritization. Define which languages and cultures you want to localize into and include both immediate priorities and future plans. This will enable you to optimize layouts for culturally sensitive graphics and indications or—optimally—to change requirements in the light of new market strategies.

It is hard enough to achieve an optimal combination of consistent layout and sound text in any locale. Adapting a carefully laid out interface and its content to other target cultures requires thorough considerations with regards to branding and visual aspect.

A common misconception of localization associates it primarily with translation management of assets that are, to a very fixed degree, already established. However, incorporating localization already during the earliest design stages will lead to websites that are bound to offering a more direct UX.

If a company is not ready for a specific market, there is a number of things that it can do in order to work and establish that market:

- Develop a marketing strategy to appeal to people in the market
- Translate its websites and main services into the local language(s)
- Foster receptivity in the market by cultivating trust and understanding
- Increase appeal and relevance across the cultural boundaries
- Champion the cause by cultivating diversity evangelists in the company
- Unearth precedents in testimonials and case studies

1.3 UNIQUE AND UNIVERSAL

The key to good decision making is not knowledge. It is understanding. We are swimming in the former. We are desperately lacking in the latter.

Malcolm Gladwell, *Blink: The Power of Thinking Without Thinking*

Indians are ambitious. Italians love their family. Chinese are great tea drinkers. Stereotypes are easy to fall into and even easier to creep into the assumptions of designers and researchers.

Cultural stereotyping comes in all shapes and forms, often relying on general conceptualizations of human behavior that are in no way exclusive to the group they are supposedly representative of. The word “stereotype” itself derives from the Greek term for “solid impression” and implies a “shared set of beliefs about traits that are characteristic of members of a social category” (Greenwald and Banaji, 1995, p. 14).

Stereotypes are inherently social, and they often refer to known social groups doused with some distinguishing feature: “technophiles,” “trend-setters,” “hipsters.” This influences many of the assumptions interaction designers hold about their target users, and guides many a marketing campaign in the wrong direction. Examples abound, like introducing a Kitchen Entrees food line when you are the biggest toothpaste maker in the world (Colgate) or launching a caffeine-ridden fizzy soda aimed at breakfast lovers (Pepsi A.M) as a coffee replacement (Fig. 1.3.1).

It is essential for corporations to understand the variety of habits and preferences in users worldwide, especially their needs. This will help to avoid imposing their own values, corporate and ethnocentric, in what Theodore Levitt called a “marketing myopia.” There is no room for stereotypes in a world where, Africa is the fastest growing market for mobile, 45% of all Facebook users are over the age of 35, and a quarter of all gamers are over 40 years old and 52% are women, according to a 2014 Internet Advertising Bureau UK report.

It is easy to fall into the fallacy of generalization of race, age, gender, and socioeconomic background. UX research plays a decisive role in understanding the specific needs of the users, enabling companies to undermine the possible negative impact of using stereotypes on designing a new product or service.



FIGURE 1.3.1

Gender stereotyping is sometimes used in segmenting users, but assumptions can easily be challenged. Knowing the audience you are catering for involves foregoing any previous restrictive models based on pop wisdom, and instead researching on their actual lives and how your proposition can complement them.

It is vital to aim at specificity and information coherence with valid sourcing and appropriate methodologies.

The success of Apple, Amazon, Google, and Facebook in the west, and Tencent, Alibaba, and Baidu in the east, have come to condition the expectations of billions of users all over the world, encouraging normalization, as the market becomes more streamlined and other companies seek to replicate the success and appeal of these worldwide brands. The design and proposition of these brands weigh on users and designers alike, especially as web templates become easier to use and more prescriptive. However, in order to allow the user experience fulfill its purpose of speaking to the user in an adaptive and appropriate manner, companies that do not rely on global domination must rely on a combination of approaches and methodologies aimed at understanding the local context of the user—and design specifically for that context. Design can be geared towards a normative ideal user, and the reliance on universal principles of accessibility and usability opens avenues of opportunity for equality and awareness, as well as designing for a world that is far more complex than streamlined approaches demand.

As an example, take a look at the nearest tabloid newspaper and leaf through the pages of sexy pop-quizzes and scandal of the week reports, to find

purchasing the horoscope section. With any luck, today will be a good day for your horoscope: "Expect great changes in your life. Money troubles will arise, but family will help you to gain control of your own destiny." Almost everyone can identify with this.

The general message is positive, but the specifics are nowhere to be seen. How can you prepare for these great changes? How to face this impending financial doom? Should you start looking into bonds, investments, pyramid schemes, or the ancient art(s) of busking?

This approach to generalization is known as the *Barnum effect*, where inclusive appreciations of specific groups are enunciated in generic descriptions that are actually describing the group in such broad swathes that it does characterize the group, but does not define it. In other words, horoscopes are correct by always being fuzzy enough not to be wrong.

These generalizations are easy to identify with, but seldom correspond to a particular time frame: who doesn't experience great changes in their life at one point or another? Who doesn't experience money trouble at one point or another in their life? Yet whenever these predictions fail to become true, we naturally disassociate the outcome from its source: coincidences are overvalued.

And the horoscope page lives to see another day, free of any correlating responsibility.

Similarly, a website design or an app may be designed *well enough* to be functional, but the added value that defines success comes with the *relevance* of the design, where consequence resides:

- Distinct and relevant branding identity imbued in the product,
- Usability accommodates the necessities of the general audience, with varying degrees of literacy and ability,
- Functionality and reliability (e.g., constant availability or "online" status);
- Content should be appealing and concise enough to create a lasting impression on the user.

Users are not given sufficient credit in many cases, especially in projects where usability tests are lacking or user research is deficient. Often they are pandered to with too much or repetitive information, even in the simplest of UIs, or too many features are made available at any one time. This is where the standard principles of user-centered design apply, as every activity and objective of a project aims at developing an appropriate and purposeful experience for the user.

According to the ISO 13407 standard (ISO, 2001), user-centered design includes four iterative design activities, all involving direct user participation:

- understand and specify the context of use, the nature of the users, their goals and tasks, and the environment in which the product will be used;

- specify the user and organizational requirements in terms of effectiveness, efficiency, and satisfaction; and the allocation of function between users and the system;
- produce designs and prototypes of plausible solutions; and
- carry out user-based assessment.

The key to designing for individuals lies, therefore, in accurate research of their abilities, preferences, and where they will use their mobile phones, smart wear, or any interactive device. Using a wealth of universal design techniques discussed later in this book, good design can be made self-explanatory by virtue of its own logic.

Furthermore, users are also quite savvy now that we live in a world where virtually every interaction with an electronic device is mediated through some sort of virtual interface. Smart homes, VR devices, and 3D printing are only some of the newest applications where facility of use is a key part of the generalized adoption.

This is the new democracy of a reality blanketed with a digital layer, brought about by the postindustrial world.

Welcome.

1.4 UNDERSTANDING CULTURE

You can't walk alone. Many have given the illusion but none have really walked alone. man is not made that way. Each man is bedded in his people, their history, their culture, and their values.

Peter Abrahams

Culture is a vague concept in and of itself, and its definition often dangles from the strands of contemporary history and society. As a consequence, there are literally hundreds of definitions of culture, each with its own merit. Already in 1952, Kroeber and Kluckhohn reviewed hundreds of definitions to find no conclusive answers, other than the "culture concept of the anthropologists and sociologists is coming to be regarded as the foundation stone of the social sciences" (p. 9). The emergence of culture thus coincides with the consolidation of anthropology, when the notion of "culture" suggested was heavily marked by then reigning slavery and the progressive stratification of the newly developed capitalist society.

It is hard to escape the dark undertones of the term at its inception. Throughout the 19th century, "culture" was, for a long time, an implicitly racist term associated with the contrast between the allegedly "advanced" nature of the cultivated Western civilization in comparison with the more "primitive" cultures of then newly discovered territories overseas. Even prominent intellectuals like Émile Durkheim (later appointed one of the forefathers of sociology) produced significant bodies of work in the early 20th century devoted to studying the "simple" religions (totemism) and communication of

cultures deemed “primitive,” like the Aboriginal and Sioux tribes. These societal groups were called “lower” as their values differed from those displayed by the imperialistic Western colonial perspective.

However, gradually, the term “culture” gathered a wider acceptance and came to be applied to all groups equally. Edward Tylor produced perhaps the most widely accepted assertion of culture in 1871: “Culture, or civilization, taken in its broad, ethnographic sense, is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society” (2010, p. 1).

The word itself derives from the Latin term *colere*, which can mean anything from cultivation to worship. Cicero had already introduced in common parlance the expression “cultura animi,” literally meaning cultivation of the soul.

The word “culture” remained closely linked to education in the Classical sense, however. In 1869 Matthew Arnold published his extremely influential *Culture and Anarchy*, a veritable tome lauding erudition and “the study of perfection” as the ultimate goal of civilized “refinement.”

Culture can be seen as a set of common values and goals distinguishing a community and its effect on the individual, but it remains hard to pinpoint and even harder to define in a self-contained manner.

Today, culture is used in various contexts: “corporate culture,” “pop culture,” “counterculture,” “mass culture.” The term has been misconstrued and applied; it is about the internal set of values and beliefs of a group, at others, the iconoclastic nature of the larger media ensemble blaring out the latest chart-topping hit (Fig. 1.4.1).

This book will handle culture as a single definition: in broad terms, the combined whole of the roles and beliefs the individual holds and in a larger group or context, and the constraints or influence that this context may have on the individual’s beliefs and personal identity.

Most relevant to HCI, culture has been identified as a common system of communication that distinguishes us from other species:

Culture is a technical term used by anthropologists to refer to a system for creating, sending, storing, and processing information developed by human beings, which differentiates them from other life forms.

Hall (1990, p. 193)

The concept of culture is fluid, and it is impossible in modern society to expect a monolithic definition of “monoculture” to serve in an authoritative. More than ever, the world is divided into subtribes and subcultures. It is possible to be “African-Asian-American,” or to have parents with Scandinavian roots while still being brought up in Brazil. People in these circumstances, like bilinguals, have a necessarily broader exposure to various different influences on their own tastes and aesthetics, as well as social interaction. Similarly,

Like currents in the ocean, then, there is not only one culture or concept of culture, but many working together and influencing each other simultaneously. However, culture as a more straightforward geopolitical concept is still a useful marker, in particular for international marketing and research. By considering regional areas, and taking into account the local economy necessities, education, and overall technological index, it is possible to assess and identify preferences and biases in the overall processes of communication, representation, and interpretation of users.

We can therefore still assess differences between typically aesthetic choices such as color, pictures, and typesetting and identify larger tendencies informed by the cultural background of designers and the reception by intended audience.

In a broader sense, culture can be interpreted as what defines the “human” character of mankind, equating it with a learned method of processing reality, and relating between individuals.

Culture is the history of permanence, of what sticks between generations, of preservation, providing us a toolkit for our strategies of action (Swidler, 1986). In a world of consumerism run amok, that principle tends to be deemphasized. However, culture is more present than ever in the *vox populi*, in the political cleavages between nominal cardinal points: West, Middle-East, Far-East. In an increasingly divided world, technology and design are the common thread that unifies these poles of human endeavor. Designing appropriately for these hidden worlds is the next necessary step in the journey to overcome ethnocentrism. That is, the need to see beyond ourselves, our politics and values, and into the essence of design: solving problems and avoiding difficulties for fellow humans.

1.5 SPINDRIFTS AND UNDERTOWS

All the diversity, all the charm, and all the beauty of life are made up of light and shade.

Leo Tolstoy, *Anna Karenina*

Smog-covered skyscrapers peer ghostly in the morning light of Shanghai. The mega-metropolis rises early, and the sweaty masses find their way into cramped offices. UX is still an early practice, but China has shown its remarkable adaptability with the adoption of Western technology and methodology, combined with the power of a highly educated worker class. The gigantic economy manages to sustain its growth even when economies worldwide take a downturn (Fig. 1.5.1).

“It is still a bit like the Wild West,” says Aurélien Rigart, as we chat over a sturdy French brandy. “Companies are quick to rise and equally quick to fall, but there is plenty of room for quality. Digital China is evolving at the speed of light, much more quickly than in the West.”

FIGURE 1.5.1

China is at a technological and cultural crossroads as its tech power rises in the mobile and web markets.



China is often seen as an unstoppable world power on the rise, but its journey to a landmark economy only started relatively recently. In late 1978 economic reforms were introduced to reform its economy, steering it closer to a capitalistic model with the government loosening its restrictions. Since these reforms, the growth rate has reached a solid 10% since the 1980s, only recently slowing down. This led to a number of social changes, with the newly available disposable income allowing a new middle-class to rise, and pushed the traditional economy to a new height of production and consumerism.

The rise was meteoric. In 2015 it took the title of the biggest mobile economy on Earth, with over 1.28 billion users registered as of February 2016, according to a Statista report. However, China is still undergoing a major telecommunications improvement and its potential has not been exhausted yet. China's penetration rate in mobile and web technology exceeds that of the United States or Europe, sporting the most profitable e-commerce revenue in the world (over 580 billion dollars in 2015, almost 50% more than the United States in 2015) and a very young user base: 55% of its users are under the age of 29 years. "This is just the result of an exponential boom that has been taking place over the past couple of years," concludes Aurélien with a wave over the shimmering skyline.

Over the last century, China continuously walked the tightrope between its lengthy history and strong identity, and the technological influence of the West. Baidu is an example of this dynamic. Arguably the most popular search engine in China with almost 80% of the search market according to Expanded Ramblings, it was established in 2000 by Robin Li and Eric Xu, then recently returned to China after stints studying in the United States. Both men brought home the knowledge and know-how of website indexing and crawling, but

their biggest prize was another: how to compete with Silicon Valley on its own terms. Bringing an extremely competitive approach to the corporate development *ethos*, and enjoying the benefits of a protectionist economy, Baidu went on to become the prime player in the market, while the behemoth Google met with increasingly frustrating resistance and political tension in its efforts to enter the Chinese market.

This is a sign of the balance between the world economies and the influence it holds over web design. Thanks to its particularly strong economy and inexorable rise to become a world super-power, China, like Japan and the USA, benefit from a privileged economic position that sees them sponsor a qualified web development and UX force directly aimed at a growing and substantial internal market.

In the global confluence, web design aimed at the same country in which it is produced has a privileged position in catering for a domestic audience, eager for new products, but with familiar preferences and tastes. UX and web design for internal consumption is very different from that produced for international audiences. Despite the constraints of web and device standards, domestic UX has a greater possibility of developing its own quirks and unique identity, like in the case of Japan.

Latin America is on the Rise as a Mobile Market

Smartphone users and penetration in Latin America, by country, 2014–19 (millions and % of mobile phone users)

	2014	2015	2016	2017	2018	2019
Smartphone users (millions)						
Brazil	39.7	49.1	57.8	65.8	72.5	77.6
Mexico	31.3	38.5	45.2	51.7	57.9	62.4
Colombia	14.4	16.7	19.0	20.9	22.6	24.3
Argentina	11.0	13.3	15.5	16.9	18.3	19.8
Chile	6.3	7.1	7.9	8.7	9.3	9.8
Peru	5.1	6.2	7.3	8.3	9.3	10.1
Other	19.8	25.0	29.7	34.0	38.1	41.5
Latin America	127.6	155.9	182.4	206.3	228.0	245.6
Smartphone user penetration (% of mobile phone users)						
Chile	49.7	55.5	60.9	65.7	69.7	72.8
Colombia	45.3	51.4	57.4	62.1	66.0	69.7
Mexico	40.1	47.4	54.1	60.4	66.2	70.0
Argentina	36.7	43.5	49.3	53.0	56.7	60.2
Brazil	31.3	37.6	43.3	48.2	52.0	54.8
Peru	28.7	33.5	38.2	42.5	46.5	49.7
Other	22.4	27.6	32.0	35.9	39.5	42.3
Latin America	33.1	39.3	44.9	49.7	53.9	57.0

Note: Individuals of any age who own at least one smartphone and use the smartphone(s) at least once per month.

Source: Used with permission from eMarketer.com

Portrayal of LatAm UX scene

There are other markets where web design is thriving, but for different reasons. Central and South America in particular have been experiencing a boom in the past decade. In a 2015 report, eMarketer predicted that over 245 million people in Latin America would own a smartphone by 2019, a significant increase from the estimated figure of 155 million in 2015. The biggest markets are arguably Argentina, Brazil, Chile, Colombia, Mexico and Peru—which hold over 84% of smartphone users in the region.

This yields the potential for a qualified young slew of web professionals local design companies are quick to snap up: “[Companies] are not competing for clients, they’re competing for talent,” stated Ricardo Arce, a local entrepreneur, in a presentation concerning the burgeoning web scene in Costa Rica (YouTube, 2011).

Much of the design work developed in the region is for US businesses “near-shoring” work to LatAm design companies. “Near-shoring” is the practice of offshoring to a nearby country or location, and it has become one of the big drivers of the Latin American tech scene. Central and South-American design teams are often tasked with developing the front- and back-ends of apps and websites to be marketed in the United States (Fig. 1.5.2).

However, the strategic bearings of UX design can sometimes be more difficult to implement. The distance between the company and the outsourced company often places user research and understanding at the managerial decision-making level and away from LatAm teams. Sergio Nouvel, partner of the UX and development studio Continuum, present in the US, Chile and Peru, has an insider’s perspective:

UX as a guided process which involves managing stakeholders and interviewing/testing users requires physical presence. In fact, many American clients off-shoring their design work to high-end LatAm companies require the team’s willingness to travel to the US and a good level of English fluency. That is probably what end up driving off-shoring efforts to tasks that are easier to accomplish remotely, such as front-end, branding or visual design work. In that sense, LatAm offers no shortage of talent at competitive costs. On the other hand, there are many American clients that offshore their app or website design to LatAm in the hopes of saving some bucks. If that’s the case, a client looking for savings in their UX work may indicate an immature or underfinanced project, or a lack of willingness to invest in a full-fledged UX consultancy.

However, while the technical work is often easy to handover due to its standardization, it is usually harder to ensure cultural consistency in design and marketing work without the proper cultural sensibility:

The cultural gap that UX research firms sometimes fail to bridge may occur both ways. For instance, one of our top Peruvian clients worked

with IDEO before working with Continuum, and one of their main complaints was that, despite the high quality work, the American consultants were not able to capture the subtleties of Peruvian culture and decided to prioritize local consultants for future projects.

And conversely, some multinational US-based firms have resorted to us in the hopes to better meet the needs of their Latin American customers or help localize or tropicalize global solutions.

For mature multinational companies requiring a deep understanding of their client, local knowledge of their market is essential, and this often can only be provided by an assured team on the field that is sensitive to these issues. Doing otherwise risks compromising the entire brand relationship with the customer with an experience that can be offensive, inappropriate, aloof – or, at the very least, boring.

continuum

CASOS DE ÉXITO CONÓCENOS COMMUNITY CONTACTO

Sin importar la magnitud, resolvemos tus desafíos.

Somos **desarrolladores, diseñadores y consultores** apasionados por hacer realidad negocios y productos digitales con un enfoque centrado en el **usuario**. Tenemos una mezcla única de **tecnología, experiencia de usuario e innovación**.

Nuestra especialidad son los desafíos que no le encargarías a cualquiera.

Nuestros clientes emprenden proyectos duraderos y de **alto impacto**. Apuestan por **la innovación y la inteligencia**. Nos traen **desafíos técnicos únicos**. Buscan **deleitar a sus clientes**, internos o externos. Y por sobre todo, **anhelan mejorar continuamente la manera de hacer las cosas**.

FIGURE 1.5.2

Continuum is one of the Latin American UX and development firms making inroads with the American market.

1.6 THE AUDIENCE IS NOT LISTENING

It is a profoundly erroneous truism, repeated by all copy-books and by eminent people when they are making speeches, that we should cultivate the habit of thinking of what we are doing. The precise opposite is the case. Civilization advances by extending the number of important operations which we can perform without thinking about them.

Alfred North Whitehead

Snap decisions are a primer of modern life. We swim in an ocean of consumerist possibilities, always reachable with minimal effort. Cheapest bar? Yelp it. New tablet? Amazon it. It's late and raining? Uber it.

These choices and the material abundance that comes with living in affluent societies is a direct consequence of the exponential diversification of production means that we as a civilization have attained.

The evolution of technological artifacts in civilization tended to be closely linked to our ability to manipulate and transform our environment. Information technology in particular has been associated with the evolution of applied technology. Since cave paintings and written signs on sand, information has been passed through the molding of materials combined with a symbolic language. Now, the passage of information through external materials relies on the reception as much as the production.

The variety of the choices available around us enables us to live in cultures of minimal effort and maximum reward. So it is little wonder that researchers have found our attention span shorter than the average goldfish. A Microsoft study held in 2015 surveyed over 2000 Canadian participants and analyzed 112 other participants with electroencephalograms, finding that the average attention span was 8 seconds. By comparison, the average attention span length in 2000 was over 12 seconds.

Anecdotal evidence seems to support this idea: authors like Nicholas Carr have argued that the cognitive load imposed by the abundance of stimuli in web design tends to slow down or even impair long-term memory.

Whatever the extent, it is clear that the performance expectation is changing drastically with every computer generation. In the 1980s it was common to take 5 minutes to read a tape onto a game or app that would take only 48 K in a Spectrum. In the 1990s, chaotic 56KB modem sounds served as the other half of the Gen X soundtrack (in addition to grunge), and website navigation was an adventure in and of itself. Only those with significant time and motivation would risk a file download.

The current situation is immensely different. A site's performance plays a huge role in user acceptance, and research shows that users have no patience: European and American users tend to abandon a video-streaming website after 2 seconds if the video does not start in that period (Krishnan and Sitaraman, 2012).

Users tend to be particularly unforgiving in websites with more text, and evidence suggests that the perceived slowness of a website has a subconscious effect. Harry Shum from Microsoft suggested that a mere 250 milliseconds difference is enough to prompt a user to visit a competitor's webpage if the user is looking for specific concrete information.

Is there a difference in these expectations between different regions of the globe? Given the relative imbalance in terms of communication infrastructure, people tend to expect less responsiveness in countries with poorer infrastructures. The need to analyze the local conditions and adapt the web presence to these conditions is paramount in order to keep your users interested. The immediate reaction does differ between regions and devices.

This difference in infrastructure also highlights the different data necessities in a mobile-first world where connections are unreliable and inconstant (besides slow, depending on the user circumstances). As an example, the worldwide coverage of LTE (long-term evolution) networks is growing exponentially, and is present as of 2016 in most territories, but the domestic signal coverage still varies wildly, as you can attest when that last bar goes missing from your connection strength during a countryside trek. Culture-driven expectations also play a major role in user behavior.

For example, Impulsivity is not a quality that tends to be associated with Chinese culture. Professionally, the Chinese are famous for relying on a measured and somewhat bureaucratic decision-making process, with snap decisions seen as signs of a rash temperament rather than a display of competence. However, according to a China Internet Watch 2016 study, this is not a tendency shared by the Chinese people at large: over 30% of e-commerce users make an impulsive purchase (7 Habits of China Online Shoppers, 2016).

In other markets the dynamic is different and there is a distinct tendency for the social motivation to assume a particularly important role. Social media and word-of-mouth recommendations are key to a product's success in Asia, Africa, and South America. "When friends post something cool on their feed, it gives you a reason to check it out," stated a Bangkok user in a session for an international electronics company. "You always want to be on the cusp of what's new."

"What's new" plays a major role in decision-making. Companies should have a very active role in social media like WeChat if they are to thrive, as the communication playground is levelled and customers expect to interact with services in the same quick, off-the-cuff manner they might chat with their friends. Channels are funneled into the same medium, and user convenience stands only to gain.

1.7 ACCULTURATION AND GLOBALIZATION

As for me, I am tormented with an everlasting itch for things remote.
I love to sail forbidden seas, and land on barbarous coasts.

Herman Melville

America is a country aligned with the definition of “cool.” Despite economic upheavals in 1949 and 2008 and its military and political influence in world events, the country has successfully marketed itself as the epitome of “coolness,” a myth that Hollywood, music, and merchandising have helped to perpetrate throughout the second half of the 20th century. From denim-wearing gunslingers in the Wild West to the deep space exploration of NASA programs, America poses itself as a land of possibility and risk, where the potential of reward is worth any chance of a crashing failure.

This national character is indelibly related to the positioning of most of its companies, particularly in the digital arena.

The story behind giants like Apple and Microsoft is well documented, but similar garage-to-skyscraper stories apply to companies like Amazon and Salesforce. This sort of emboldening success story has placed the American digital economy firmly on top, with 7 of the 10 biggest IT companies in the world flying the star-spangled banner. However, for every success story, there are 10 failures that remain obscured by history. Despite the famous dictum that 8 in every 10 new businesses fail, according to a 2014 CB Insights report, companies typically die around 20 months after a final financing round, and after raising over \$1 million in revenue. The competition for startup funding is difficult and the success rate of any new startup in the USA is about 50% in the first year. These numbers are consistent across other markets, although some countries protect new companies, attempting to grow the local economy and develop domestic value. Across Europe, startup hubs benefit from public support, particularly in Germany, Scandinavia, and the Benelux area.

However, outside of the IT industry, and particularly for smaller economies, stories are rougher. This is one of the reasons why many entrepreneurs prefer to franchise, or assume the guise of a branch of an international brand, for their new businesses.

It is a relatively low-risk way to get a small business up and running, and the use of internationally well-known brands acts as a honey-pot attraction for potential customers. It is therefore telling that, among the top 10 largest global franchises, seven are from the United States (7-Eleven, Subway and McDonald's as the top three), and only one is Asian (the Japanese Kumon, specialized in children's education).

Part of the reason for the success of American franchises is the perception of the products, and the powerful branding that companies like KFC and Hertz have come to master.

There is a definite correlation between the country of origin of a product and its perception. Successful prosperous countries enjoy a certain “halo effect” with emerging economies, with their products being branded, for the most

part, more attractive than those of poorer countries. Attributes commonly associated with a country tend to be generally transposed to its products. From the German precision of engineering with Volkswagen “Das Auto” to the solidity of Japanese design, cultural expectations and generalization often dictate reception and, ultimately, success. However, what happens when a product is appropriated locally and becomes its own entity? What happens when users adopt foreign habits as if their own?

Part of the answer lies in the quick absorption of habits that a successful service brings to an existing need in a social group, or the role a new international service plays in a market it expands itself to. Social media is a perfect example of the double-edged impact of a digital presence in the local habits.

Research has consistently shown that ethnic social networking plays a positive role in the emotional stability and acculturative stress (the psychological impact of adapting to a new culture) of students and first-generation family members in foreign countries (Oh & Ogawa, 2014). The stress involved with the integration in a new national culture is mitigated by increasing contact with remote families, prompting an increase in video calls and messenger apps communication.

One of the reasons behind this positive effect is simple and universal: people like to use the Internet. Using data collected in the University of Michigan World Wide Survey, which was taken by 35,000 people between 2005 and 2007, Michael Willmott from the British Computer Society managed to successfully trace a correlation between the frequency and intensity of the time spent online, and general psychological indicators of happiness: well-being, awareness, and comfort. The study also found that this effect is especially significant for three groups:

- people with lower education levels,
- women,
- people in developing countries.

This is not a coincidence. Although there is a degree of entertainment to web and device usage that can play a role in these findings, the main thread that weaves these three groups together is altogether different.

Most of the activities that these users carry out online were of a social nature and implied communication with others. The ability to communicate easily with anyone, to have one’s voice (figuratively and literally) heard, and the building of an online identity, are all factors of an assertive stance of self that helps to build and solidify a sense of autonomy and independence (Castells, 2007).

Using the Internet is psychologically associated with a sense of freedom, and seemingly constitutes a way to link one’s self to the pulse of the

world. Several studies have strongly suggested that the Internet reinforces sociability and the desire for communication (Castells, 2007; Rainie & Wellman, 2012), a conclusion that is also featured in the 2012 World Internet Survey.

