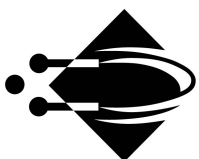


INTERNATIONAL USER STUDIES: HOW COMPANIES COLLECT AND PRESENT DATA ABOUT USERS ON INTERNATIONAL MARKETS

CENTER FOR
PERSONAS RESEARCH
& -APPLICATION



IT University
of Copenhagen



PUBLISHED IN 2014 BY:

**THE CENTER FOR PERSONA RESEARCH AND –APPLICATION
THE IT-UNIVERSITY OF COPENHAGEN
RUEDE LANGGÅRDSVEJ 7
2300 COPENHAGEN S**

**WWW.ITU.DK/PERSONAS
T: (+45) 72 18 5364
E: LENE@ITU.DK**

**LENE NIELSEN
SABINE MADSEN
LINE MULVAD**

**THE DEPARTMENT OF LEARNING AND PHILOSOPHY
AALBORG UNIVERSITY IN SYDHAVNEN
A.C. MEYERS VÆNGE 15
2450 COPENHAGEN SV**

**T: (+45) 9940 3406
E: IJ@LEARNING.AAU.DK**

**IBEN JENSEN
HEIDI HAUTOPP**

FUNDED BY:

**INFINIT
INNOVATION WORK FOR IT
WWW.INFINIT.DK**

RESUME

In this report, we present the results of a research project about international user studies. The project has been carried out by researchers from the Center for Persona Research and – Application, The IT University in Copenhagen and the Department of Learning and Philosophy, Aalborg University in Sydhavnen, and it is funded by InfinIT.

Based on a qualitative interview study with 15 user researchers from 11 different companies, we have investigated *how companies collect and present data about users on international markets*. Key findings are:

- Companies do not collect data about end users in all the countries/regions they operate in. Instead, they focus on a few *strategic markets*.
- International user studies tend to be *large-scale studies* that involve the effort of many both internal and external/local human resources. The studies typically cover 2-4 countries/regions and many end users in each country/region.
- The preferred data collection method is *field studies*. If possible, user researchers choose to go to the field themselves to gain rich insights and to control the data collection process.
- The main insights companies gain from international user studies are (1) that there are *many similarities among end users* across nationalities and (2) that it often is more important to focus on and take *differences in market conditions* into account than national culture per se.
- Companies are in the process of finding out how best to present the insights about international end users to their employees. However, so far, *no best practice* for incorporating both national cultural differences and cross-cultural similarities into persona descriptions, segmentations, etc. has been found.

Based on the empirical findings, we outline a maturity model. The empirical maturity model consists of two separate dimensions that delineate a company's general attitude and approach to (1) international markets and (2) user studies. For each of the dimensions there are 5 levels of maturity. Thus, *for dimension one about international markets*, level 1 refers to the least mature level where the company prefers the national market and perceives other markets as unfamiliar and very different, while level 5 refers to the most mature state where the company enters all relevant international markets and has developed strategies for handling cultural differences and similarities. *For dimension two about user studies*, level 1 refers to the least mature level where the company does not conduct international user studies, while level 5 refers to the most mature state where the company has well-established policies and procedures in place for how to collect data in all relevant markets and how best to present the insights about their international users to employees. The maturity model can be used to reflect on the company's current level of maturity and as inspiration for how to become more mature in the future.

Lastly, we present the theoretical ideas and concepts about culture that has informed the research. A key idea is that culture is not only about national culture. Instead, it is a complex concept that can be used to understand how groups of people can be defined based on the many cultures (i.e. communities of practices) they participate in, e.g., sports cultures, leisure cultures, work cultures, religion cultures, language cultures, etc.

TABLE OF CONTENT

INTRODUCTION	5
BACKGROUND AND MOTIVATION	6
DATA COLLECTION AND ANALYSIS	6
A PROCESS PERSPECTIVE ON INTERNATIONAL USER STUDIES	9
INITIAL PLANNING	9
STRATEGIC MARKETS ARE PRIORITIZED	9
PRAGMATIC ISSUES SOMETIMES OVERRULE STRATEGY	9
STRATEGIES FOR PLANNING THE USER STUDY	9
THE PROCESS OF GETTING FUNDING	10
INTERNATIONAL DATA COLLECTION	10
THE IMPORTANCE OF GOING TO THE FIELD	11
THREE FIELD STUDY STRATEGIES	11
EXTERNAL RESOURCES: A MATTER OF TRUST AND CONTROL	12
LARGE-SCALE STUDIES INVOLVING MANY END USERS	13
STRATEGIES FOR RECRUITMENT OF END USERS	13
CONCERNS ABOUT NATIONAL CULTURE CREATE BARRIERS FOR DATA COLLECTION	14
DEALING WITH CULTURAL DIFFERENCES IN THE DATA COLLECTION SITUATION	14
PERCEPTIONS OF INTERNATIONAL END USERS	14
END USERS SHARE MANY SIMILARITIES ACROSS NATIONALITIES	15
THERE ARE IMPORTANT DIFFERENCES IN MARKET CONDITIONS	15
PERCEIVED DIFFERENCES IN NATIONAL CULTURE ARE USED TO SUPPORT BEHAVIOR	16
PERCEIVED DIFFERENCES IN NATIONAL CULTURE ARE USED TO EXPLAIN BEHAVIOR	16
“US” VERSUS “THEM”	17
PRESENTATION OF THE USER INSIGHTS	17
TWO MAIN STRATEGIES FOR CREATING INTERNATIONAL PERSONAS	18
COMPENSATING FOR THE CHOICE OF MAIN STRATEGY	18
THE CHOICE OF STRATEGY IS NOT ONLY BASED ON DATA	18
TWO STRATEGIES FOR CREATING THE CONTENT OF THE PERSONA DESCRIPTIONS	19
OTHER METHODS: PROFILES AND NUMBERS	20
SUMMARY	20
EMPIRICAL MATURITY MODEL	21
THEORETICAL IDEAS AND CONCEPTS ABOUT CULTURE	24
THE DESCRIPTIVE CONCEPT OF CULTURE	24
THE COMPLEX MEANING OF CULTURE	25
PRACTICE THEORY	25
STEREOTYPES	27
REFERENCES	28

INTRODUCTION

This report is based on a research project that has been conducted as a part of and financed by InfinIT – the innovation network for IT.

The purpose of the research project is to investigate *how companies collect and present data about users on international markets.*

The project has been carried out in close collaboration between researchers from the Center for Persona Research and –Application, The IT University in Copenhagen (ITU) and the Department of Learning and Philosophy, Aalborg University in Sydhavnen (AAU). Lene Nielsen (Associate professor), Sabine Madsen (Research assistant) and Line Mulvad (Student assistant) from ITU have extensive knowledge about user studies and the representation of users in design processes. Iben Jensen (Professor) and Heidi Hautopp (Research assistant) from AAU have extensive knowledge on how culture and intercultural communication influence cooperation across cultures in everyday life.

The report is based on interviews with 15 people from 11 different companies. The interviews were carried out in February - April 2014. All interviews were held in Denmark, either in Danish companies that has users and subdivisions around the world or in Danish subdivisions of large international companies.

The report presents (1) our empirical findings, (2) a maturity model that is based on and which summarizes the main empirical findings in five levels of maturity, and (3) the theoretical ideas and concepts about culture that has informed the research.

Personas: *Descriptions of fictitious users, developed based on empirical data about real users. Persona descriptions are used to facilitate understanding and design in accordance with user needs, goals and contexts.*

Intercultural competence: *The ability to work in intercultural settings with respect and awareness about differences and similarities. Likewise it is the ability to reflect upon actions of oneself and others.*

BACKGROUND AND MOTIVATION

The research was initiated because the findings from a previous research project about Danish companies' use of the persona method showed a need for more knowledge about how to conduct international user studies.

In late 2012 - Spring 2013 the Center for Persona Research and –Application carried out an InfinIT financed research project. The research project investigated how Danish companies use the persona method and what kind of challenges they experience when doing so. The research involved 28 interviews with employees from 13 different Danish companies. The findings were documented in a [report](#)¹ and subsequently discussed and elaborated in two workshops.

One of the major findings from the 2013 research was that the involved companies were somewhat unsure about how to approach international user research and how to create international persona descriptions. It was reported that it was a challenge to decide: How much data to collect, in which countries/markets, how to take culture into account when doing the user studies, and how to present the insights about cultural differences to the relevant employees. Even though the involved companies explained that they were challenged with regard to how to do international user studies, they also stated that it was increasingly important for them to gain knowledge about their international users and to understand the differences and similarities between markets in order to be both competitive and innovative.

To augment these empirical findings, a literature study was conducted. It became apparent that there is a paucity of research about what companies should consider when doing international user studies and how they practically can go about collecting and presenting data about their international users and markets. We therefore decided to initiate this research project.

The 2013 report presents how Danish companies use the persona method and what they perceive as the positive and challenging aspects here of. In contrast, the purpose of this research is to zoom in on and describe *the practices and challenges that are unique to international user studies*. Moreover, in this report we focus on both *the persona method as well as other methods* for presenting user insights.

We present our research findings in accordance with a process perspective. More specifically we look at the practices and challenges related to *planning, collection of data and presentation of user insights* from international user studies. We do not address the process steps of data analysis and implementation. This delimitation has been chosen, because our research shows that the reported practices and challenges for these two process steps are not unique to international user studies and that they are well-documented elsewhere (i.e. both in the 2013 report as well as in extant research literature about the persona method).

¹ <http://itu.dk/personas/wp-content/uploads/2014/01/Brug-af-personas-rapport.pdf>

DATA COLLECTION AND ANALYSIS

The companies/interviewees for this research project were recruited from the Persona Center's network, based on the following criteria. (1) The first and most important criterion was that they were operating on international markets. (2) The second criterion was that they had experience with international user studies and/or that they were using methods (such as, e.g., the persona method or segmentation into target groups) to delineate and incorporate user insights into their work and design processes. Some of the companies/interviewees had participated in the previous research project about the use of the persona method in Danish companies, while other interviewees were partaking for the first time.

The interviews were semi-structured and held in accordance with an interview guide. Each interview lasted 1-1½ hour, was audio-recorded and subsequently transcribed. All interviews were held in Denmark and in Danish language. The interview quotes, which are included in this report, have therefore been translated from Danish to English by the report authors.

As all interviews took place in Denmark what constitutes "international" is viewed from a Danish perspective and covers users, colleagues, contexts, etc. that the interviewees perceive as non-Danish. This can be useful to keep in mind when reading interview quotes that compare Denmark to other countries or when differences and similarities are mentioned. For example, when the interviewees make these comparisons and statements about differences and similarities they seem to do so based on a number of taken-for-granted notions, such as the assumption that the Danish work culture is less hierarchical and more characterized by employee autonomy than work culture in other countries and that Danes in general are task-oriented and prioritize efficiency.

The research participants have been promised anonymity. For this reason, we do not mention the companies and the interviewees by name. Instead, table 1 provides an overview of the characteristics of the involved companies and participants.

With one exception, all interviewees work in companies, where digital solutions and/or software development is the main area of expertise or an important part of the products and product portfolio. They have many years of professional experience and are currently holding positions as design researchers, user experience (UX) researchers, innovation consultants and so on. A part of their job is to plan and carry out user studies. We will hereafter refer to them as user researchers.

The analysis of the interview data was conducted collaboratively by researchers from the Center for Persona Research and –Application and the Department for Learning and Philosophy. The process was structured into several rounds of analysis, where we used a thematic approach to organize the interview data into relevant units of text and themes, which were then interpreted and meaning condensed into our research findings.

In the next section we present the results of our analysis. We have chosen to include many quotes to illustrate the main points and to provide insight into the anecdotes and words the interviewees themselves used when talking about end users, user studies and culture.

Table 1: Overview of the participants

INTERVIEWEE	JOB TITLE	TYPE OF COMPANY	METHOD FOR PRESENTING USER INSIGHTS
A	Design researcher	A Danish subdivision of a large international software development company	More than 10 years of experience with the persona method (international personas)
B	Senior interaction designer		
C	Design researcher	A large financial company with headquarter in Denmark and subdivisions in Northern Europe	Around 5 years of experience with the persona method (international personas)
D	Head of digital experience and global marketing	A large financial company with headquarter in Denmark and subdivisions around the world	Preferred method: Segmentation; considers using personas
E	Technical writer	A software development company (financial systems), headquarter in Denmark and subdivisions around the world	Development of a set of international personas is under consideration
F	Senior UX researcher	A software development company (content management systems), headquarter in Denmark and subdivisions round the world	Development of a set of international personas has been initiated
G	Innovation consultant	An organization that specializes in development of digital healthcare solutions; many projects are funded by EU and involve development of solutions for several EU countries at a time	The method for presenting user insights is chosen from project to project; experience with national personas
H	Innovation consultant		
I	Senior innovation consultant		
J	Consultant	Design agency that specializes in tourism, events and city development (project work for clients)	(National and international) Personas often constitute an important result of the projects/for the clients
K	User researcher		
L	Design researcher	Design agency that specializes in product, service, graphical and digital design (project work for clients), headquarter in Denmark and subdivisions around the world	One-page profiles of actual users, with pictures and quotes
M	Company owner	Design agency that specializes in national and international user studies, UX design and test of solutions (project work for clients)	Profiles of actual users, with pictures, quotes and video sequences
N	Innovation specialist	Hearing aid company, headquarter in Denmark and subdivisions around the world	Several years of experience with the persona method (international personas)
O	Audio engineer	Hearing aid company, headquarter in Denmark and subdivisions around the world	Several years of experience with the persona method (international personas)

A PROCESS PERSPECTIVE ON INTERNATIONAL USER STUDIES

In this section, we describe the strategies and practices that the companies and interviewees use when conducting international user studies. The section is structured in accordance with a process perspective: (1) Initial decisions and planning activities, (2) Data collection, (3) Perceptions of end users, and (4) Presentation of user insights.

INITIAL PLANNING

There are a number of initial decisions and planning activities that have to be made before an international user study can commence.

STRATEGIC MARKETS ARE PRIORITIZED

For companies operating in international markets a key decision is where, geographically, to collect data about the users. It is in most cases the management/client who makes the decision about which countries/regions to include in the study. The decision is typically based on what they consider to be the company's most important, strategic markets.

"It has to do with which strategic markets we want to be strong in. It is not so much that now we need to find four [countries] that are very different...of course India is included because they are very different from the US, but India is also included because they have a very large population who could use [our products]..."
(Interviewee N)

PRAGMATIC ISSUES SOMETIMES OVERRULE STRATEGY

Normally it is quite clear which markets the management/client want to collect data about or what kind of knowledge they want to obtain about a particular geographical area. However, economic and pragmatic considerations related to, e.g., easier and cheaper travelling and language barriers mean that data sometimes is collected in other countries than originally decided. And also in other countries/regions than what might yield optimal knowledge. For example, it might be decided to do user interviews in England instead of an Eastern European country, because it reduces the language barrier for all involved.

STRATEGIES FOR PLANNING THE USER STUDY

While it typically is management/the client that makes the decision about where to collect data, it is the task of the user researchers to plan the user study, with regard to aim, scope and funding. There are two different strategies for planning an international user study:

- **A research design oriented strategy:** Some user researchers plan the study to cover as many users and user groups in the chosen countries/regions as thoroughly as the budget allows. This planning strategy is driven by the notion of validity and tends to lead to large-scale studies that involve many end users.

- ***A use oriented strategy:*** Other user researchers plan the study with the aim of being able to provide the employees with insights about the important differences and similarities – between countries/regions, between the employees and their users, and between the many different types of users. When this planning strategy is used, the notion of validity still plays a role, but designing a study that addresses knowledge gaps is considered just as or more important than scientific method and rigor.

THE PROCESS OF GETTING FUNDING

Getting funding is a process during which the user researchers draw on their knowledge of the organization, existing data sources, and social network.

In order to get funding for international user studies it is necessary to know what the company/client finds strategically important at a given point in time. This knowledge allows the user researchers to justify and plan the user studies as sub-projects, which take place within the frame of larger strategic projects and investments, thereby reducing the cost and increasing the likelihood of getting funding.

It is also important to identify the organization's/client's existing quantitative and qualitative data sources and to get a good sense of how much and what the company/client is willing to pay for. These two aspects can be used to build a case for and scope the international user study.

Moreover, the networking and dialogues the user researchers engage in serve the important purpose of ensuring that managers get committed and interested in using the results of the studies.

INTERNATIONAL DATA COLLECTION

The planning and the logistics that surround data collection for international user studies are much more time consuming and complex than for national studies. This is because they typically involve:

- International field studies and travel planning
- Use of external resources (e.g., agencies and translators from the countries where the study takes place)
- Many end users

All this adds to the scale and complexity of carrying out this type of user studies. In this section we look at the interviewees' reported practices and concerns about data collection.

THE IMPORTANCE OF GOING TO THE FIELD

User researchers consider it very important to go to the field and participate in the data collection, for two reasons:

- **To gain rich insights**, i.e. to gain contextual knowledge and to interact directly with each of the users. It is also considered important for other employees, such as designers and developers to go to the field and meet the users.
- **To ensure the quality of the data**, i.e. to ensure the consistency of the data collection across countries and in general to ensure that the data collection is carried out in the way the user researchers has planned it. This is considered especially important if the data collection takes place in “new” or less familiar countries.

THREE FIELD STUDY STRATEGIES

We have identified three different field study strategies. Thus, when user researchers go to the field they use one or more of the strategies mentioned below.

(1) They *perform the data collection themselves* if possible from a language perspective. This is the preferred approach. This approach provides much contextual knowledge about the particular country. Moreover, the experience of interacting with each of the users in person allows for a nuanced understanding of who the users are, how they live and work and what their needs and motivations are.

(2) They perform the data collection *with the help of a translator*. This provides all the advantages of the abovementioned approach. However, different experiences are reported. Some state that it works well with a translator and especially if the translator is skilled and unobtrusive. Others feel that they miss out on many nuances in what the user is saying and that they are not able to build a relationship with the user in the same way.

“It is always a challenge to use a translator because you never really have that direct contact. You always depend on the translator. But when it is a good translator it works surprisingly well.” (Interviewee L)

(3) They *participate as observers* despite language barriers. Five of the 15 interviewees mention that they have used this strategy, and while they consider it the least desirable option, it has advantages. Thus, even in cases where language barriers mean that they are not able to understand the actual interaction between a local resource and a user, observation provides them with contextual knowledge and is a great aid to memory during the subsequent data analysis.

“We made sure that at least one of us was present at all interviews in all countries...” (Interviewee C)

EXTERNAL RESOURCES: A MATTER OF TRUST AND CONTROL

International user studies often involve the use of external resources, such as:

- Recruiters/recruitment agencies
- User research agencies
- Local resource persons, e.g., freelance user researchers and translators
- Danes with a relevant ethnic or educational background, e.g., a person with Danish-Kenyan ethnicity or a Danish anthropologist

Choosing which external resources to use is an important decision. The user researchers state that it is very important for them to be able to trust that the external resources can perform and deliver the results of the study with the expected quality.

"...Just to recruit, explain, find an agency that understands what we are talking about and...is able to do it with the quality we expect. We don't understand Russian for example...how can I know that what they are talking about is a good persona interview? A good observation? And they will probably report back with phrases and language that has many implicit understandings, which I might not get, so, yes, there are many challenges." (Interviewee B)

The user researchers prefer to use resources that they have used before. If this is not possible, e.g., because the study is performed in a country where they have not previously collected data, they prefer to participate in all or selected data collection activities to control the process.

As the data collection often involves the use of different agencies and resources in different countries, the external resources are typically briefed very thoroughly. Thus, to ensure that the data is collected in the same way and with the desired quality, the user researchers provide the external resources with:

- Detailed criteria for recruiting relevant users
- An interview guide with detailed explanations of why and how to ask each question
- Detailed guidelines for how to transcribe the interviews

"We used agencies in all four countries...it has the advantage that they speak the language and that they do it for us...but it of course also has the disadvantage that we used quite a lot of time on explaining very thoroughly what it was we wanted... When we delivered something to them there was a column with a question and then there was a long explanation of why we were asking about this and what we wanted to do with it...so we were very thorough and it also worked." (Interviewee C)

The common way of working with external resources is to be very thorough when choosing and briefing the resources. In general, the user researchers view international data collection as a collaborative effort and they work closely together with the external resources throughout the data collection process to ensure that they get good quality data.

LARGE-SCALE STUDIES INVOLVING MANY END USERS

International user studies typically involve many end users. The prevailing approach is that data collection should cover the same number of users in each country/region that is included in the study. In other words, a research design oriented approach informed by the notion of validity is preferred. As one of the interviewees explain “...of course, identical in the four countries” (Interviewee C).

This means that if a company normally performs 15 user interviews for a national study, they will plan an international user study in four countries to cover 60 interviews.

Another example is from a user study that involved two countries, Denmark and an Eastern European country. It was prioritized that the same number of interviews should be held in both countries and that several user groups should be covered in each country. As a result here of the number of interviews became quite extensive.

*“...we did 72 qualitative interviews in total, half in Denmark and half in Hungary.”
(Interviewee L)*

STRATEGIES FOR RECRUITMENT OF END USERS

As international user studies typically involve many end users, recruitment is a big task that takes up much time in the initial phases of a project. The user researchers choose between or mix two different strategies, depending on whether *money* or *time* is the more important aspect for the particular project.

- The user researchers often do all, most or some of the recruitment themselves. This seems to be the prevailing strategy. This is primarily because it is expensive to use external recruiters, but also because it often is possible (if time-consuming) for them to find the end users, based on customer lists or by drawing on their own social network.
- Another strategy is to use external recruiters to minimize the time spend, and also because it sometimes is not possible (or too time-consuming) to find relevant users in other countries.

The user researchers state that they give much thought to determining the recruitment criteria and that they typically use the same criteria to recruit the end users in all the involved countries/regions.

CONCERNS ABOUT NATIONAL CULTURE CREATE BARRIERS FOR DATA COLLECTION

In addition to travel expenses, language issues, and data quality, concerns about national culture create barriers for data collection.

The user researchers express many concerns about lack of education in culture and about insufficient understandings of particular countries and cultures. They are especially worried about their lack of knowledge about Asia and Africa but also areas that are geographically closer to Denmark such as East European countries.

"...if you are going to do user studies, e.g., with Chinese people, it has to be in collaboration with somebody who knows something about China, about the Chinese market. Someone with an education. We wouldn't know enough." (Interviewee J)

Some interviewees explain that they are much more comfortable doing user studies in countries and regions they are familiar with and where they do not perceive the culture to differ significantly from Danish culture. In some cases, the consequence of this respect for differences in national culture is that they do not conduct user studies in countries/regions they feel too unfamiliar with, even when these countries/regions are or could be relevant for their business.

"...India, China, Brazil, which are big markets, and yes, well, we know that we have a huge knowledge gap and we haven't really done anything..." (Interviewee B)

DEALING WITH CULTURAL DIFFERENCES IN THE DATA COLLECTION SITUATION

Our analysis shows that (too much) focus on differences in national cultural can give rise to concerns that significantly delimits a company's approach to international data collection. However, our analysis also shows examples of user researchers that acknowledge cultural differences as inherent to the data collection situation, also in a national context. They therefore see it as an important part of their job and skill set to be able to build a trusting and empathic relationship with the user, despite such differences (in nationality, educational background, work culture etc.).

"I try to achieve this closeness and that is difficult to achieve...[when] you meet a complete stranger and also from a different country...even in that cultural distance, which always is there, I have to establish empathy, trust, so she also can tell me about those aspects of her job where she is not so successful or where she does workarounds, how they tinker [with the system]..." (Interviewee A)

PERCEPTIONS OF INTERNATIONAL END USERS

In this section, we focus on perceptions of international end users, and especially understandings and insights about cultural differences and similarities.

END USERS SHARE MANY SIMILARITIES ACROSS NATIONALITIES

The user researchers stress that one of the most important outcomes of international user studies is the insight that there are many similarities among end users across nationalities - as humans, consumers (of particular products), parents, workers, etc.

However, the user researchers also explain that employees have many preconceptions about different nationalities and the (large) role that national culture plays. Insights about which similarities the company's end users share across nationalities therefore have to be explicitly communicated to the employees. Otherwise stereotypical understandings of national differences might go unquestioned and influence the employees work and ultimately the company's products.

"The user studies we have done have shown that at the personal level our end users have very similar motivations and approaches across borders...and this is very, very important and we make a big deal out of communicating this to employees." (Interviewee C)

"...[this disability] effects end users in the same way no matter where they live in the world." (Interviewee N)

THERE ARE IMPORTANT DIFFERENCES IN MARKET CONDITIONS

However, there are also important differences among end users. Interestingly, it is pointed out that the most important differences often do not stem from national culture as such, but instead from differences in the economic situation, legislation, education, and societal structures and structural developments in different countries and regions.

"...it has to do with how the economy is...[and the] legislation. Legislation promotes a particular behavior in a particular country. And this is actually the two things that we have seen consequences of." (Interviewee C)

"...the differences that we see when we talk about [our end users] are that there can be a difference in how much money they have and this has something to do with whether the country they live in gives refunds, or health insurance, or whether the state is paying the full amount, and things like that. There are many different models in the different countries. And that effects this very much." (Interviewee N)

Knowledge about differences in national/regional market conditions cannot be obtained through user studies alone. Other types of internal data from databases, reports, social network, etc. as well as secondary sources about the socio-economic situation, societal structures and legal systems are therefore also important in order to be able to distinguish between and understand the different types of users.

PERCEIVED DIFFERENCES IN NATIONAL CULTURE ARE USED TO SUPPORT BEHAVIOR

In addition to the insights about end users demonstrated above where many similarities and important differences in market conditions were highlighted, the interview data contains many examples of the role perceived differences in national culture play.

In some companies, an understanding of differences with regard to *management control and employee autonomy* is modelled directly into software that supports organizational workflow. It is, e.g., explained that:

"...it also has something to do with how hierarchy works in Japan or in Asia compared to how hierarchy is in Denmark or in US...the things they are allowed to do in Denmark compared to what they are allowed to do in Spain or in the US. There is much more freedom in what you are allowed to do in Denmark compared to other places." (Interviewee F)

Thus, for some software design and development companies it is important to take into account that employees in Denmark (and in the other Scandinavian countries) have more autonomy than in many other countries where decisions either are taken by management or require managerial approval.

PERCEIVED DIFFERENCES IN NATIONAL CULTURE ARE USED TO EXPLAIN BEHAVIOR

In other cases, perceived differences in national culture are used to explain anticipated and experienced challenges when communicating with colleagues from other countries or when collecting data in other countries.

The quotes below contain examples of how challenges with regard to intercultural communication might arise because the communication partners have different expectations and may place different emphasis on *efficiency and/versus politeness*.

*"I have just received an email from one of my colleagues who is trying to get [a user study] in Japan in place for me. He says that you just have to be aware that they are... **traditionally speaking**, they are not so willing to say what they really think...you have to be aware of that, especially if their opinion is negative, so I have to take that into account." (Interviewee F)*

*"We have experienced **the classical thing**, in Brazil [they] were expressive about it and in Asia much shorter replies. We have used the same type of test in both places, and in Brazil they were very expressive, the Japanese gave very short statements, the Chinese were very polite and the Germans made jokes that were kind of dirty, which was a little strange, but it was also in Berlin [laughs] so maybe it was that." (Interviewee M)*

In the examples perceived differences in communication styles are associated with and explained by national culture. The consequence of this is that more general understandings based on one factor, namely national culture, are foregrounded, while the more complex aspects of culture and the uniqueness of the actual situations and the individual communication partners are played down. As can be seen from our highlights in the quotes the interviewees use words such as “traditionally speaking” and “the classical thing” to signal that they are aware of using general and somewhat stereotypical descriptions to explain the behavior of people from the countries in question.

“US” VERSUS “THEM”

The interview data also contains examples of “us” versus “them” expressions. Examples include the interviewees’ use of linguistic images to explain that even though their company has a very diverse user group a lot of the data collection is conducted with “*the white middle class*” and “*in the western world*”. Or to explain that the software their company produces has to be designed with high usability for the complete range of users, from “*engineering types*” to “*a blonde hairdresser*”. Such expressions are very powerful in communicating a point, because positive and negative stereotypes are used to create a vivid image. However, they also gloss over complex understandings and create distance rather than empathy and identification because of the use of general, value-laden categories.

PRESENTATION OF THE USER INSIGHTS

The companies that have participated in this research project use three different types of methods for presenting the user insights that they obtain through international user studies, namely *personas*, *segmentation*, or *profiles* of actual users. It is clear from our interview data that different types of companies use the three methods for different reasons:

- Personas is used by companies that wish to capture and apply the user insights for a period of time and for several purposes, i.e. in design activities, development projects, marketing campaigns, etc.
- Segmentation is used in companies where the company culture enforces a focus on arguments and decisions based on quantitative data.
- Profiles of actual users (rather than personas) are used by design agencies. For the design agencies we have talked to, the priority is to identify design insights for a particular client project. The profiles and user insights are not meant to live on after the project is over and therefore in-depth analysis leading to personas is not economically feasible unless they constitute an outcome, which the client is interested in and willing to pay for.

In this section, we look first at how the companies work with international personas and subsequently we describe the use of the two other methods.

TWO MAIN STRATEGIES FOR CREATING INTERNATIONAL PERSONAS

There are two main strategies for presenting international user insights as a set of personas:

Main strategy 1: Creating personas according to nationality

When this strategy is used there is typically one persona per country/region covered by the user study (e.g., if the user study was conducted in Denmark, India and USA, there will be one Danish, one Indian and one US persona). In other words, this strategy results in country specific persona descriptions.

Main strategy 2: Creating personas according to other criteria

Examples of other criteria are: Differences in user preferences, profession, education level, level of involvement, learning styles, digital maturity, autonomy at the workplace, etc. This is similar to the criteria that are used to create national personas. This results in general persona descriptions.

"We have tried two different models. One is to have a persona that is very focused on how people in this job think and what kind of goals they have. It [the persona description] can be quite general...the other model we have tried is to map different personas to different regions." (Interviewee B)

COMPENSATING FOR THE CHOICE OF MAIN STRATEGY

However, some compensate for what the main strategy leaves out by adding text fields that delineate:

- What would be *different about* the persona compared to *the country specific description* if s/he was living in different countries/regions
- What would be *unique to* the persona compared to *the general persona description* if s/he was living in a particular country/region

This indicates that neither strategy is entirely successful. In line with this, one of the interviewed user researchers states that he would prefer if people did not have to read about the differences between, e.g., Japan and Europe, in added text fields and that he is planning to experiment with other ways of presenting the information about cultural differences.

THE CHOICE OF STRATEGY IS NOT ONLY BASED ON DATA

In general, the user researchers have strong opinions about which strategy they prefer. One of the interviewees for example state that *"I would rather not divide [personas] according to nationality." (Interviewee N).*

There are also several examples of how the choice of strategy for creating personas is made based on other considerations than the differences that emerge during data analysis. In one example, political considerations led to the use of strategy one, i.e. one persona for each of the company's main markets (even though nationality was not reflected as a significant difference in the data).

In another example the client had requested personas specifically to be able to develop ‘the Swedish market’, ‘the Norwegian market’, etc. and it was therefore natural to use strategy one. In other words, the decision to create personas based on nationality was made early on in the project, due to the client’s way of thinking about their users in terms of markets, which could be developed.

TWO STRATEGIES FOR CREATING THE CONTENT OF THE PERSONA DESCRIPTIONS

All user researchers stress that the strength of the persona method is its ability to create recognition and empathic identification, but they disagree about how to achieve this in international personas. There are two main strategies for creating the content of the international persona descriptions:

Strategy 1: One strategy is to tone down cultural differences and geographic references and instead create persona descriptions that are as general as possible

- The focus is on the persona as a person rather than a person in a specific place
- The argument for choosing strategy one is that employees around the world should be able to recognize and use the personas

Strategy 2: Another strategy is to use the persona descriptions to show diversity and to try to draw attention to and challenge the employees’ stereotypical understandings of who the users are

- The focus is on the persona as a person who has both expected and unexpected features
- The argument for choosing strategy two is to communicate the diversity of the users to the employees

In the companies that use strategy one, the user researchers prefer to use pictures or drawings that communicate who the persona is as a person, but which contains very little background that could place the persona in a specific context. Moreover, they prefer to avoid place names and to give the personas as general names as possible, i.e. names that could be used or that are recognizable around the world.

In the companies that use strategy two, they do more or less the opposite in the sense that they chose expressive and somewhat unexpected pictures that show the personas in context, names from around the world, and so on. One of the interviewees explain that she puts much effort into finding the right pictures for the personas and that she deliberately chooses pictures that challenge stereotypical understandings: *“Generally for personas in firms: the top manager is a woman, the creative leader is a dark man. That is how you try to challenge stereotypes.” (Interviewee A).*

OTHER METHODS: PROFILES AND NUMBERS

Not all the companies we have talked to use personas. In the design agencies, for example, they do not use personas. Instead they create a profile of each user. The profile contains one or more pictures of the user and the home- or work context where the data collection took place as well as quotes and key insights. Thus, if the study covers 72 interviews, 72 user profiles are subsequently created – and in this particular example hung in a project room in order for the project team members to be continuously reminded of the users and who they were designing for.

Another company currently uses segmentation as the method for gathering and presenting user insights. In other companies quantitative segmentation surveys are conducted and used, among other things, as the foundation for planning a qualitative user study that results in personas. Yet again, in other companies they use and need both personas and segmentation because: “*Personas are strong at communicating user behavior and intentions, but many “number people” want to be able to use them to prioritize, so they want to know exactly how many “of those” there is in each country.*” (Interviewee N).

SUMMARY

How do companies collect and present data about users on international markets? Key findings from this research are as follows:

- Companies do not collect data about end users in all the countries/regions they operate in. Instead, they focus on a few *strategic markets*. These can be new markets the company wants to develop, but more often it is relatively well-known markets where the company is already conducting much of its business.
- International user studies tend to be *large-scale studies* that involve many human resources, i.e. both Danish employees as well as external agencies, translators, etc. from the countries where the studies take place. The studies typically cover 2-4 countries/regions and many end users in each country/region. It is not uncommon that more than 50 qualitative interviews are conducted (in total), among other things, to ensure validity.
- The preferred data collection method is *field studies*. If possible, user researchers choose to go to the field themselves to gain rich insights and to control the data collection process.
- The main insights that companies gain from international user studies are (1) that there are *many similarities among end users* across nationalities and (2) that it often is more important to focus on and take *differences in market conditions* (i.e. legislation, socio-economic situation, healthcare system, education, etc.) into account rather than national culture per se.
- Companies are in the process of finding out how best to present the insights about international end users to the employees. Currently, two strategies are used, namely to distinguish among end users (1) according to nationality or (2) according to other criteria (e.g., user preferences, education level, and IT maturity). However, neither strategy is entirely successful, as either it foregrounds the differences between nationalities or it downplays the unique aspects of the different countries/regions. Thus, so far, *no best practice* for incorporating both national differences and cross-cultural similarities into

persona descriptions, segmentations, etc. has been established.

Our research shows that user researchers have to argue for and align international user studies with *a business logic* and the company's focus on expanding their position in *strategic markets*. At the same time, they plan and conduct the user studies in accordance with *a research logic* and with a focus on understanding the differences and similarities among end users from different *countries/regions*.

In the next section we use the distinction between the two types of logic, i.e. a business oriented approach to strategic markets and a research oriented approach to international user studies, to delineate a maturity model with two dimensions.

EMPIRICAL MATURITY MODEL

In this section, we present the first attempt at defining a model that outlines different levels of maturity in an organization's general attitude and approach to (1) international markets and (2) user studies. The model is based on the empirical findings presented above. Moreover, it is inspired by literature about culture, intercultural competence, and UX maturity.

The maturity model consists of two separate dimensions. The first dimension focuses on which international markets the organization enters, the organization's general understanding of culture, and where data about international end users is collected. The second dimension addresses the organization's general attitude to user studies as well as the methodical approach and related concerns.

For each of the dimensions there are five maturity levels, starting with level one which is the least mature level and ending at level five which is the most mature (and ideal) state. As the two dimensions are to be considered separately it means that an organization for example can be at level two with regard to the general attitude and approach to international markets (i.e. dimension one) and at level four for the dimension about user studies (i.e. dimension two).

The model can be used to reflect on how mature an organization currently is and to identify attitudes and practices that can make the organization more mature in its future approach to international markets and user studies.

The model is presented in table 2a and 2b in the following pages.

Tabel 2a: Empirical maturity model, dimension one

LEVEL	WHAT IS THE ORGANIZATION'S GENERAL ATTITUDE AND APPROACH TOWARDS INTERNATIONAL MARKETS?
1	<ul style="list-style-type: none"> The organization does not enter foreign markets. The organization has a positive attitude towards international markets, but prefers the national market. Other markets are perceived as unfamiliar and very different. The organization does <i>not</i> collect data about international end users.
2	<ul style="list-style-type: none"> The organization enters international markets, which are perceived as similar (e.g. Scandinavian markets). National cultural differences are seen as important, but the organization assumes similarities between neighbouring cultures. The organization collects data about end users in markets that are considered <i>similar</i> or where the language barrier is low (e.g. Scandinavian markets and English speaking countries).
3	<ul style="list-style-type: none"> The organization enters selected international markets. Countries are seen as separate national entities with unique cultures. Other countries are often compared to the home country. The organization collects data about end users in a few <i>selected</i> strategic markets.
4	<ul style="list-style-type: none"> The organization enters all relevant markets. Culture is seen as complex. Users from a country are seen as diverse groups of people having different practices. Users are also seen as having similarities in practices across countries. Employees have awareness <i>that</i> their own culture influences their view on other cultures and practices. The organization collects data about end users in <i>all</i> strategic markets.
5	<ul style="list-style-type: none"> The organization enters all relevant markets. Culture is seen as complex and the organization has developed strategies for handling national differences/practices and cross-cultural similarities. Employees have awareness on <i>how</i> their own culture influences their view on other cultures and practices. The organization collects data about end users in <i>all</i> relevant markets.

Table 2b: Empirical maturity model, dimension two

LEVEL	WHAT IS THE ORGANIZATION'S GENERAL ATTITUDE AND APPROACH TO USER STUDIES?
1	<ul style="list-style-type: none"> The organization does <i>not</i> execute user studies. User studies might happen occasionally, but only by the initiative and extra work of especially interested employees. User studies are accepted as an individual interest, but not otherwise a subject the organization spends time and money on. There is no previous experience or knowledge in the organization to build on.
2	<ul style="list-style-type: none"> The organization is <i>interested</i> in obtaining knowledge about their users and has started to conduct user studies. User studies are conducted in line with the organization's decision-making norms and data preferences (e.g., if there is a tradition for decision-making based on quantitative data the user study has to be conducted in line with this to be recognized as valid and valuable). The organization has limited experience and knowledge about user studies.
3	<ul style="list-style-type: none"> The organization <i>conducts and incorporates</i> the insights from user studies into design- and work processes. User studies do not have a set budget and funding has to be raised for each study. User researchers go to the field themselves to collect (qualitative) data (e.g., using interviews and observations). Or they hire external resources, but have concerns about how to create valid data when collaborating with external resources in other countries. It is considered important that the data is collected in the same way with the same number of users in each country, to ensure validity and comparison across nationalities.
4	<ul style="list-style-type: none"> The organization conducts and incorporates the insights from user studies into design- and work processes. User studies have a set budget and additional funding can be applied for. User researchers use many different types of data collection methods and they reflect on the appropriateness here of on an ongoing basis. External resources are used when needed and collaboration practices are evaluated and improved. Experiments with the format for presenting international user insights are conducted, but the best format(s) has not been found yet.
5	<ul style="list-style-type: none"> The organization has <i>policies and procedures</i> in place for how to implement user studies as a mandatory part of design- and work processes and how to keep the insights updated. The organization considers user studies very important and valuable for the quality of their products and services. User researchers are recognized specialists, who have the funding and autonomy to make decisions and influence product development. Both qualitative and quantitative research is fully accepted as legitimate. Data collection methods and presentation formats have been developed to fit the organization's needs, and methods are chosen to fit the purpose of the particular user study. The company has developed procedures for how to create high quality data in collaboration with external resources from other countries.

THEORETICAL IDEAS AND CONCEPTS ABOUT CULTURE

Culture is a difficult concept to grasp and define in words and therefore it can be challenging to figure out how to implement the meaning of culture in daily business work. There are different theoretical trends on how to work with the concept of culture. In the following section we will emphasize three perspectives: *The descriptive concept of culture*, *the complex meaning of culture* and *culture as practices* (Jensen, 2013).

THE DESCRIPTIVE CONCEPT OF CULTURE

The theory of sociologist, Geert Hofstede, has been well-known in a business context for several decades. Hofstede built his theory on an empirical study on how employees with different nationalities from IBM subsidiaries in 66 countries relate to their management and work tasks. His data is mostly based on quantitative questionnaires. Hofstede states that there are five different and largely independent dimensions of a national culture. The five dimensions are:

- *Power distance*: The extent to which the less powerful members of a society/an organization expect and accept that power is distributed unequally
- *Uncertainty avoidance*: The extent to which members of a society/an organization feel uncomfortable about uncertainty and ambiguity
- *Individualism vs. collectivism*: The extent to which individuals are integrated into groups
- *Masculinity vs. femininity*: Assertiveness and competitiveness *versus* modesty and caring
- *Long-term vs. short-term orientation*: The value placed on long-term planning and tradition *versus* short-term planning and change

Based on the dimensions Hofstede has mapped different national cultures in the range between two bi-polar points, e.g. individualism vs. collectivism. According to Hofstede these categorizations can be used as an overview of general tendencies of people's (e.g., employees' and users') behavior within a national culture. Culture is defined as collective mental programming of the human mind, which distinguishes one group of people from another.

Hofstede has been criticized for a determinant view on culture, for assuming that everybody who share national ethnicity also share the same unique culture, and for the fact that national culture is used as *explanation* for people's behavior (McSweeney, 2002; Jensen, 2013).

Hofstede is a represent of the descriptive concept of culture. The advantage of this approach is that it provides simple parameters for comparing different cultures and distinguishing people with different nationalities from each other. The disadvantage is the tendency to neglect the complexity of culture, which can result in a simplified understanding of culture. According to Hofstede's theory the focus is on *national* culture, and he claims that regardless of different divisions every national population somehow shares a unique culture. In contrast, the next

perspective emphasizes that a national population can be differentiated on many grounds.

THE COMPLEX MEANING OF CULTURE

The anthropologist, Clifford Geertz, argues that anthropology should not be understood as an exact science where reality can be registered and mapped. He emphasizes that as an anthropologist you have to be aware that you interpret the reality you observe. This perspective of culture is based on the constructivist paradigm where the observed reality is not considered objective, static or determinant. Instead, reality is seen as subjective, dynamic and complex. The interest of complex meaning studies of culture is therefore to investigate how people create meaning in their everyday life. Moreover, the concept of culture is not only a definition for national culture; Rather, it is a hypercomplex concept that can be used to describe different relations where groups of people can be defined as communities, e.g. sports cultures, leisure cultures, work cultures, religion cultures, language cultures, etc.

The advantage of this approach to culture is that you can get a wide and nuanced understanding of the meaning of culture. It opens the field of focus in the data collection and embraces the individual person/user as a unique person who is influenced by the many communities/cultures, in which the person are involved. Likewise the person is granted an active part in creating the cultural communities by hers/his participation. The disadvantage of this approach is that it can be hard to operationalize and it can be difficult to decide which cultural elements to give attention.

Another theory that emphasizes the complex meaning of culture and the individual as an active part in creating cultural communities is practice theory.

PRACTICE THEORY

During the last decade there has been a renewed focus on practice and practice theory in the field of psychology, history and anthropology. Sociologist, Theodore Schatzki, emphasizes, that practices both involve our 'doings' and 'sayings' (Jensen, 2013). Culture is no longer an abstract term, but tangible doings that can be studied as micro processes by looking at "understandings", "written and unwritten rules" and "emotional norms" that are linked to the specific practice (Jensen, 2011). The human body is considered a very important actor in practice theory, because rules and norms are embedded in – and expressed through the body. A key concept in practice theory is "performance" which describes the social action, where people relate to existing rules and norms within different practices (Jensen, 2013). For example, in an interview situation, both the interviewer and interviewee can be said to give a performance in accordance with what each person expects to be appropriate. Social interactions are traversed by power axes, such as economy, gender, age and local categories, e.g. director or sales manager (Jensen, 2011). In this perspective, intercultural communication can be described as social interactions along with other practices where focus also should be on analyzing the power axes and not just on using ethnicity and nationality as explanation for potential differences.

The advantage of this approach is that the focus on culture is replaced with a focus on specific practices. With a focus on practices instead of ethnicity or nationality, you can deal with stereotypical conceptions, e.g., that Japanese have specific features in common, because these stereotypical notions are investigated in the light of practices. Another advantage is to emphasize common practices, which take place in other communities than national and ethnic communities (Jensen, 2013). However, the disadvantages mentioned under the complex concept of culture also pertain to practice theory. Thus, practice theory can be hard to operationalize and it can be difficult to decide which practices to pay attention to.

Table 3 provides an overview of the three concepts of culture.

Table 3: The three concepts of culture

DESCRIPTIVE CONCEPT OF CULTURE	COMPLEX CONCEPT OF CULTURE & PRACTICE THEORY
Culture as being – culture is something you <i>are</i> , something you are born with	Culture is not something you are – it is something you <i>do</i> and negotiate with other people
Culture is well defined and follows the national culture, e.g., Indian culture, Danish culture, American culture. It is assumed that everyone from the same country share the same values, rules and norms	Culture cannot be reduced to single units, but should be viewed as many different communities you share with some people, but not with everybody
It is possible and desirable to define a shared core of culture, e.g., <i>"This is how the Danish people do"</i>	The meaning of culture can never be predicted. You always have to look at the specific situation in order to decide <i>if</i> and <i>how</i> culture plays a part in understanding the situation
Culture is stable and only changes slowly over time	Culture is dynamic and changes all the time
Culture is used as an explanation for people's behavior	Culture is created between people

The table is based on Jensen (2013).

STEREOTYPES

As we have described in the section above there can be both advantages and disadvantages following the three concepts of culture. Likewise, we will emphasize pros and cons in using stereotypes when understanding and describing users with different national backgrounds.

National stereotypes develop over time as stories, examples and jokes about the characteristics of people with a particular nationality are told and retold in the media, in literature, at social gatherings, etc. Furthermore, they tend to cohere well with the experiences we have of interacting with people from these countries (Risberg et al., 2003). In this way, stereotypes come to influence the way we make sense of and talk about other nationalities.

Stereotypes can be useful as “firsthand guesses” about a social group and it is wise to prepare oneself before conducting users studies in a new country, e.g., by reading about the country, talking to colleagues and locals, etc. However, the use of stereotypes can be problematic if they gain too much explanatory power. That is, if they shape interpretations and decision-making in unreflective or unrecognized ways, e.g., when interacting with a person from a particular nationality, when making decisions about where and how to conduct international user studies, or when interpreting data. Thus, a danger is that interpretations and decisions are made based on the first preparation and/or fixed categories, such as, e.g., national culture, age, gender, job titles, etc. It is therefore important to continuously question and adjust one’s (stereotypical) understandings and “firsthand guesses” according to new observations and actual experiences with the relevant group (Adler & Gundersen, 2008).

REFERENCES

Adler, N.J. & Gundersen, A.(2008) *International dimensions of organizational behavior*. Mason, Ohio: Thomson South-Western.

Jensen, I. (2013) *Grundbog i kulturforståelse* (2. edition) Samfundslitteratur, Denmark.

Jensen, I. (2011) "Postkulturel kommunikation – Fordi kultur ikke alltid er viktigst". In: Thomas Sundnes Drønen, Kjetil Fretheim og Marianne Skjortnes (eds.): *Forståelsens gyldne øyeblik. Festskrift til Øyvind Dahl*. Trondheim: Tapir Akademisk Forlag, pp 47-62.

Risberg, A., Söderberg, A.M., Tienari, J. & Vaara, E. (2003) "National talk: The construction of national stereotypes in a merging multinational". In: Söderberg, A.M. & Vaara, E. (eds.) *Merging across borders: People, cultures and politics*, Copenhagen Business School Press, Denmark, pp 61-86.

Sweeney, B. (2002) "Hofstede's model of national cultural differences and their consequences: A triumph of faith – a failure of analysis". *Human Relations*, 55 (1), pp 89 -118.