What is Design Ethnography?

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Overview
This block will help you understand the utility of design ethnography to create products or technologies that better serve user needs. You will learn basic and core anthropological principles that guide ethnographic fieldwork and how these techniques are applied to design processes. Through case study examples, you will be able to articulate the ways in which design ethnographic techniques make for a more efficacious product.

After completing this learning block, you will be able to:

- Define design ethnography and its uses
- Understand core anthropological principles and their connection to the design field
- Recognize the ways in which design ethnography enhances the overall design of a given product or technology

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Core Content

Section 1: What is Ethnography?

[Genzuk 2003]

"Ethnography literally means 'a portrait of a people.' An ethnography is a written description of a particular culture - the customs, beliefs, and behavior - based on information collected through fieldwork." - Marvin Harris and Orna Johnson, 2000.

"Ethnography is the art and science of describing a group or culture. The description may be of a small tribal group in an exotic land or a classroom in middle-class suburbia." - David M. Fetterman, 1998.

Ethnography is a social science research method. It relies heavily on up-close, personal experience and possible participation, not just observation, by researchers trained in the art of ethnography. These ethnographers often work in multidisciplinary teams. The ethnographic focal point may include intensive language and culture learning, intensive study of a single field or domain, and a blend of historical, observational, and interview methods.

Typical ethnographic research employs three kinds of data collection: interviews, observation, and documents. This in turn produces three kinds of data: quotations, descriptions, and excerpts of documents, resulting in one product: narrative description. This narrative often includes charts, diagrams and additional artifacts that help to tell "the story."

Ethnographic methods can give shape to new constructs or paradigms, and new variables, for further empirical testing in the field or through traditional, quantitative social science methods.

Ethnography has its roots planted in the fields of anthropology and sociology. Present-day practitioners conduct ethnographies in organizations and communities of all kinds. Ethnographers study schooling, public health, rural and urban development, consumers and consumer goods, any human arena. While particularly suited to exploratory research, ethnography draws on a wide range of both qualitative and quantitative methodologies, moving from "learning" to "testing" while research problems, perspectives, and theories emerge and shift.

Ethnographic methods are a means of tapping local points of view, households and community "funds of knowledge," a means of identifying significant categories of human experience up close and personal. Ethnography enhances and widens top-down views and enriches the inquiry process, taps both bottom-up insights and perspectives of powerful policymakers "at the top," and generates new analytic insights by engaging in interactive, team exploration of often subtle arenas of human difference and similarity. Through such findings ethnographers may inform others of their findings with an attempt to derive, for example, policy decisions or instructional innovations from such an analysis.

Ethnography as Method
In terms of method, generally speaking, the term “ethnography” refers to social research that has most of the following features:

a. People’s behavior is studied in everyday contexts, rather than under experimental conditions created by the researcher.
b. Data are gathered from a range of sources, but observation and/or relatively informal conversations are usually the main ones.
c. The approach to data collection is “unstructured in the sense that it does not involve following through a detailed plan set up at the beginning; nor are the categories used for interpreting what people say and do pre-given or fixed. This does not mean that the research is unsystematic; simply that initially the data are collected in as raw a form, and as wide a front, as feasible.
d. The focus is usually a single setting or group, of relatively small scale.
e. The analysis of the data involves interpretation of the meanings and functions of human actions and mainly takes the form of verbal descriptions or explanations, with quantification and statistical analysis playing a subordinate role at most.

As a set of methods, ethnography is not far removed from the sort of approach that we all use in everyday life to make sense of our surroundings. It is less specialized and less technically sophisticated than approaches like the experiment or social survey; though all social research methods have their historical origins in the ways in which human beings gain information about their world in everyday life.

How Anthropology Fits In

[Wilcox 1996]

Cultural anthropology is the study of culture — the behavioral tendencies we develop, for better or for worse, throughout our lives from school, friends, TV, where we work, the clubs we belong to, what we read and any number of other sources. Culture is the name we give to those learned personal characteristics that are shared with the groups to which we belong. Designers should be concerned about the study of culture for one reason: it is the primary determinant of what people want to buy and how they like it. Anthropologists can provide three basic things:

● An antidote to the problem of ethnocentrism
● A conceptual framework for understanding what culture is
● A methodology for doing semi-structured research

By ethnocentrism, we are referring to the inability to see the point of view of someone from another culture. The theory is that maximum identification with one’s own group coupled with maximum hostility to outsiders made perfect sense until recently. For most of human evolution, what, after all, was the value of seeing the other tribe’s point of view, particularly if doing so got in the way of building in-group bonds?

Whether or not you agree with the origins of ethnocentrism, its existence poses a problem in industrial design, where product development absolutely requires seeing things from another person’s point of view. And unless you’re real lucky, that person—the customer—belongs to a different culture. The problem with ethnocentrism is obvious when you are designing for customers in China or Slovakia. However, even in designing for the person next door, the very activity of product development distances the designer from the
customer. As designers become more sophisticated vis-a-vis the industry and the products in it, they become more different from the people who buy and use products.

This is where cultural anthropology comes in: learning to see things from someone else’s point of view.

The Ethnographic Approach

[Blomberg 1993]

There is considerable debate in anthropology about what it means to be "doing" ethnography. At a minimum, most would agree that ethnography requires a period of field work where the ethnographer becomes involved in the everyday activities of the people studied. While ethnography often includes a description of the activities and practices of those studied, it is more importantly an attempt to interpret and give meaning to those activities. This interpretation most often takes its final form as a text written in a somewhat stylized format. Although many books have been written about ethnography and ethnographic field methods, there is no agreed upon set of principles that guide anthropological field work, nor is there a cookbook of methods and techniques applicable in all situations. We offer here some general guidelines for those interested in exploring the usefulness of an ethnographic approach for the design of new technologies and present a brief description of some commonly employed research methods. However, we would falsely portray the field if we left the impression that what we write here is either complete or without challenge. We have chosen not to dwell on the controversies that exist concerning what constitutes an adequate ethnography to avoid complicating the discussion.

Holism

This emphasis on natural settings derives in part from a belief that particular behaviors can only be understood in the everyday context in which they occur. To remove a behavior from the larger social context is to change it in important, nontrivial ways. This concern with how particular behaviors fit into the larger whole is often referred to as holism (See Figure 1 below for a visual representation of the work).
Figure 1: Two Principles of Ethnography

Descriptive

Based on fieldwork ethnographers develop a descriptive understanding of the lifeways of the group studied. Ethnographers describe how people actually behave not how they ought to behave. This distinction is similar to one made in linguistics between descriptive linguists (how people speak) and prescriptive linguistics (how people ought to speak). The orientation toward the descriptive leads ethnographers to assume a nonjudgmental stance with respect to the behaviors they study. Maintaining such a nonjudgmental
stance is sometimes referred to as cultural relativism, the notion that other people's behaviors should not be judged by the standards of some other group (see Fig. 2 for an illustration of how descriptive and prescriptive characterizations contrast).

**Figure 2**: Contrast between descriptive and prescriptive characterizations of activity.
Section 2: What is Design Ethnography?

Linking Ethnography & Design

[Genzuk 2003]

The key aspect of adopting ethnographic practice in design is to ultimately understand more of the user’s perception of the object, environment, system, or service the user is engaged with.

[Anderson 2003]

As defined in Section 1: ‘What is Ethnography, ethnography is the branch of anthropology that involves trying to understand how people live their lives. Unlike traditional market researchers, who ask specific, highly practical questions, anthropological researchers visit consumers in their homes or offices to observe and listen in a non-directed way. Our goal is to see people’s behavior on their terms, not ours. While this observational method may appear inefficient, it enlightens us about the context in which customers would use a new product and the meaning that product might hold in their lives.

[Blomberg 1993]

There are various ways one might imagine acquiring, representing, and transferring the knowledge gained from an ethnographic analysis of user work practices from the context of technology design. We will mention only a few of them. First, a trained ethnographer might be asked to study the work practices of some group. The insights from this study might then be transferred to designers through written reports and oral presentations. The designers would then have the task of identifying the relevant aspects of the reports for their particular design efforts.

Because of differences between the languages and perspectives of ethnography and design and because the ethnographer is likely to have little knowledge or appreciation for the immediate concerns of the designers, this is not a simple task. Making the findings of an ethnographic study useful for day-to-day design concerns becomes a major undertaking.

Second, an ethnographic study might be undertaken by a team of investigators consisting of ethnographers and designers. In this case the insights and understandings, in part, would be embodied in the experiences of the designers who were firsthand participants in the study. As Penniman (1974) observed, experience underlies all understanding of social life. Active involvement by designers in the field work and in constructing interpretations of the work activities at the study site also would help focus the ethnographic study on issues more central to the design task and would make the interpretations more relevant to the design.

Third, a project could be undertaken by a team of ethnographers, designers, and users. The understandings and insights derived from the study would not necessarily be represented in a written report, but instead would be reflected in a co-designed ‘artifact’. User partnership in developing and evaluating the technology in relation to current and imagined work activities would be aided by designer participation since designers would bring knowledge of technology constraints and opportunities to the collaboration. The success of the project would be evaluated on the basis of how well the technology supported the work activities. In this last
situation the ethnographer would adopt, in part, the designer’s orientation of seeking to understand human behavior insofar at it enabled the design of artifacts better suited to the needs of the users.

**Rapid Ethnography**

*Bichard 2010 p.45*

Given the time constraints on industry-based design projects, many of the ethnographic methods employed by designers have come to be known as “rapid ethnography”. This method has enabled designers to gain insights into users’ activities in daily life but also keep up with the fast paced needs of commercial business practice. Whilst commercial pressures may mean that less time is spent with participants than a traditional ethnography demands, such participation still enables designers to gain access to people’s worlds and helps them to understand their situations. This understanding is then translated into the realm of business with the design of better products, services, and environments that are more tailored to meet people's needs. The strength of the rapid ethnographic approach is that it gives voice to the users who remain at the forefront of the design solutions.


**Why is Ethnography Relevant to Design?**

*Blomberg 1993*

Ethnography is relevant to design for several reasons:

1. **To gain insight on the user's environment**

   First, since designers often create artifacts for work settings they know little about, some understanding of those settings is needed so that the technologies suit the situations of their use.

2. **To eliminate the designers’ worldview**

   Second, because technologies help shape the work practices of their users, it is important that the designers' worldview not be imposed inappropriately on users. If designers have little information regarding the situations in which technologies are used, the best they can do is rely on their own experiences and imagination thus running the risk of designing technologies better suited to their needs than those of the actual users.

3. **To optimize technologies even when there is uncertainty regarding use**

   Third, there are situations where designers create technologies whose possible uses are unknown. Such situations might be described as technology in search of an application. Some understanding of the work in which potential users are engaged can help identify possible uses and refine the original technology design.

4. **To better understand the context of use**
Fourth, in understanding that the utilization of technology is inextricably linked to the conditions of the user’s environment, technology that is tested in a more traditional [human-machine dyad] may fail to capture important nuances.

5. To create (provide) a fuller (thorough; more comprehensive) picture (vision; visualization; representation) of the technology for the user.

Fifth, when designing radically new technologies, users often are unable to give meaningful responses to queries about how they might use such technologies. They need to be provided with a way of envisioning and experiencing the technology in the context of their own work practices before they can contribute to such a discussion. To create the context for such a discussion and to be useful partners in the joint exploration of the relation between work and technology, designers must have some understanding of the user’s work.

6. To shift design from single-task focus in order to account for a more holistic understanding of outside influences on the users.

Finally, the single-task focus of some technology design efforts is ill-suited to e-design of technologies that support task integration. Simply focusing on a single task or the tasks of the single user ignores how the work of one individual articulates with that of many others. For example, a print shop operator’s work may rely on the work of document creators, word processing specialists, graphic artists, sales representatives and many others. Systems that support the print shop operator’s work should be designed with some larger understanding of how the work of these others impinges upon the work of the print shop operator.

Ethnographic Field Methods & Relation to Design

[Blomberg 1993]

Here, there is an exploration of the relationship between developing a descriptive understanding of human behavior and designing artifacts which ostensibly supports the activities described. Although there is growing recognition that an understanding of users' current work practices would be useful in the design of new technologies, the debate about what it would mean to acquire such understanding to link it with design is only beginning. What are the implications of eloping ways of representing the views and activities of communities of focus outside one's own such that the knowledge would be useful in design? The ethnographic approach, with its emphasis on "natives' point-of-view," 'holism, and natural settings, provides a unique perspective to bring to bear on understanding users' work activities. However, anthropology is mute when it comes to ways of integrating such an understanding with design. The languages of design and of ethnography evolved in quite different contexts and in relation to different concerns. While the ethnographer is interested in understanding human behavior as it is reflected in the lifeway's of diverse communities of people, the designer is interested in designing artifacts that will support the activities of these communities. The current challenge is to develop ways of linking these two undertakings.

As practiced by most ethnographers, developing an understanding of human behavior requires a period of field work where the ethnographer becomes immersed in the activities of the people studied. Typically, fieldwork involves some combination of observation, informal interviewing, and participation in the ongoing
events of the community. Through extensive contact with the people studied, ethnographers develop a
descriptive understanding of the observed behaviors.

Designers, on the other hand, are interested in understanding human behavior insofar as it enables them to
design artifacts better suited to the needs of the users. Designers, therefore, spend more time testing and
evaluating their designs in relation to users' needs and abilities and less on understanding the support
behavior per se. When designers do attempt to gain a clearer view of the users for whom they design
technologies, they traditionally have been limited in the ways such a view is acquired. Ethnography provides
an alternative methodology for designers to use, which gives them access to people's everyday practices as
members of social groups.

Understanding Human Behaviours as a Mechanism for Change

As mentioned, ethnography is a way of developing a descriptive understanding of human activities. Insofar
as such an understanding can be brought to bear on designing new technologies, its role as a mechanism
for change must be considered. To greater and lesser degrees new technologies always result in change for
the communities into which they are introduced. As Ehn (1988) puts it, "What we design is not just artifacts
but by intervention a changed or reformed practice." As such those involved in linking ethnography and
design must be aware of their role as "change agents." This raises the question, as it does for
anthropologists who act as change agents in more traditional settings; "In whose interest does one
operate?" Does one serve the people for whom new technologies are designed (those whose activities are
the subject of the inquiry) or does one serve the sponsors of the work? Arensberg and Niehoff (1971)
contend the main concern of the anthropologist involved in promoting change "... must be with the people
who he hopes will accept the new ideas" In many cases these are the end-users of the new technologies.

Because ethnography typically involves extensive contact with the people studied and an attempt to "see"
the world through their eyes, ethnographers frequently identify with the interests of those studied regardless
of research sponsorship. Van Mannen (1988) writes, "... the fieldworker not only represents but takes the
side of the studied." This orientation toward the concerns of the people studied is a central characteristic of
anthropology and has been codified in the Principles of Professional Responsibility adopted by the

The first principle states, "In research, an anthropologist's paramount responsibility is to those he studies.
When there is a conflict of interest, these individuals must come first." As anthropologists become more
involved in systems design and development, and as ethnographic field methods become more widely used
in such efforts, it is important for those involved in this work to reflect upon these ethical concerns. In
particular, those whose work is supported by technology companies must ask if it is possible to be "both
user advocates and purveyors of technology?"

Section 3: Application and Use in Industry

Example 1

When Bill Stumpf, IDSA. was asked to design the living quarters for a nuclear-fallout shelter, he went
underground for two weeks to share space with 60 naval cadets in a 2,000-square-foot bunker. He
discovered that managing the sound of toilets flushing around the clock was a far greater design problem than specifying the color, shape or configuration of new bathroom fixtures.

But when it comes to gathering firsthand insights into human behavior and needs, perhaps no one rushed into the field with greater zest than Henry Dreyfuss, FIDSA. "I have washed clothes," he wrote in his 1955 book, Designing for People, "cooked, driven a tractor, run a diesel locomotive, spread manure, vacuumed rugs, and ridden in an armored tank. I have operated a sewing machine, a telephone switchboard, a corn picker, a lift truck, a turret lathe, and a linotype machine. When designing the rooms in a Statler hotel, I stayed in accommodations of all prices. I wore a hearing aid for a day and almost went deaf. I stood beside a big new gun at Aberdeen Proving Grounds when it was fired, and was catapulted off my feet. Members of our office have spent days and nights in airport control towers and weeks on a destroyer during maneuvers. We ride in submarines and jet planes. All this in the name of research."

For these leaders of the design profession, studying people in the environments in which they ate, worked, slept and played was the most effective-if not the only-way to design useful and profitable products. Informed by insights gained from watching and talking to people, Dreyfuss, Stumpf went on to create memorable icons of product-design history, from the Equa chair and revolutionary Action Office to John Deere tractors and Bell telephones.

Despite Dreyfuss's vocal advocacy, field research dtd not become a routine part of industrial design. In fact, until recently, few projects have included credible field research. Using techniques borrowed from ethnography-including observations and interviews, the use of cameras and other documentation technologies, and the careful analysis of data-industrial designers are discovering useful tools for investigating the factors that motivate people to want, purchase and use a product.

Example 2

By focusing on the user, ethnography provides business and manufacturing with an invaluable link to users and customers. The J-Fill dispensing system project, conducted by GVO, Inc., for SC Johnson Professional, is a good example of how this happens. SC Johnson Professional (SCJP) was faced with increasingly aggressive competition in a market that it had traditionally dominated. In his Innovation article (Winter 1998) describing the birth of J-Fill, Blake Wharton writes, "SCJP also understood that, in spite of its leadership position, it did not offer a unique product...The choice was clear: innovate, or see its position in the marketplace begin to erode."

GVO proposed a development program that began with a three-month-long phase of ethnographic research conducted in 11 countries, 25 cities and 70 facilities. As part of its research, the design team conducted more than 100 interviews. Then the designers rolled up their sleeves and cleaned hotel rooms, fast-food restaurants, banks, schools, grocery stores and psychiatric hospitals. Their fieldwork yielded fresh insight into the needs of SCJP's customers. Their most important discovery, however, went one step further, challenging the fundamental assumptions of SCJP's business strategy. The company had traditionally segmented its customers into distinct industry-based categories such as hospitality, education, retail and healthcare. The design team discovered that the boundaries between and differentiation of these categories had slowly disappeared. As Wharton sums up, "Commercial cleaning had quietly evolved from a centralized, station-based process into a nomadic activity." In short, commercial cleaners had become highly mobile and in need of new transportable tools and systems.
With this insight clearly articulated, GVO and SCJP developed a portable concentrate-dispensing system called J-Fill. The most important feature of the system is that it enables cleaners to transport and accurately dispense a variety of concentrates. The time spent researching the user's needs appears to be paying off. According to SCJP, the J-Fill is selling well and its competitors are having a tough time responding to the product's success.

Case Study: Out of the Box

[Bichard 2010 p.49]

This project took place between 2008 and 2009 in partnership with the electronics manufacturer Samsung. Two graduates from the RCA Department of Innovation Design Engineering, Clara Gaggero and Adrian Westaway, led the project as RAs.

The aim of the initial brief was to design a better mobile phone for older people, but a program of research with older users helped to reveal alternative issues and redefine the brief. Design anthropology was key in meeting the unanswered needs of older people and guiding the RAs. The new focus was to investigate solutions for the increasing divide between older Europeans and mobile phones, rather than simply designing new hardware. Phones with big buttons, large screens, and easy-to-read fonts all currently exist. The area with real potential for design intervention was redesigning the ‘out-of-box’ experience, rather than modifying the phone itself.

An initial workshop with a group of 80-year-olds revealed that few would benefit from using a mobile telephone, as they did not lead mobile lifestyles. The primary focus group was therefore defined as 60 to 80-year-olds who are mobile, travel outside their local area, and are curious about technology.

A writer, aged 75 and living alone, and a married couple in their 60s who fit this profile were then visited in their homes and asked about current issues around technology. The intimate home environment allowed the researchers to gather information about peoples' lifestyles and observe the context of their actions. The RAs devised a series of questions and interactive tasks that made the individuals feel less like they were being studied as 'test subjects', rather acting as significant, lead protagonists in the process. Each interview lasted approximately two hours and was filmed.

The tasks focused on three areas: how people communicated with their network of friends and family; how people learned to use products and services; and what technology they owned and used. These user engagements provided much insight, but a single key issue emerged from the study and captured the attention of the researchers: Any 'problem' in appropriation did not lie simply with the user nor was it the fault of the device, rather the process of learning to operate and use the technology was the main barrier to successful appropriation.

Further Research

As a result, the project began to refocus, in a reflexive way, on the process a user goes through when buying a phone and setting it up. Task-based observation was set up, where a 60-year-old woman was asked to buy a new mobile telephone and perform a series of simple functions such as sending a text message [Fig. 1]. Although there was little help from the sales staff in the shop, the real barrier emerged when she read the manual. Written in technical jargon, it confused her, did not guide her in completing the tasks, and turned the joy of her purchase into frustration.
It was apparent that the manual, which is so heavily relied upon, was completely inadequate and needed to be rethought. Two workshops were held in Norway and Italy to get a pan-European perspective on this issue. Six to ten people participated in each workshop.

Users were asked to rank the functions they used on their existing mobile phones then describe what their 'dream phone' might do. To remove the constraints of real products or existing technology, they were given a banana and a kit consisting of scissors, glue, and craft material and then invited to physically create a magical banana phone that could 'do anything'. A large number of the responses generated by the project denoted functions that were already available in the existing telephones, indicating once again that the process by which people 'learn' and decipher phone features was failing.

Finally, each person was given a choice of materials and tools to create their perfect phone manual. They constructed booklets, cards, posters, videos, and even novels, highlighting the inadequacy of the current manual. People aspired for more human, creative communication.

Concepts

Two of the concepts that resulted from the study are described here. The first turns the throwaway manual into a hardcover book that is designed to be kept on a shelf and referred to throughout the life of the phone. Many older people often asked friends or family to talk them through the phone set-up, so the pages of the book mimic this process using a conversational tone that is devoid of technological jargon and acronyms (Figures 3a,b).

**Figure 3a:** Turning the pages reveals step-by-step advice with graphics and text-based instructions, pointing to the actual device and accessories encased within the book, minimizing chances of error. The book then takes the user through other phone functions using the same process.

**Figure 3b:** The second concept involves a pack of cards that digitally interact with the phone to add and use basic functions. You choose a function you want and tap the relevant card onto the phone to access that function. The cards act as shortcuts, enabling users to tangibly explore the contacts and functions inside the phone without getting lost in complex menus. The reverse of each card clearly explains how to access each function using the menu; as the user becomes more comfortable with
Together these ideas present a novel way of enhancing mobile phone set-up and use, and could have far-reaching implications for the way devices are packaged and presented to the customer in the future.

In the next module, you will learn all about the techniques employed to conduct design ethnography.

**Section 4: Conclusion**

[Rothstein 2010]

Ethnographic research produces better results not only because it puts designers in touch with users, but also because it encourages open-ended thinking that results in more innovative solutions. This is because ethnography is fundamentally an investigative, discovery-oriented process. The link between this type of process and creativity has been well documented. Why is ethnographic research so effective in industrial design? It is actually fairly simple: Ethnography compels designers to search for exactly what creativity researchers suggest will produce the most original results—namely, undiscovered, unique problems.

[Blomberg 1993]

Linking ethnographic field methods and design has the potential both to provide designers with new ways of gaining a deeper understanding of user work practices and to provide a context for designers to collaborate with users over the design of new technologies. However, realizing the benefits of a link between ethnography and design presents many challenges including learning how to translate the insights from an ethnographic study into terms relevant to design, providing designers with the skills necessary to be reasonably accomplished field workers, and altering the mindset of product planners and developers so that extensive, in-depth user involvement is viewed as necessary throughout the design and development process.

**References**


