

Communicating Ethnographic Findings Effectively within Multidisciplinary teams and to your Client

ABSTRACT

Effective communication of findings and recommendations to your clients relies upon a shared repository of knowledge available to all members of a multidisciplinary team. Based upon our team's work assessing the communication landscape within a small hospital, this paper presents as a valuable documentation tool, the data inventory, which can serve as the repository of all knowledge acquired during the project. As described, this data inventory also serves as the foundation for all documentation and communication within the team and to the client. This tool allows for the documentation of the rich data obtained through ethnographic methods and serves as source for the team, ensuring all deliverables are consistent and accurate. A facility tour given to the CEO contextualized our findings and recommendations in the real-world domain of his institution..

Categories and Subject Descriptors

K.6.1

General Terms

Management, Measurement, Documentation, Performance, Design, Human Factors.

Keywords

1. Ethnography, Communication, Design Research, Clients, Multidisciplinary, Documentation, Tour, Buy-In, Anthropology, Data Inventory, Technology

2. INTRODUCTION

Our Background

We are members of an industry research team at a user-centered design consultancy. We are, respectively, an Anthropologist, a Design Research Director, and a Content Quality Manager, all with post-graduate degrees and industry experience in our fields. We work in interdisciplinary teams alongside software developers, usability engineers, interaction designers, project managers, information architects, visual designers, and others to help companies improve their business processes, systems, and products. Crucial to our holistic approach is a rich understanding of context—the physical setting, the particular business culture, and the goals, standards, rules and regulations—in which our clients operate. In addition to working in interdisciplinary teams of specialists, we spend a great deal of time collaborating with our clients at their workplaces in diverse vertical and horizontal markets. Through interviews, observation, brainstorming, and other working sessions, we incorporate the clients' needs, knowledge, and experience into our iterative design process from the project's inception.

Clearly, our process has no lack of expert input. However, with this range of talents comes a formidable communication challenge. With close to a half dozen different professional fields represented on our team, how can we create a common understanding of the data we collect, the analysis we create, and the solutions we propose to the client? How can we present our ideas and findings to the client in a way that inspires their confidence in our teamwork and trust in our expertise? In the following experience report, we share with you methodologies that emerged from our iterative and collaborative process and helped us communicate ethnographic findings effectively – both within our multidisciplinary team and to our client.

THE CASE

Our team was charged with mapping the communication landscape in a small hospital and developing recommendations that would finally bring their data collection, analysis, communication and planning out of the paper-and-pencil age. The hospital in question is in a large metropolitan area and has maintained a strong reputation for quality care for over 50 years. Our company was called in when hospital management realized staff was spending too much time inventing band aids for a set of "systems" (including both paper and technology-based communication systems) that ran everything from waste disposal, to menu planning, to medical test results. Hospital staff was so busy negotiating the details of these insufficient yet redundant systems, and so bogged down in paperwork, that they had neither the time nor the energy to turn the data that they were compiling into actionable information.

Methods

Our team used a variety of ethnographic methods to collect as much data as possible and to yield as much insight into the daily challenges confronted by diverse hospital staff. Our entire team had to agree to the validity of all the different research methods we used. We settled upon the following methods:

- Stakeholder interviews
- Focus groups
- Contextual inquiries
- User interviews
- Facility tour/walkthrough
- Demonstrations of the hospital's technological systems

This breadth of methods ensured that we would examine communication systems in context of the day-to-day operations of the hospital. The methods yielded a deep and nuanced understanding of the current communication landscape there. They also produced a challenging array of data to analyze, format, and preserve in a way that our entire team, as well as the client, could understand and use.

Deliverables

At the start of the engagement, in collaboration with the client, we identified a set of deliverables to be distributed over the course of the project in the following order:

- User Profiles
- Data Inventory
- Data Gap Analysis
- Feature Set/Business Requirements Document
- Technology Recommendations

These documents were designed to build upon each other – each taking our research and analysis a step further. After completing the User Profiles, we moved on to the Data Inventory, a comprehensive list of all the information captured and communicated throughout the hospital as part of its daily operations. The Data Inventory met and exceeded our expectations. By keeping our diverse team members quite literally “on the same page,” the inventory became a common ground that enabled us almost seamlessly to slip into a collaborative analysis of the state of the hospital’s communication system.

The Data Inventory: Key to Communicating Effectively in an Interdisciplinary Team

Traditionally in technology, a Data Inventory defines data points, including where the data comes from and where it goes. This framework was limiting for our team since it failed to capture elements of the communication landscape that take place *outside* of software systems, databases, and other technological systems or devices. For example, people in this hospital walked paperwork from one floor to another, wrote daily menus on blackboards and scheduled room reservations on white boards. We chose to alter the structure of the traditional data inventory so that it would represent the whole communication landscape of the hospital and the processes surrounding that communication. We did this by creating “data clusters” which we defined as “groupings of data points” that are attached to a communication process and therefore have a similar flow through people and systems. We then grouped the clusters by functional unit of the hospital identified in the user profiles: Administrative, Clinical, and Operations.

The document included the following information:

- Name of the data cluster
- Functional group of the cluster
- Definition of the cluster (organizational goal and use)
- Whom the cluster affected
- Whether the data to be communicated in this cluster was collected in any manner (e.g. paper, system)

This structure applied to the data inventory allowed our team to maintain our strategic vision of providing high-level recommendations for technologies while still documenting the rich detail from the ethnographic methods.

As we wrote the Data Inventory, we realized that it was revealing gaps in the communication systems at the hospital, and made our

formal documentation of communication glitches, obstacles, and lapses (the deliverable Gap Analysis) relatively easy to complete. Indeed, it grew so naturally out of our comprehensive Data Inventory that we ended up incorporating the formal Gap Analysis into the Data Inventory. The result, a comprehensive document we then called the Data Inventory and Gap Analysis, became the living the repository of all the knowledge generated by our team from that point forward.

The Data Inventory revealed communication system breakdowns by process, within functional areas, and across processes and functional areas. It was an excellent tool that helped both the team and the client zero in on problems and trends, and focus on the best ways to improve communication, both technological and non-technological. Building deliverables off the Data Inventory provided consistency within and throughout our documents. Emerging from a solid, common foundation in this inventory, the rest of the deliverables maintained a logical progression that was clear to the client. This increased the value of each deliverable, and the transparency it brought to our process strengthened our client’s confidence in our work.

The Data Inventory also fed into the Feature Set, the document that laid out the requirements for the improved communication systems. For example, the Feature Set noted the need for more mobile communication capacity and recommended hand-held devices for all clinicians. It noted the need for better financial tracking and recommended budgeting software for the Administration area. To create the Feature Set, we evaluated each functional unit identified in the Data Inventory (comprised of multiple data clusters) and analyzed the breakdowns in the processes to determine the requirements for the new communication landscape.

The Data Inventory was an asset that retained its value even after our engagement with the client. It became an artifact helped hospital leadership to understand in detail the some of the less visible activities going on in the hospital. The holistic nature of the analysis provided a framework that allowed our team and the clients to consider organizational changes as well as changes to technology and paper systems. The Data Inventory also constituted a rich database of information that would be helpful as solutions were implemented.

Communicating Findings Effectively to the Client

Although we had established a relationship of collaboration and transparency all along, we were left, ultimately, with quite a final challenge. How could we wrap up and communicate our in-depth ethnographic findings to our client without dropping a 200-page binder of information on them and conducting a three-hour presentation while they snored away? We were recommending a major technological investment and cultural shift to this small hospital. If we wanted the client to be amenable to our final recommendations, they would have to be confident in our research and trust our knowledge of their organization. We decided to use the Feature Set at buy-in meetings with key hospital staff from the functional areas around which we had organized our deliverables. We set up a day to run through the Feature Set with them, and asked each to comment on and prioritize the requirements listed there. We also asked them to identify any gaps or inaccuracies in our requirements. This

process worked very well. It provided our team with client-determined priorities and details that informed our implementation schedule and it fostered our client's confidence in us because it demonstrated that we listened to them and allowed their needs and their culture to inform our recommendations.

Throughout this entire process, our consideration of context built trust, fostered communication, and offered compelling evidence that the hospital, its staff, and patients needed and deserved the improvements we identified. We decided that the best way to build trust in our findings and recommendations for technological systems (and keep the final Technology Recommendations Presentation down to an hour) was to keep true to our belief in the power of contextual inquiry and user-based design solutions. We took the CEO and President of the Hospital on a tour of the facility, pointing out the fruits of our research. We called his attention to the less visible communication processes occurring around the hospital that we had identified through our research. We described the breakdowns and problems in those processes and then provided a quick overview of the recommendations associated with these processes. This tour ensured that the CEO had confidence in our research skills, felt that we fully understood the organizational needs and goals, and understood how our recommendations would address the communication issues.

The Feature Set meetings and the CEO tour had conveyed our findings with great impact. In the end, we formally presented our

technology recommendations and only presented four high-level slides addressing findings and recommendations at a very high level. With the Feature Set meetings and facility tour fresh in their minds, the senior staff and CEO welcomed our suggestions and have embarked upon implementation.

IMPLICATIONS FOR THE FUTURE

Documenting process within an organization can be a daunting task, and communicating this information effectively to the client can be even more so. The Data Inventory proved to be the backbone of our research and provided the foundation for all the other documents. This allowed for consistency in our delivery of our documents and became a great reference for both our client's team and ours. This holistic approach provided a much more valuable asset to the client than a mere technological data inventory would have provided. It identified gaps in process and collection and allowed us to find more efficient tools and methods by which the hospital employees could complete their work and fulfill their institution's mission of ensuring the highest quality of patient care.

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