

SLA: to Sign or Not to Sign

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Abstract: We present our experience of a three-week fieldwork in the form of a contextual inquiry with a service manager at the EPFL IT department. During these three weeks, we encounter a refusal of a user committee to sign a service-level agreement (SLA). We describe the context in which this refusal occurs, and we uncover our findings about the core of ITIL's service-level management that building relationships is more important than bounding to a contract.

Keywords: service, service management, service-level agreement, action research, contextual inquiry

1 Introduction

We conduct our research at the IT department of the École Polytechnique Fédérale de Lausanne (EPFL), called the “Vice Presidency of Information Systems (VPSI)”. During the last four years the VPSI is transforming itself from a traditional IT department to a service organization. As researchers, we have a unique opportunity to actively participate in this transformation, making it an action-research project. We have collaborated with VPSI practitioners accompanying its transformation since 2013 [1, 2]. The VPSI has approximately 100 employees and around 300 collaborators across EPFL, who manage IT.

The VPSI provides nearly 100 IT services to its users, such as researchers, teachers, students, EPFL employees, IT experts, visitors and general public. The best practices of Information Technology Infrastructure Library (ITIL) [3] help the VPSI to structure the creation, management and operation of services. For every service provided, the VPSI has assigned one service manager and one users' committee. The service manager owns the service and is responsible for the overall service lifecycle; this includes negotiating and managing the service-level agreement (SLA) defined for the service. The same person can manage multiple services. The users' committee represents the service customers, i.e. the users of the service.

One of the aspects often associated with ITIL best practices is the need to sign a service-level agreement (SLA) between the service provider and the customer. During

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a three-week period of conducting contextual inquiry [4] with a service manager, we observed detailed interactions related to the signing of an SLA for one service. The users' committee of this service was not willing to sign the SLA even though, in principle, the terms of the SLA were acceptable. This apparent contradiction led us to reinvestigate ITIL and revisit the role of SLA, thereby discovering that SLA signing is not such a strong injunction in ITIL.

The paper is organized as follows: In Section 2, we explain our research methodology. In Section 3, we present the context of our ongoing action-research project. In Section 4, we describe the contextual inquiry we have done with the service manager. We present our findings concerning the SLA signing issue in Section 5. Then, we discuss our findings in Section 6, and we conclude and present the future work we envision in Section 7.

2 Research Methodology

The process of gaining concrete experience is fundamental in our teaching and research practice. For example in teaching, we use the Kolb experiential learning model, where "knowledge is created through transformation of experience" [6]. The students of our Enterprise and Service Oriented Architecture (ESOA) [5] course are exposed first to practical experience. Then, by using their experience, we conceptualize the theory together. In research, we try as much as possible, to anchor our research projects in the day-to-day practice of professionals. For this reason, we favor action research. Many researchers have reported, and our experience also shows, that action research results in highly relevant qualitative information about the practitioner's work [7, 8]. In addition, when time permits, we choose to use a user-centered approach, called contextual inquiry, with the goal of extracting the tacit knowledge that practitioners have.

2.1 Action Research

In most empirical research, researchers act as passive observers and they do not aim to change or personally experience the social reality. In action research, researchers collaborate with the people being studied [10]. "Action research simultaneously assists in practical problem solving and expands scientific knowledge" [11]. Every organization is a complex whole, composed of interacting entities such as people, other organizations, information systems, etc. It is impossible to completely analyze and affect these interactions relying solely on quantitative information. With "going out in the field", the action researcher observes the practitioner and his interactions as a whole entity, enriching the quantitative information with qualitative insights.

But, action research is not only observing. It is an iterative process where researchers and practitioners act to change an organization, and reflect on the effects of their actions [12]. The action researcher "is viewed as a key participant in the research process, working collaboratively with other concerned and/or affected actors to bring about change in the problem context" [13].

2.2 Contextual Inquiry

Contextual inquiry [4] is used to obtain information about the tasks practitioners execute. Inspired by ethnography, contextual inquiry is a field qualitative data-gathering approach. Applying contextual inquiry requires adopting an appropriate relationship model to interact with the practitioner, for which we always choose the master/apprentice relationship model [9]. In the master/apprentice model, the practitioner is the master, who is teaching while doing, and the researcher is the apprentice, who is learning while doing. At the end of the inquiry, the researcher gains tacit, reliable and detailed knowledge on the practitioner's work process. This knowledge includes evidence such as used information, created documents, interaction with other people. Usually, the purpose of the inquiry is to design a solution (tool, portal, template) that can help the practitioner in his daily work.

2.3 Combining Action Research and Contextual Inquiry

Action research and contextual inquiry might seem similar as they both require communication and engagement in activities with practitioners. We perceive that action research does not give concrete guidelines on how to interact with practitioners, whereas contextual inquiry defines several relationship models the researcher can adopt. The authors of contextual inquiry also give concrete guidelines on how to handle confidentiality or unexpected issues [4, 14]. For ethnographers, all these guidelines might seem trivial, but as engineers, we find them extremely useful.

An action-research project includes the whole organization, it takes several years and it generates broad findings that are difficult to formalize. Contextual inquiry is complementary to action research. It targets smaller and narrower research questions. It has a shorter duration and focuses on only one person, or a team. By nature, it results in detailed and concrete knowledge on the work of the person/team. But this knowledge raises ethical challenges, similar to those described in [15, 16].

Within an action research project, researchers can conduct several contextual inquiries, with the same or with different practitioners (Figure 1). The contextual inquiries provide concreteness to the action-research project.

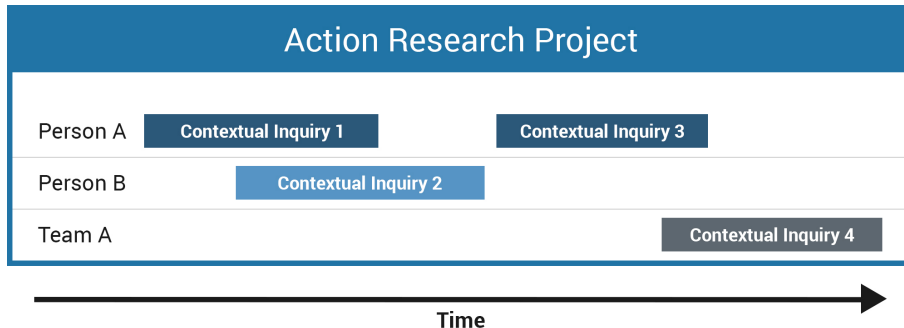


Fig. 1. Multiple contextual inquiries within one action research project

3 Our Action-Research Project

The action-research project we describe in this paper is built on the relationship between the people in our research laboratory and the deputy head of the VPSI. This relationship offers many research opportunities related to the transformation of the IT organization into a service-oriented organization. In 2013, we developed a service cartography, as a means to communicate an IT service strategy [1]. One year later, we defined patterns for designing value-added services and applied these patterns on a concrete VPSI service [2]. More recently, we collaborated to draft a strategy for VPSI.

In October 2015, we felt we needed more information about the potential usage of the service cartography in describing and communicating service architecture. So, the first author decided to conduct a contextual inquiry with one service manager. During the course of the contextual inquiry, we came across an issue with one SLA.

To be effective in providing services, the VPSI as a service organization has adopted ITIL best practices for service management. ITIL defines the service management activities in the service-level management (SLM) process. Therefore, the VPSI service managers make efforts to follow the SLM process and to formalize VPSI's responsibilities in an SLA. Negotiating SLAs and ensuring that they are met, are the focal points of the version 3 of ITIL service management. SLM is included in both the service design [19] and continual service improvement [20] stages of the ITIL service lifecycle.

4 Contextual Inquiry with a VPSI Service Manager

The first author conducted a three-week contextual inquiry with a service manager, under the guidance of the other authors. Below, we refer to the first author as "researcher". During the contextual inquiry the researcher accompanied the service manager (practitioner) in 13 meetings. For 2 meetings the researcher produced detailed notes on what was discussed and decided. A sample of these notes is depicted in Figure 2.

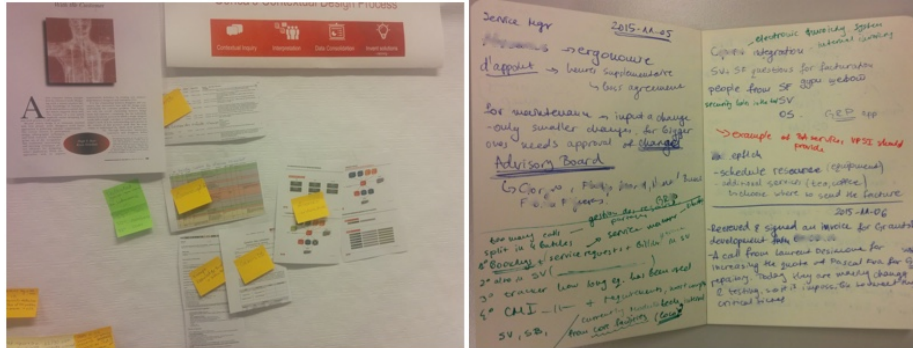


Fig. 2. Example of documents used (left) and notes taken (right) during the contextual inquiry

The friendly VPSI environment contributed to the development of a profound relationship with the service manager and his colleagues. This was more than just a simple master/apprentice relationship. It was a relationship of trust, visible in the transparent and collaborative attitude of the service manager. The researcher was warmly welcomed to social events such as a morning tea and a casual cake sharing. As a result, much information was obtained about the work of the service manager, and this paper describes a small part of it.

4.1 Researcher's Involvement

The initial purpose of the contextual inquiry was to obtain field information about service management, with special attention to service architecture, in a way that can be used to improve the service cartography. This was well understood by the service manager, so he welcomed the researcher's collaboration as an apprentice in revising the service architecture documentation (see Figure 3). In parallel, to better grasp service-management activities during service incidents, the researcher had the duty of creating the documentation for the incident-management process of one service (see Figure 3).

Suivi des modifications

Date	Version	Modification	Auteur
23/11/2015	1.0	Création avec input du [redacted]	Gorica Tapandjewa

Suivi des modifications

Date	Version	Modification	Auteur
06/11/2015	1.0	Création	[redacted]
13/11/2015	1.1	[redacted] commentaires	Gorica Tapandjewa

Fig. 3. Document versioning snapshot: researcher’s participation in documenting an incident management process of one service (upper) and updating the architecture documentation of another service (lower)

When conducting contextual inquiry, the researcher observes many of the practitioner’s immediate problems, such as network access problem or meeting cancelation. Often this immediate problem might not seem directly connected with the main research interest. We believe the purpose of action research/contextual inquiry is to be present and observe all activities. It helps to understand the professional, cultural and social contexts.

For example, during this instance of contextual inquiry, the service manager worked on tasks and attended meetings that appeared unrelated to our initial goal: to discover how the service cartography can be used to communicate the service architecture. But the researcher had genuine interest for all activities and kept an open mind, while observing as many details as possible. As a result, the findings we present in this paper, related to SLA sign-off, emerged from an apparently “uninteresting” event.

4.2 Researcher’s Observations on a Service Provided by the VPSI Co-created with the Users

The researcher attended a meeting about the evolution of one service. This service is provided through an IT system that records information for the whole of EPFL. The information is validated by a workflow that involves multiple levels of authorization. The service is a result of a 1.5-year collaboration project between three other EPFL organizations and the VPSI. In line with service science [17, 18], the three other EPFL organizations have two roles: (1) users of the VPSI service and (2) partners, as they collaborate with VPSI in the service implementation in the creation of the service value. The person who managed the collaboration project became the service manager, thus gained an additional responsibility of coordinating the collaboration among all organizations.

In the meeting, the service manager, together with representatives of one EPFL organizations, discussed about prioritizing tasks concerning the service evolution. The decisions taken during the meeting were passed to an external development company. In this meeting, the researcher observed how successful service management works through a collaborative team spirit. One participant in this meeting was also a member of the service users’ committee.

The meeting that followed came as a surprise. The users’ committee refused to sign the official SLA proposed by the service manager. This happened despite the agreement that seemed to exist in the previous meeting. Unfortunately, the researcher did not attend this latter meeting, thus did not directly observe the reactions and listen to the arguments for not signing the SLA. The service manager summarized the main points:

- It was confusing for the users’ committee to sign and formalize a relationship that until that present day worked perfectly. The relationship they accom-

plished with the VPSI and the service manager is based on trust, partnership and collaboration.

- The members of the user committee felt it was not their responsibility to commit to some contractual terms, as they still needed to get used to the new service organization under construction, which gives decision power not only to upper- management, but to all collaborators.

5 Findings Based on Our Contextual Inquiry Experience

The refusal to sign an SLA encouraged us to re-examine our understanding of the role of the SLA. We felt that posing questions to the members of the user committee could affect the service in an undesirable way. Eventually, we decided to review the documents available and to revisit the ITIL volumes.

5.1 Format of the SLA

The SLA that was not signed was written according to the example in the “Appendix F” of the ITIL “Service Design” volume [19]. The unsigned SLA describes the actual implementation of the service, in a very detailed manner, formalizing every functionality of the service. Up until that point in time, the users did not experience any problems with the service, or with the VPSI collaboration. We believe that signing the SLA was perceived as an unnecessary commitment to irrelevant constraints in the provisioning and usage of the service.

5.2 SLA Described in ITIL Continual Service Improvement Publication

The ITIL “Service Design” volume emphasizes the importance of an SLA and prepares the service manager to negotiate it. We assume these suggestions were followed, but the result was an unsigned SLA. Surprisingly, the ITIL “Continual Service Improvement” volume has a section explaining that, in some organizations, people refuse to sign an SLA, as shown by the highlighted text in Figure 4.

Service-level management is described as “building relationships”, which is much more than a SLA. In our observations, the service manager built strong relationships with everyone involved in the service, both partners and users. We believe that the sentence, “the business refuse to sign any document that will commit anyone to a level of service” refers to a refusal of commitment (signature), not to a refusal of an SLA. It is undisputed that the requirements and functionalities of the service should be documented, if not in a signed SLA; then, they should be documented in any kind of a less-formal document that the VPSI co-creates with the users’ committee.

Service Level Management can be described in two words: building relationships. That is building relations with IT customers, building relationships between functional groups within IT, and building relationships with the vendor community who provide services to IT. Service Level Management is so much more than simply a SLA.

Many people have worked in organizations where management and/or the business refuse to sign any document that will commit anyone to a level of service.

Fig. 4. Highlighted snippet from ITIL “Continual Service Improvement” volume [20] about service-level management and service-level agreement

6 Discussions

In this section, we discuss the findings made in the contextual inquiry and what we learned from combining action research with contextual inquiry.

6.1 Discussion of the Findings within the Contextual Inquiry

This collaboration with the service manager shows that sometimes we can find explanations of surprising situations in ITIL volumes. We were surprised by the rejection of the SLA, as SLAs are perceived to be central to ITIL. But the underlying principle of ITIL service-level management is about building relationships. Unfortunately, ITIL does not elaborate sufficiently on this. For example, what happens when some of the people that have built strong relationships leave the organization? There are no ITIL guidelines on how to (re)build and maintain these relationships.

We also believe that actors in a service organization might have a different understanding of the purpose of the SLA. A more general and lightweight description of the service functionalities, with well-identified service users, is probably preferable to the standard SLA proposed by ITIL.

For the service observed, at the time of the publication of this article, the SLA has still not been signed. The collaboration between the VPSI and the user committee is still good. There are now discussions, in upper management, about a way to create service descriptions, rather than service constraints. We do not presume that these discussions are due to our involvement. But the act of spending time with the practitioners, asking questions, actively observing and seeking answers indeed brings change to the organization. Our involvement might have helped to change the perception of service description. Therefore, observing, learning as an apprentice, seeking interpretations and being flexible on the inquiry might have contributed to “the decision to change or not to change ... more precisely, action or inaction” [10].

Our discovery that building relationships is more important than signing a contract (SLA) is probably not a coincidence, as it is what we advocate in our practice every day. The significance of interactions, relationships, and dependencies among entities in an organization is not new to us; they are the core of our systems thinking approach

[21], so the ITIL passage we extracted reassures us in our convictions. It is the reason this paper has the potential to be used in the VPSI, as an example for the importance of building partnerships among practitioners.

6.2 Discussion on Combining Action Research and Contextual Inquiry

To have valuable observations and findings, it is useful to be in the field, collaborating with practitioners for a long period of time. Even during a short contextual inquiry, we can learn about many practical problems that lead to new and interesting research projects. From an external point of view, the researcher is capable of noticing difficulties and needs that practitioners have but are unaware of.

Both action research and contextual inquiry are based on building relationships. But the qualitative information gathered, the learnings from situations observed and the trust gained must be treated with care. Researchers who choose similar approaches of conducting research must be careful and aware of the risks their knowledge brings. As already mentioned, many of these ethical challenges are described in [15, 16]. Consequently, researchers must ask permission, be conscious and have empathy in all their actions.

7 Conclusions and Future Work

In this paper, we present our experience in observing and interacting with one practitioner through a three-week contextual inquiry. We show that our research approach, combining action research with contextual inquiry, enables us to gather relevant information concerning the practitioner's problems. The problem we observed was the refusal to sign an SLA. We discovered that ITIL has only the beginning of the answer to this problem – build relationships. Building relationships is what we advocate in our practice, including at the VPSI. With our work, we believe we can improve the VPSI members' perception of the role of an SLA.

In the future, as part of our action-research project, we plan to conduct more contextual inquiries with practitioners at the VPSI. While keeping an open mind, our purpose is to observe:

- What will happen in the future with the SLA sign-off.
- How building relationships among practitioners within the VPSI and other EPFL organization will evolve.

As the first author's main action-research project is focused on a service cartography, we plan with future inquiries to evaluate how the cartography contributes in building relationships and collaboration in service management.

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