

University's Core Business - How digitalization and cooperation effects IT's value proposition and metrics

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Abstract

Until recently, IT departments run a multitude of systems and components in order to offer services to their University's users. Nowadays, the same IT departments find themselves also in the role of a broker between their users and services obtained from community cloud or public cloud providers. In such an environment, it's inevitable to complement traditional IT metrics by metrics that are aligned to the users' needs in order to measure the contribution of IT.

1 Introduction

Almost all areas within a university – teaching, research, and administration – work with IT tools in innumerable use cases. Even if these tools are highly specialized and administered directly by the people that use them, at some level of the IT stack we enter the part that is run by “the IT”, perhaps in itself a stack consisting for departmental and central IT.

In order to deliver good services, and to support the university's processes, IT units strive to optimize what they do and the way they do. This optimization often relies on typical, well accepted parameters for the quality function, like availability, scalability, efficiency, performance, security, process adherence (ITSM) etc., and there's no doubt about the suitability of these criteria to measure the quality of IT services. But despite the fact that reliability, security etc. are inevitable properties, these metrics leave gaps.

2 Expectations and needs

The first gap lies at the point that these criteria force the users to map their expectations onto IT specific metrics. All of us are used to this, and, of course, we are happy with an IT service that shows a 24*7 availability. However, these criteria do not reflect the benefit to the users in his or her terms: To what degree does an IT service contribute to teaching? To making experiments and to writing publications? So, while a particular IT service might be perfect by IT's own metrics, the value in the sense of a university's core business might be unclear.

In our view, a metric that correlates IT and outcome is crucial for IT's further development.

To our conviction, very much of the usefulness of IT from a scientist's perspective is created by the convenience a particular IT service can be integrated in a scientists' or team's natural workflow and support this workflow. So, beside the "real", measured IT services, this convenience is often defined by the "glue" between, like seamless login, ubiquitous access etc.

An example where this workflow integration showed up as an issue where expectations and service offering diverged was discovered in a survey about data backup services: Backup and restore worked perfectly, but the users have specific demands on self-service capabilities that are necessary for workflow integration.

3 The Cloud

Nowadays we have ubiquitous (and still fast growing) use of public or community cloud services. From all experiences to far, the public cloud providers outperform any IT department in the areas of availability and scalability, and most probably in other areas as well. Even in the case of a community cloud, these basic metrics apply to someone else.

So, the second gap occurs when the traditional IT metrics do no longer reflect the work of the IT department: What is contribution? How can it be measured?

4 Approach

Our approach is to realign IT quality metrics to the contribution to the users' core business. It is clear that such a metric will most probably be "fuzzier" than the well-established metrics. However, we are convinced that a direct dialogue between those who run the university's core business and the decision makers in the central IT departments over such criteria is inevitable. By this, we get a much more outcome-oriented quality function for IT and by that a guideline that helps IT to keep up with evolving demands. As a side effect, such a metric will show IT's contribution on top of outsourced services, the "glue" that stays necessary in the cloud age.

For practical reasons of daily business, we cannot eliminate traditional IT metrics. These will stay useful for operational purposes, either for the services that are run locally or to specify the SLA with an external provider. However, as long as the coupling to outcome-oriented metrics is intact, it will be much easier to specify appropriate "IT metrics" from the core process perspective.