

Course Description

Controlling and Performance Management

The course **Controlling and Performance Management** concerns itself with the optimization of web based systems in terms of the relationship between organizations and their customers.

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The Big Picture

Web based systems may provide powerful business and communication channels to current and potential customers. Starting with high-level objectives (e.g. business, communication or education objectives) successful organizations develop strategies to develop, enhance, deepen and maintain customer relationships. To answer the what, how and why of user interaction, web analytic tools are employed to make use of appropriate web metrics, yielding detailed reports and data that provide actionable insights (in terms of business objectives).

Intended Learning Outcomes

The students are able to gain actionable insights from the outcome of web analytic tools. Therefore they:

- know established techniques of capturing and monitoring web usage (e.g. server logs, script tags, web beacons...), proven web metrics, key performance indicators and other well

established measures and are able to judge them critically in terms of business, communication and other kinds of objectives,

- know how to capture and measure the what, how and why of web based system usage, to design short- and long term tests, to analyse and to construe the data in terms of organizational objectives,

- know concepts and methods of web analytics, search engine optimization and multichannel-marketing and are able to judge them critically in terms of business, communication and other kinds of objectives,

- know and take into account national and international data privacy acts and

- are able to derive short- and long term web experimentation and analysis activities from high-level (e.g. business) objectives.

Structure of the Course

Introduction

Starting with a brief history on web analytics^[1] and an introduction to this issue^[2], some basic terms and concepts are defined ^[3].

The data landscape

In this part we deal with questions concerning the data, such as quantitative and qualitative user/usage data and informations about the contextual environment ([stakeholder](#), competitive data).

clickstream data and uncertainty

Clickstream data is about the WHAT and HOW of the user interaction. Several techniques are available (web-server logs, Javascript tags, web beacons, packet sniffers^[4] or event tracking ^[5]). Its essential to know how they work and what their potential benefits are and restrictions since all further processing (segmentation, reporting, interpretation) is based on this layer. Therefore it's critical to be aware about uncertainties in the measurement process.

contextual data

To appropriately contextualize the raw data of user interaction, informations about stakeholders^[6], competitors and their businesses^[7] are a critical factor.

user/customer surveys

Beside the what and how the WHY of user interaction is essential for optimizing the relation between organizations and their customers. Some basic techniques are discussed in Kaushik ^[8] (page 169-193).

Metrics and Key Performance Indicators (KPI)

To distinguish between tool-based (metrics) and organizational relevant (KPIs) measures is essential. A strategy driven web analytics must start from the organizational high-level objectives (e.g. business or communication objectives) and properly deduce, construct and perform short- and long-term plans for controlling and improving their web channels. The use of Metrics, standard reports, meaningful KPIs and their relationship are discussed in [\[9\]](#) and [\[10\]](#).

Web Analytics Methodologies

This part deals with models and methods of performing Web Analytics. The trinity approach of Kaushik [\[11\]](#) as well as a step-oriented model [\[12\]](#) are discussed.

Benchmarking and Segmentation

Web Metrics provides data which needs to be interpreted in terms of objectives. Therefore the data have to be segmented, processed, contextualized and reported. We discuss some of the best practice way of Kaushik [\[13\]](#) (pages: 88-100 and 213-229).

Didactic Concept, Schedule and Assignments

The course concept comprises basic readings, online workshops, online group work and an introductory and final on site presence. After a first introductory lecture on site, the subject is treated in three online workshops, that are supplemented by a session on site. Online workshops are held on three evenings with a duration of three hours each.

Introductory lecture on site

The introductory meeting deals with organizational course details and a workshop to address basic definitions and concepts of web analytics.

1st online workshop

This workshop consists of two phases: The first part is held in a seminarial form. The course subject (subject of the first workshop: data landscape) is presented in a highly interactive manner, open questions are discussed with the lecturer and among the students. For the second phase students form groups and choose a case study to address issues of chapter 2 (data landscape). Group presentations and a concluding discussion conclude this session.

2nd online workshop

The second workshop is based on basic readings of chapter 3 (metrics and KPIs) and 4 (web analytics methodologies). Starting with a given scenario (describing an organization and its web based system) the participants form groups, fill the role of stakeholders, form and negotiate high-level objectives. In the second phase they apply some web analytic methodology to their

scenario and form a basic concept to carry out short- and mid-term web analytic activities. Findings are discussed in a concluding plenary session.

3rd online workshop

Main topics of the third workshop are chapter 5 (benchmarking and segmentation). The participants continue with their work from the 2nd workshop, refine their basic concepts in terms of internal/external benchmarking and data segmentation and discuss it according to their high-level objectives. Findings are discussed in a concluding plenary session.

Wrap-up session on site

This on site workshop is dedicated to clarify open questions of the students concerning chapter 6 as well as other course issues and to summarize workshop content.

Grading Criteria

The grading is based on

- the quality of the hierarchy of objectives
- the discussion about the data capturing strategie (completeness, conclusiveness, adequacy)
- the quality of the discussion of the chosen metrics, measures, KPIs and their connnection to the objectives (hierarchy of objectives of your Case Study)
- the quality of the discussion how to postprocess the raw data (segmentation)
- discussion of the relation of your approach to the *trinity approach* of Kaushik
- discussion of legal and ethical aspects of capturing user- and use-orientied data from the performance of web based systems.

References

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