



salzburgresearch

SALZBURG RESEARCH HANDBOOK OF METHODS

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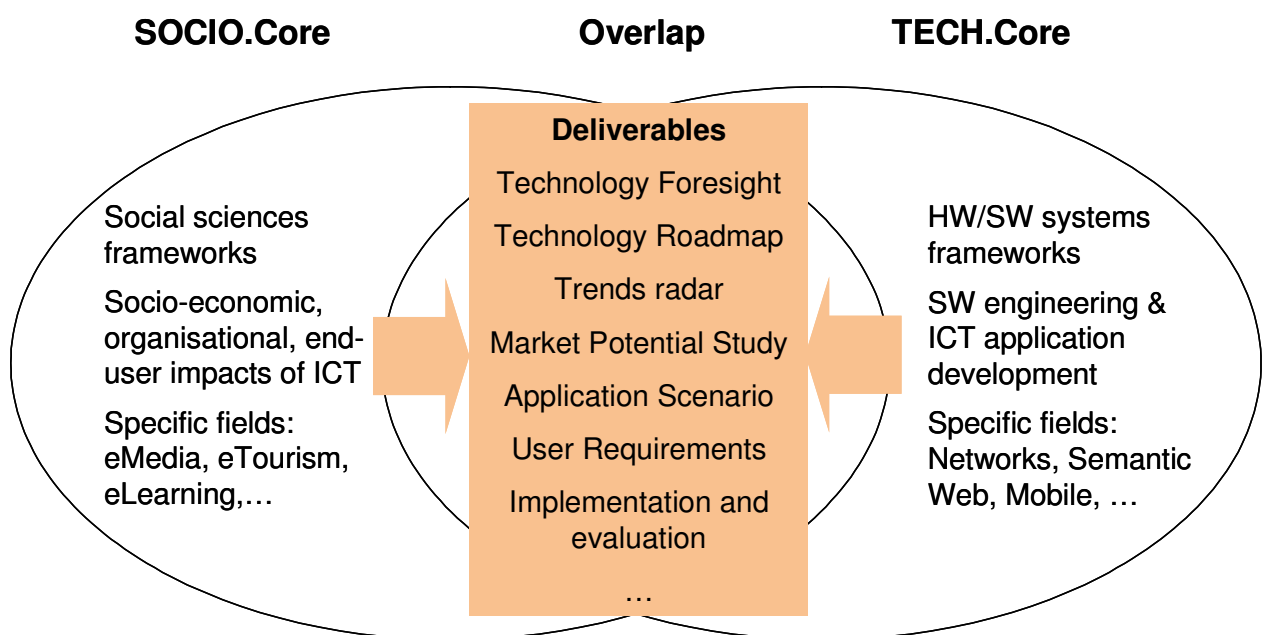
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1 Introduction

This handbook presents a variety of methods that are relevant for socio-economic and user-focused research as well as applied technological research for the development of ICT applications.

Focus on areas of overlap between socio-economic and technological research

Each of the two fields of research has theories, approaches and methods of their own, which form the core of the respective fields, yet the intention of the handbook is to highlight methods areas where they overlap (see figure below). For example, a roadmap for the development of new technologies will not only consider technological drivers and inhibitors but also market potential, favourable conditions for technology uptake, potential lead-users (organisations, end-users), etc.



Distinction between methodology and method

The terms methodology and method are often used interchangeably, with a tendency to substitute methodology for method because this sounds more scholarly or important than method. However, these terms mean very different things, and it is important to understand what distinguishes them conceptually and how to use them properly.

The term **methodology** refers to the theoretical and empirical assumptions that underlie a scientific investigation, in particular, the considerations that led the researchers to choose particular methods for tackling the research questions.

It is good practice to include in a study report a section on the methodology that has been employed. Such a section must provide more than an outline of the methods that were used. Rather it should describe the methodological approach of the scientific investigation (in German: "methodische Herangehensweise" or "Methodik"). It is this approach that allows performing the research activities in a coherent, consistent, accountable and repeatable manner, using specified methods for certain tasks.

Methods are used to collect, analyse and present quantitative or qualitative data. If established methods are used there are handbooks and guidelines that

advise on how to deploy them, requirements and conditions that must be met in order to produce valid data, and how to interpret the results properly. If a new method has been developed and applied, theoretical assumptions underlying the method and the way it has been deployed must be explained in appropriate detail.

Methodology takes priority over methods

The methodology actually takes priority over methods because it

- defines the overall approach of a scientific investigation,
- guides the selection of the most appropriate methods, and
- defines how they are used appropriately.

Therefore this handbook introduces and discusses the methods covered in a methodological perspective, presents overviews that highlight their different scope and strengths, and shows how different methods must be used in order to produce the final results.

What is not covered

It is understood that this first version of the handbook can cover only a limited number of methods. For example, with regards to socio-economic research this version provides little on methods for ICT market research or analysis of the societal impacts of ICT. Furthermore, it does not cover methods for software development (which are positioned in the TECH.Core).¹

¹ Construx.com, a software development consulting company, offers free access to material and tools for software development that represent best practices across the full spectrum of development activities, comprising Management, Requirements, Design, Construction, Testing & QA, and Methods & Processes, <http://www.construx.com/Page.aspx?nid=14>