When the business requirements and the user interface (UI) of a system are separated, they will most likely not fit together. Even if requirements are well-specified and implemented, errors may be induced by human-computer interaction through a bad user interface. Such a system might not even be used at all, neither will a great user interface of a system be very useful, with features that are not required.

This tutorial addresses these general issues in the context of business modeling and requirements. We have developed an advanced approach, based on discourse modeling. This approach was originally devised for capturing interaction design. However, based on our extensive experience with requirements engineering, we found that our discourse models can be also viewed as specifying classes of scenarios, i.e., (business) use cases. In contrast to the usual approaches for specifying use cases, however, our discourse models provide well-defined structures of how the various scenarios and their steps are related to each other.

This tutorial shows how business models can be based on ontologies and discourse models (even without employing speech or natural language). Ontologies help to define the domain of discourse, and the discourse models referring to it implicitly define tasks as well. Our discourse models are derived from results of Human Communication theories, Cognitive Science and Sociology.

Any software implementing an interactive business application needs a user interface; nowadays possibly even several ones adapted for different devices (PCs, smartphones) may be needed. Developing a user interface is difficult and takes a lot of effort, since it normally requires design and implementation. This is also expensive, and even more so for several user interfaces for different devices. Traditional “pure” scenario and use case representations are not “rich” enough to allow user interfaces to be generated from them. This tutorial demonstrates that and also how our discourse models can be used for automated and optimized generation of user interfaces, linking them to the application logic and the domain of discourse.

This is especially useful when user interfaces for different devices are needed. Recently, we included in this generation process automatic optimization for smartphones, based on heuristic search. So, business requirements meet interaction design to make business applications both more useful and usable.

The assumed attendee background is primarily some interest in business modeling, requirements engineering or user interfaces. There are no prerequisites such as knowledge about any of the results of Human Communication theories, Cognitive Science, Sociology or HCI in general.

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