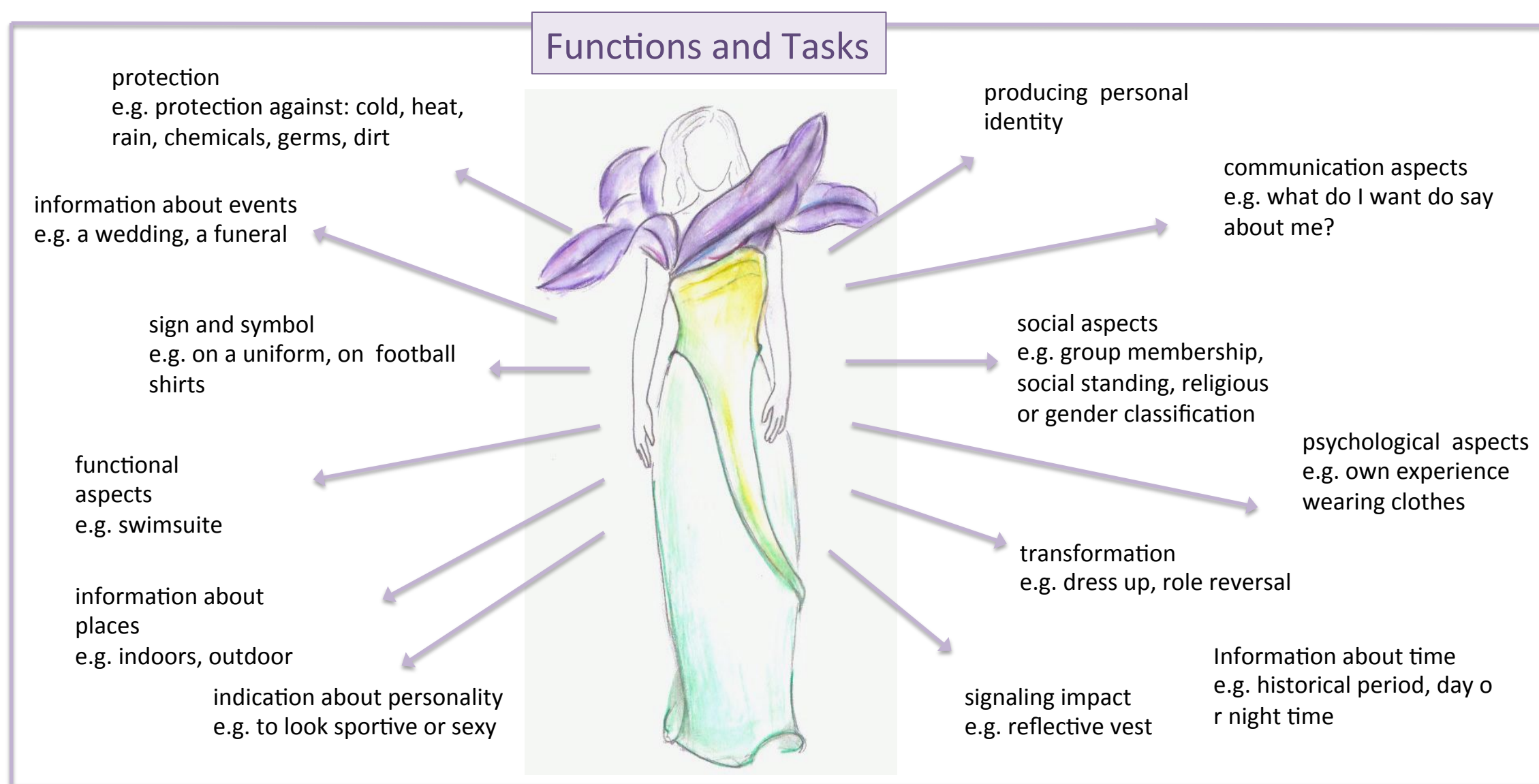


# A Pattern Language for Costumes in Films

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## Problem Description

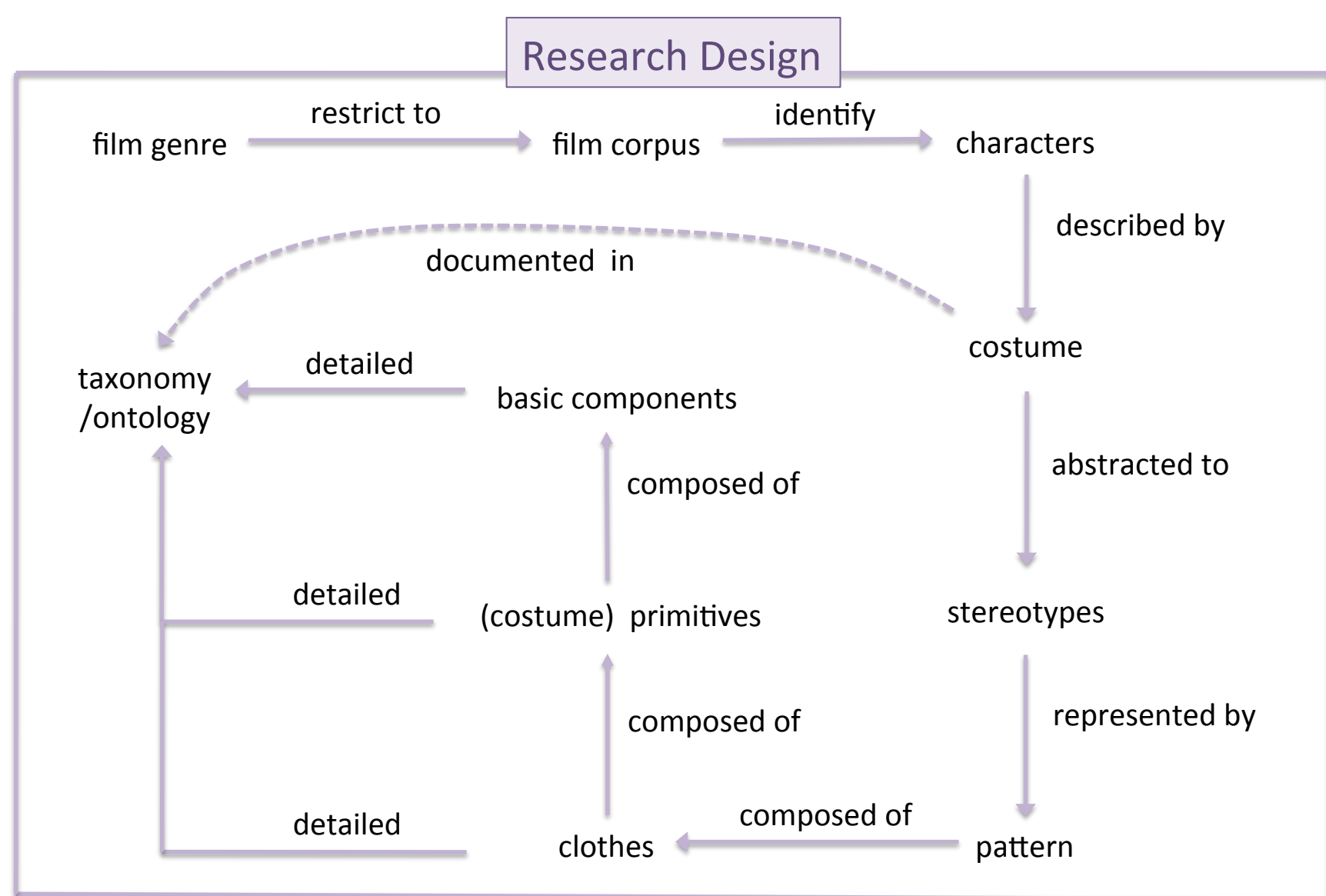


Costumes in films are an important element of defining a film character. By referring to a rich set of **functions and tasks** of clothes the film costume provides the recipient of a film with important information about the character, the time and the place of the film.

When creating the costumes for a film the costume designer has to put a lot of creative and investigative effort into the construction of costumes. Consequently, creating a costume is a difficult problem that is more or less occurring often, whereas the frequency of problem occurrence strongly depends on the genre and specifics of the film. For the genre of Western films, for example, the costume of a Wild West Sheriff appears frequently.

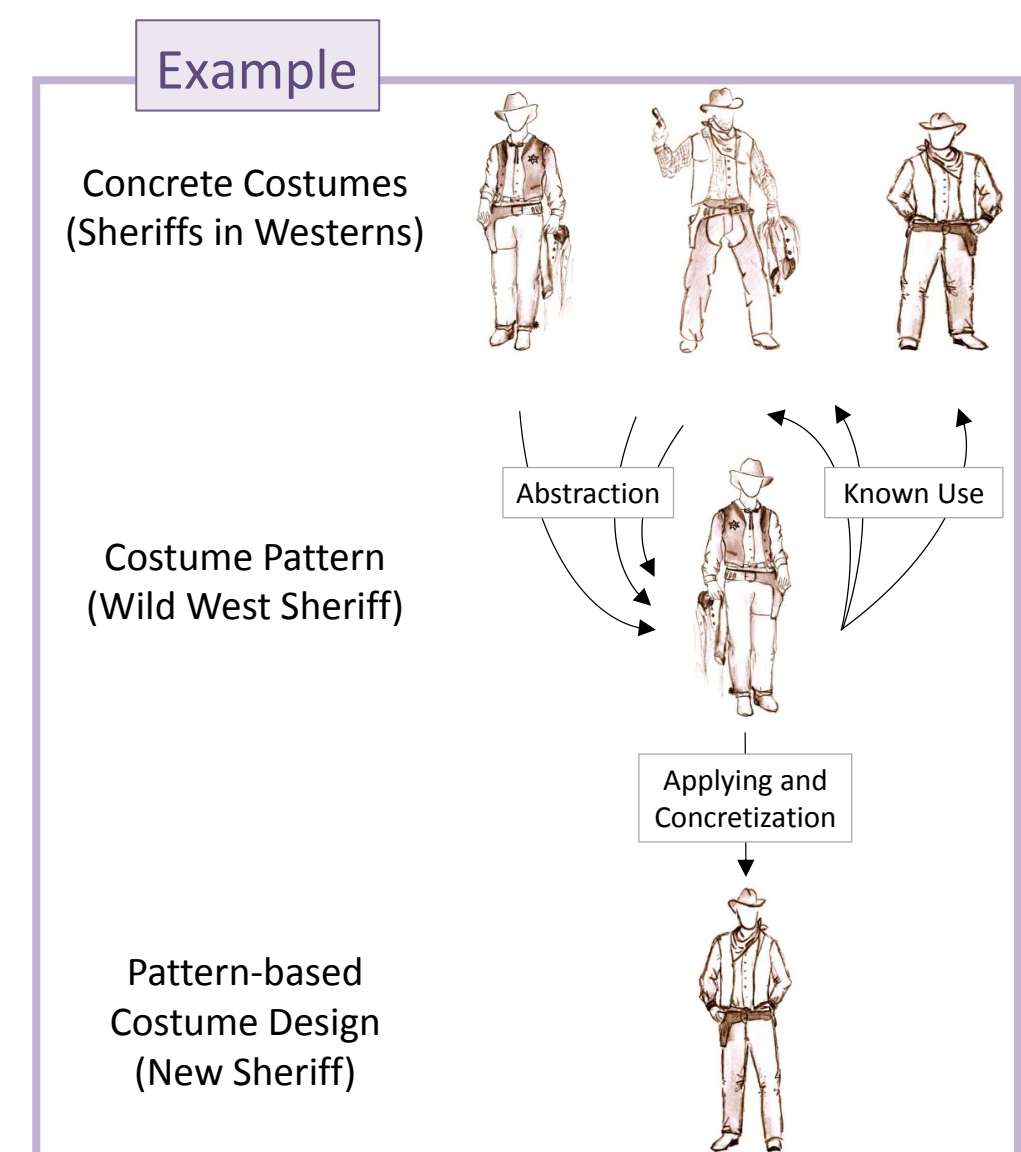
Given that patterns are defined as a proven solution to a re-occurring problem stereotype costumes as proven re-occurring design solutions can be described as costume patterns. These costume patterns together with their mutual references build a costume pattern language.

## Approaching a Costume Pattern Language



The costume pattern language contains different components such as a format for costume primitives and costume patterns, a set of instances of costume primitives and costume patterns, and composition operators for modeling complex costumes. To obtain these components a clearly defined **research design** is followed. As seen in the figure of the research design the costume pattern originates from abstraction of concrete costumes. For **example** concrete sheriff costumes can be abstracted to a Wild West Sheriff pattern which can be used to develop new sheriff costumes.

The pattern language aims at supporting media science, costume design, and costume management through providing a basis for the development of advanced information systems assisting the management of costumes considering their inherent structure and relations between their constituent parts.

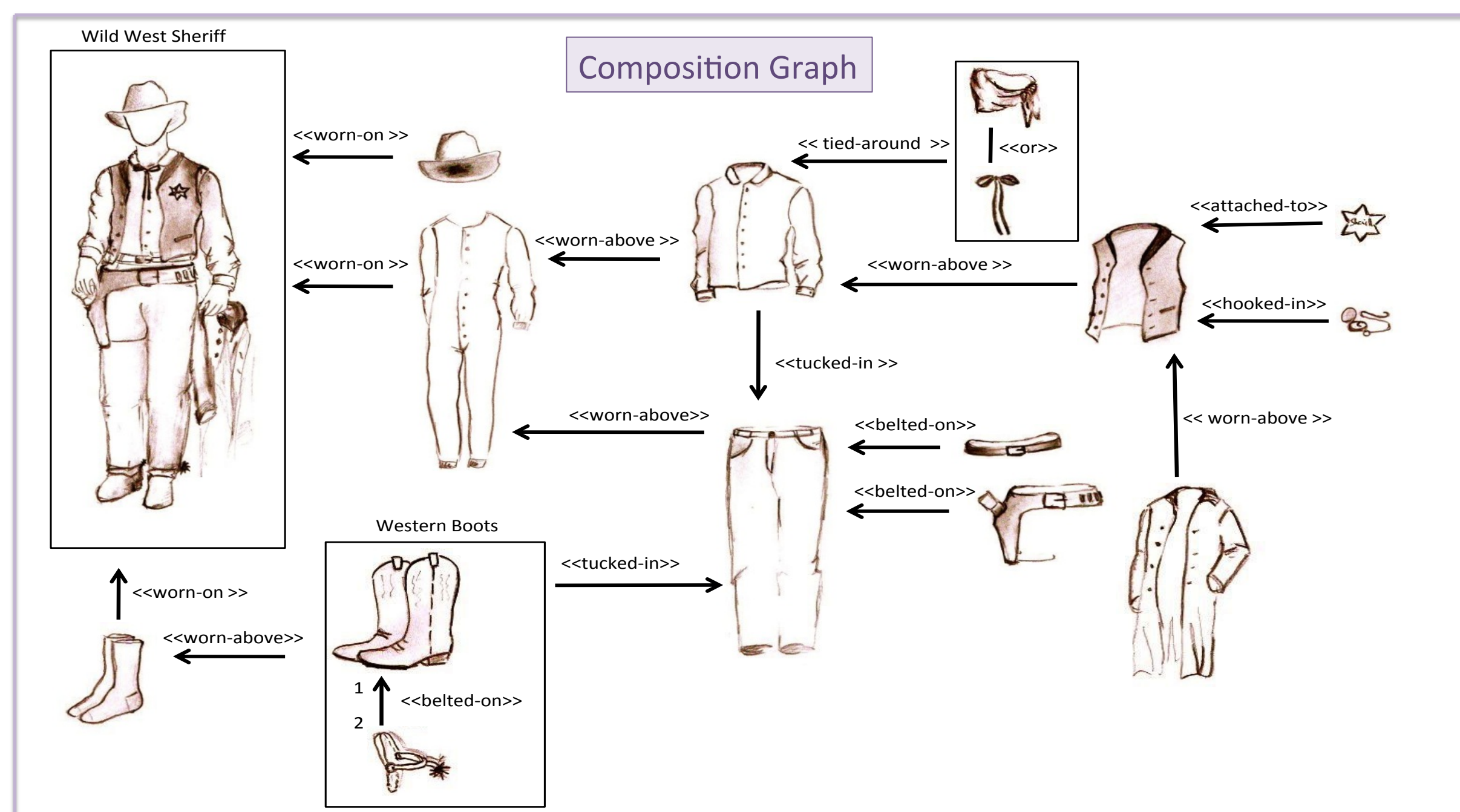


## Contributions

At the core of every costume pattern is the **composition graph** like the composition graph for a Wild West Sheriff pattern. This composition graph contains the solution for a costume design problem. In capturing the conventions of the use of stereotype costumes the costume patterns provide the possibility of finding new answers about how vestimentary communication is used in films.

The association of the pattern concept with ontology concepts combines two very different ways of capturing knowledge of a domain. In using abstraction to gain the patterns a lot of detailed information is lost. This detailed information about costumes, their basic components and relations can be captured by the use of an ontology. The ontology and semantic crosslinks between the ontology, the costume primitives, and the costume patterns provide the opportunity of using query languages like SPARQL to search and analyze this data and gain important information about costumes as well as new insight into vestimentary communication.

In order to make this knowledge available to improve research, design and management of costumes semantic wikis provide an intuitive access for the different stakeholders and allow to store, search and analyze all elements of the ontology and pattern linked together.



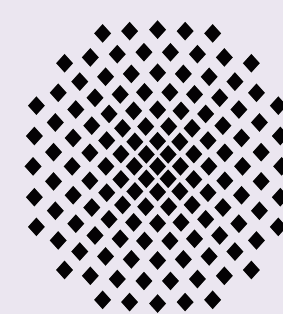
## Further Information

### Selected Publications

Schumm, David; Barzen, Johanna; Leymann, Frank; Wieland, Matthias; Ellrich, Lutz: Business Process Automation for Costume Management in Film Making: An Insight into Processes, Roles, and Document Structures. In: EMISA Forum. Vol. 32(1), Gesellschaft für Informatik e.V. (GI), 2012.

Barzen, Johanna; Leymann, Frank; Schumm, David; Wieland, Matthias: An approach to support costume management based on a pattern language (in German). In: Proceeding Modellierung 2012.

Schumm, David; Barzen, Johanna; Leymann, Frank; Ellrich, Lutz: A Pattern Language for Costumes in Films. In: Proceedings of the 17th European Conference on Pattern Languages of Programs (EuroPLOP 2012).



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