

Wedding Ontology

Tayyaba Akram MSIT71F21S007, Anum Saleem MSIT71F21S011

University of Sargodha, Pakistan

Abstract

An ontology is a structured set of concepts and their relationships that serves as a formal representation of domain knowledge. The union of two people in marriage takes place during a wedding ceremony. The traditions and customs surrounding weddings differ significantly across cultures, ethnic groups, religions, nations, and social classes. The process of planning a wedding is extensive and requires a great deal of planning and attention to detail. Ontology has been used frequently in the creation of numerous systems with a variety of goals. The event "Wedding" cannot be precisely represented by an ontology. So in this paper, we present an ontology that maps all the events in wedding, their properties and relationship with each other and interactional contextual features. Hence it can be further reused in future. However, the main obstacle to the development of such systems is the lack of a domain ontology containing information about weddings. Since there is no website through which we can extract datasets for our system, so we tried to enter individuals by our own.

Introduction:

The majority of wedding ceremonies include the exchange of vows by the couple, the giving of a gift (offering, rings, symbolic item, flowers, money, dress), and the public announcement of the marriage by a celebrant or official. Special wedding garments are often worn, and the ceremony is sometimes followed by a wedding reception. Along with superstitious traditions, music, poetry, prayers, or readings from religious texts or literature are frequently incorporated into the ceremony.

Today, ontologies are widely accepted as a potential tool for creating more effective and interoperable information systems. On the other hand, many others are dubious about the actual influence that ontologies may have on the creation and upkeep of functional information systems outside of the academic community. Planning a wedding is a large task as well as difficult to arrange all its events. The researchers have made no efforts for making wedding ontology. Therefore we specifically targeted Pakistan Wedding Ontology in this paper that what are major events takes place in

wedding, which are major rituals etc. We don't focus on pre-wedding events such as proposal and engagements etc. The ontology reflects different subject areas as:

1. **Nikah:**

The Nikah is a formal marriage ceremony in which the bride and groom sign a marriage contract, known as the Nikahnama, in front of their immediate families. A religious scholar, such as an Imam, Mufti, Sheikh, or Mullah, who is authorised by the Pakistani government to conduct the ceremony, typically performs the Nikah at a mosque. Two witnesses must be present for the bride and groom in order for the marriage to be legal.

2. **The Mehndi**

The Mehndi (henna party), where the bride has intricate henna designs painted on her hands and feet, is one of the most significant occasions for a bride before arrival of main events. The groom's name is typically buried within the intricate detail, and the designs represent luck, joy, and love. In addition to the bride, female friends and family members will receive henna tattoos with simpler designs.

The bride typically spends her "bride's day," also known as the mehndi, with her closest

friends and family. However, in recent years, the groom has started participating in the celebration by having friends and family rub oil on his head. To create a fun atmosphere and get everyone excited for the upcoming wedding, music and dancing are involved.

3. **Baraat**

The groom's wedding procession, or baraat, is most common in Karachi and Punjabi weddings. In accordance with tradition, the groom and his family ride a mare to the location of the shaadi. Traditionally, the bride would leave the wedding in a doli after the groom arrived on a decorated horse (palanquin)

4. **Walima**

The Walima is the official reception that the husband and wife host and at which the marriage is made public. Usually, there is a sizable celebration with a large number of invited family members and friends from both families present. The Walima was traditionally hosted at homes, but they are now more frequently held in wedding chapels, eateries, or hotels.

BackGround:

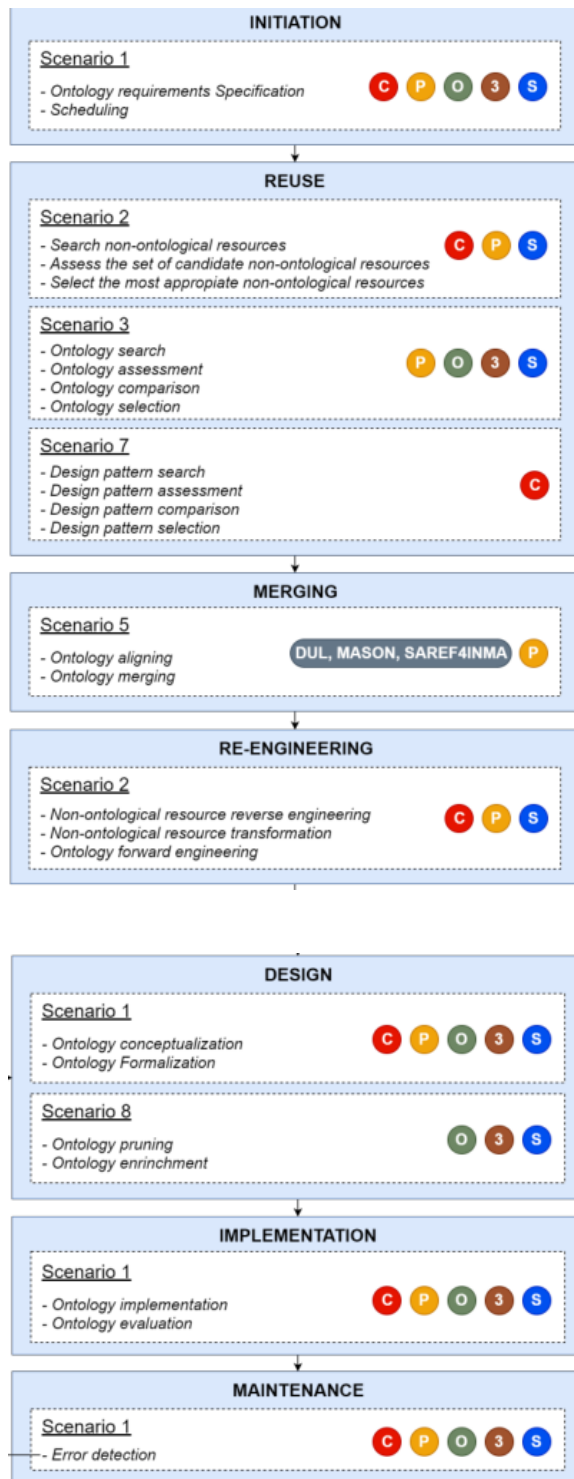
From a language understanding perspective, there are two basic ways to facilitate

ontology creation. The first method supports shared selections and ontology acquisition by offering tools for natural language processing in manual ontology engineering. It involves interviewing experts, transcribing their responses into text, and visually examining the content in order to find object-attribute combinations that can be included in the ontology. The second method uses automated language processing and machine learning to retrieve concepts and ontological relationships from databases and text that are both structured and unstructured. There are many methods for learning and modelling ontology knowledge. Methontology (Blázquez et al., 1998) facilitates development-oriented activities and describes project management activities; OnToKnowledge (Davies et al., 2002) is focused on software engineering lifecycle models. The Skeletal methodology (Uschold and King, 1995) consists of a set of guidelines for building ontologies. Three phases make up the Rapid Ontology Development (ROD) technique (Zhou, 2007): design, learning, and validation. The ontological sufficiency of taxonomic connections in ontologies is assessed by OntoClean (Guarino and Welty, 2004). The design phase entails the identification and in-depth analysis of areas, requirements, and

relevant resources with the aid of users and/or subject-matter experts. Domain standards, usable ontology applications, and trustworthy domain sources are the end results. During the learning Design Science 4 Thirtieth International Conference on Information Systems, Phoenix 2009 phase, the appropriate learning techniques are selected, put into practise, and then used to find ontologies from domain sources. The developed ontology will be modified after the learning results have been assessed and checked for errors, redundancy, dispute, and comprehensiveness during the validation phase. According to (Navigli et al., 2003), experts should carefully examine a domain by: identification of terms: creating a vocabulary that defines the objects that populate the ontology through data processing, formalising the definitions of the terms in that vocabulary, outlining the conceptual connections between those terms, and (i.e., concept identification).

Ontology Overview

The goal of the Wedding Ontology, its scope, and the Competency Questions are some of the items in the Ontology Requirements Specification Document (ORS) that we developed (CQs)



1. Purpose

The purpose of the Wedding ontology is to provide a reference model for the

representation of the different types of wedding events that takes place in our culture and the data gathered from the wedding events of all four provinces to describe their rituals, ceremonies of the wedding events and their variations with respect to each other.

2. Scope

The ontology will focus on general events, ceremonies and rituals.

3. Implementation language

The ontology needs to be put into practise using a formalisation that enables classification of types and realisation of relationships between types and instances.

4. Intended users

– General public.

5. Intended uses

– Use 1: To describe different types of wedding events.

– Use 2: To help the process of identifying the wedding events and their celebrations.

– Use 3: To recognize differences between different types of weddings ceremonies performed in all provinces.

6. Ontology requirements

(6.a) Non-functional requirements (not applicable)

(6.b) Functional requirements: Groups of competency questions

7. Competency Questions

Q1- Who is the wedding planner of the event?

Ans- Evento

Q3- What are the first, second, third and fourth day events?

Ans- Bridal Shower, Mehndi, Barat and Walima respectively.

Q4- What is the name of bride?

Q5- What is name of groom?

Q6- What will be the event venue?

Ans- Luxe Marquee halls

Q7- How many guests will be invited in bridal shower?

Ans- 50

Q8- Which services does wedding planner offer?

Ans- Equipment, decor, transportation, catering, and entertainment, photoshoots.

Q9- What date is fixed for Bridal Shower?

Ans- 8-07-22

Q10- What date is fixed for Mehndi?

Ans - 15-07-22

Q11- What additional charges is included in planner's fee?

Ans- Travel expenses and support staff.

Q12- Which studio will be arranged by planner

for photography services?

Ans- CAM Studio

Q13- How much time per event will be needed to organize?

Ans- 2 hours

Q14- What event management tools the planner will choose?

Ans- Google drive

(Event 1) Bridal Shower

Q15- What is the menu of bridal shower?

Ans- Cold drinks pizza and patties.

Q 16- What traditions are followed in Bridal Shower?

Ans- Presenting gifts, bouquets, entertaining games, playing music.

Q17- When does the Bridal shower held?

Ans- One week before wedding.

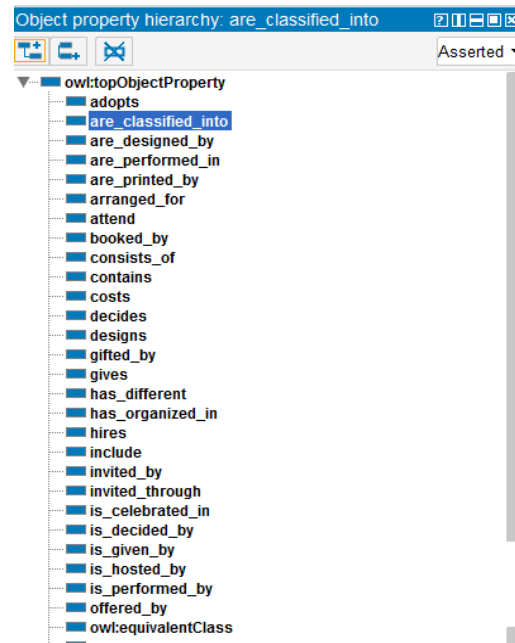
Q18- Who throws a Bridal Shower?

Ans- Close friends and cousins.

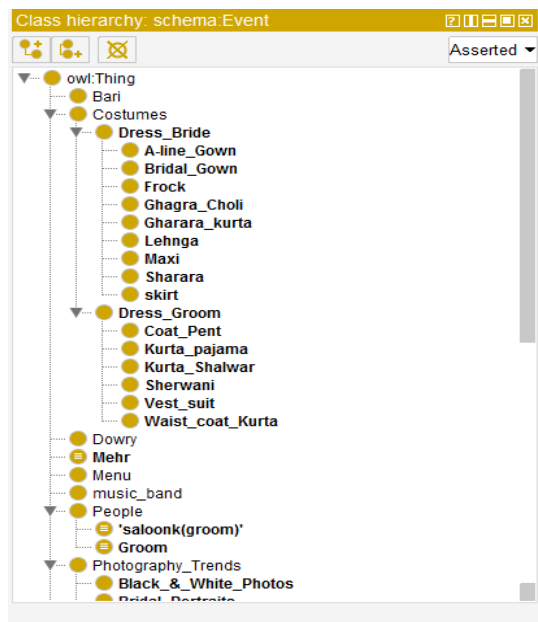
Q19-Whats theme is followed in Bridal shower?

Ans- Glitter and Glitz

(Event 2) Mehndi

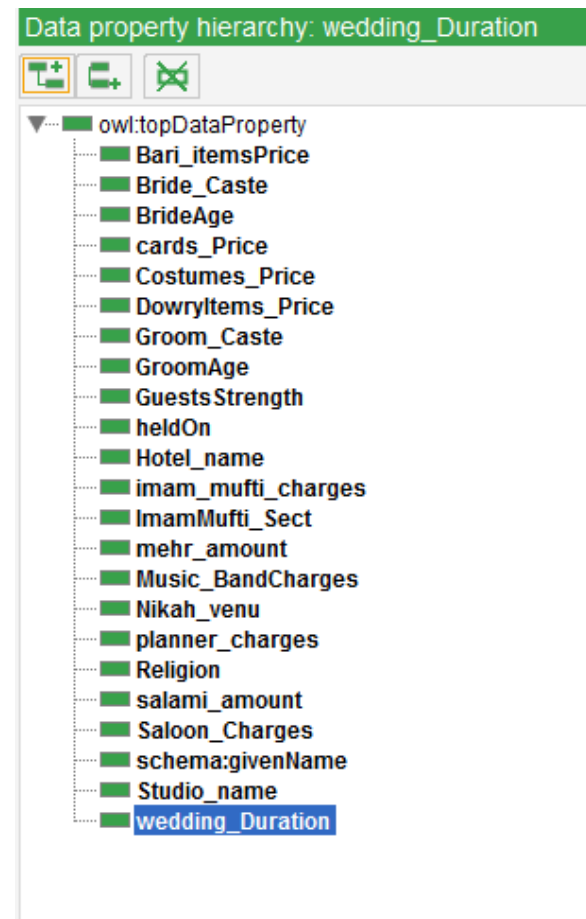


Classes



Object Properties

Data Properties



Sparql Queries:

1- Query for Event Planner name:

Select ?plannerName

Where

{

?Event a :Event

?Event :plannerName ?plannerName

}

2- Query for showing all events name:

Select ?events

{

?Event a :Event

?Event :event ?event

}

3- Query for Brides name:

Select ?name

Where

{

?Bride a :Bride

?Bride :name ?name

}

4- Query for Groom name:

Select ?name

Where

{

?Groom a :Groom

?Groom :name ?Groom

}

5- Query for Showing total guests:

SELECT ?guests (count(?guests) as ?count)

WHERE {

?Guests a: ?guests

?guests :guests ?guests

}

6- Query for Showing Mehndi event with menu

```
Select ?name, ?venu
where
{
  ?Events a :Event
  ?Event :givenName ?Mehndi
  ?Event :venue ?venu
}
```

7- Query for Showing Mehndi event with menu

```
slect ?name, ?date
Where
{
  ?Event a :Event
  ?Event :hasMehndifunction ?name
  ?Event :hasDate ?Date
}
```

Conclusion

We have provided a way for building episodic knowledge using event-oriented ontologies. The empirical study demonstrates that while text-based summaries outperformed in capturing factual knowledge, the user is better capable of comprehending conceptual and

procedural knowledge. The ontology was built using concepts (such as person, object, sub-event, and event) and their relationships with themed events, which logically would help answer queries about those concepts. This could be the cause of the phenomenon. Additionally, the visualization tool offers a sequential picture of multiple occurrences, which more directly and successfully illustrates the historical and procedural information than the summarizing method. However, compared to the event-oriented ontology system, the existing two-level summarization approach enables a user to swiftly select what news may include the answer after being presented with a factual knowledge inquiry and then read that piece of news right away. It suggests that various strategies (such as text summarization systems and event-oriented ontologies) should be employed to address various knowledge questions. Event-oriented ontologies in particular can facilitate problem resolution that calls for more intricate and procedural knowledge. This research contributes in multiple ways. First, our suggestion is to organize and characterize an event using person, action, location, and object elements, and to use time to establish sequential linkages between the various events' components.

The higher-order structure of an event-oriented ontology can assist in capturing many-to-many relationships between documentation and events and assist in providing answers to certain event-related inquiries. Second, we suggest a practical approach for creating event ontologies. We first take a bottom-up strategy to produce, categorize, and merge sub-events into events, which are then further divided into various subjects. This process uses a pre-processing subsystem to automatically extract key phrases and their relationships. The technique also develops distinct ontologies for people, places, and objects in the interim. Third, users can more easily understand the full scenario of events by viewing the created event ontology in a visual way through flow charts. Fourth, whereas ontology development has been the subject of substantial research in the literature, user evaluation of ontologies has received very little attention. To assess the efficiency of the suggested strategy in knowledge management systems, we created a theory-based evaluation tool for this study.

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