



Requirements Modelling for Socio-Technical Systems

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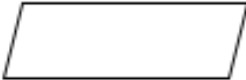




Socio-technical system

- A socio-technical system is a software intensive system that has defined operational processes followed by human operators and which operates within an organization.
- It is a system that contains both a social aspect, which may be a subsystem, and a technical aspect.

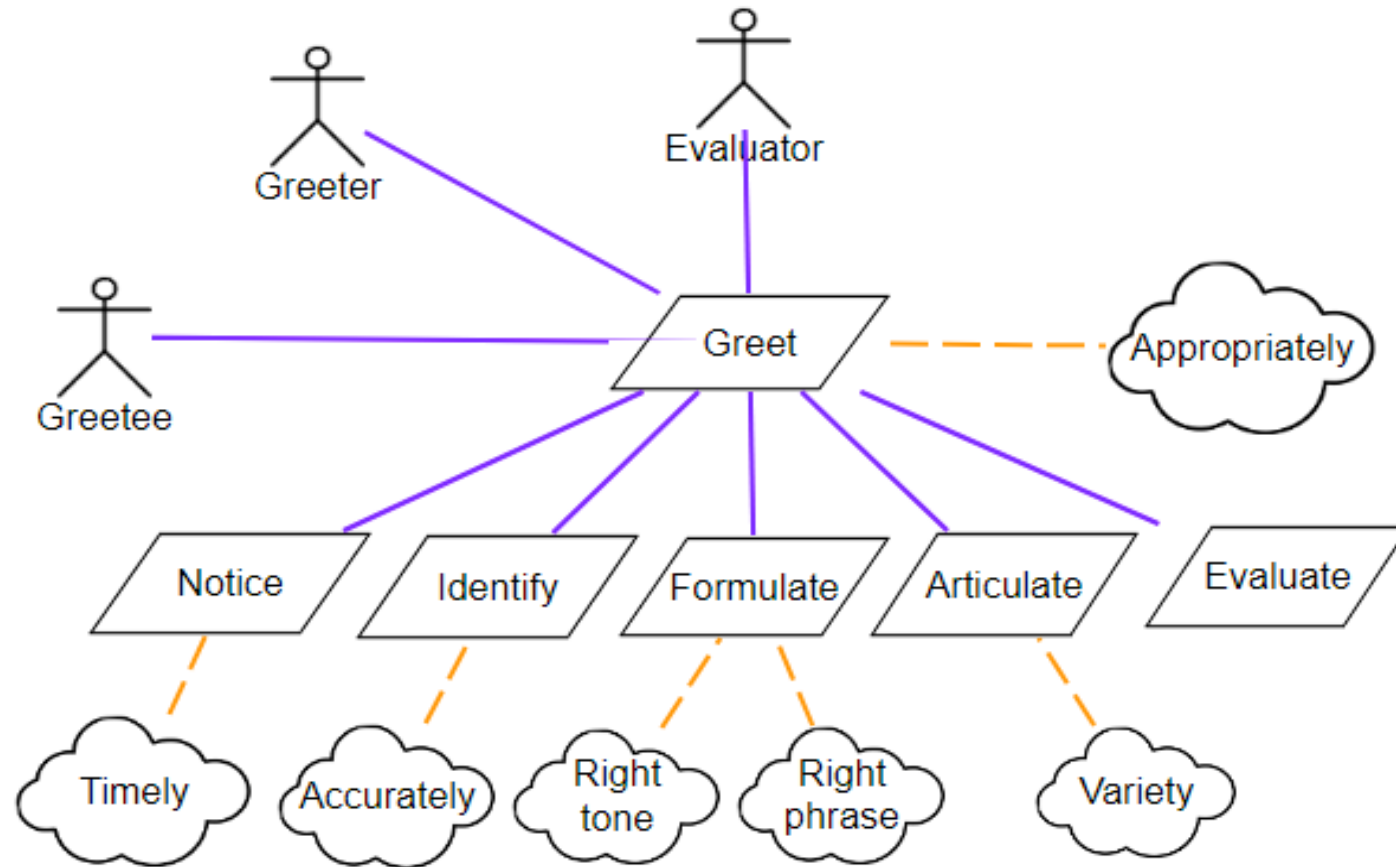
Goal modelling

- Goal models are useful at an early stage of requirements engineering to capture the purpose and goals of the system to be designed, and share these between the stakeholders.

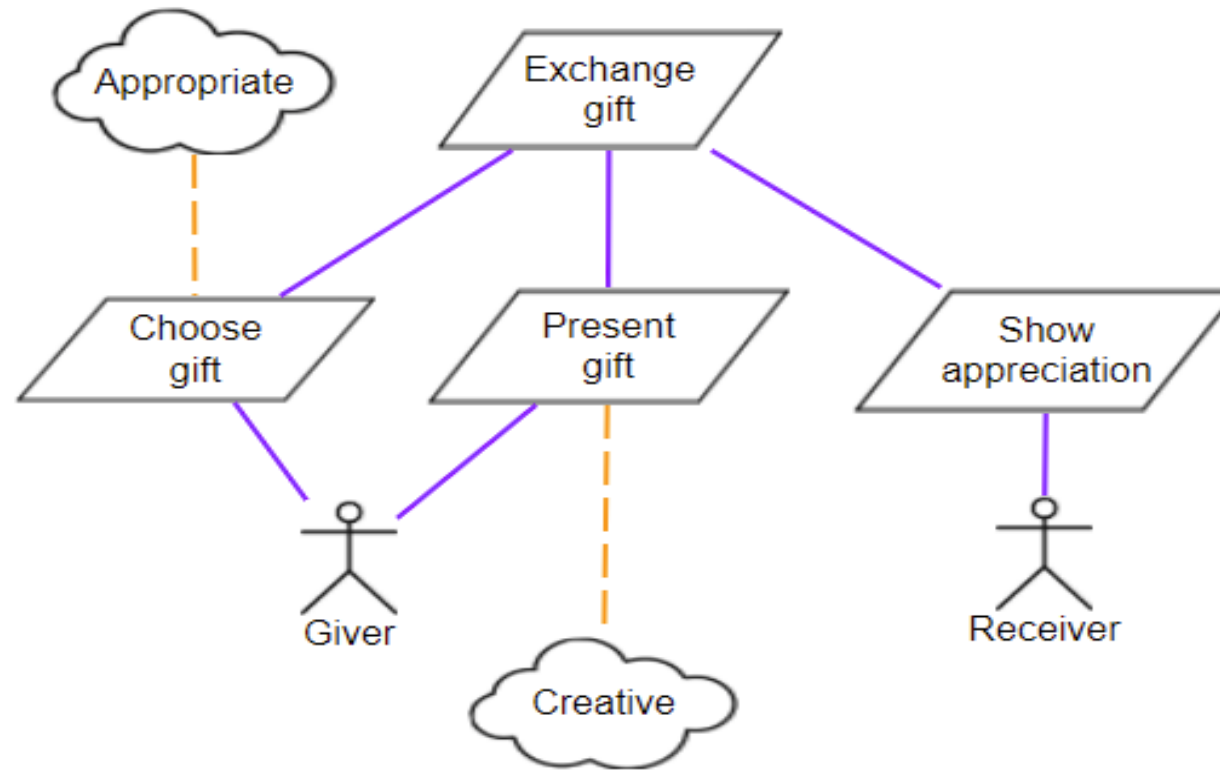
Notations for goal modelling

Notation	Description
	A functional goal describes something to be done or achieved. A functional goal is represented using a verb. A functional goal can have sub-goals.
	A quality goal describes some quality aspect of achieving the corresponding functional goal. A quality goal is represented as an adjective. Quality goals are sometimes referred to as soft goals.
	A role is a capacity or position that is required for achieving the corresponding functional goal. Roles are played by humans or artificial components.
	Connection between a functional goal and its sub-functional goals, each of which represents some aspect of achieving its parent goal. Connection between a functional goal and a role that aims to achieve the functional goal.
	Connection between a functional goal and a quality goal that describes some quality aspect of achieving the functional goal.

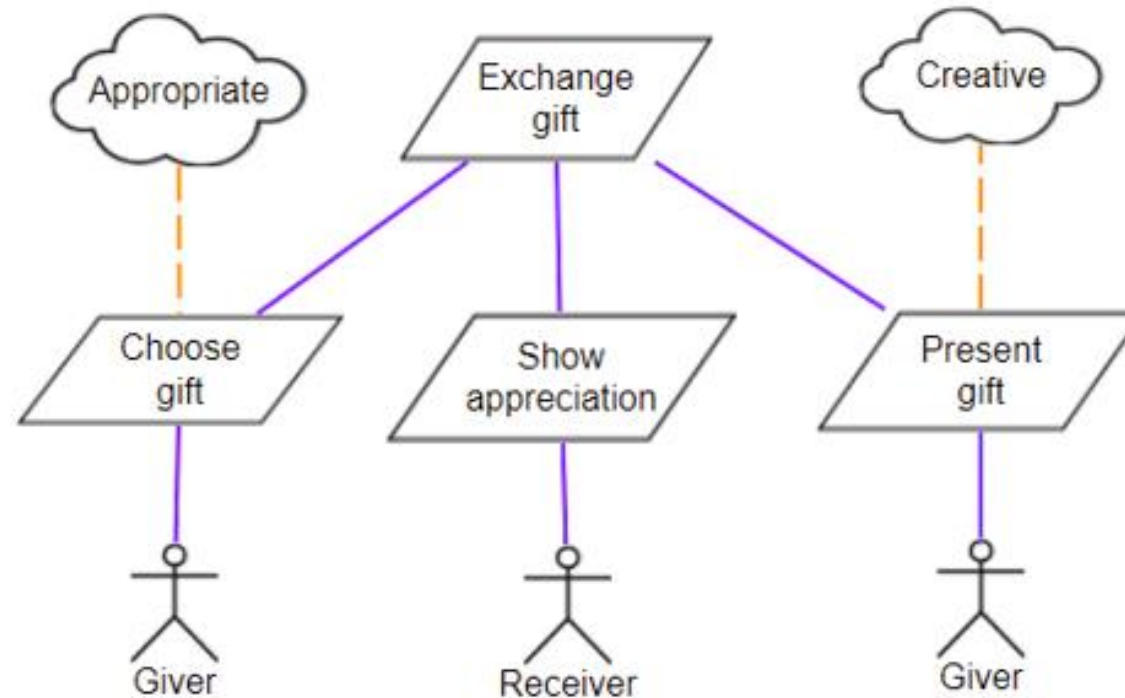
Goal model of the greeting scenario



Goal model of the exchange gift scenario



Another representation of the goal model of the exchange gift scenario

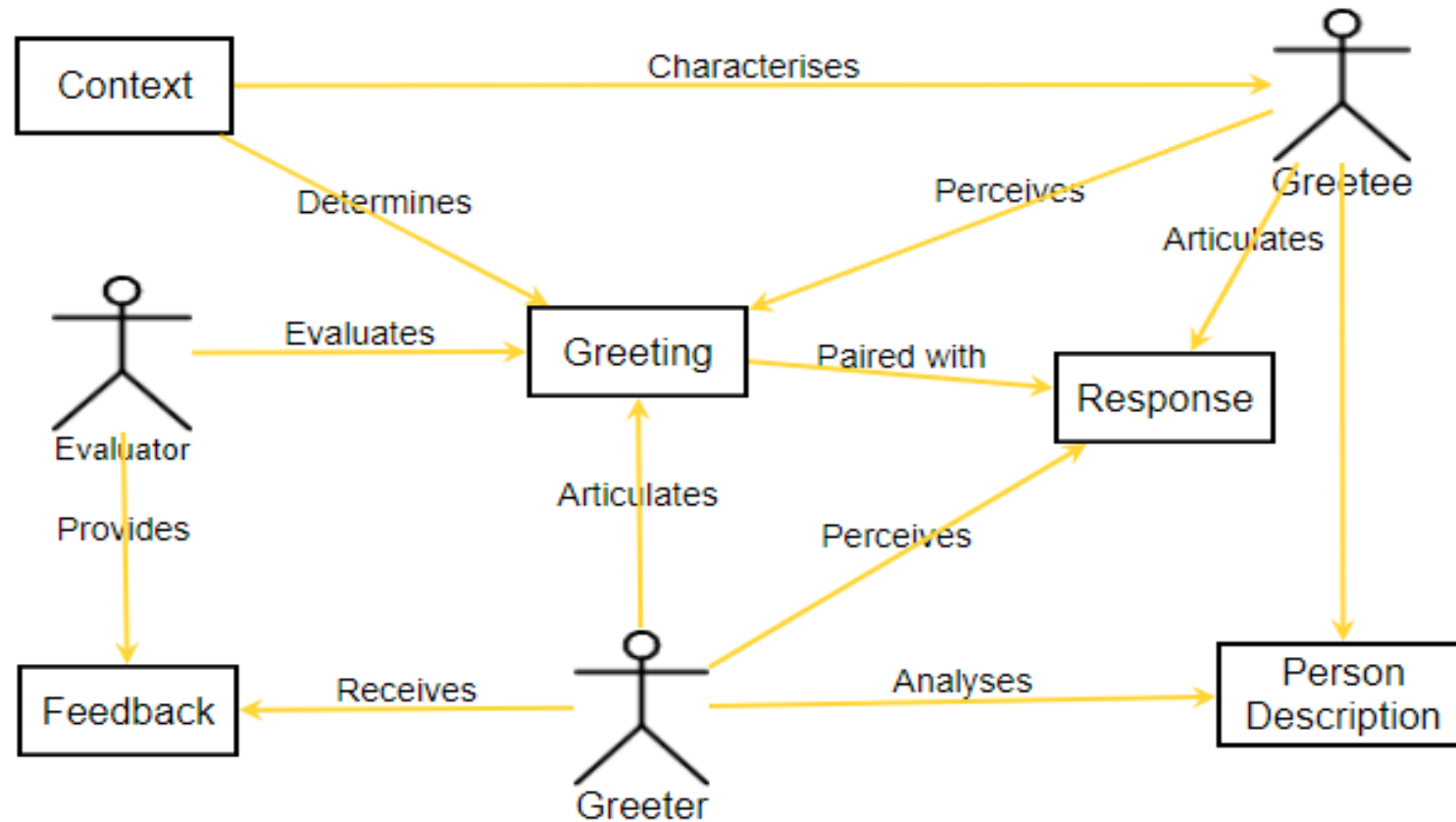


- You can have duplicate roles in the same model and the order of the functional goals at the same level of the hierarchy is not important.

Domain modelling

- Domain model represents the knowledge within the system that the system is supposed to handle.
- A domain entity is a modular unit of knowledge handled by a socio-technical system.
- A domain model consists of domain entities, roles and relationships between them.

Domain model of the greeting scenario



Short demo of the modelling software

