

## The Stakeholders' Requirements of ACCESS

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## Previous Work

- Diana Griffiths (BSc) - The University of Reading
- Project - Modeling Human Walking with Genetic Algorithms

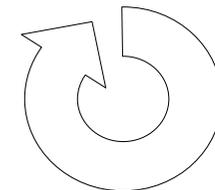


## Software Evolution

- Software evolution is complex, continuous and necessary with system growth. (Lehman)
- A system that is used undergoes continuous change until it becomes more economical to replace it by a new or reconstructed system.
- System Requirements depend on the stakeholders.

## System Life Cycle

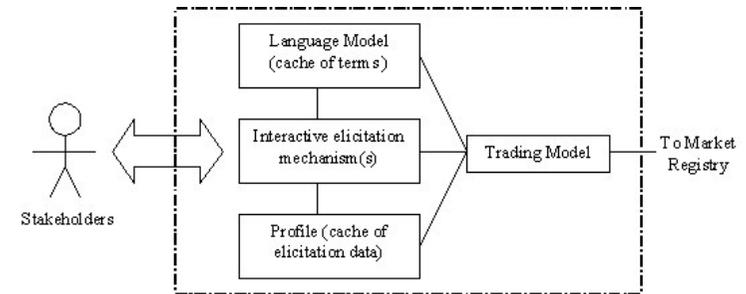
- Requirements
- Specification
- Design
- Implementation
- Maintenance



## Requirements to Specification and Design

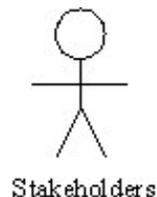
- It is known that to acquire a design from human requirements can be an unknown quantity.
- This design of Autonomic Computing will encounter change requirements over a period of time.

## Stakeholder to Specification



## Stakeholders

- Stakeholders include people, organisations, government, regulators.
- Each stakeholder will have their own requirements or may impose restraints.
- They will require their own interface.



## Interactive Elicitation Mechanism

- The individual stakeholder's software agent that gathers information about the requirements (e.g. services, money and/or goods)
- Also acts as the interface for the stakeholder

Interactive elicitation mechanism(s)

## Language Model

- The Language Model is a cache of terms used.
- It will be a library, market or ontology of terms, where information can be retrieved to define and convert into machine readable code of the stakeholder's input.

Language Model  
(cache of terms)

## Profile

- The profile is built by an agent. It is a cache of elicited data that refers to a specific stakeholder.

Profile (cache of  
elicitation data)

## Autonomic Computing

- Autonomic computing systems should regulate and maintain themselves to provide an optimal level of service without conscious intervention of the user
- System must be able to change with ease
- Satisfy the requirements in increasingly better ways
- Preserve correctness through change

## Conclusion

- The Interactive Elicitation Mechanism attempts to take the stakeholder's requirements and outputs a specification for the market to follow.
- The Language Model needs to convert the stakeholders requirements to a machine readable context.
- Changing requirements and markets means that it needs to change quickly in accordance with its surrounding environment.

## Question

- Does the Language Model need to be an ontology, a market of language terms or a thesaurus? Does it need to specifically identify relationships or will a market or thesaurus of words fulfill this task?