

# **Interactive Visualization for Elicitation and Validation of Requirements with Scenario-Based Prototyping**

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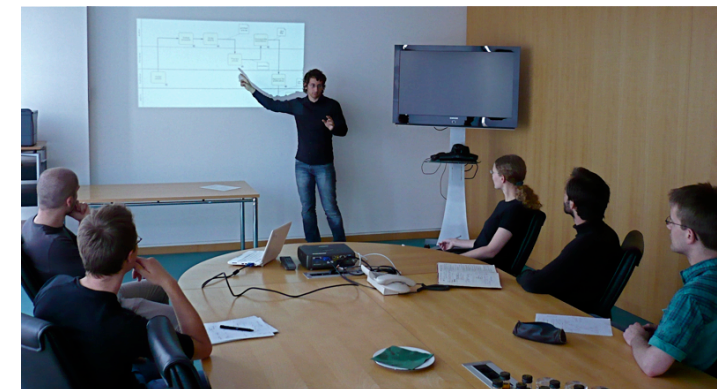
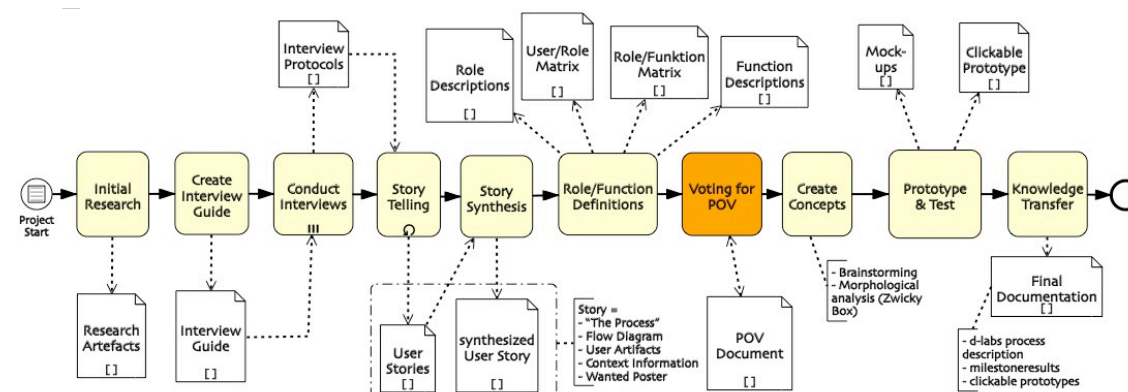
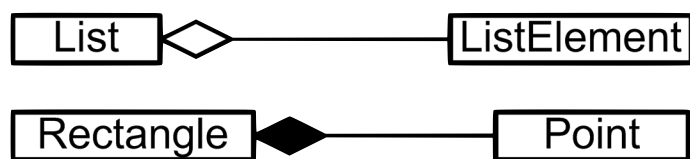


**HPI – Stanford  
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# Problem Statement

- validation of requirements calls for stakeholder involvement
- *semantic barriers* of requirements models restrict feedback during the validation
- overhead through translation

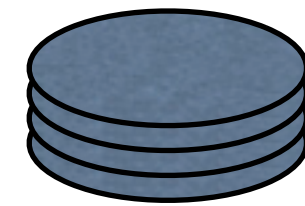
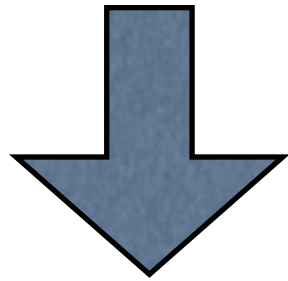


# How can we fix it?

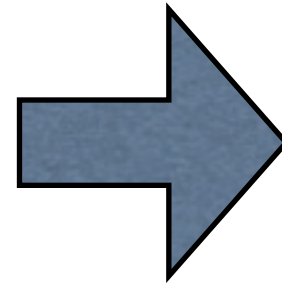
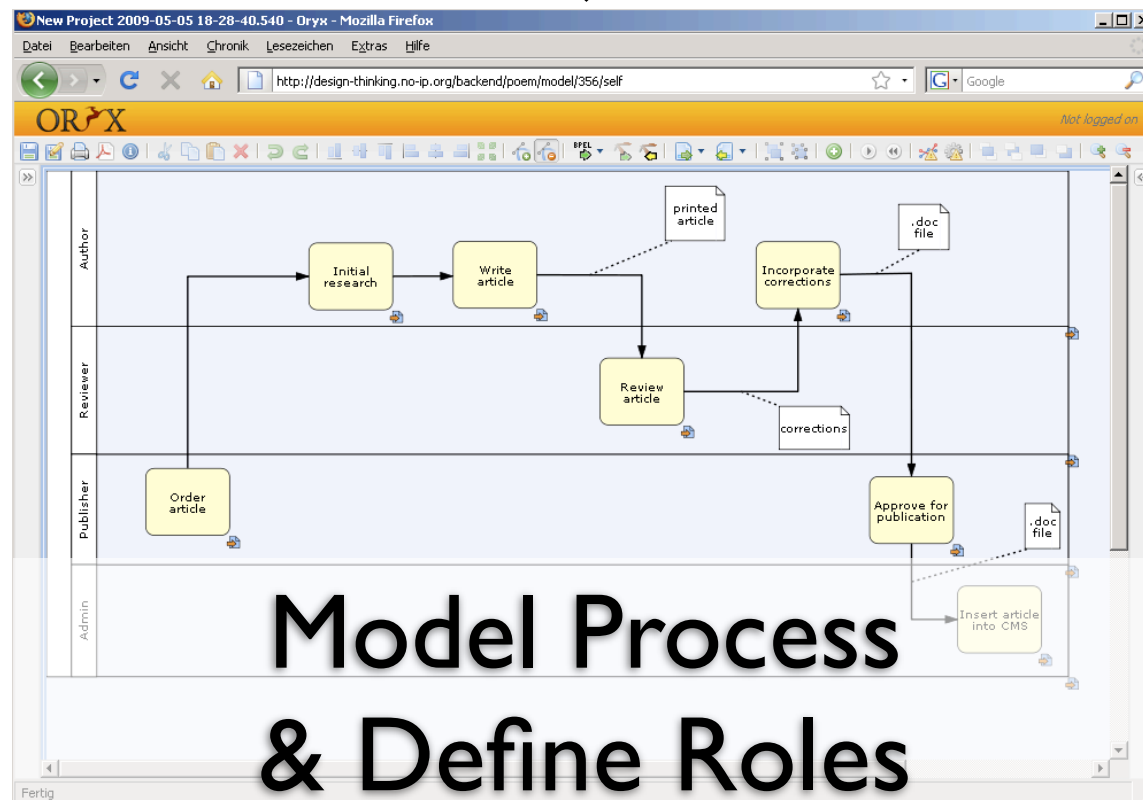
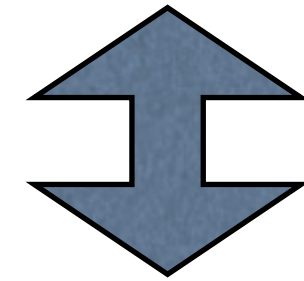
- domain-specific requirements animation
- leveraging formal requirements to be tangible for end users and other stakeholders
- transport the modeled content back into the stakeholders' domain of expertise

# How is it derived?

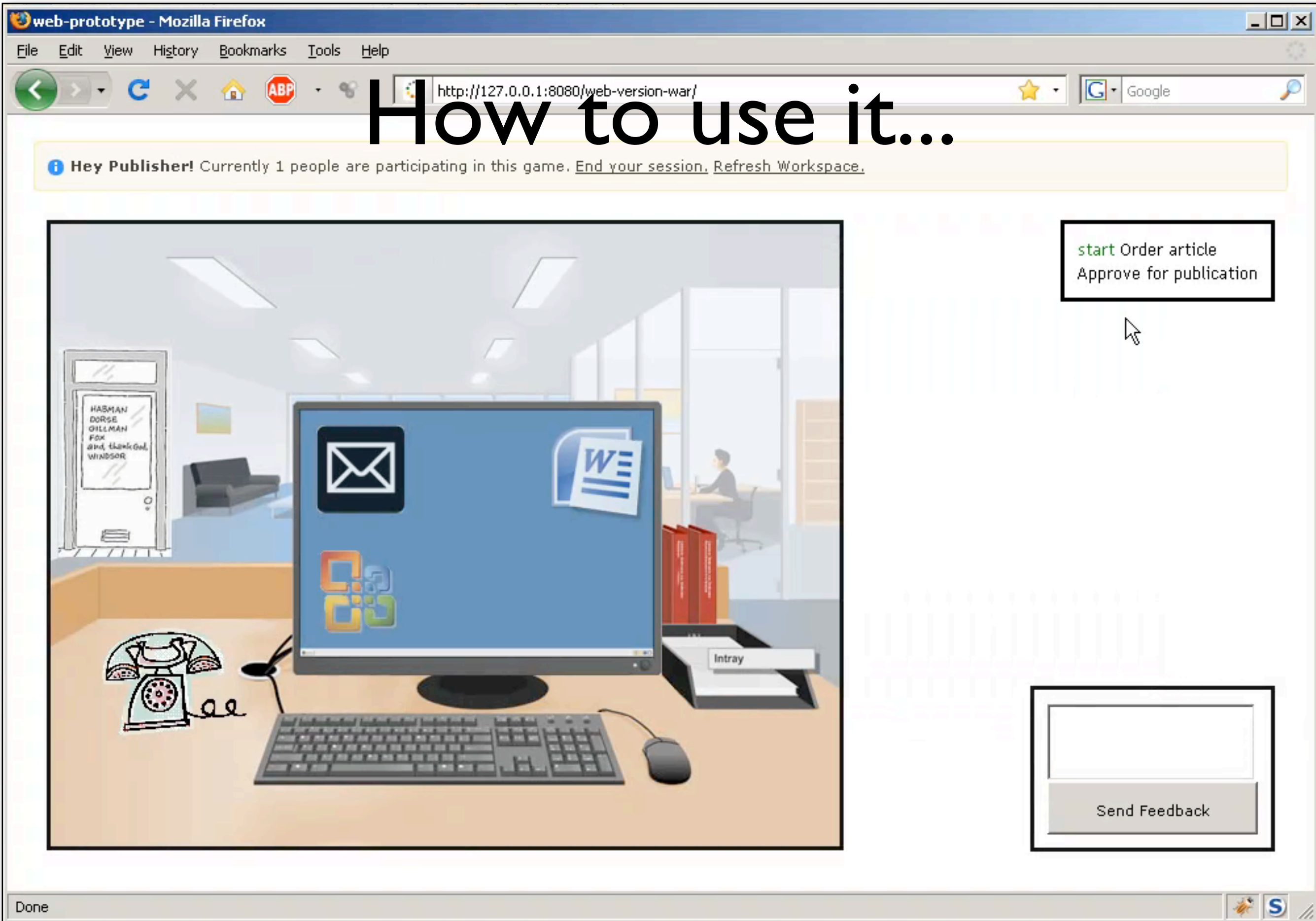
Initial Interviews



Session Data  
and Feedback



Subset of BPMN → Petri Net



# How to use it...

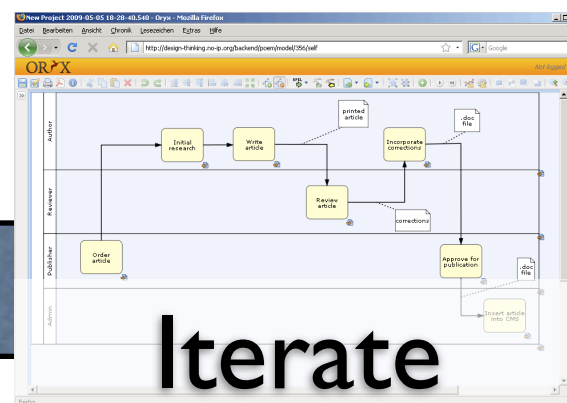
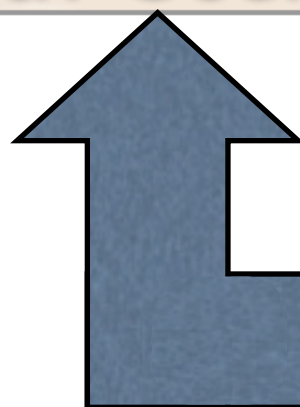
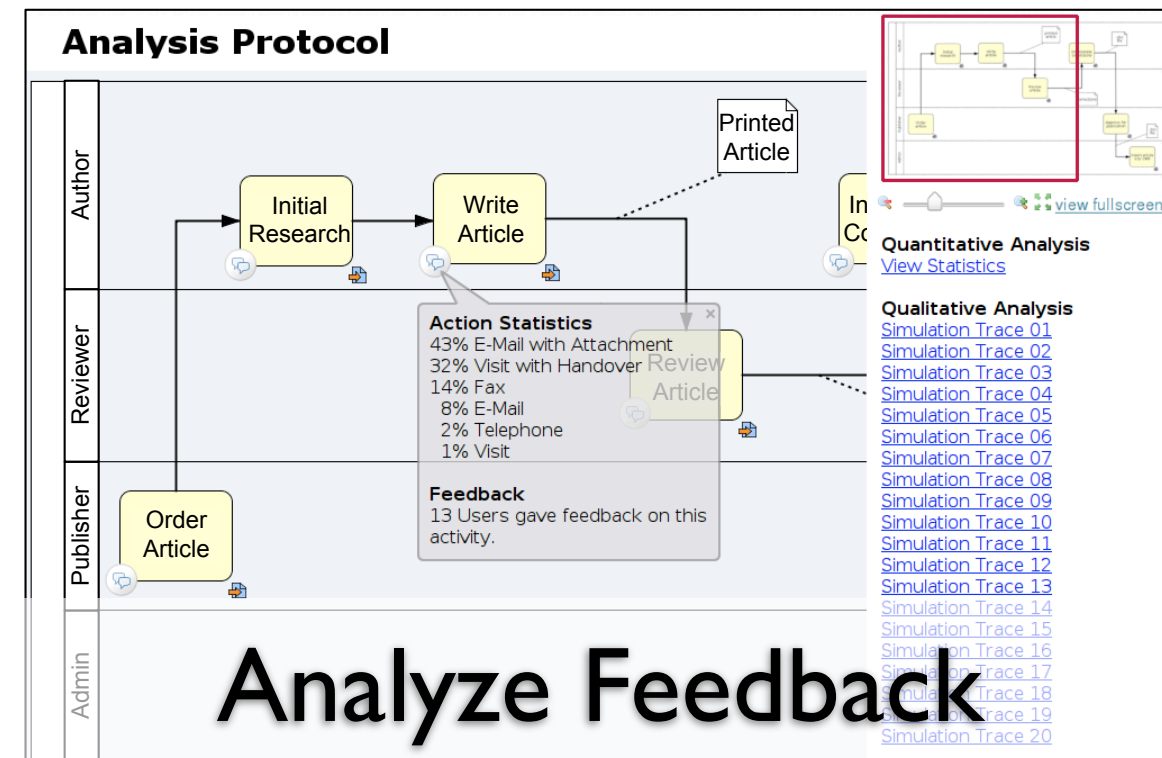
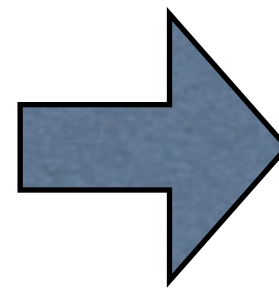
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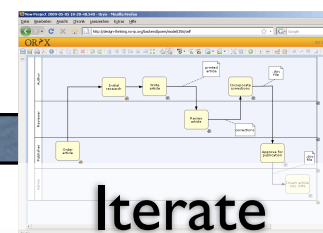
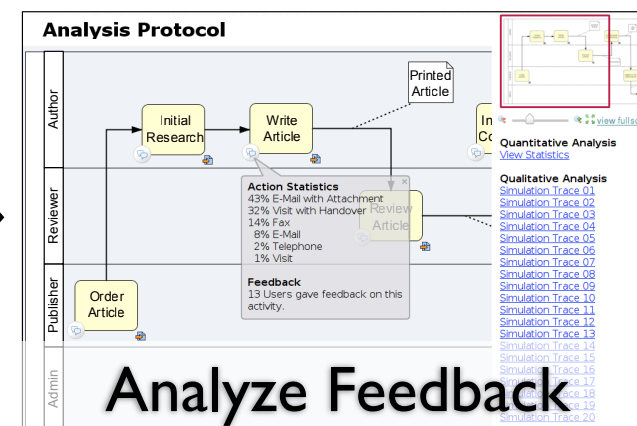
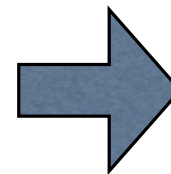
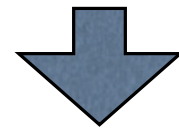
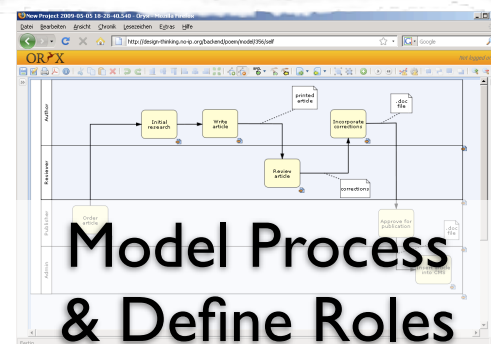
Send Feedback



# How does it work?



# Show and Tell



REV'09

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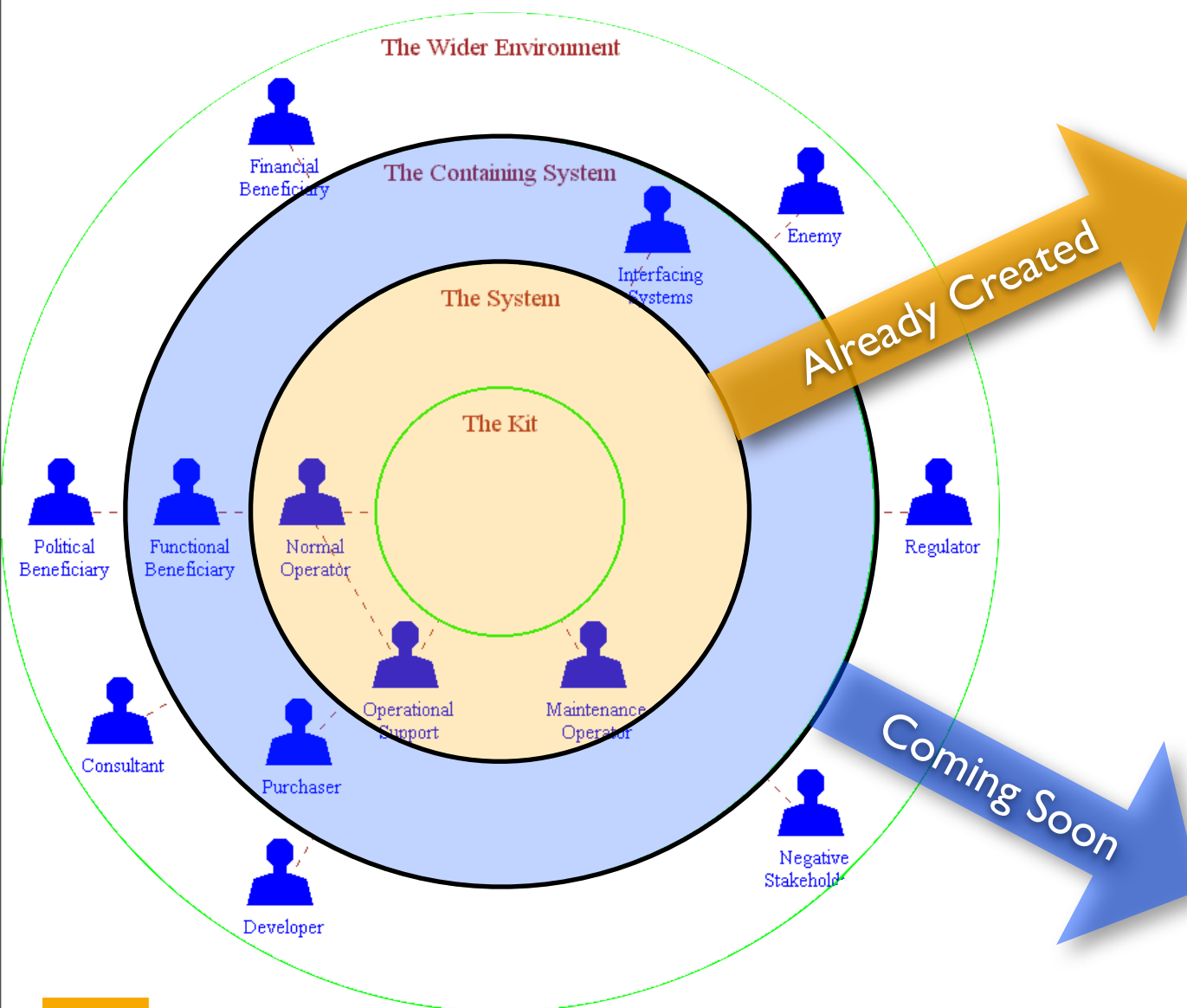
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# Visualizations for whom?



web-prototype - Mozilla Firefox

File Edit View History Bookmarks Tools Help [http://127.0.0.1:8080/web-version-war/index.jsp?lang=en\\_US#](http://127.0.0.1:8080/web-version-war/index.jsp?lang=en_US#) Google

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start Review article

**Our Artifacts:**

printed article

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# PROs

front-end with domain  
specific animations

automation can be applied  
in the back-end

inexpensive validation sessions

single and multi-user modes

# CONs

still “kind of unintuitive”

currently, inconsistencies have to  
be spotted and resolved manually

infinite iteration loop possible

currently, underlying models are  
too static

# Validation & Next Steps

- evaluation in projects together with our industrial partner, D-LABS GmbH
- comparison based on the amount and kind of feedback gathered from end users
- increase automation capabilities
- enhance *look* and *feel* of the prototype