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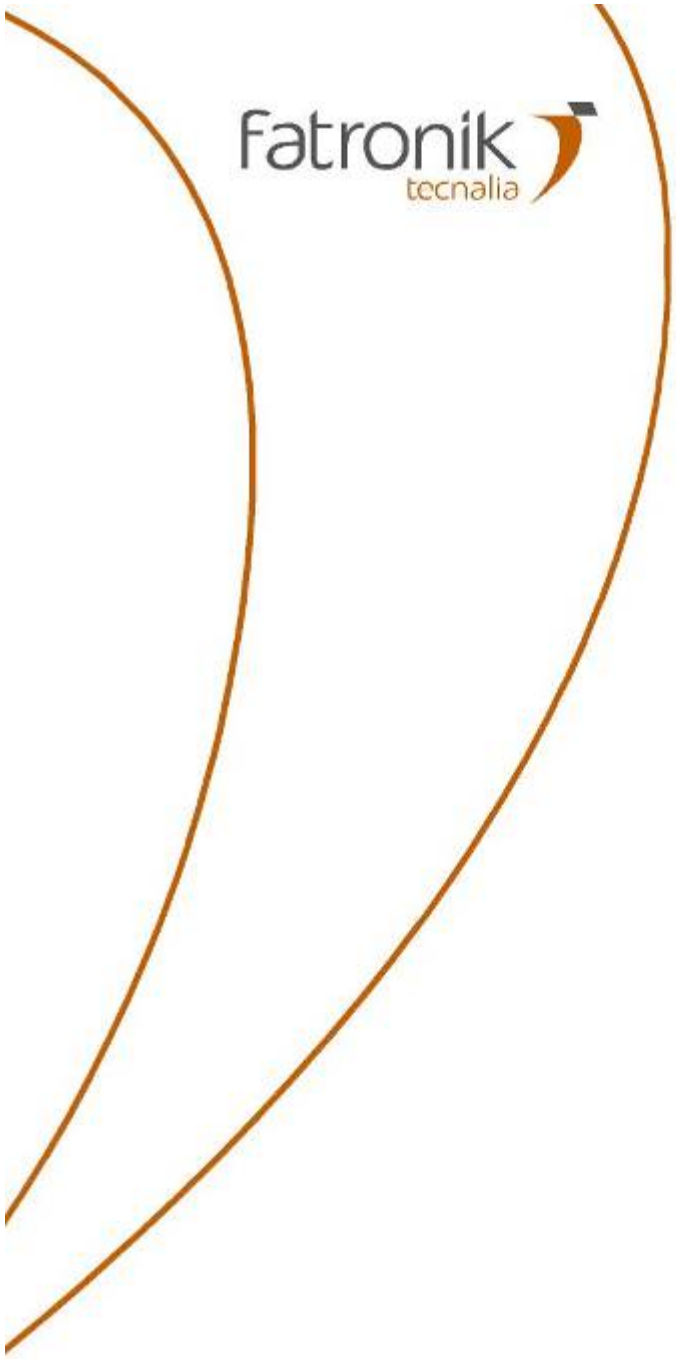

User Centred Design Part 2 *Scenarios*

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Scenarios

- We are designers as well as engineers
- Synopsis of techniques in “Usability Engineering” especially Scenario Based Design by Rosson and Carroll (Most of this is from Chapters 1-3)
- Examples come from the use of scenarios in designing EU4ALL remote learning accessibility tools

So, what are they?

- Scenarios are:
  - Descriptions of people
  - Using technology
  - Doing a task
  - Allowing discussion of the system before it is built.

- Scenarios have characteristic elements

Scenario parts

- Actors
- Setting
- Task goals
- Plans
- Evaluation
- Actions
- Events

Actors

Human(s) interacting with the computer or other elements of the setting; personal characteristics relevant to scenario

Example:

- Stacy, a dyslexic student
- Max the open U teacher
- Rodger a open U tutor who is also a AT & adaptation specialist
- Bob, another dyslexic student on her team
- Sally, Stewart, Rex and Sam members of her role playing team
- Stacy's aunt

Setting

Situational details that motivate or explain goals, actions, and reactions of the actor(s)

Example: Stacy's home, PC, video, workbooks, audio lecture tape and notebook; state of work area; tools, etc., at start of narrative

- What does the space have in it
- What do people do in the space
- Does the nature of the space change with different actors (i.e. wealthy/ poor active/sedentary)

Task Goals

- Effects on the situation that motivate actions carried out by actors(s)

- Example:

  To meaningfully participate in the Opium Wars role playing task

Plans

- Mental activity directed at converting a goal into a behaviour
- Example:
  - (high level) To find ways to meaningfully participate by leveraging her dyslexic skills
  - (low level)Opening the memo document will give access to memo information; resizing one window will make room for another

Evaluation

- Mental activity directed at interpreting features of the situation

- Example:

  Can she keep up with the pace of the simulation and her team-mates

Actions

- Observable behaviour
- Examples:
  - Setup up maps,
  - Transfer information from screen to her maps. I.E., Messenger reports into graphic information
  - Discuss the meaning of the new mapped environment with team mates
  - Help team-mates assess possible action with respect to the land and it's people

Events

- External actions or reactions produced by the computer or other features of the setting; some of these may be hidden to the actor(s) but important to scenario.

- Example:
  - Putting maps up in her study area
  - She receives messages off of the group's bulletin board;
  - She intervenes in decision process with insights from maps.
  - She recommends surrender due to bad geographic location of troops and resources

In a table

Scenario Element	Details
Setting	Stacy's home, PC, video, workbooks, audio lecture tape and notebooks
Actors	Stacy, a dyslexic student, Max the open U teacher, Rodger a open U tutor who is also a AT & adaptation specialis, Bob, another dyslexic student on her team, Sally, Stewart, Rex and Sam members of her role playing team,Stacy's mom, Stacy's aunt & Members of Stacy's tutorial group
Task goals	To meaningfully participate in the opium wars role playing task
Plans	To find was to meaningfully participate by leverage her dyslexic skills
Evaluation	Can she keep up with the pace of the simulation and her team-mates
Actions	Setup up maps, transfer information from screen to her maps. I.e., messenger reports into graphic information, discuss the meaning of the new mapped environment with team mates, help team-mates assess possible action with respect to the land and it's people
Events	She gets ready by putting maps up in her study area She receives messages of off the group's bulletin board; she intervenes in decision process with insights from maps. She recommends surrender due to bad geographic location of troops and resources
Artefacts	Printed course notes, Printed study material, Printed assignment description, Large maps, Push pins, Post–it notes, Group work environment (basically a chat room and IM faculties), Email to/from tutor, Phone call to bob, Wall to put maps up on, OU dyslexia tool kit

Why use scenarios

- We are not the user
- Our lab is not the context
- Our tests are not the actual uses
- It's a lot cheaper to change design before you *do* the design

Do I have to use *all* of these?

- You can dump evaluation
- Events & Actions make the scenario active - not just a static picture
- I add artefacts to SBD template

Artefacts

- Artefacts are the physical objects (including computers) that populate the scenario
- Examples:
  - Printed course notes & study material
  - Printed assignment description
  - Large maps
  - Push pins
  - Post-it notes
  - Group work environment (basically a chat room and IM faculties)
  - OU dyslexia tool kit

Where to start

Developing scenarios:

- A useful way to start is to describe in some detail several hypothetical stakeholders and use them as actors in the scenarios that you develop

- In SBD scenario writing is always interleaved with claims analysis where features of a situation that have important effects in the actors are identified and written down, including good and bad effects.

Actor / Stakeholder Example

Do you already know this person?

- Your grandfather
- Co-worker
- Neighbour

It’s OK to just use someone you know - in fact better (only if they fit the scene)

How to make up people

Make a bare outline

- Give them a name and place
- Give them friends and family
- Give them a job

Tell it to someone

Fill in the outline

Find a domain expert* and tell them

Finish the person

- Have fun with it
- Make up stories that are tangential - you will surprise your self
- Thank about what that person would never do

** or a person of the type that you modelled your actor on*

Users & Stakeholders

Not all stakeholders will actually use the proposed system, nonetheless they have a say in the design and use of the system.

One way to approach the stakeholders is to create a list of:

- Background
- Expectations
- Preferences

For each stakeholder group.

Rules of thumb

- Write at least one scenario for each group of stakeholders
- Analyze at least one or two claims for each scenario
- For stakeholders with many tasks or tasks that are complex write multiple scenarios

Claims

- Annoying but worth it
- Documenting tradeoffs (+ and -)
- Scenario writing and claims are interleaved
- Each feature of design is analyzed for positive (+) and negative (-) impacts
- Claims motivate design reasoning

Claims 2

Identify ‘interesting’ features

Example:

- Back arrow button on interface:
  - Allows easy backtracking (+)
  - Deletes data off of original screen when used (-)
  - Function is not clear to user (is it your last action or ‘up one level’? - think about browsers) (-)

From scenarios & Claims

You can develop high level use cases & functional specifications from these:

- Low level use cases
- Validation tests*

* Are we building the right system?

Go crazy!

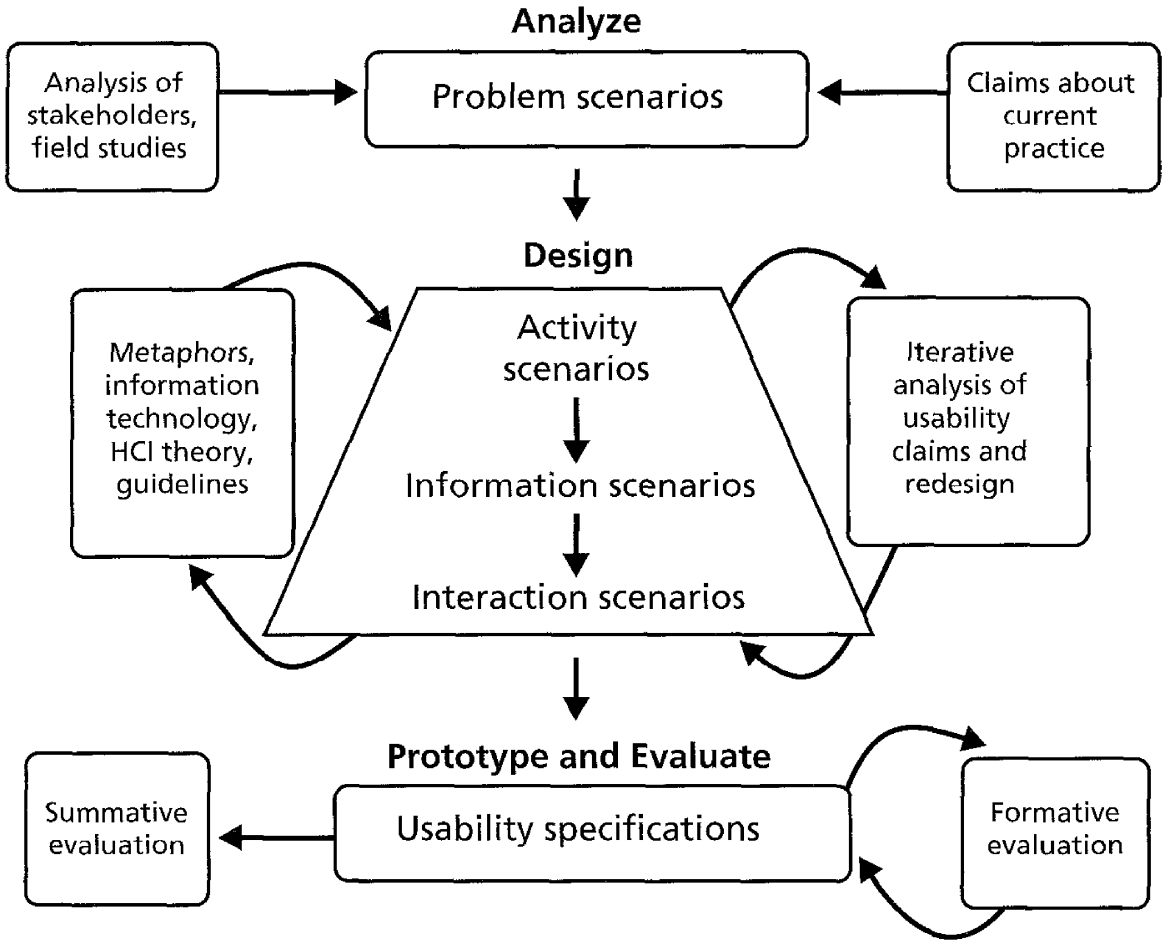
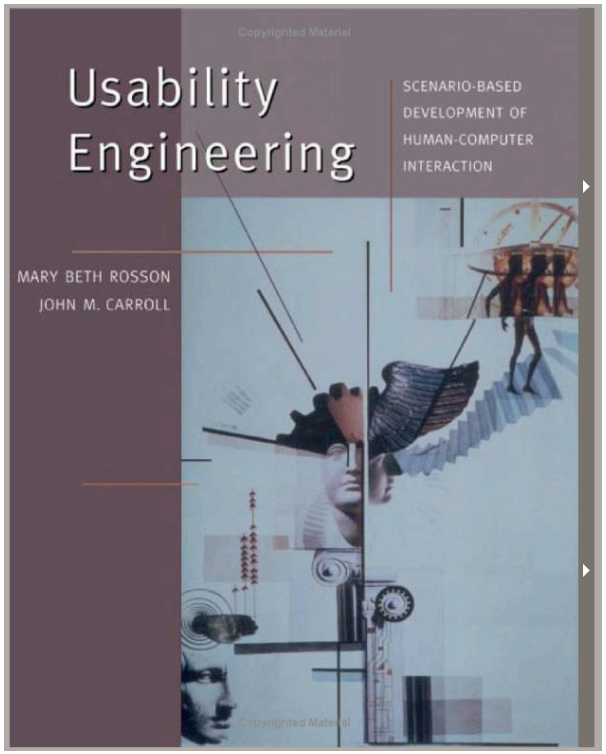


Figure 1.6 Overview of the scenario-based framework used in this book.

Usability Engineering: Scenario-Based Development of Human Computer Interaction



In my library

Thanks!

Any questions?