

Scenarios

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Scenarios

A useful conceptual tool during design,
prototyping, evaluation and demonstration

Scenario definitions

- **A scenario is „a story about use“ (Carroll, J.M. Scenarios and Design Cognition, 2002**
- **An example of how a “typical” user (persona) is going to use the application**
 - Not a list of possibilities but the description of one usage
 - Story of an interaction with a system
- It must be salient and realistic
- Developed by design team and iteratively refined also with stakeholders
- Specified at different levels of abstraction according to the different project stages

Components of a Scenario

- **Persona** – “characters”: who use the system
- **Goals** – problems, intentions, motivations, needs
- **Actions (also called Tasks)** – what the user does with the system
- **optional**
 - **Setting** - situation, context of use of the application
 - **Outcome** – the final result(s) for the user

Scenarios: Example

J.M. Carroll / Interacting with Computers 13 (2000) 43–60

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Harry is interested in bridge failures; as a child, he saw a small bridge collapse when its footings were undermined after a heavy rainfall. He opens the case study of the Tacoma Narrows Bridge and requests to see the film of its collapse. He is stunned to see the bridge first sway, then ripple, and ultimately lurch apart. He quickly replays the film, and then opens the associated course module on harmonic motion. He browses the material (without doing the exercises), saves the film clip in his workbook with a speech annotation, and then enters a natural language query to find pointers to other physical manifestations of harmonic motion. He moves on to a case study involving flutes and piccolos.

Fig. 1. A usage scenario for a multimedia education project.

Scenarios: Example

- *The website for a Milan Museum Exhibition*

A high school teacher from Milan comes to know about the exhibition on Garibaldi at the Risorgimento Museum in Milan.

She thinks might be nice to visit it with her class, as the subject is connected with the history program of this year.

Thus she wants to understand if the exhibition can be useful and stimulating for her students to visit the exhibition

During a lesson break, she connects to the exhibition website from school.

She reads the introduction to the exhibition, and look at the list of key exhibits (documents, paintings, and other historical objects). She browses the details about them. She also discovers that some guided tours are available for school classes

Various terms for the same concept

Different names for a similar concept:

- Use cases (see UML), use case scenarios
- User journeys, user stories
- Storyboards
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Many uses of scenarios

- Scenarios may be used for different purposes in the lifecycle:
 - To support **requirements** analysis
 - To support **design**
 - To **evaluate** the prototype or the implemented system
 - To guide **prototyping** and establish priorities in the implementation activities
 - To **demonstrate** an interactive system

Different levels of abstraction in the different development phases

During requirements: PROBLEM SCENARIOS

- During **requirements management**, scenarios are described at a high level of abstraction, with a main focus on PROBLEMS; goals, subgoals, and high level tasks
- Questions to extract from a scenario during requirements analysis:
 - Is it relevant, salient, important?
 - Is it appropriate, realistic for the person described?
 - Is it desirable for the stakeholder?
 - What requirements does it involve? (what content, structures, main functions)

During design: **DESIGN SCENARIOS**

During **design**, scenarios are used to complement **design specifications**

- User **tasks** are described using concrete interfaces and highlighting user's interactions with the system (up to «click level»)
- See example next slides

A web site for a primary school

A parent is accessing the school web site from home.

She wants to look at the educational projects of her son's class



This symbol indicates the chosen link

From the home page, she first identify son's class



She selects her son's class, 2°B



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La 2° B fa lezione in quest'aula:



Noi in quest'aula ci passiamo tanto tempo perchè seguiamo le lezioni dei nostri maestri che sono tanto bravi perchè non si arrabbiano mai con noi

 Vedi la foto di classe 

Vedi i maestri  Raffaella Crespi  Manuela Farina

 Tutte le classi

From the class presentation,
she looks for projects (extra-
curricular activities)

She looks at the list of activities and selects one



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Quale attività extra vuoi vedere?

Multimedialità nella didattica:

- 1) progetto BIMBOTECH (classi 5° A e 5° B) >>Vedi<<
- 2) progetto EST: SCIENZE E TECNOLOGIA (classi 4° B e 4° D) >>Vedi<<

Feste per la scuola:

- 1) festa di natale (classi 5° C e 3° B) >>Vedi<<
- 2) festa di fine anno (classi 3° A e 3° C) >>Vedi<<

Progetti finalizzati e fondi Maap:


- 1) progetto per il diritto allo studio (classi quinte) >>Vedi<<
- 2) progetto fondi MAAP (classi terze) >>Vedi<<

Uscite e visite d'istruzione:

- 1) "Settimana sicurezza" (classi 2° A e 2° C) >>Vedi<<
- 2) visita archeologica (classi 2° B e 2° C) >>Vedi<<

Classe

Contatti



During prototyping: **INTERACTION SCENARIOS**

During **prototyping**, scenarios are used to provide examples of how the interaction with the application can take place

Interactive scenarios offer sets (sequences of) of visualizations the user can interact with

Enable a (simulated) **flow of interactions** that can be demonstrated to relevant stakeholders

During evaluation: **EVALUATION SCENARIOS**

During **evaluation**, scenarios are used in the evaluation planning stage

- to define what the end user (or the inspector) should do with the system while being tested

An evaluation scenario

- focuses on user tasks
- is described using text only (usually)
- is the basis for defining the tasks assigned to the user (or performed by the inspector)

During demos: **DEMONSTRATION SCENARIOS**

During **demoi**, scenarios are used to plan how to present the interactive system to «customers» or demo visitors

A demo scenario

- is described using text only (usually)
- focuses on user profiles, contexts, and tasks
- Is very detailed in defining, for each tasks, the exact flow of interactions – to reduce the risk of «demo effect»

Different media for Scenario specifications

■ Textually

■ Visually – static: sequences of static sketches or screenshots)

- with a clear indication of users' actions (e.g., visual pointers to graphic interaction elements)

■ Visually – dynamic: VIDEOS

- A video-capture of the screen interaction with visual highlights to what has been activated (graphic interaction elements)
- A life recording of a simulated interaction
<http://www.youtube.com/watch?v=Qgd0rcv54Tg>

■ Interactively:

- interactive mock-ups; screenshots where some interaction elements are active, simplified prototypes with a clear indication of where to click

Advantages of scenarios

- Vivid: anticipate situations
- Highlight interaction issues
- Facilitate communication (with stakeholders and in the team)
 - Make discussion less abstract
- Provide a synthetic vision of the requirements “in action”
- Help
 - Master complexity of design
 - Check goals
 - Check requirements
 - Validate information architecture
 - Validate interface design
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