

Storyboarding for designers and design researchers

Pieter Jan Stappers,
Corrie van der Lelie, et al.

1



2



WISSE: STORYBOARD OF THE CONTEXT OF USE



Monday: Wisse arrives at Fris Design



Sits down to check messages



Weekly meeting

3



- 3 Play-acting: three colleagues are acting out the contextual scenario of Wisse, using the paper prototype
- 4 Lego storyboard: a situation from the scenario recreated using Lego, with Wisse at his desk and a colleague passing by
- 5 Play-acting with sketching: using a photo print as a background to draw on

4

Introduction | why storyboards?



- Complexity: context and time
- Multi-disciplinarity: communicate
- Emotion/Experience: stepping in and stepping back

5



Introduction | interdisciplinary communication

In Cinema

- Producer
- Director
- Photography (cameraman)
- Lighting manager
- Location selector
- Set designer
- Actors
- Caster
- Special effects

...

In product design

- Designer
- Graphic designer
- Client
- User
- Marketing expert
- Services expert
- Usability expert
- Software expert
- Engineering expert

...

6



Introduction | stepping in and stepping back

- You can feel as if you were participating in the story.
- You can look as an outsider to the unfolding event.
- You can switch between these two modes of viewing,...
... quickly and often.

7

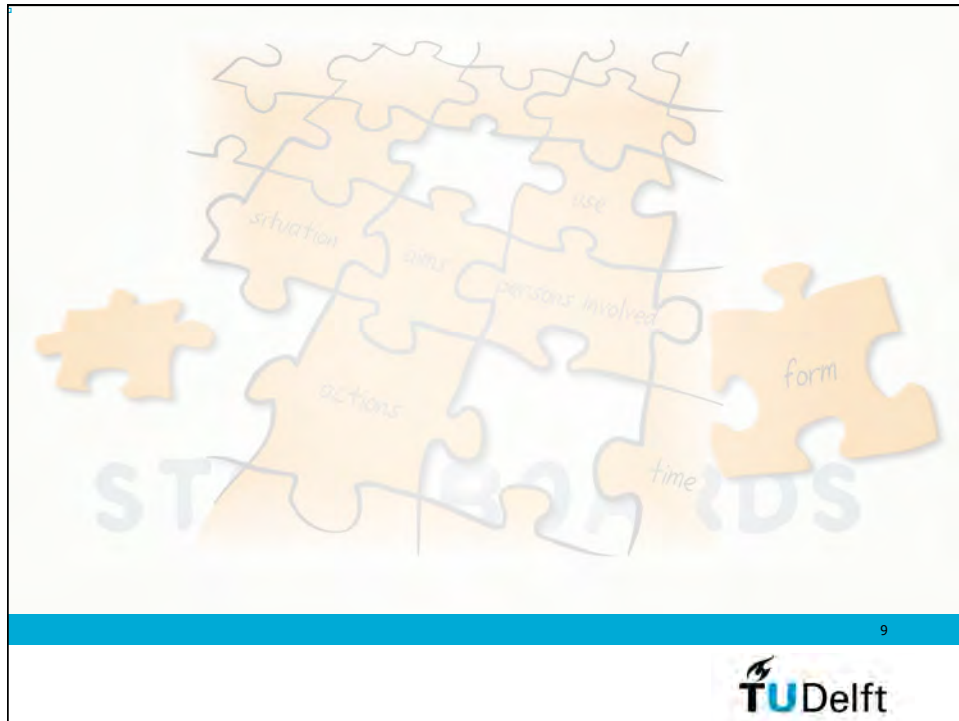


Overview | the storyboard cards

- Six cards
- Summarize the 'theory'
- Used with design students
- But very concise...

8





Part I | looking at storyboards

- Examples of storyboards from product design, software design, advertising, cinema, and comics.
- Google will find you mainly advertising and cinema.
- Questions:
 - What do you see?
 - What questions do the storyboards answer?
 - What questions do the storyboards trigger?

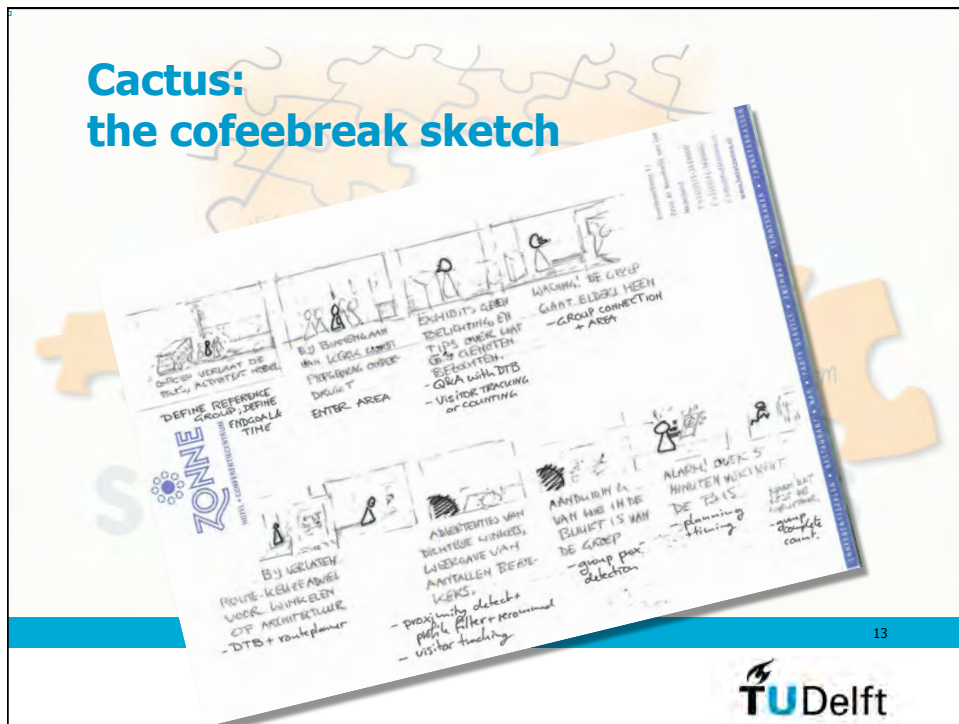
Robin Hoenderdos: Connection of mother and child



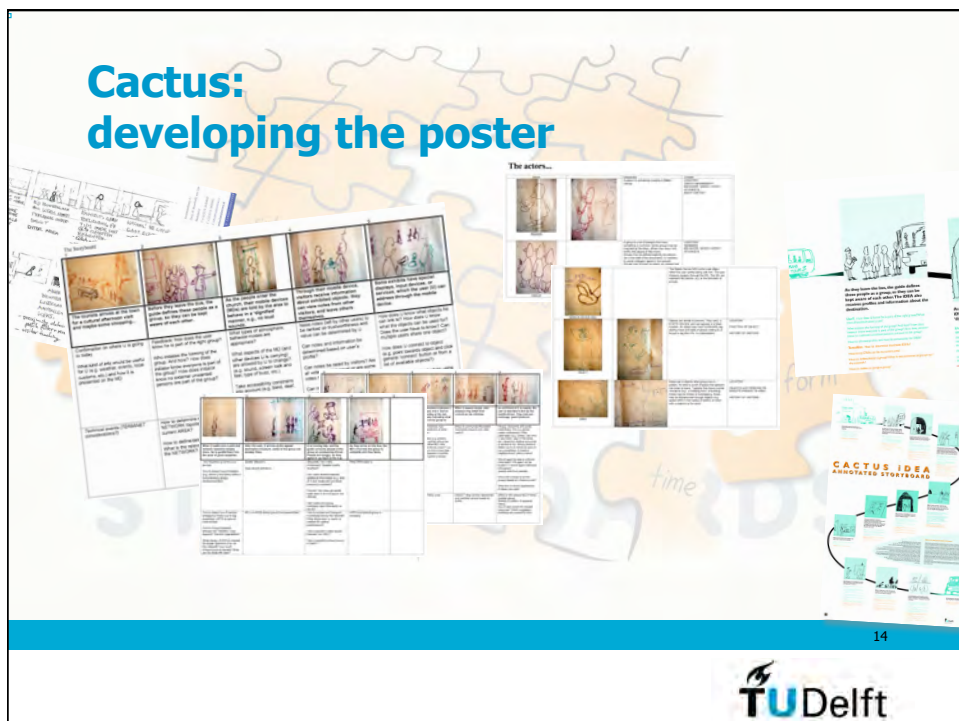
Cactus poster: Scenarios for mobile appliances



Cactus: the cofeebreak sketch



Cactus: developing the poster



Mike van der Geer: a Radiology workstation



"Hij zet de headset op en logt in door de LCOörd in de magnetische ruimte te plaatsen en de tekst op te lezen die op het scherm verschijnt. De stemherkenning gaat akkoord met het ingesproken en Beenstra is ingelogd."



"Op het scherm verschijnt een overzicht van zijn actuele patiënten, de titels van eventuele nieuwe emails, of hij nog voicemail heeft en de afspraken voor de rest van de dag. Ook verschijnt de afdeling die hij even daarvoor op de gang maakte en dit herinnert hem weer aan het gesprek op de gang."



"Hij vraagt direct patiënt Klässen op door op diens naam te dubbelklikken."



"De gegevens van patiënt Klässen worden op het scherm gezet en hij zoekt snel in de filmstrip de snapshot op waarvan hij vermoedt dat die het antwoord op Rutgers' vraag bevat."

15



Bart Hengeveld: Product concepts



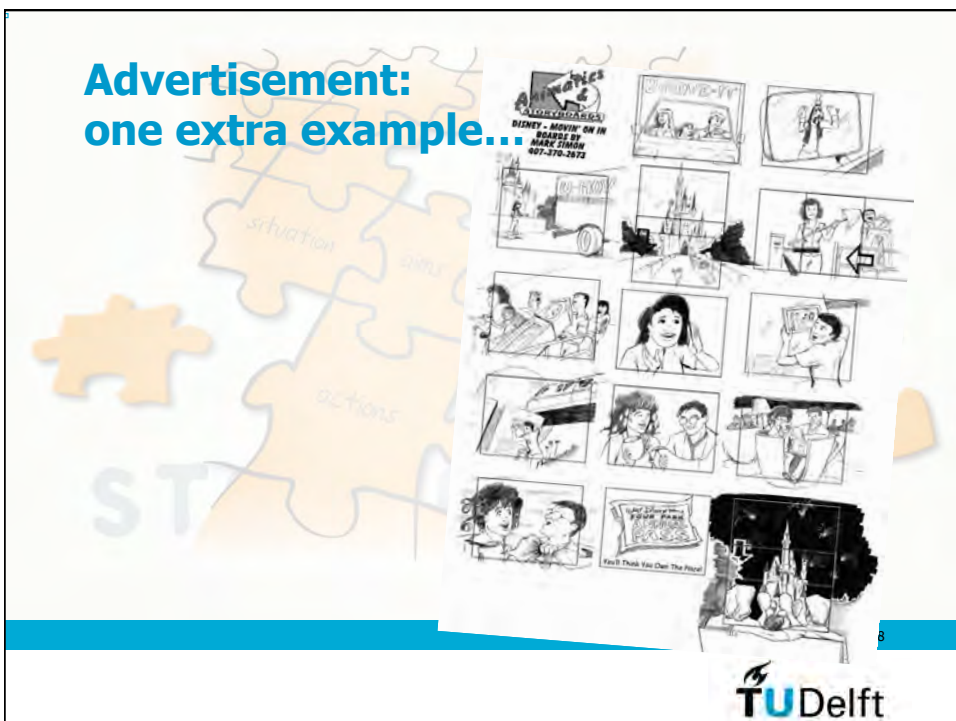
16



Nick Parks: Wallace & Grommit animation



Advertisement: one extra example...



Part II | theory on storyboards

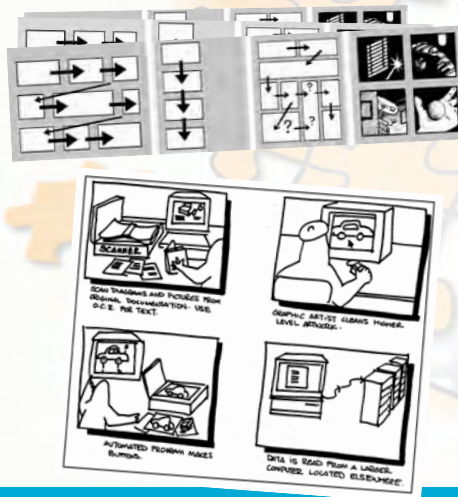
Linguistic approach:

- Syntax: what form do they have (should...?)
- Semantics: what information do they convey
- Pragmatics: how are they used

19



Syntax | montage & page layout



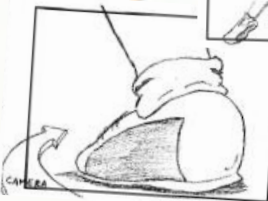
- Flipbooks, novels, or pages.
- Pages, lines, and panels
- Grids & borders (?)
- Subscript text region

- Tips:
 - use loose pages, one story each
 - make variant stories
 - leave room for annotation

20



Syntax | 'camera handling'



- Camera shots:
 - Establishing shot
 - Medium range shot
 - Close-up
- For product design:
 - mostly medium range shot
 - few close-ups of faces

21

Syntax | showing people



- Drawing detail should reflect level of concern
- Choose your style
- Draw facial expressions and posture expressions
- Drawing detailed hands is difficult



22

Syntax | text



16.
Nu wil Rutgers ook de calcificaties zien. Hij
opent dus de weefselselector...

- Tips:
- Text balloons distract
- Use subscripts to
 - strengthen storyline
 - explain 'undrawables'
 - compensate for limitations of drawing skills

23

Syntax & semantics | style



- Expressive, symbolic, realistic
- Tips:
 - First decide what's your message?
 - do you want to convince the reader, or invite constructive questions or suggestions?

24

Semantics | people will fill in



Mijn hond bleef op zijn plaats en bleef me een
lange tijd aankijken.



Als hij zijn rugleider heeft teruggevoerd, heeft hij een
dikke rug. ... en dat doet me een beetje pijn.



De meest bekende beweging op de
wereld is ... het staat, omdat we niet
gemakkelijk van de plaats
kunnen komen. Het is de meest
bekende beweging, omdat we niet
kunnen komen. Het is de meest
bekende beweging, omdat we niet
kunnen komen.



Praktisch en in de praktijk van de
Mijn meest bekende beweging is de meest
bekende beweging, omdat we niet
kunnen komen.



- Leave out distracting details
- Leave holes in stories
- Lead the reader
- Tips:
 - leave out 'the product'
 - mix styles (e.g. Manga heroes are cartoonish on a realistic background, to make the reader identify with the hero)

25



Semantics | what information is carried?

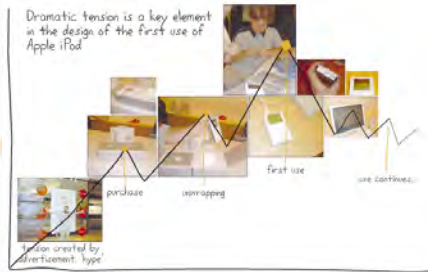
- all Aristotle's questions:
 - who (and with who, to who,...)
 - where (place, situation, state)
 - what (the product)
 - when (and how long)
 - how



26



Semantics | narrative and dramatic tension



- Keep stories compact (make a point)
- Allow overview and avoid breaks (page-turns, short lines, use 'landscape' instead of 'portrait')
- Use textual annotations

Source: Laurel

27



28

Related | cinema & advertising

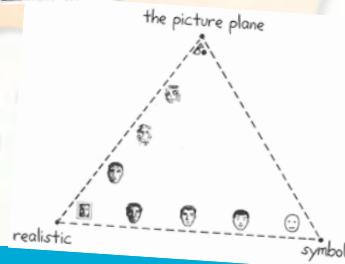


- The historical source of storyboards
- Much experience in multi-disciplinary use, and expressiveness
- Difference: the movie/story is the goal, in product design only a tool;

Sources: Katz, Boorstin, ...

29

Related | comics



- Great inspiration
 - styles, layouts
 - (facial) expressions
 - use of colour and background
- Difference with product design:
 - the story is the goal; in product design, the story is a **tool**.
 - style can be a goal in itself in comics.

Sources: McCloud, ...

30

Related | scenario/ persona-based design



- Stories as lines integrating and relating design ingredients;
- Appeal to experience through concrete level of narration, focus on actions/processes, not objects;
- The advantages of visual form:
 - parallel (many stories on the table)
 - compact
 - direct
- Limits:
 - still need verbal explanation
 - need visualisation skills

Source: Carroll, Cooper ...

31

Related | user instructions

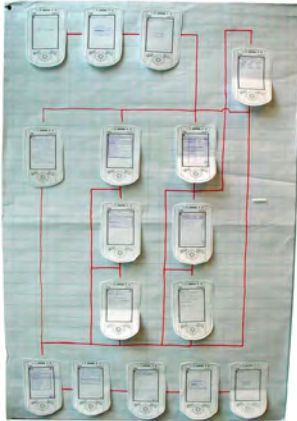


- Unmistakable narratives;
- Limits: heavy focus on actions, on the product instead of the user, little attention to situation, emotion,...

Source: Mijksenaar, Tufte

32

Related | software storyboards



- From interface design
- Widely used
- Often too much focused on the device, not on context (only screen layouts, no users)

33



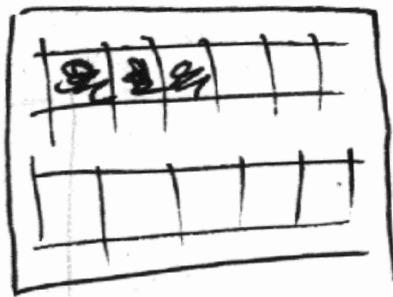
34

Part III | making storyboards



35

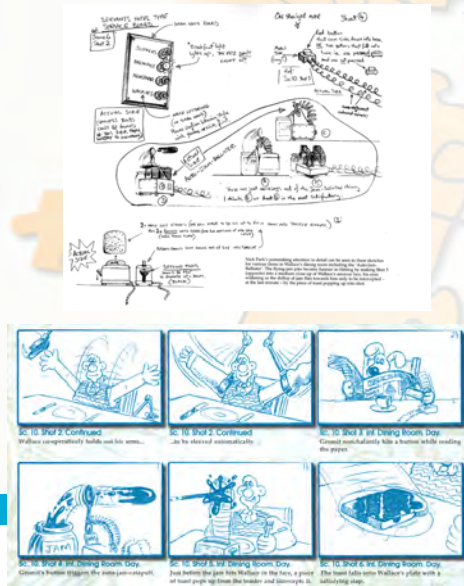
Pitfalls and dangers



- Pitfalls
 - first draw picture 1, then what?
 - long, drawn out and-then story
 - elaborate pretty drawings
- Cause:
 - not knowing the message
 - not knowing the story
 - not deciding

36

The process



- Decide the message
- Develop ingredients (actors, situations, actions, events, emotions)
- Sketch ingredients
- Determine storyline span
- Sketch out action and annotation
- Make it pretty

37



The play-acting technique



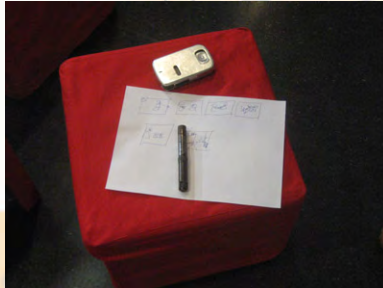
Not just to compensate for limited training in drawing:

- Determine ingredients
- Act out the story
- Take digital photos
- Print rapid & rough
- Sketch over prints, crop, note
- Make pretty

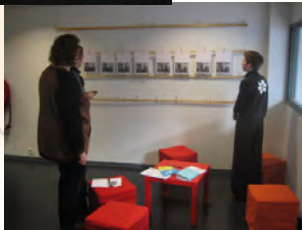
38



Today's special



Rapid play-acting and
photoboarding



39

TU Delft

Today's special



40

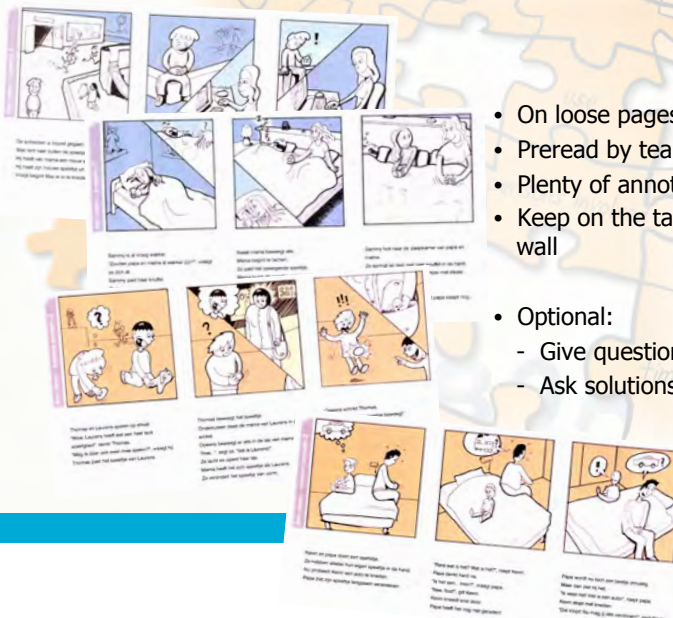
TU Delft

Part IV | using storyboards



41

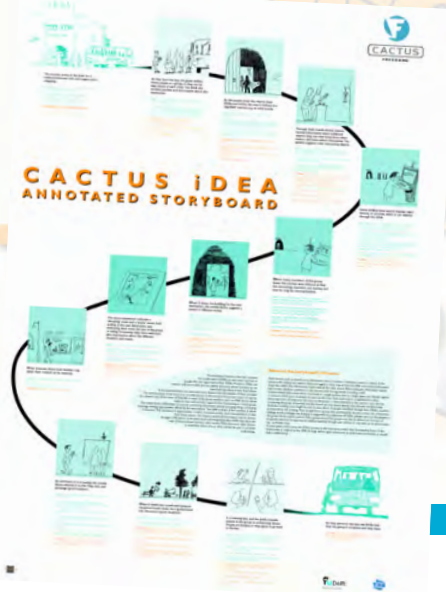
Discussing concepts



- On loose pages
- Preread by team members
- Plenty of annotation space
- Keep on the table, or hang on the wall
- Optional:
 - Give questions on beforehand
 - Ask solutions for 'holes'

42

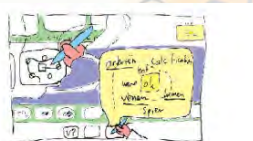
Project awareness



- Develop a central storyboard, to keep a diverse team aimed in the same direction.
- E.g. cactus poster: a storyline with research questions from humanities perspective and technology perspective added to it.

43

Walkthrough with users



16. Nu wil Rutgers ook de calcifi opent dus de weefselselector



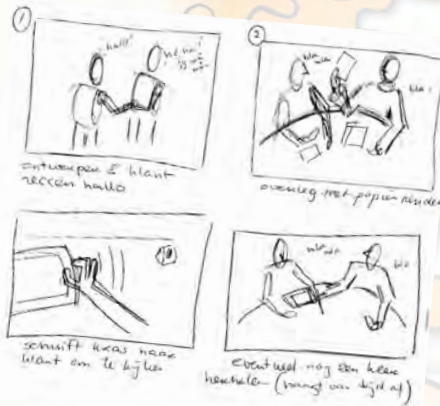
14, 15. Hij gaat globaal over de hele vaatstructuur steeds 'verdachte' gebieden. Bij elke cirkel verschijnt een corresponderende slide. Slides en cirkels worden ook automatisch g



13. Rutgers bekijkt de vraagstelling nog even door op de 'vraagstelling?'-knop te tikken.

44

Analysis & conceptualization



- In making a storyboard, you are forced to attend to the diverse questions, integrate them, and confront the implications that you could postpone with abstract considerations. (just as sketches force designers to 'face form')
- Still you can leave out ingredients on purpose (just as sketches may be vague on points)

45

Making storyboards with users



46

And finally, for making a movie of your concept



- The cinema-type storyboard
- Note: great to experience when playing, but no overview afterward...



47

TU Delft



48

TU Delft

Part V | using tools



- Mannikins
- Cameras
- Image manipulation: Photoshop
- 3D software
- Dedicated storyboard software

49



Software tools



- For cinema or comics
- Limited content for stories
- Limited expressiveness
- Help production, not conceptualization (!)

Examples



50



A storyboard tool (Patrick Snels)

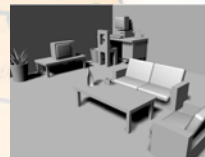
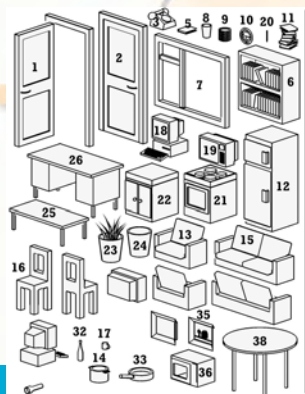


- Research
- Paper version
- Software version



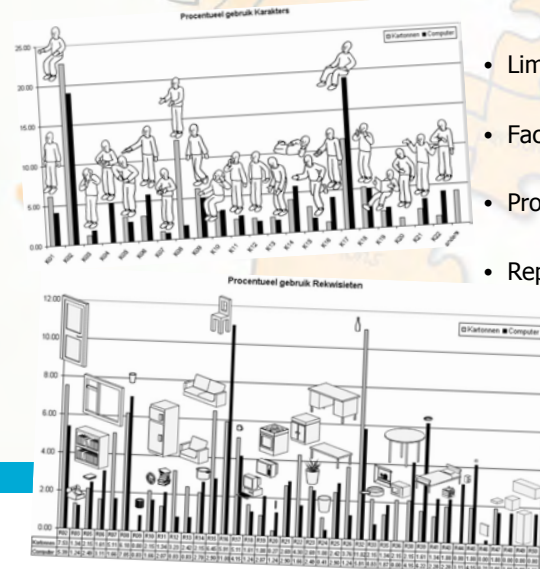
TU Delft

A storyboard tool (Patrick Snels)



TU Delft

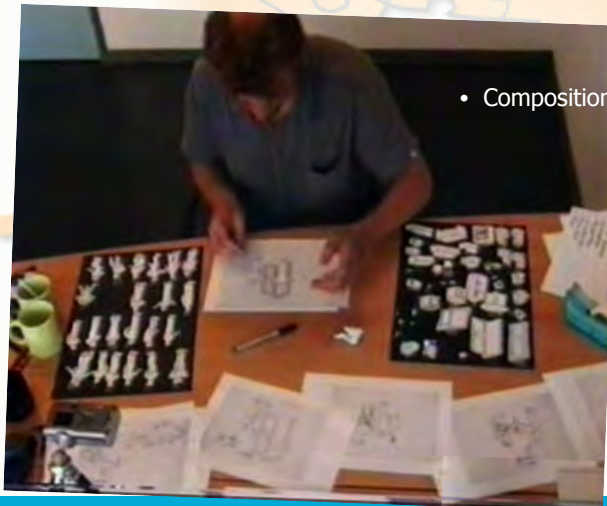
A storyboard tool | research



- Limited number of character poses
- Facial expressions important
- Props and characters
- Repetitive actions

53

A storyboard tool | paper version



- Composition and elements

54

A storyboard tool | software version

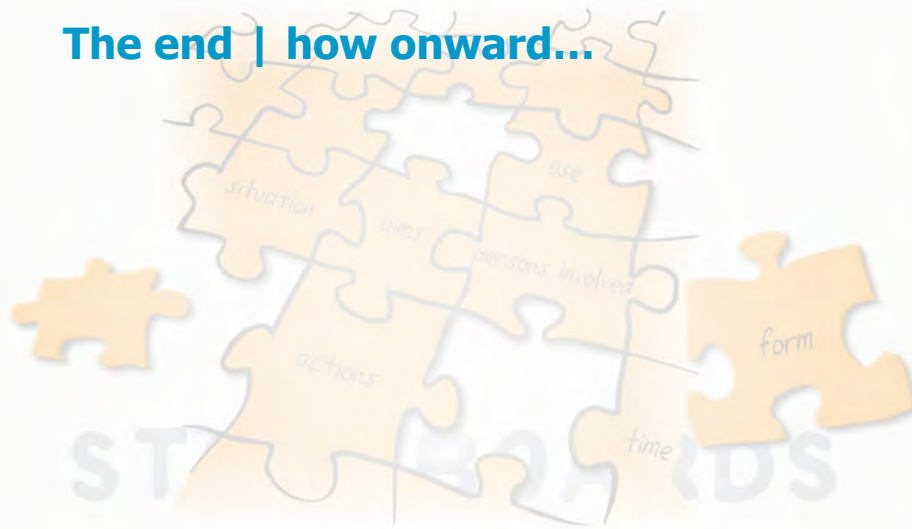
- Composition and elements
- Interaction (vs distraction)

55



56

The end | how onward...



57



58