

Good Design

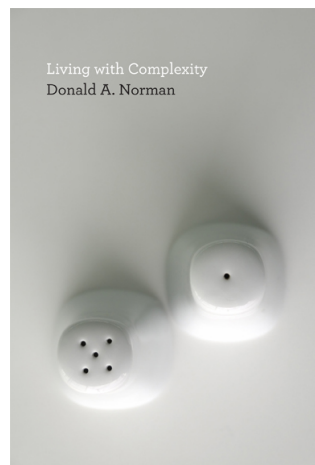
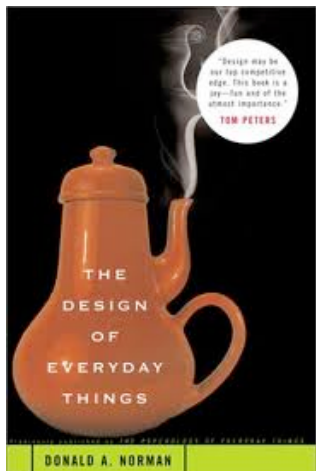
Elena Punskeya, op205@cam.ac.uk

Good Design

...perfection is finally attained not when there is no longer anything to add, but when there is no longer anything to take away...

Man and His World, 1939, Antoine de Saint-Exupéry

- **Design is a complex activity involving many different disciplines**
- **Most design is used by PEOPLE**
- **Technology changes FAST, People change SLOW**
- **Principals of Good Design are Universal, they equally apply to making a new toothbrush or to developing a mobile phone app**



Books by Donald A. Norman

- **The Design of Everyday Things, 1988/2002**
- **Living with Complexity, 2011**

Dieter Rams

- **Dieter Rams (born May 20, 1932), a German industrial designer**

Rams is possibly the most well-known German industrial designer, who not only produced—or directly oversaw—the design of more than 500 products in the course of his 40 years of service for Braun, but also established and headed a design department, which was extremely productive and made a global enterprise out of the company Radio Braun of Frankfurt. To date, Rams and Braun represent what is considered the typical German design approach, in which thoroughness, straightforwardness, clarity, and meaningfulness play a special role.

San Francisco Museum of Modern Art, www.sfmoma.org



Vitsoe's designer, Dieter Rams.
Photograph by Abisag Tüllmann
www.vitsoe.com

<http://designmuseum.org/design/dieter-rams>

<http://www.vitsoe.com/en/gb/about/dieterams/who-is-dieter-rams>



Dieter Rams in conversation with Deyan Sudjic

by **Vitsœ** PRO
2 years ago



Couch Mode



More

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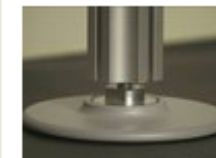
Vitsœ's videos

See all



film: hide those wires

by Vitsœ
1 year ago



6. Vitsœ feature film: structures

by Vitsœ
1 year ago



5. Vitsœ feature film: shelves

by Vitsœ
1 year ago



4. Vitsœ feature

Dieter Rams in conversation with the director of London's Design Museum, Deyan Sudjic.

Filmed at Vitsœ, 72 Wigmore Street London in September 2008.

Braun SK4 Record Player

- 1950s record players: from all wood cabinets to transparent leads

traditional Telefunken record player



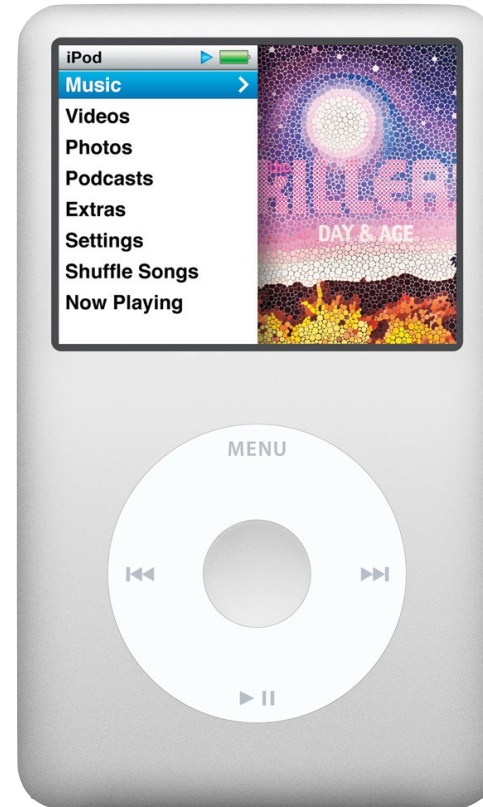
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Braun SK4 record player AKA "Snow White's Coffin", 1956

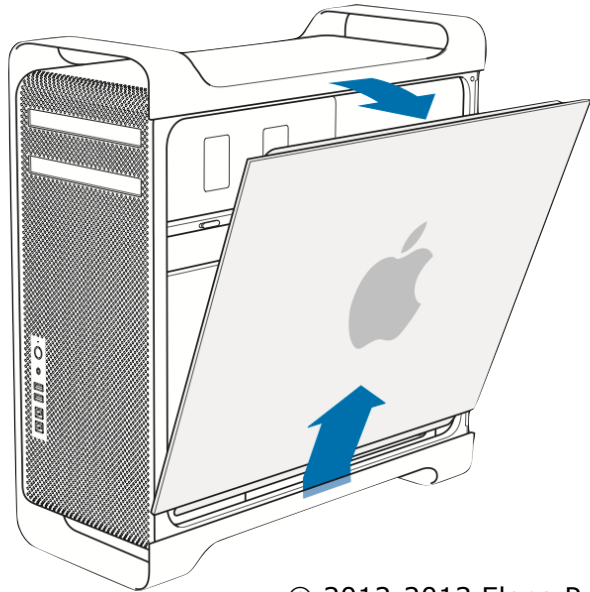
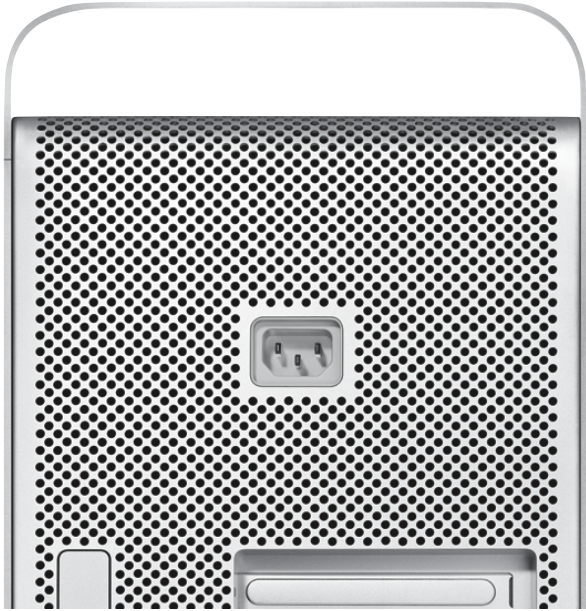
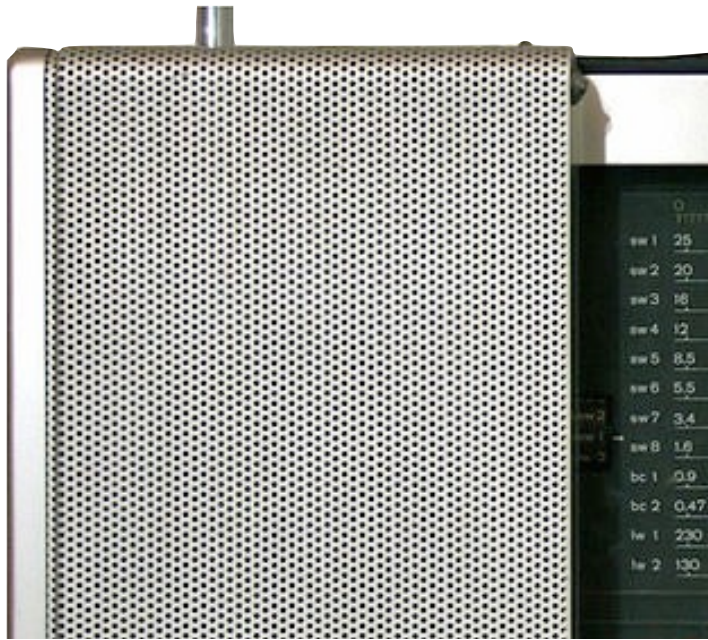


www.chrislabrooy.com/SK4.html

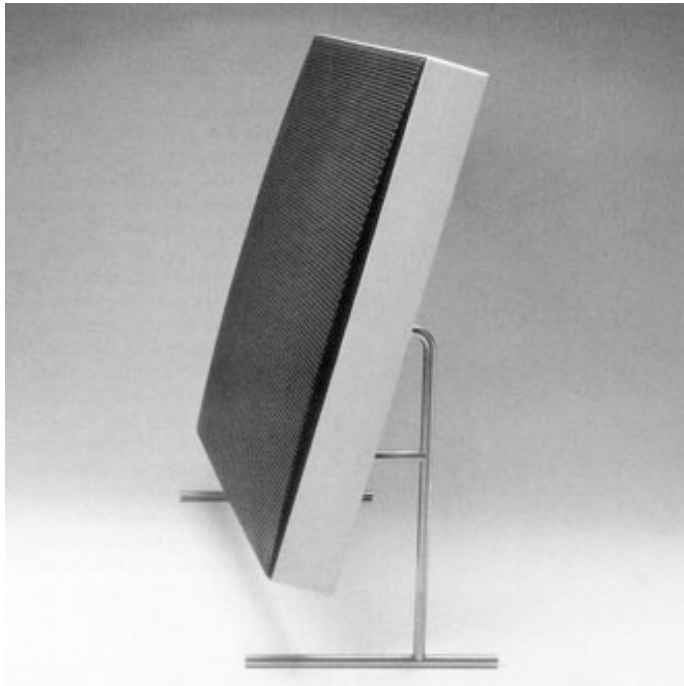
Braun T1000 radio vs Apple iPod



Braun T1000 radio vs Apple Mac Pro



Braun LE1 speaker vs Apple Cinema Display



Braun ET66 calculator vs Apple iPhone calculator



Apple has managed to achieve what I never achieved: using the power of their products to persuade people to queue to buy them.

Dieter Rams on Apple, 2011, The Daily Telegraph

Good Design Is... by Dieter Rams

- **Good design is innovative**

- The possibilities for innovation are not, by any means, exhausted. Technological development is always offering new opportunities for innovative design. But innovative design always develops in tandem with innovative technology, and can never be an end in itself.

- **Good design makes a product useful**

- A product is bought to be used. It has to satisfy certain criteria, not only functional but also psychological and aesthetic. Good design emphasises the usefulness of a product while disregarding anything that could possibly detract from it.

- **Good design is aesthetic**

- The aesthetic quality of a product is integral to its usefulness because products are used every day and have an effect on people and their well-being. Only well-executed objects can be beautiful.

- **Good design makes a product understandable**

- It clarifies the product's structure. Better still, it can make the product clearly express its function by making use of the user's intuition. At best, it is self-explanatory.

- **Good design is unobtrusive**

- Products fulfilling a purpose are like tools. They are neither decorative objects nor works of art. Their design should therefore be both neutral and restrained, to leave room for the user's self-expression.

Good Design Is... by Dieter Rams

- **Good design is honest**

- It does not make a product more innovative, powerful or valuable than it really is. It does not attempt to manipulate the consumer with promises that cannot be kept

- **Good design is long-lasting**

- It avoids being fashionable and therefore never appears antiquated. Unlike fashionable design, it lasts many years – even in today's throwaway society.

- **Good design is thorough down to the last detail**

- Nothing must be arbitrary or left to chance. Care and accuracy in the design process show respect towards the consumer.

- **Good design is environmentally friendly**

- Design makes an important contribution to the preservation of the environment. It conserves resources and minimises physical and visual pollution throughout the lifecycle of the product.

- **Good design is as little design as possible**

- Less, but better – because it concentrates on the essential aspects, and the products are not burdened with non-essentials. Back to purity, back to simplicity.

User-Centred Design

Machines have rules they follow. They are designed and programmed by people, mostly engineers and programmers, with logic and precision. As a result, they are often designed by technically trained people who are far more concerned about the welfare of their machines than the welfare of the people who will use them. The logic of the machines is imposed on people, human beings who do not work by the same rules of logic.

Donald A. Norman, Living with Complexity

- **Provide a good conceptual model**

- when simply looking at a product, a user should be able to understand what it does and how to operate it

- **Make task structure simple**

- a user shouldn't require to remember more than 5 unrelated items at a time due to short-term memory limitations

- **Make actions predictable**

- "(You can review this order before it's final.)" – Amazon checkout process

- **Design for error**

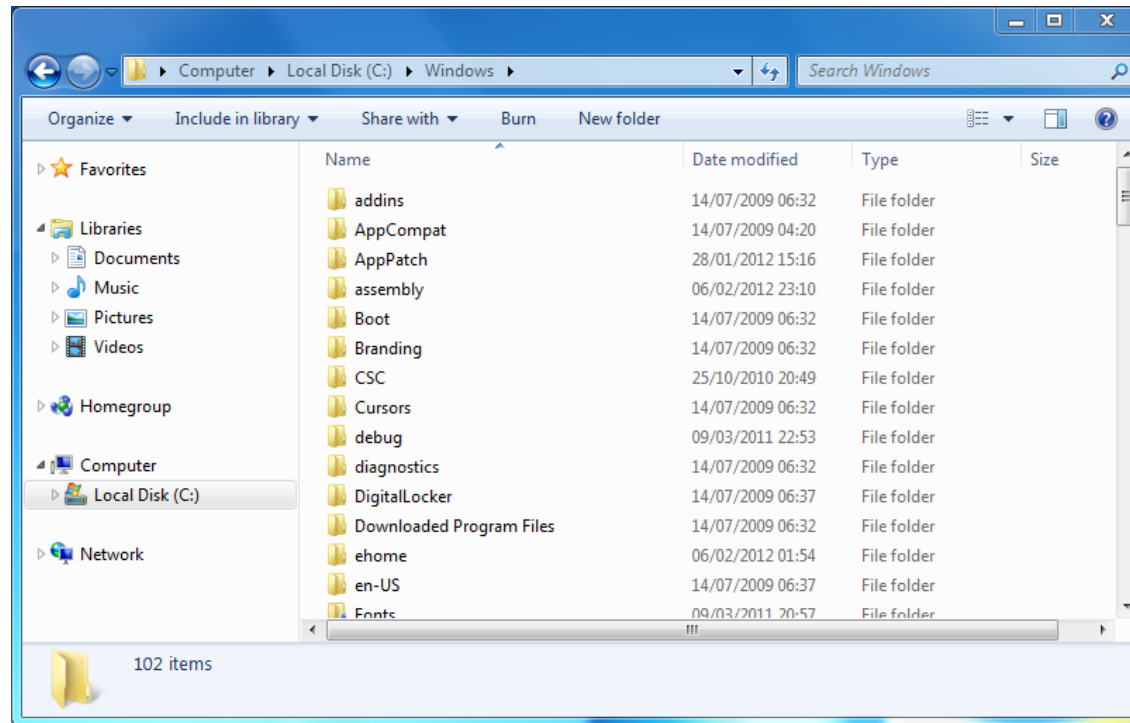
- "what happens if I press this button?.. Five times... With a hammer..." ;)

- **Use standards (where applicable)**

- iOS Human Interface Guidelines, "industry standards"

Conceptual Model

- **Conceptual Model is “the underlying belief structure held by a person about how something works”**



- **Files and folders are abstractions of data items and their organisational structure**
- **Filename + Extension – linking what it is with what I can do with it: start the application – run.exe, read about it – run.txt**

Conceptual Model

- **Conceptual models can evolve:**
 - No files – just pictures, no folders – just albums



- **Arguably, the key reason why people who have never used a computer become active iPad users is that Apple provides a better conceptual model**
- **It's the job of the designer to provide users with the most suitable conceptual model**

Bad Conceptual Models

- One of the most common examples of poor design is...
a DOOR



www.speakhci.com



journal.drfaulken.com

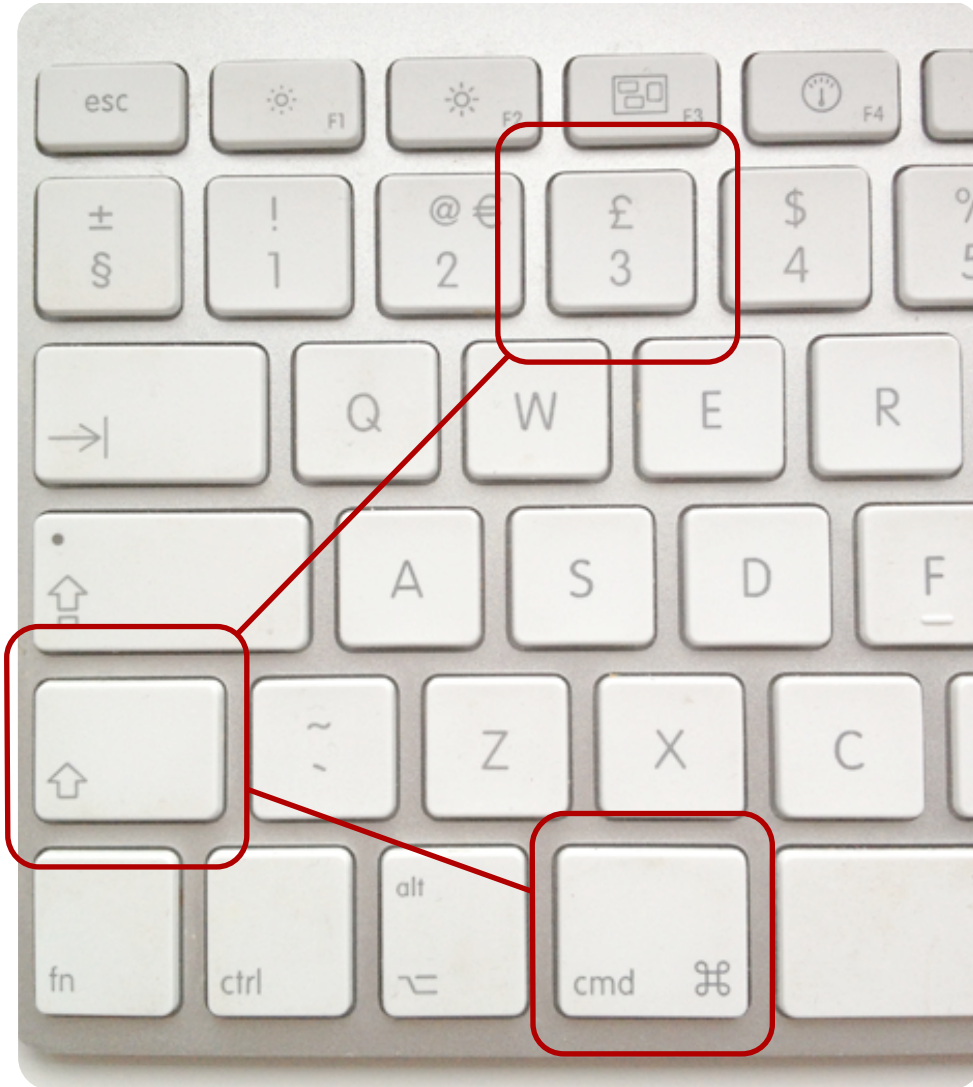


edmazur.com/usability

- A handle strongly suggest to the user to Pull, yet Push is required and advised by the sign
- An emergency staircase door, it's clear a person needs to push (accent plates tell that) but on WHAT SIDE?
- Sliding doors with a twist – only one part slides open (left)

Complexity of Simple Things

- **Functional Requirement: copy of the computer screen**



Mac OS: **Cmd-Shift-3**



Windows: **Print Screen**

Simplicity vs Functionality?



www.flickr.com/photos/raneko

- **Two buttons or one?**
- **Two: more flexibility, but confusing for new computer users**
- **One: single action, but limited functionality**

Simplicity != Fewer Features



Bloomberg Terminal (Industrial Design: Masamichi Udagawa, Sigi Moeslinger; Antenna Design New York Inc. Screen Interface Design: Bloomberg Team. Foto: Ryuzo Masunaga).

Simplicity

- **KISS principle – “Keep it simple, Stupid!”**
- **Not that simple... just because something has fewer buttons it is not automatically more simple**
- **People find simple things they understand and can do = need to provide best possible conceptual models**
- **Simplicity perception depends on the user**
- **The purpose of a good design is to turn complexity of the required functionality into a product that allows to complete its tasks in the most effective and enjoyable way**
- **Unfortunately, it means more work for us... :)**

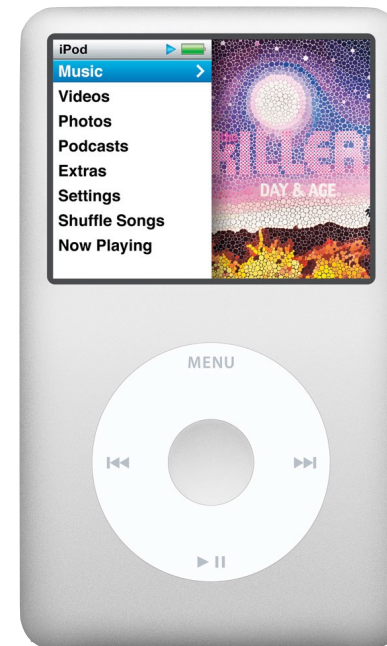
Every application has an inherent amount of irreducible complexity. The only question is who will have to deal with it, the user or the developer.

Larry Tesler, Tesler's law of the conservation of complexity

- **<http://www.designingforinteraction.com/tesler.html>**

Affordances and Signifiers

- **Affordance** – the term originated in psychology and introduced in to interaction design by Donald Norman (1988)
- In design, the term actually refers to “Perceived affordance”, which is qualities of the object that a user can observe and deduce the way of interacting with the object
 - door handles are for pulling
 - buttons are for pressing
 - chairs is for sitting on
- **Norman later advocated that design is more about Signifiers than Affordances (2010)**
- **Signifier** – a “perceivable sign of appropriate behaviour”



www.uxbooth.com

Activity-Centred Design

- **Donald A. Norman says**

Human-centered design does guarantee good products. It can lead to clear improvements of bad ones. Moreover, good human-centered design will avoid failures. It will ensure that products do work, that people can use them. But is good design the goal? Many of us wish for great design. Great

- **and then provokes**

Human-centered design has become such a dominant theme in design that it is now accepted by interface and application designers automatically, without thought, let alone criticism. That's a dangerous state—when things are treated as accepted

Activity-centered design might be superior.



Jakob, Don, Tog

[Jakob Nielsen](#), Ph.D.
"The Guru of Web Page Usability" (New York Times)
[Donald A. Norman](#), Ph.D.
"The Guru of Workable Technology" (Newsweek)
[Bruce "Tog" Tognazzini](#)
"Leading Authority on Software Design" (HotWired)

<http://www.nngroup.com/>

Attractive Things Work Better

- User perception of the product is also connected user's emotions
- The user can be more forgiving to a beautiful product
- Designing the Experience



Apple Store, Carrousel du Louvre, Paris, © Apple

Designing Experiences

Designing Products vs Designing Experiences

October 03, 2001

David Kelley biography | IDEO

Entrepreneurial Thought Leader Speaker Series



Views: 3004



Video 8 of 12 from this talk

- | | |
|--|-------|
| 1. Career Development | 02:30 |
| 2. Building a Personal Gratification Company | 01:20 |
| 3. Follow Your Passion | 01:45 |
| 4. Design is Risk-Taking | 03:58 |
| 5. Hire Great People | 04:23 |
| 6. The Process of Design | 01:46 |
| 7. Product Development Process: Observation | 05:24 |
| 8. Designing Products vs Designing Experiences | 03:41 |
| 9. Design as an Iterative Process | 01:37 |
| 10. Prototyping the Mouse | 03:17 |
| 11. Career Advice | 00:41 |
| 12. How do you pick clients? | 01:36 |

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Description

Kelley believes you start to think about things completely different when you think your job is to design the experience of using the device as opposed to designing the device itself. Kelley feels that to captivate an audience you need to build a context around the technology you are marketing and take into consideration how outside factors will affect how your product is perceived. He uses methods of transportation as an example

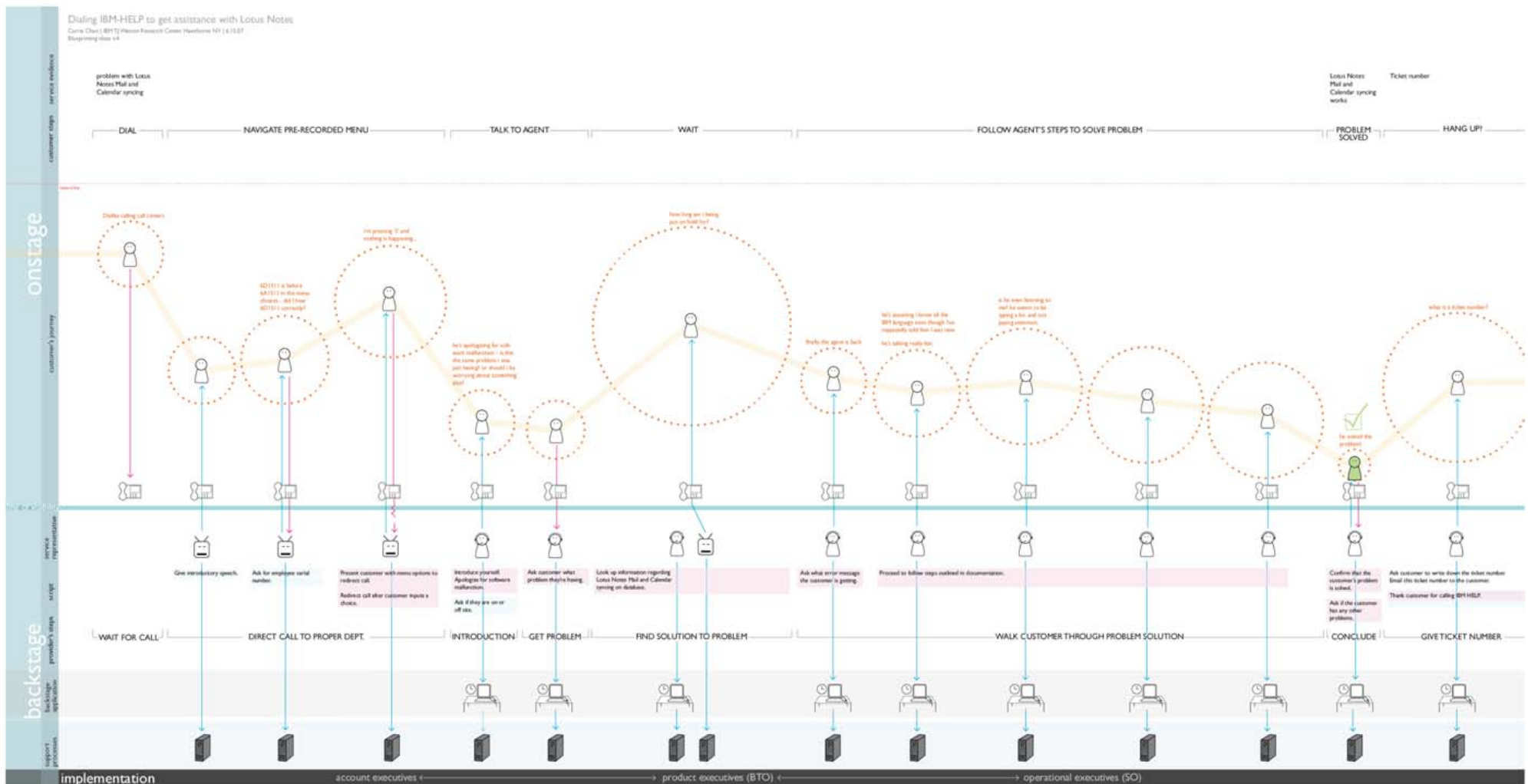
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Designing Experiences

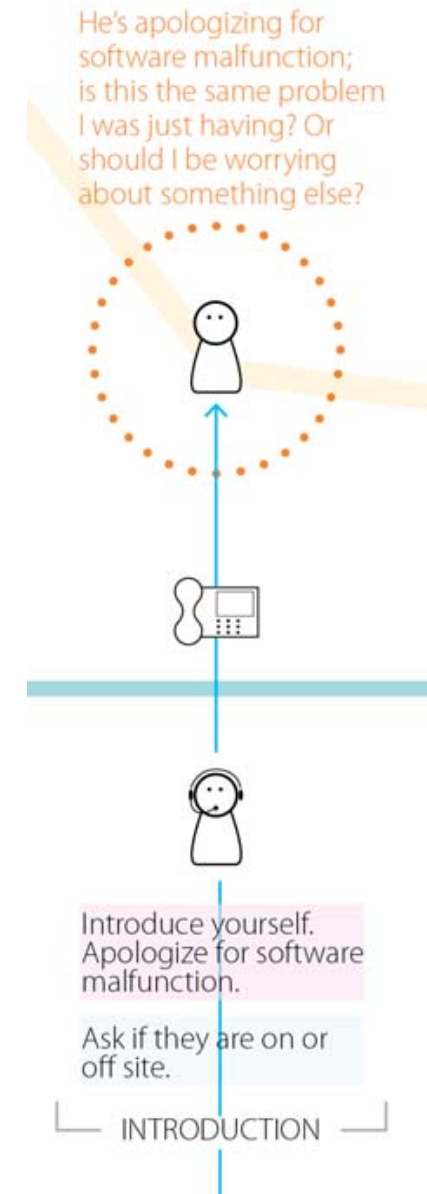
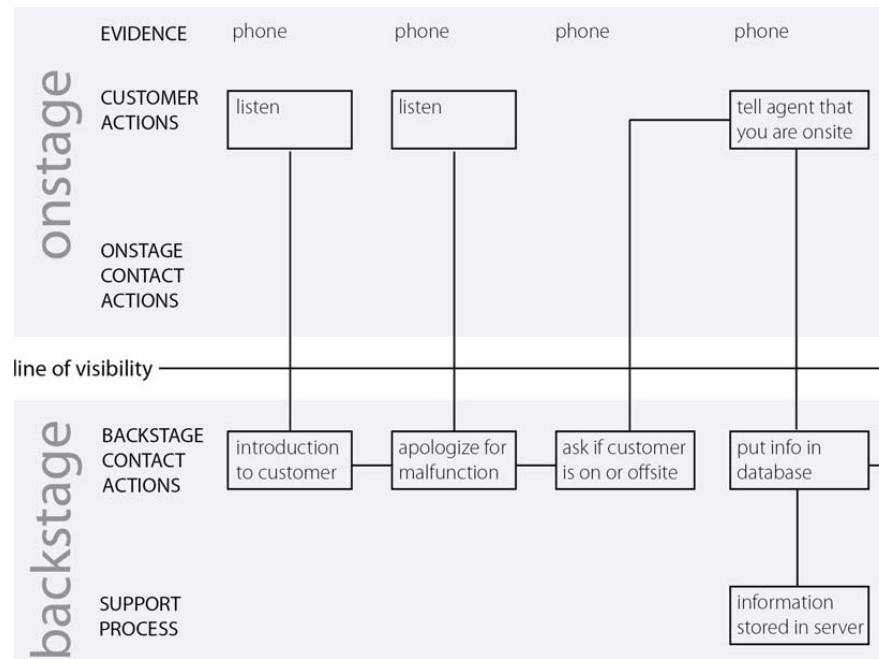
- Service Blueprinting: When Customer Satisfaction Numbers are not enough**

- Susan L. Spraragen, IBM Watson Research and Carrie Chan, School of Design, MMC110 Carnegie Mellon University



Designing Experiences: Emotions matter!

- **Service Blueprinting: from traditional to enhanced**



Designing Experiences: overall experience

- IDEO project for Amtrack's high-speed trains – Acela Express
- Brief: design the interior of the cabin
- **Work: realised that the actual rail journey is only a part of the overall experience and the whole process needs to be designed together, including**

- passenger's decision to travel by train
- buying tickets
- arriving at the station
- waiting for the departure
- travelling
- arrival to the destination station
- transfer to the final destination



www.ideo.com/work/acela

- **Unfortunately, over time, the service has failed to live up to the standard (e.g. the speed limited by old tracks) – need to consider practical implications, especially over the long lifetime of the system**
 - http://www.adobe.com/uk/designcenter/thinktank/greenfield_04.html