

Interaction Design

Helping users work better



Whitney Quesenbery

Whitney Interactive Design

www.WQusability.com

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Interface design is the combination of navigational strategies, visual design and information organization that influences the way a reader experiences the online work.

“Developing a User Interface
for an Online Document” - 1993

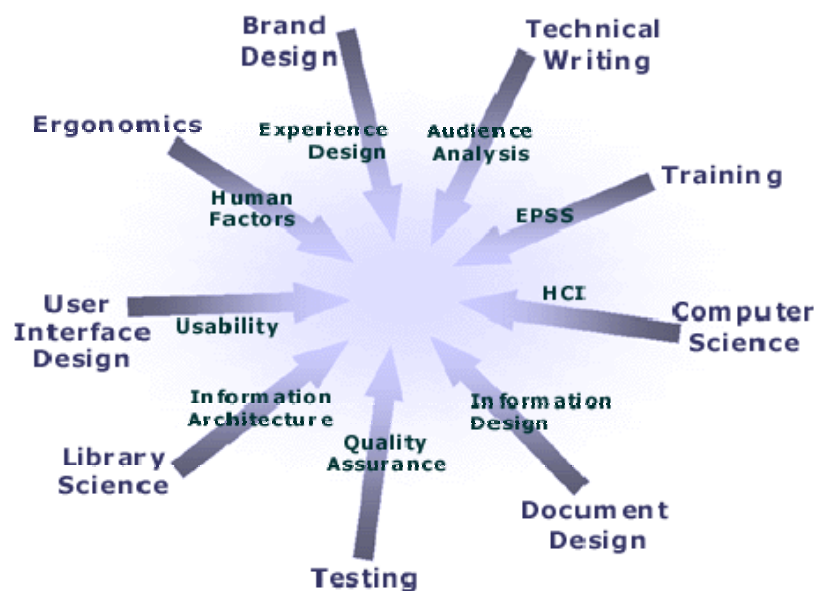
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So many words...

Technical communications • Usability Interface design • Information architecture • Performance support • Interaction design • Ethnography • Experience design • User experience design • Brand design • User-centered design • Market research • Document design • User interface design • Interaction architecture • Human factors • Marketing • Writing • Human-computer interaction • Industrial design • Graphic design • Information design • Ergonomics • Interactive design • Customer experience • Quality control

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...are they the same thing?

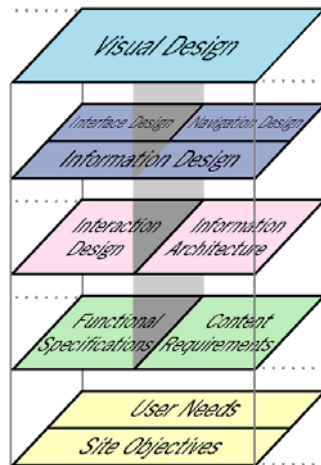


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Elements of user experience

Application

- Focused on *doing* things or actions
- Rely on task analysis
- Built on user interface design
- Need good interaction design



Information

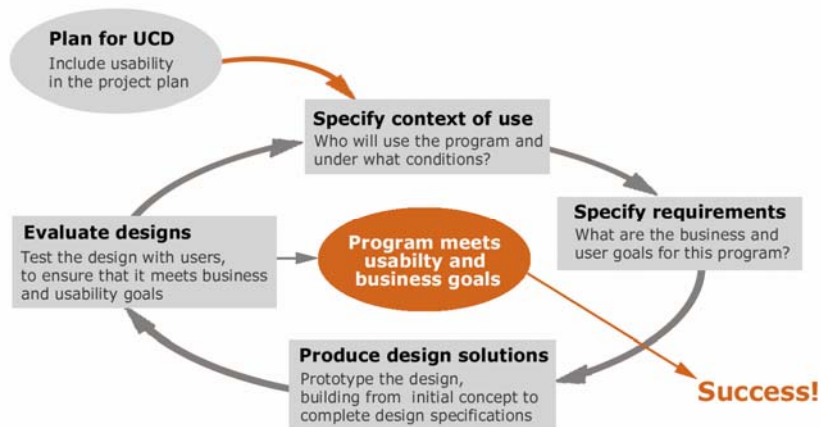
- Focused on *finding* information
- Rely on content analysis
- Build on information architecture
- Need good navigation design

Both are built on understanding user needs

"The Elements of User Experience" by Jesse James Garrett

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Plan for user success

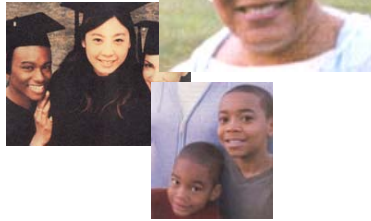


ISO 13407: Human-centred design process

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Two different users...

Jerilynn
Office Clerk



- Likes helping people and knowing how to get things done
- Dislikes constant change and the new computer systems

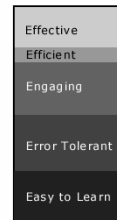
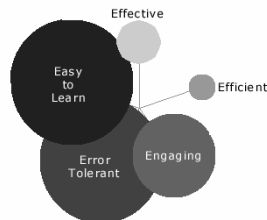
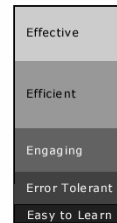
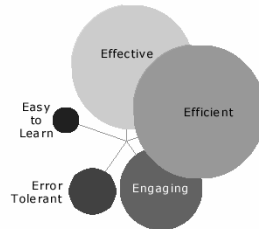
Toni
Citizen



- Busy life with work and family - never has enough time
- Needs help with something, but doesn't know exactly what agency to turn to

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... have different usability needs



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What do we know about the use...?

How often is the application used?

← Only occasionally and briefly | | | → Daily, for long sessions

Design for ease of learning?

Design for efficiency?

How difficult or intimidating is the task?

← General knowledge only | | | Some domain knowledge | | | Detailed specialist knowledge →

Design to engage the user?

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What do we know about the use...?

How well do users understand the task?

← General knowledge only | | | Some domain knowledge | | | Detailed specialist knowledge →

Design for ease of learning?

Design for efficiency?

How important is the outcome?

← Trial and error is part of the task | | | Mistakes are annoying | | | Mistakes are difficult to correct →

Design for effectiveness?

Design for error tolerance?

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What is the relationship?



Calculator: No relationship

- No need to log in
- No work maintained between sessions



Register Your Car: One-time transaction

- Identification through a document ID
- Transaction completed in one session
- Long-term memory not part of the web service



Online Banking: Ongoing relationship

- Personal log in
- Used over time, and maintains history

Relationship changes the design

1. Are the applicant, spouse or any of their dependents, regardless if applying for coverage, currently...

What are you asking me??!



Qualifying eligibility questions

1. Does the applicant, co-applicant or any named dependent currently have any of the following: hospital, major medical or medical insurance coverage? Yes No

Are the applicant, co-applicant and every named dependent a citizen of the United States? Yes No

Do the applicant and co-applicant reside in Wisconsin at least 6 months before the date of application? Yes No

Are the applicant, co-applicant and every named dependent under age 21? Yes No

Qualifying health questions

Coverage cannot be issued to any individual who answers 'Yes' to one of these 5 questions: the applicant, spouse or any of their dependents, regardless if applying for coverage, currently pregnant or an expectant parent? Yes No

2. Has the applicant, co-applicant or any dependent to be insured, ever had an organ transplant? Yes No

3. Has the applicant, co-applicant or any dependent to be insured, been diagnosed as having, or been treated by a member of the medical profession for Acquired Immune Deficiency Syndrome (AIDS), AIDS Related Complex (ARC) or Human Immunodeficiency Virus (HIV)? Yes No

4. Has the applicant, co-applicant or any dependent to be insured, ever disclosed whether you have obtained a genetic test, the results of a genetic test, or a positive AIDS test result obtained at an anonymous testing site? Yes No

5. Has the applicant, co-applicant or any dependent to be insured ever tested for antibody to AIDS or HIV? Yes No

6. Has the applicant, co-applicant or any dependent to be insured ever tested for AIDS tests are limited to FDA-licensed blood tests. You do not use whether you have obtained a genetic test, the results of a genetic test, or a positive AIDS test result obtained at an anonymous testing site? Yes No

7. Has the applicant, co-applicant or any dependent to be insured ever been diagnosed with, treated or consulted with a physician or licensed practitioner for:

a) Angina, Angioplasty, Heart Attack, Coronary Bypass, Atrial or Ventricular Septal Defects, Heart Valve Replacement? Yes No

b) Stroke, Cirrhosis, Polycystic Kidney Disease, or Addison's Disease? Yes No

c) Down's Syndrome, Cerebral Palsy, Muscular Dystrophy, or Cystic Fibrosis? Yes No



Caroline Jarrett: Three Layer Model of the Form

Usability is a balance

- **Effective**
Users can accomplish their goals...
- **Efficient**
...in a reasonable time...
- **Engaging**
...in a pleasant and satisfying way
- **Error Tolerant**
...without mistakes...
- **Easy to Learn**
...and that is easy to learn to use.



“What Does Usability Mean: Looking Beyond ‘Ease of Use’”
Whitney Quesenbery, Proceedings of the STC, 2001

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Types of applications



Reports or Data View



Transactional 'Desktops'



E-Commerce



Customer Self-Service

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Interaction styles

RELATIONSHIP	Strong	Reports or Data View <ul style="list-style-type: none"> Information-focused Goal is knowledge Knowledgeable relationship 	Transaction 'Desktops' <ul style="list-style-type: none"> Activity-focused Goal is complex mix of knowledge and task Strong relationship
	Weak	E-Commerce <ul style="list-style-type: none"> Browsing towards single transaction Goal is purchase Casual or "as needed" relationship 	Customer Self-Service <ul style="list-style-type: none"> Browsing towards multiple transactions Goal is transaction Use may be 'stressful'
		Looking	Doing
		INTERACTION	

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Interaction style

Customize Group

Message approval: ▼

Reply to: ▼

Group type: ▼

Step 2 of 3. Customize test-wq

Do you want to approve messages before they are delivered?

No, messages are delivered immediately. Default

Yes, messages require my approval.

Only messages from new members require my approval. [Learn More](#)

Message replies should go to:

All group members. [Learn More](#) Default

Only to message sender. [Learn More](#)

Do you want to use group's web features, such as photos, files, calendar, polls, and chat?

Yes, I want to use the group's web features. Default

No web features; this is a mailing list only. [Learn More](#)

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Interaction style



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Be informative

- Don't make users guess what to do or how to do it

What can I do here?



Online Registration Renewal



A simple 4-step process!

1. ENTER VEHICLE INFORMATION
2. ENTER OWNER INFORMATION
3. PAY FEES
4. PROVIDE FEEDBACK (optional)

Make sure you have the following ready:

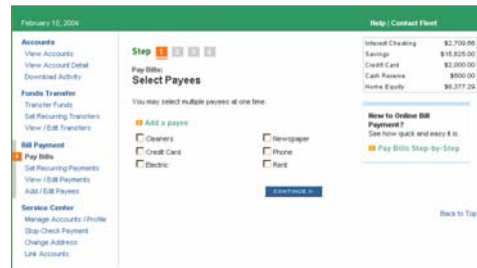
- Your registration renewal form
- Your Social Security Number (SSN)
- Your Insurance Identification Card
- A valid credit card



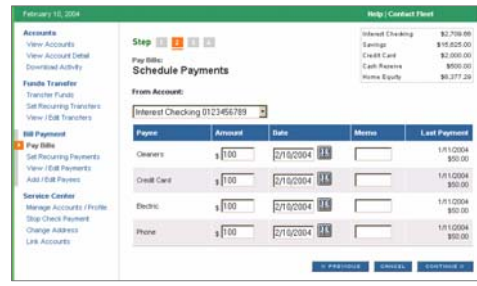
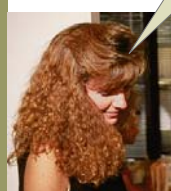
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Provide direction

- Balance freedom of navigation and structure within a task



What's next



Balance complexity and clarity

- Make the complexity of the interaction appropriate for the users and the task



Both of these are right for me... in the right context



Be tolerant

- Don't make the user do work the computer can do

Why can't I enter the rest of my credit card number?

Payment Method

Credit Card Type: American Express
 Discover
 MasterCard
 Visa

Credit Card Number:

Expiration: (mm/yyyy)

Other Payment Please send me a bill.

1234-107517-43006



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Allow for different needs

- Let the user customize the page view

Let me control my own experience.

The screenshot shows a news article from the International Herald Tribune titled "The politics of Nutella" by Elisabetta Pavolada, dated Friday, December 10, 2004. The article discusses the ideological question of whether Nutella is "left" or "right-wing" in Italy. A dark theme overlay is applied to the right side of the page, highlighting the article's content.



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When I'm working on a problem, I never think about beauty. I think only how to solve the problem. But when I have finished, if the solution is not beautiful, I know it is wrong.

- R. Buckminster Fuller

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About me



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Whitney Quesenberg is a user interface designer and usability specialist with a passion for clear communication. She is an expert in developing new concepts for product designs and has produced award winning multimedia products, web sites, and web & software applications.

She is President of the Usability Professionals' Association and the Director of the UPA Voting and Usability Project. She was recently appointed to a US government committee on guidelines for voting systems for the EAC (Elections Assistance Commission)

Before she was 'seduced' by a little beige computer into the world of usability, Whitney was a theatrical lighting designer on and off Broadway. The lessons and stories from the theatre stay with her in creating user experiences.

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