

# About Me

**Darren Hood** 

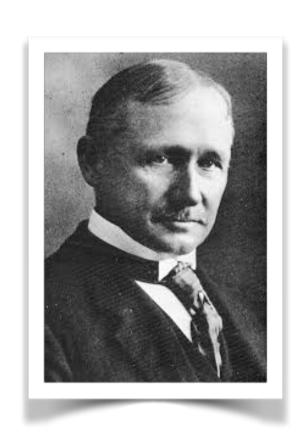




### Numbers of Note

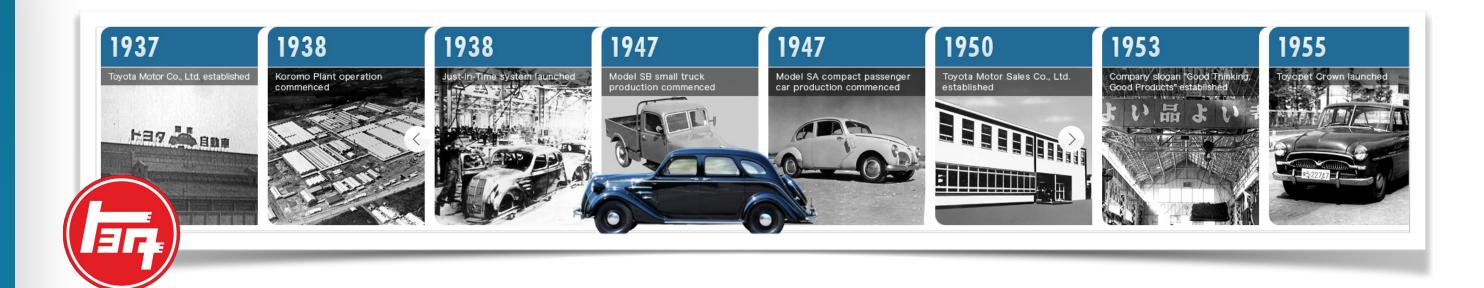
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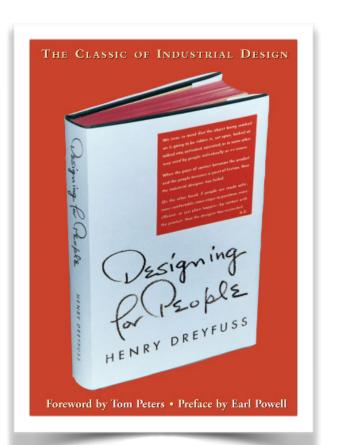
In the early 1900s, in conjunction with Henry Ford, Fredrick Winslow Taylor shaped interactions between workers and their tools.

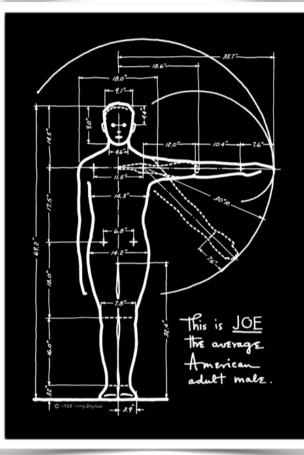




In 1948, via input from its employees, Toyota optimized human interaction with its technology.







The first answering machine. The Hoover vacuum cleaner. The Bell telephone.

The common link? The mind of Henry Dreyfuss and his focus on delighting users. His career began designing sets for stage presentations, focusing on the experience of those touched by and participating in a performance.



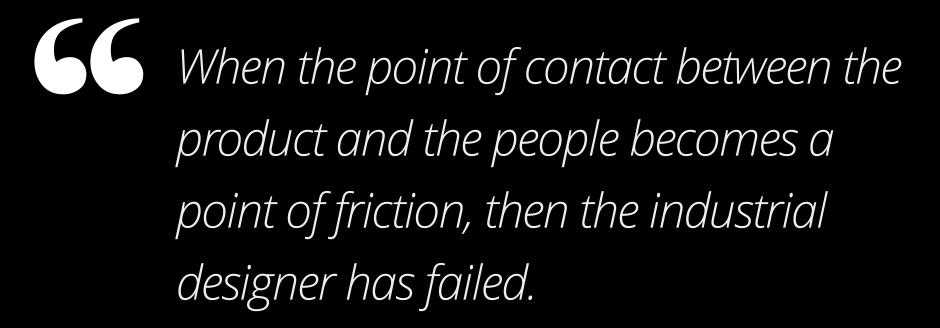


In 1995, an electrical engineer and cognitive scientist by trade, Don Norman joined Apple to help with the research and design of its upcoming line of human-centered products. He asked to be called "User Experience Architect," marking the first use of the term in a job title.

~ Ali Rushdan Tariq, 2015



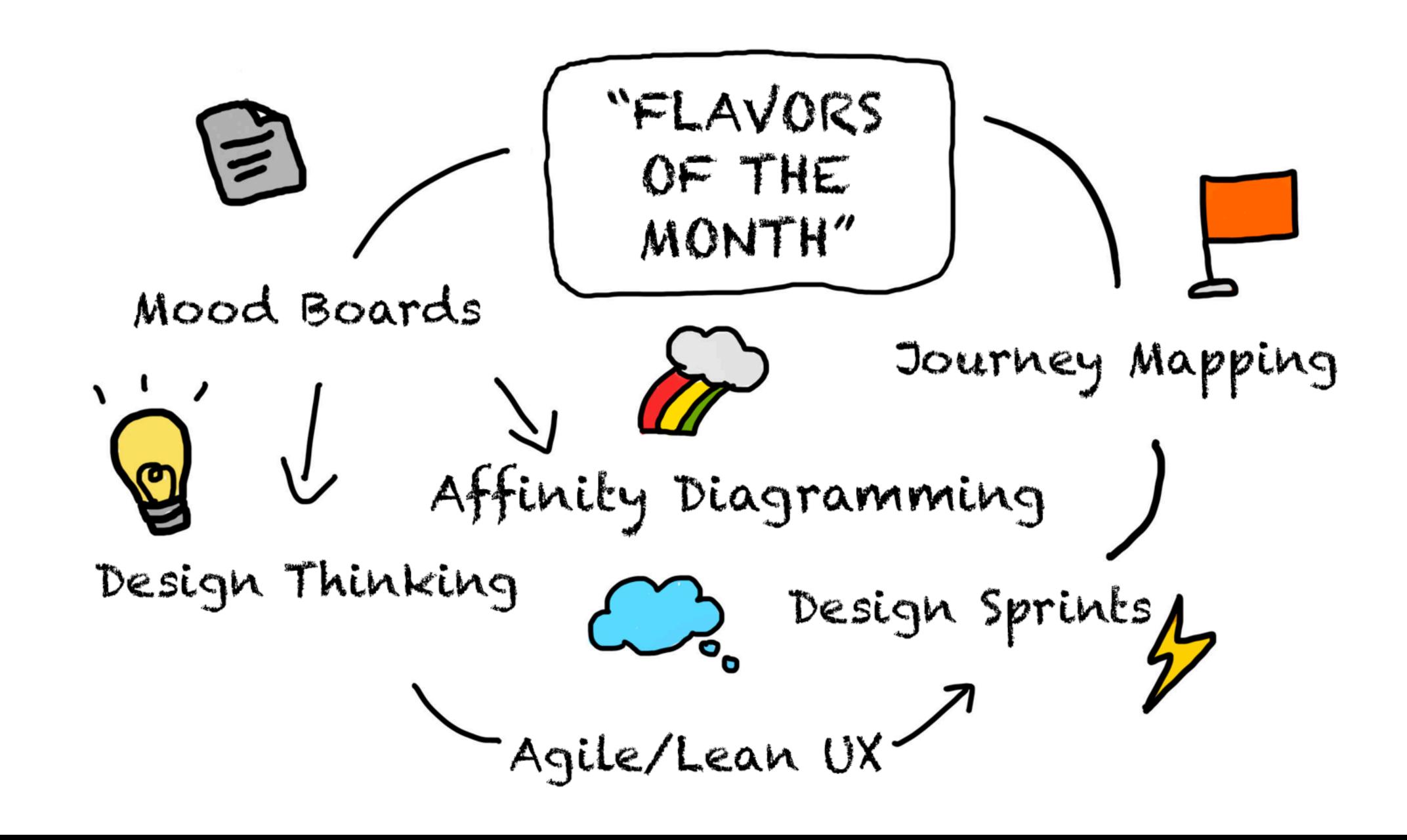
# Henry Dreyfuss



On the other hand if people are made safer, more comfortable, more eager to purchase, more efficient—or just plain happier—by contact with the product, then the designer has succeeded.











Suggestive Search Faceted Search Brand Experience (BX) Customer Experience (CX) Interactive TV Nomenclature Information Foraging Wayfinding Vendor Management **Email Marketing** Lean UX **Taxonomies** Information Management Iterative Design Agile Methodologies Risk Mitigation Site Maps Pattern Libraries Wireframes Emotional Design Impact **Statistics** Innovation

### Task Flows Information Architecture

Persuasive Design Findability Scenarios

Fitts' Law Personas Navigation Copywriting

Semiotics Information Visualization Metadata

Information Scents

Design Thinking Storyboarding Journey Mapping

UX Strategy Typography Interactive Voice Response (IVR)

Content Strategy Cognitive Load

E-Commerce Iconography Aesthetics

Gestalt Theory Contrast

Spatial Memory Prototyping Mockups

### Style Guides Interface & Interaction Design

Visual Design Color Psychology

Responsive Design Mobile Design Adaptive Design

Human-Computer Interaction Tactile Interaction Visual Communication

Client Management Cognitive Psychology

Cognitive Psychology

Emotional Intelligence of Cognitive Psychology

Client Management Cognitive Psychology

Cognitive Psychology

Emotional Intelligence of Cognitive Psychology

Cognitive Psychology

Cognitive Psychology

Emotional Intelligence of Cognitive Psychology

Analytics Online Advertising Instructional Design

Emotional Intelligence Blended Learning Ergonomics

Client Management Internet of Things Pictorial Realism

Cognitive Psychology Mental Models Design Sprints

Autonomy Error Recovery

Accessibility Scannability Readability

Common Convention Consistency

Cognition System/Real World Match Intuition

### Efficiency Heuristics/Usability Recognition

Clarity Minimalism Learnability

Simplicity Delight Ease of Use Transparency

Affordances

Sound Design Augmented Reality Virtual Reality

Empathy Key Performance Indicators Gamification

Content Inventory Annoyances

Eyetracking Affinity Diagramming

Guerilla Research Focus Group Moderation Survey Design

Ethnography Qualitative Research Qualitative Research

Diary Studies Needs Analysis Task Analysis

Interviewing Research First Click Testing

Heat Maps Data Synthesis Data Analysis Competitive Analysis

Remote Testing Contextual Inquiry Field Studies

Intercept Surveys Multivariate testing Mixed Method Research

Card Sorting

UX Landscape © 2016, Darren Hood. All rights reserved.

# heuristics.



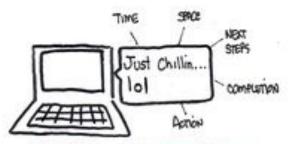
# Overview of Heuristics

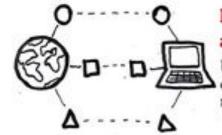
- A heuristic evaluation is a usability inspection method that helps to identify USABILITY PROBLEMS in a user experience.
- Heuristic evaluations specifically involve evaluators who analyze the interface and judge its compliance with RECOGNIZED usability principles.
- Heuristics are derived from BEST PRACTICES and PROVEN methods.
- Heuristics are RELIABLE and TRUSTWORTHY.
- Heuristics help OVERCOME bias, politics, and self-directed design.
- Heuristic evaluations are the most popular of Discount Usability Engineering methods (Nielsen, 1989).



# The Nielsen Ten

### Ten Usability Heuristics by Jakob Nielsen



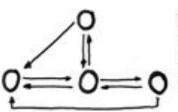


### Match between system and the real world

Use real-world words, concepts and conventions familiar to the users in a natural and logical order.

### Visibility of system status

Give the users appropriate feedback about what is going on.



### User control and freedom

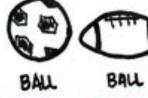
Support undo, redo and exit points to help users leave an unwanted state caused by mistakes.



### Error prevention

Prevent problems from occurring: eliminate error-prone conditions or check for them before users commit to the action.

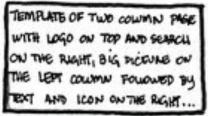


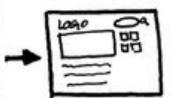




### Consistency and standards

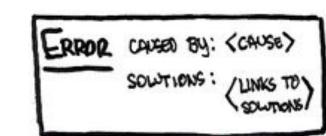
Follow platform conventions through consistent words, situations and actions.





### Recognition rather than recall

Make objects, actions, and options visible at the appropriate time to minimize users' memory load and facilitate decisions.

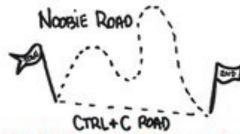


### Help users recognize, diagnose, and recover from errors

Express error messages in plain language (no codes) to indicate the problem and suggest solutions.

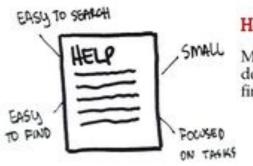
### Aesthetic and minimalist design

Don't show irrelevant or rarely needed information since every extra elements diminishes the relavance of the others.



### Flexibility and efficiency of use

Make the system efficient for different experience levels through shortcuts, advanced tools and frequent actions.



### Help and documentation

Make necessary help and documentation easy to find and search, focused

### Weinschenk & Barker



Susan Weinschenk



Dean Barker

### 20 Usability Heuristics (Weinschenk and Barker 2000)



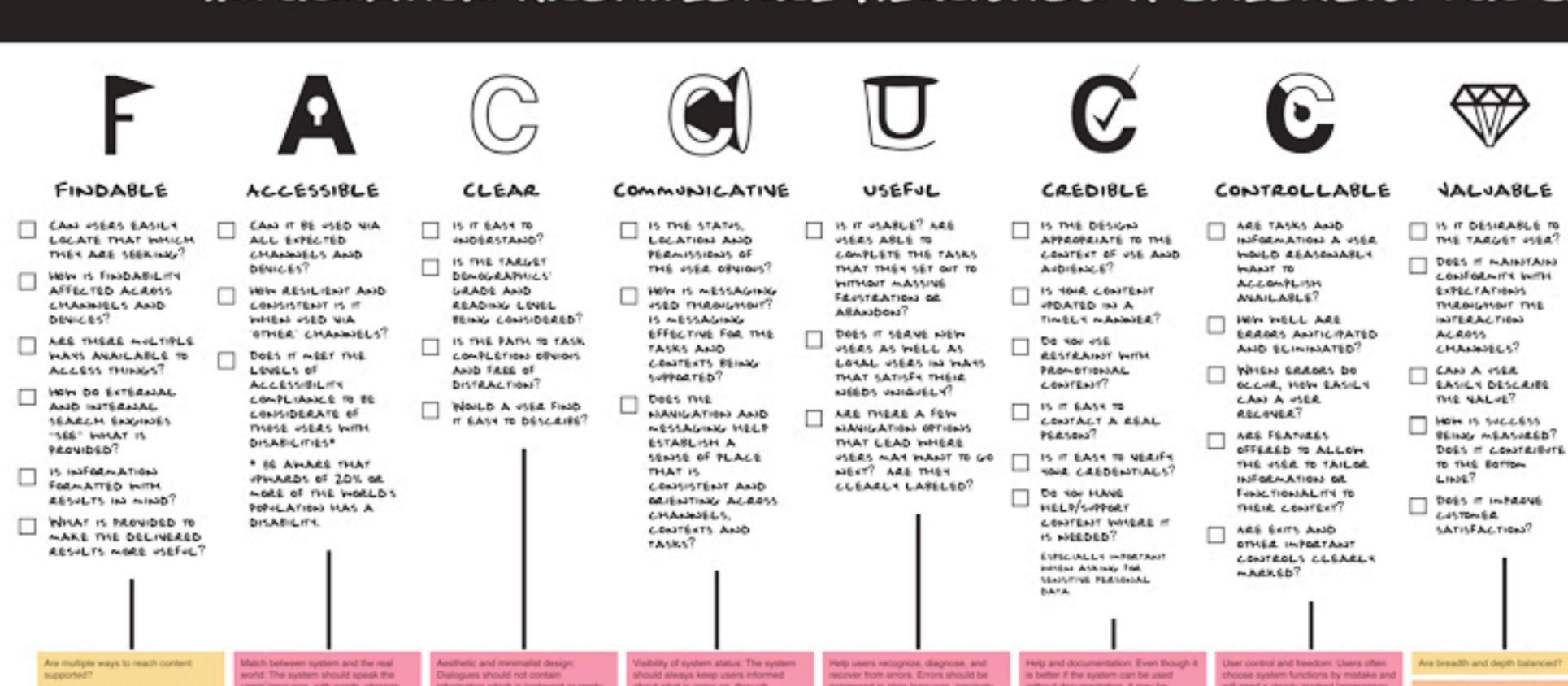
- 1. User Control: The interface will allow the user to perceive that they are in control and will allow appropriate control.
- 2. Human Limitations: The interface will not overload the user's cognitive, visual, auditory, tactile, or motor limits.
- 3. Modal Integrity: The interface will fit individual tasks within whatever modality is being used: auditory, visual, or motor/kinesthetic.
- **4. Accommodation:** The interface will fit the way each user group works and thinks.
- **5. Linguistic Clarity:** The interface will communicate as efficiently as possible.
- **6. Aesthetic Integrity:** The interface will have an attractive and appropriate design.
- 7. Simplicity: The interface will present elements simply.
- **8. Predictability:** The interface will behave in a manner such that users can accurately predict what will happen next.
- **9. Interpretation:** The interface will make reasonable guesses about what the user is trying to do.
- 10. Accuracy: The interface will be free from errors

- 11. **Technical Clarity:** The interface will have the highest possible fidelity.
- **12. Flexibility:** The interface will allow the user to adjust the design for custom use.
- **13. Fulfillment:** The interface will provide a satisfying user experience.
- **14. Cultural Propriety:** The interface will match the user's social customs and expectations.
- **15. Suitable Tempo:** The interface will operate at a tempo suitable to the user.
- **16. Consistency:** The interface will be consistent.
- 17. User Support: The interface will provide additional assistance as needed or requested.
- **18. Precision:** The interface will allow the users to perform a task exactly.
- **19. Forgiveness:** The interface will make actions recoverable.
- **20. Responsiveness:** The interface will inform users about the results of their actions and the interface's status.



### Abby Covert & TUG

### INFORMATION ARCHITECTURE HEURISTICS: A CHECKLIST FOR CRITIQUE







anckey?



DELIGHTFUL

### LEARNABLE

- CAN IT BE GRASPED WHAT ARE YOUR DIFFERENTIATORS FROM OTHER WHAT IS OFFERED SIMILAR. TO EASE THE MORE EXPERIENCES OR COMPLICATED COMPRIMENT.
- PROCESSES? WHAT CARSS IS IT MEMORABLE? CHANNIEL TIES CAN SE EXPLORED THAT IS IT EASY TO DELIGHT? ABC GOAT?
  - HOW ARE HER DOES IT BEHAVE EXPECTATIONS NOT CONSISTENTEN THAT MET BUT ENDOUGHT TO BE EXCEEDED? PREDICTABLE?
    - WHAT ARE YOU PROVIDING THAT IS HAVE KREATED?
      - WHAT CAN YOU TAKE THAT IS NOW COM PARMICA MAKE PARKHIDADARY?

Is search easy to find and consistently placed? Is search easy to use? Does it. support revision and refinement?

Are query builders used effectively? (spell-checking, stemming, concept.) searching, and thesaural searching):

Are useful results available at the top of the in site results list?

Is it possible to move through the site. without experiencing click tatigue?

Just as our buildings have elevators and

users' language, with words, phrases and concepts familiar to the user, rather than system oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

amps, our web sites should be

information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant. units of information and diminishes their relative visibility

in search: is it clear what was searched for, what the query was and how many results were neturned?

Are labels clear and meaningful?

about what is going on, through appropriate feedback within reasonable

Recognition rather than recall, Minimize he user's memory load by making éjects, actions, and options visible. The ser should not have to remember nformation from one part of the Salogue to another, Instructions for use of the system should be visible or easily winevable whenever appropriate.

repressed in plain language precisely. ndicate the problem, and constructively. suggest a solution.

Opes it serve users who have been here. before and know what they're looking

Does it highlight the best ways to reach

in search: Are useful components

Project, we're beginning to understand the design elements that influence

without documentation, it may be necessary to provide help and focumentation. Any such information. should be easy to search, focused on the user's task, list concrete steps to be sarried out, and not be too large.

redible: Thanks to the Web Credibility. whether users trust and believe what we

will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended

Error prevention: Even better than good error messages is a careful design. which prevents a problem from occurring in the first place. Either firminate error-prone conditions or heck for them and present users with a infirmation option before they commit.

Are breadth and depth balanced?

Desirable: Our quest for efficiency must be tempered by an appreciation for the power and value of image, identity, brand, and other elements of emotional

Valuable: Our sites must deliver value to our sponsors. For non-profits, the user experience must advance the mission. With for profits, it must contribute to the bottom line and improve customer

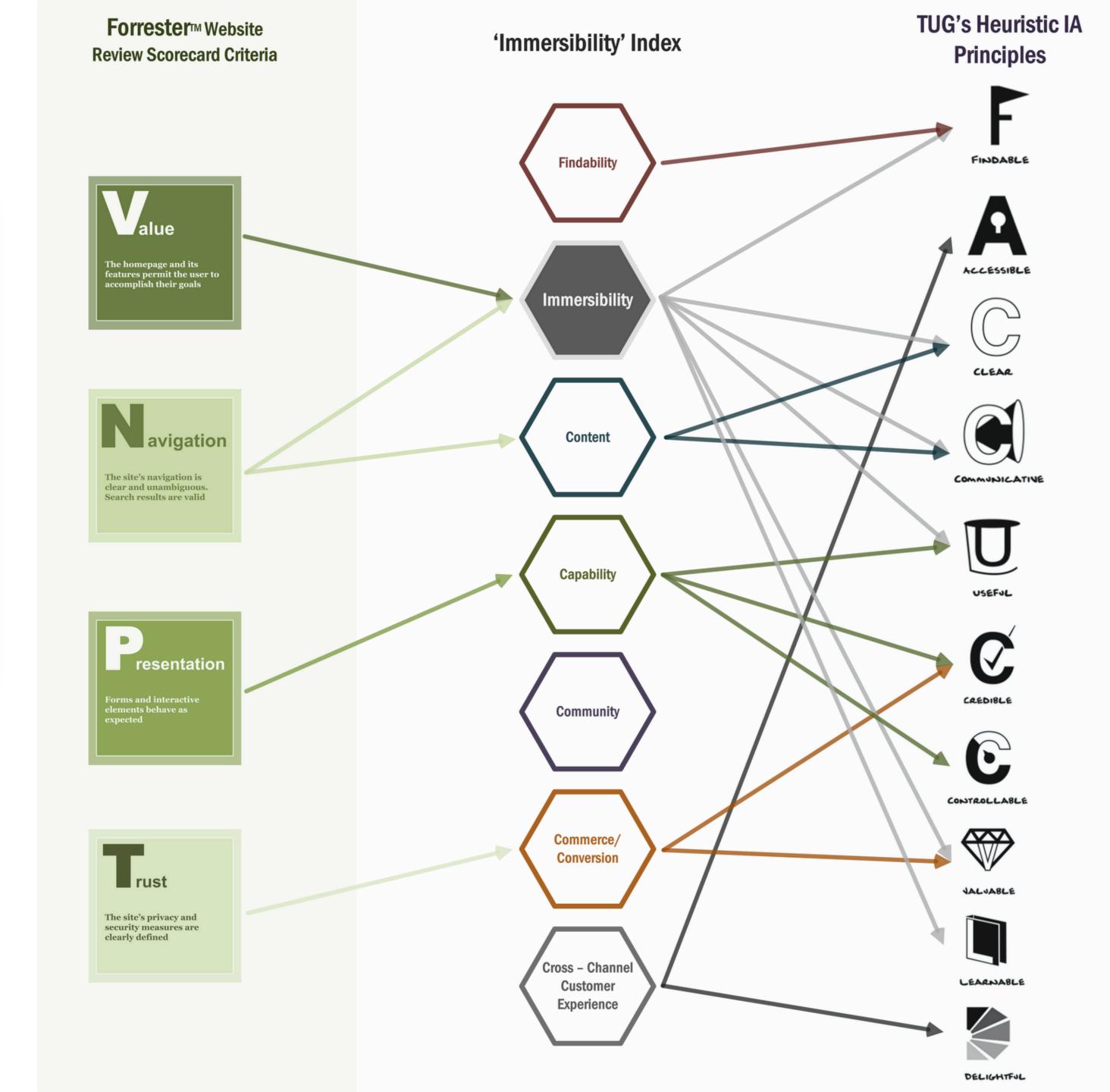
Consistency and standards: Users hould not have to wonder whether different words, situations, or actions mean the same thing. Follow platform. conventions.

A dialog supports suitability for learning. I'it guides the user through the learning stages minimizing the learning time.

Comprehensibility: the meaning is clearly understandable, unambiguous, interpretable, and recognizable.

Mistorically "delight" has not been talked about in regards to heuristic measurement yet consideration of differentiators and goals around exceeding user expectations are becoming increasingly important to consumers - especially as we explore cross channel solutions.

### John Hutchings



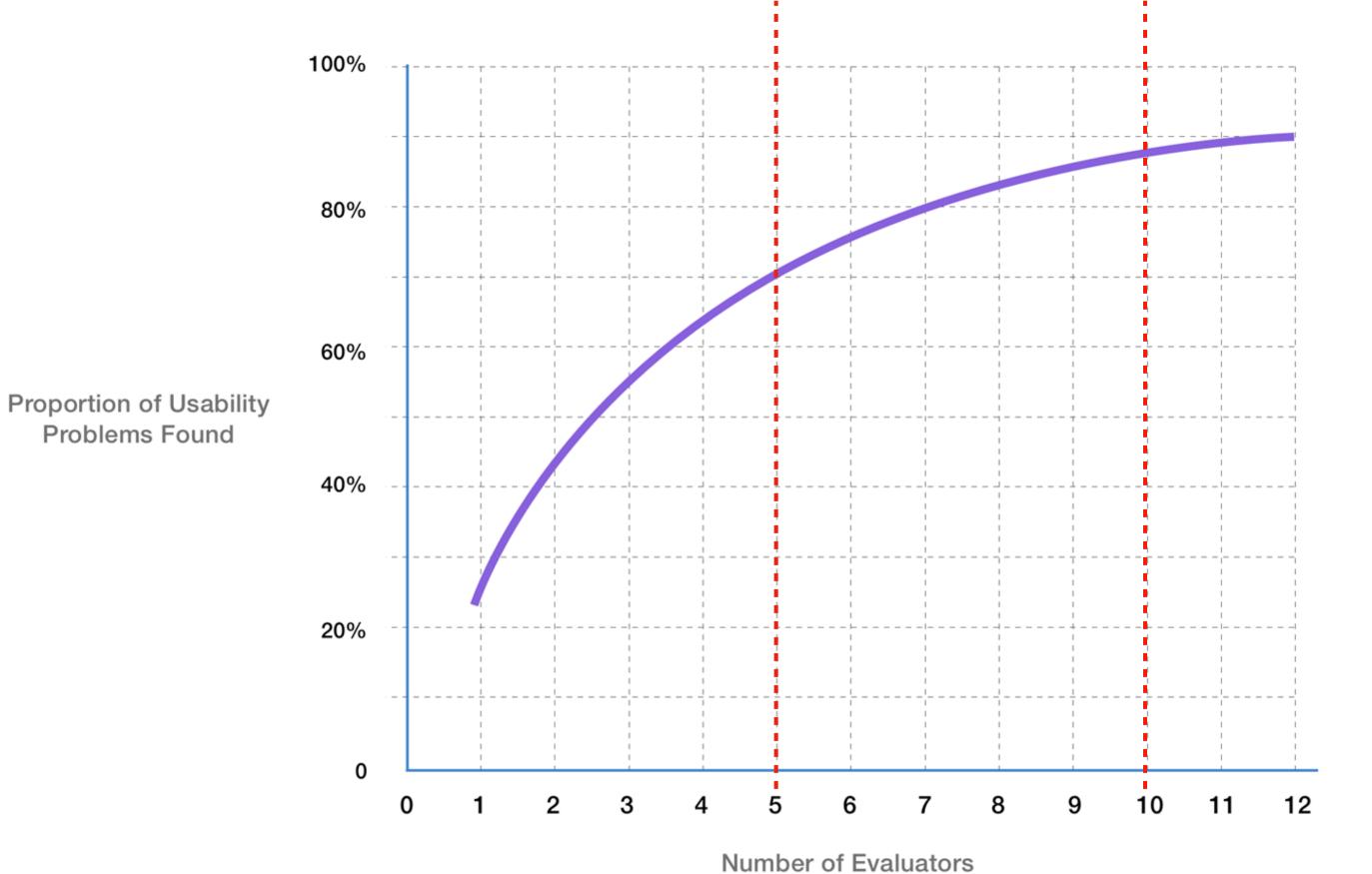


### Tog's Take

Aesthetics Anticipation Autonomy
Color Consistency Defaults Discoverability
Efficiency Explorable Interfaces Fitts' Law
Human-Interface Objects Latency Reduction
Learnability Metaphors Protect Users' Work
Readability Simplicity State Visible Interfaces



# Heuristic Magic



80%

Original Chart Source: https://uploads.toptal.io/blog/image/123730/toptal-blog-image-1501712155688-c057d601baa2aa99b6140867fbdada12.png



90%

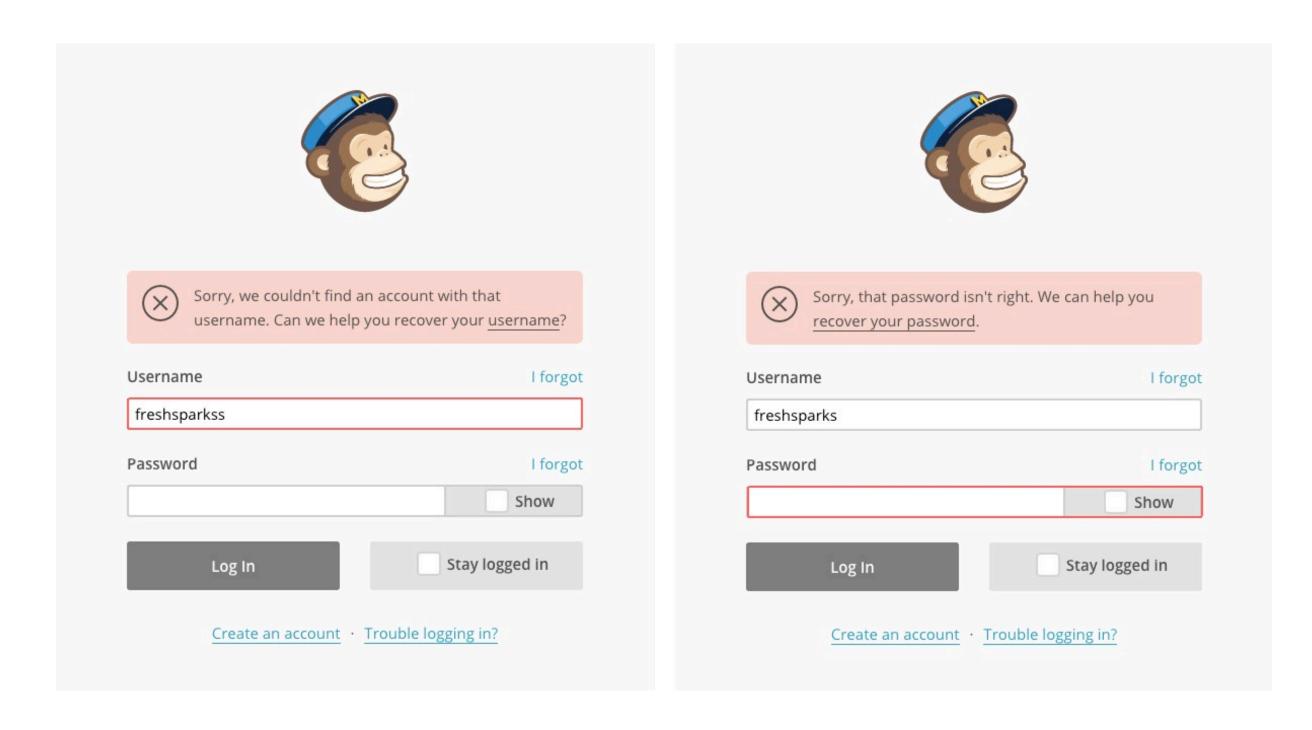


Source: <a href="https://blog.prototypr.io/10-usability-heuristics-with-examples-4a81ada920c">https://blog.prototypr.io/10-usability-heuristics-with-examples-4a81ada920c</a>

### **Applicable Heuristics**

- Visibility of system status
- Aesthetic and minimalist design
- Error prevention
- Flexibility and efficiency of use
- Recognition rather than recall (reduced used of spatial memory)
- Accommodation
- Interpretation
- Fulfillment



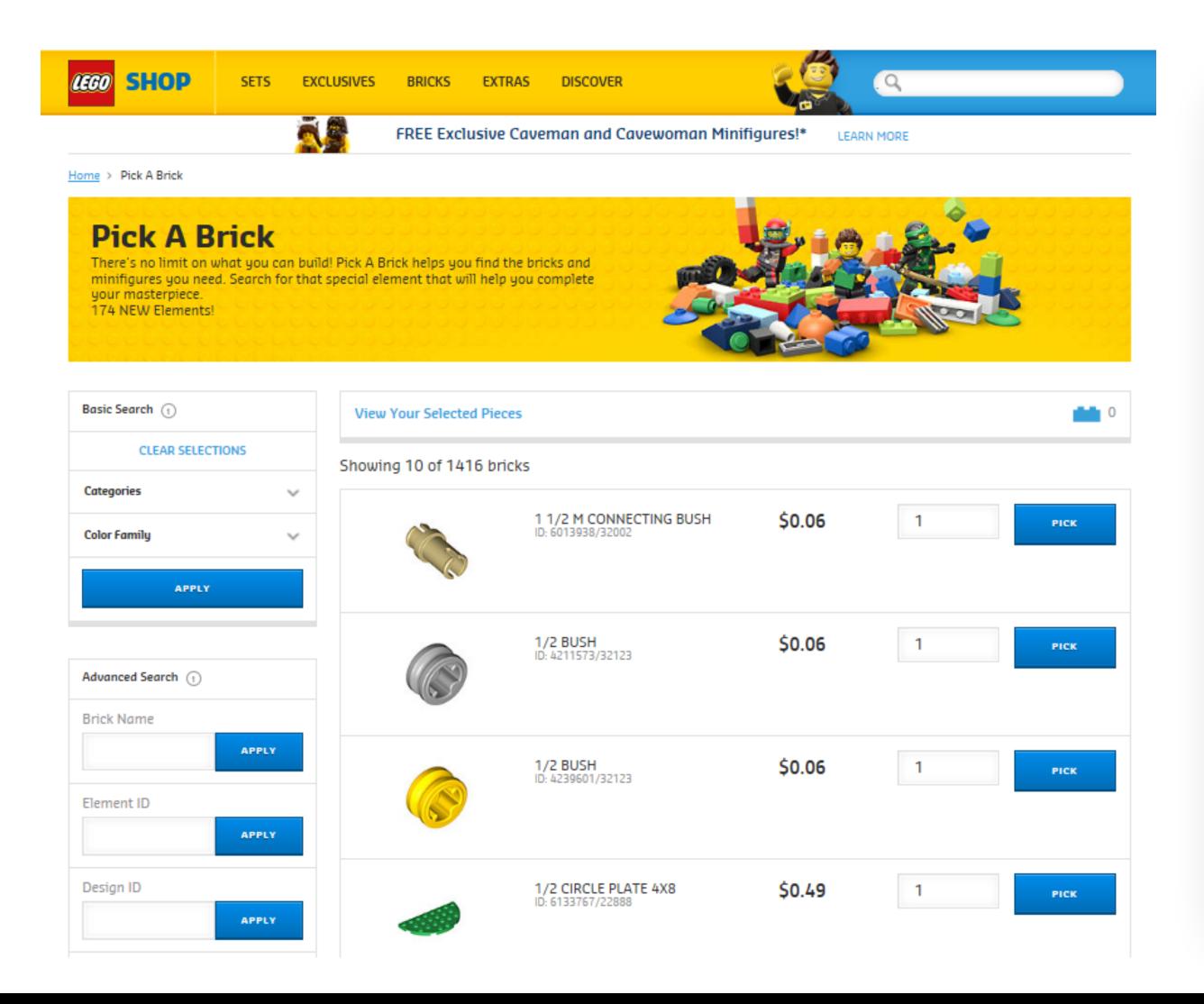


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### **Applicable Heuristics**

- Visibility of system status
- Helping users recognize, diagnose, and recover from errors
- Clear
- Communicative
- Useful
- Valuable
- Delightful
- Forgiveness

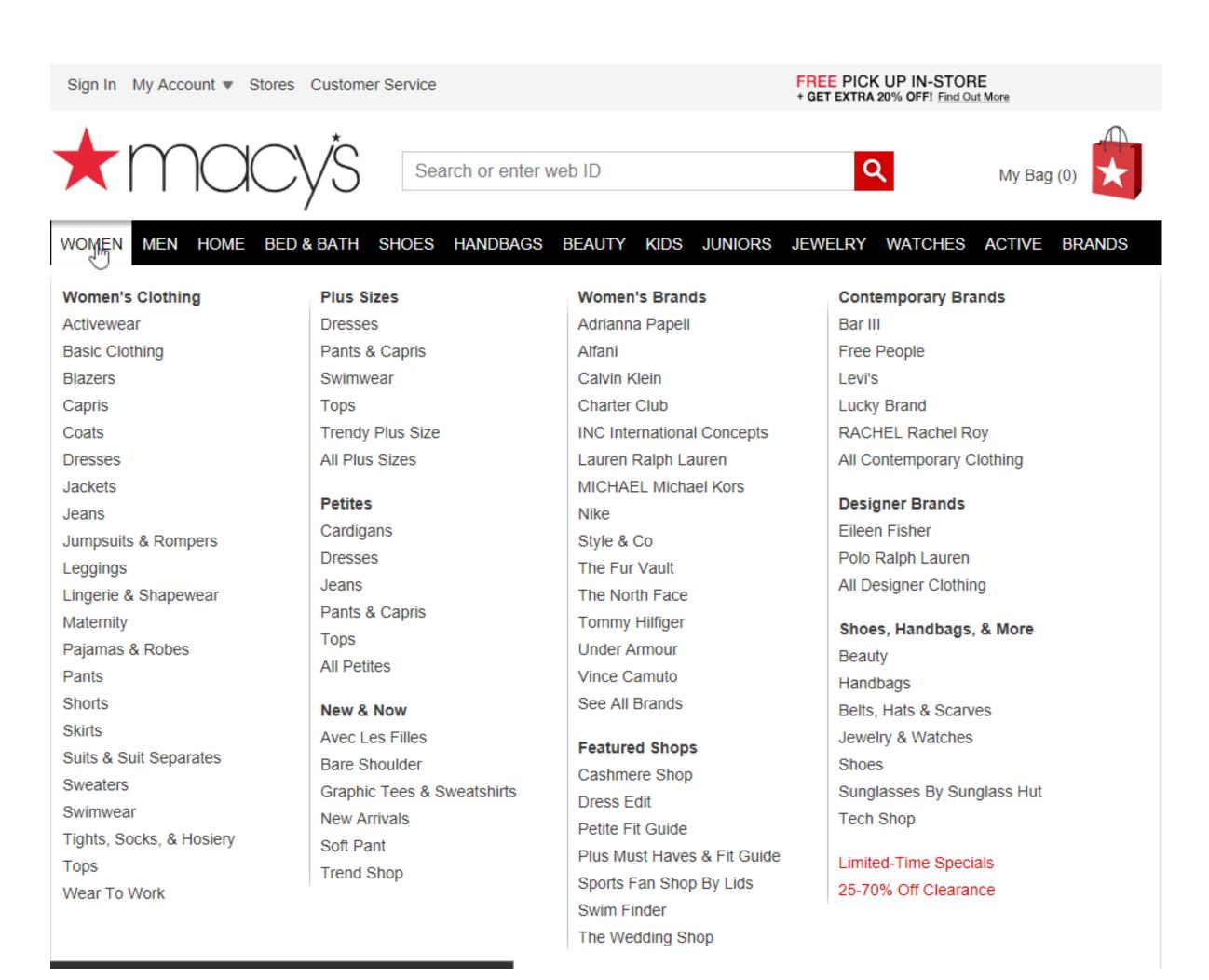




**Scenario:** Your child loses his or her Lego blocks. You need to replace and are directed to the site with no further information.

You have no reference materials or additional knowledge. Based on this screen, how can you order the missing parts or accessories?

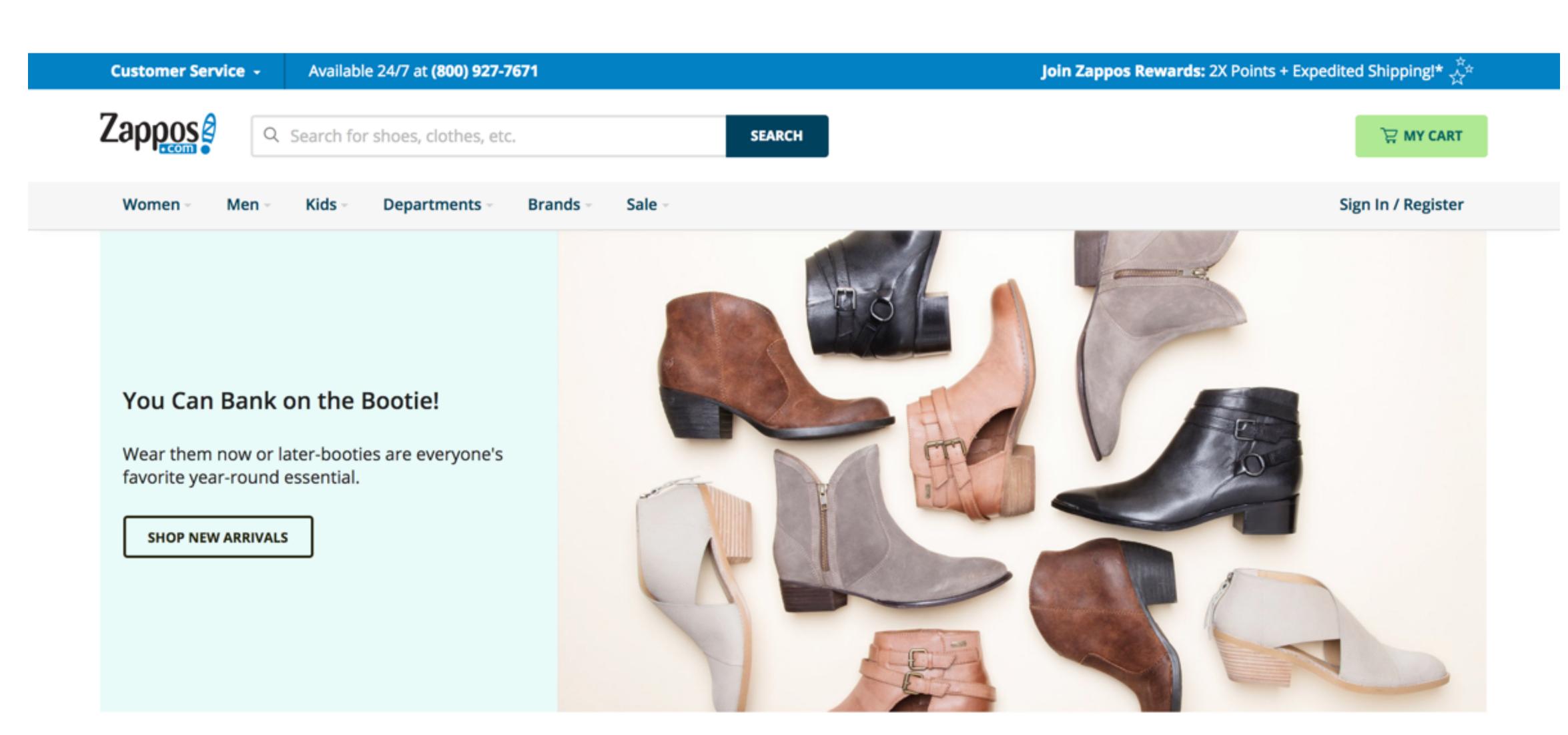




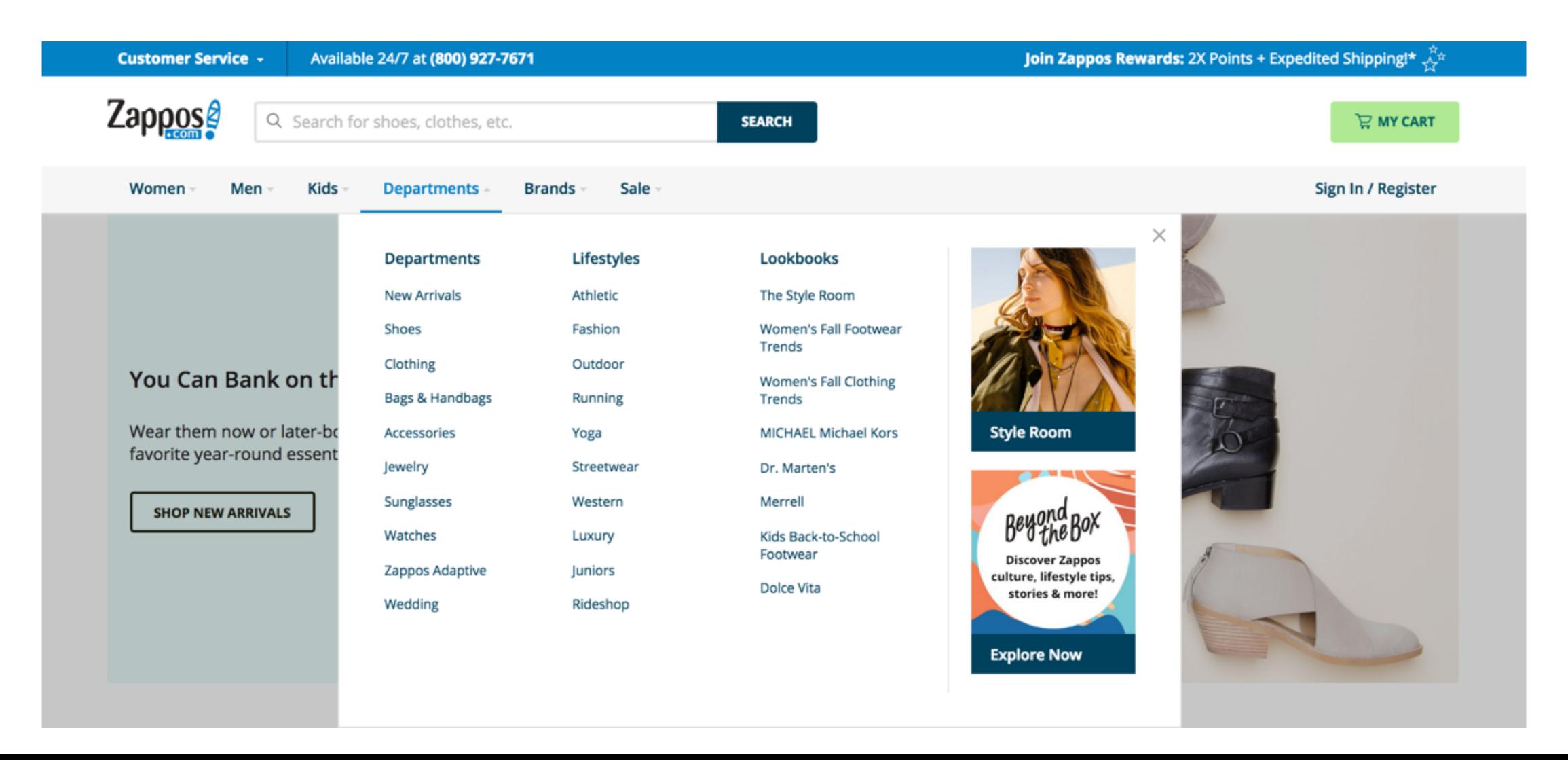
### **Applicable Heuristics**

- Clear
- Communicative
- Useful
- Valuable
- Delightful
- Human limitations
- Capability
- Learnable
- Utilitarian



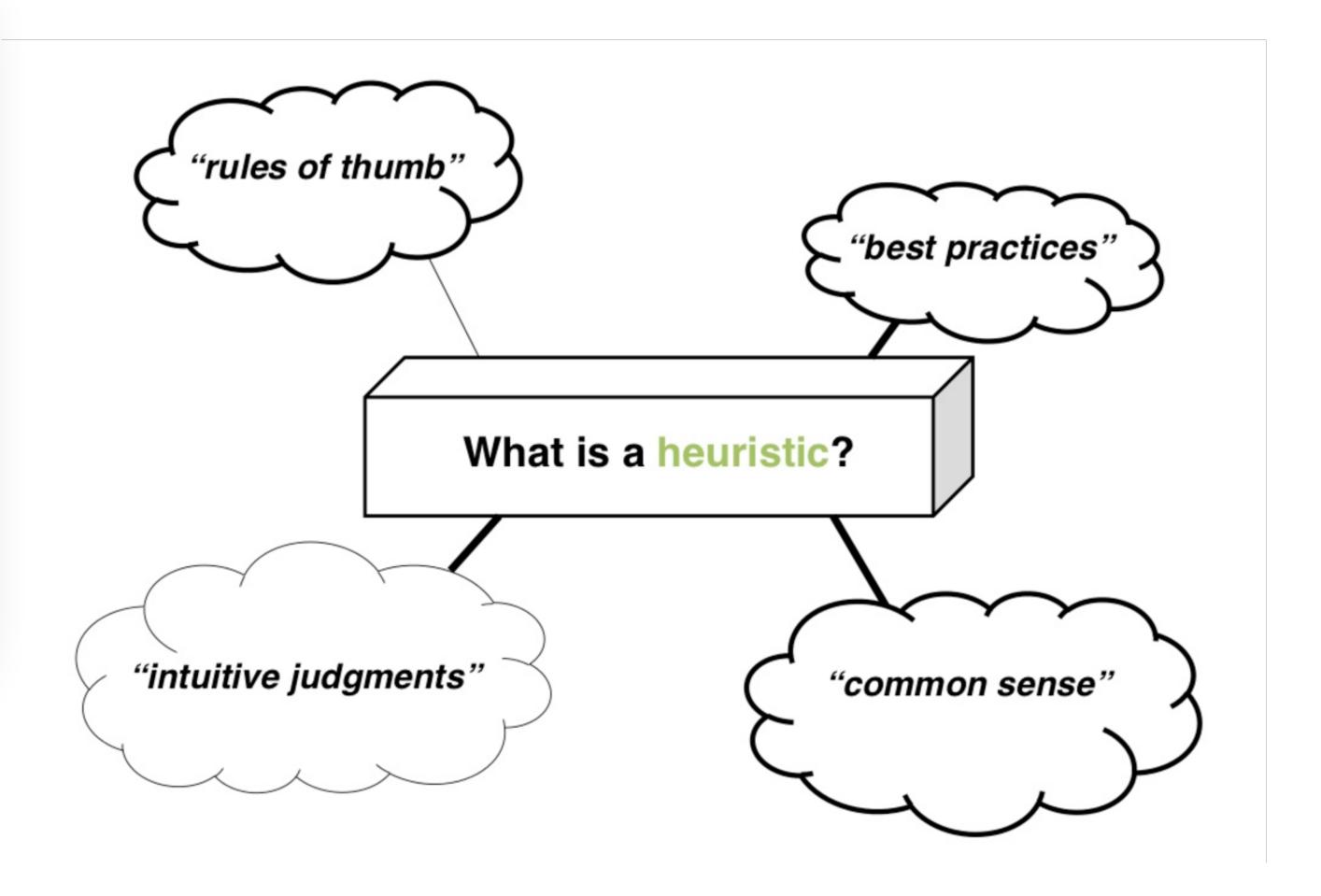








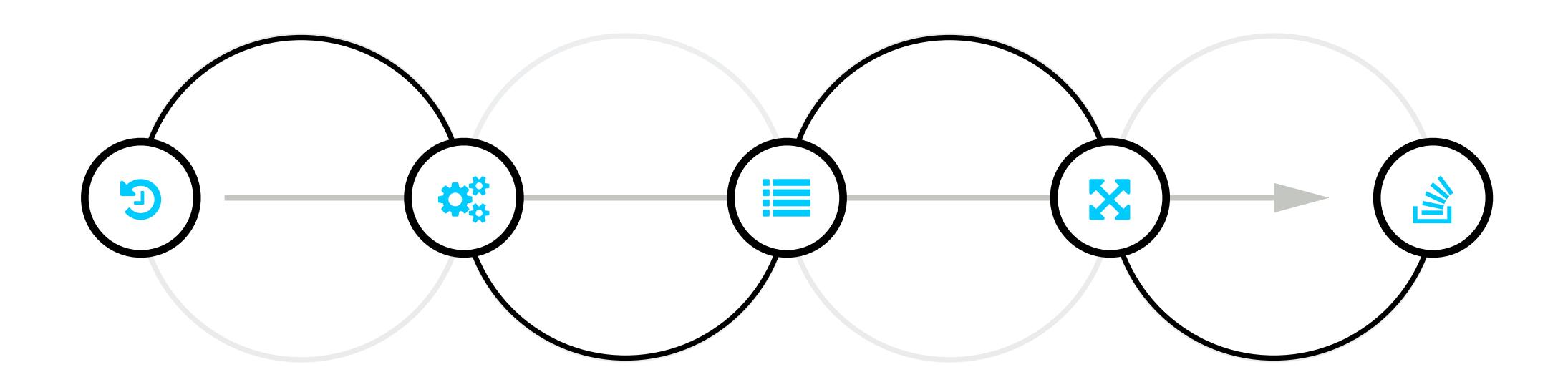
### Einal Look



Source: <a href="http://abbytheia.com">http://abbytheia.com</a>



### A Practical Approach to Applying Heuristics



**Learn Heuristics** 

**Exercise Regularly** 

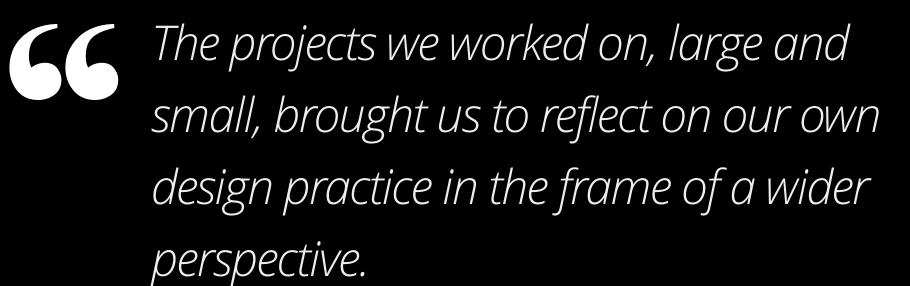
**Infuse Continually** (continuing education)

**Inject Scenarios** 



### Your Heuristic Maturity Level

You own "heuristic repository" is expanded as a result of a commitment to continued education, combined with professional and scholarly practice.



~ Resmini & Rosati



### Recap/Closing Notes

- As illustrated by the Landscape infographic, UX is an extremely complex discipline.
- The common denominator among all UX methodologies and deliverables is heuristics.
- Heuristics consist of proven design principles, making them dependable and trustworthy.
- If a recommendation isn't proven, it does not qualify as a heuristic.
- Application of heuristics safeguards design efforts from influence of bias, politics, and self-directed design.
- Per Nielsen, proper application of heuristics can identify approximately 75% of issues in a design.
- Per Philips, by increasing reviewers to 10, the percentage of findings can increase to 90%.
- Heuristic evaluations can be completed in less time than usability testing.
- Supplementing heuristic analysis with user testing, if and when possible, is the recommended approach.
- Applying heuristics BEFORE designing testing is an economic strategy (helps test what's needed).
- Combine heuristics with scenario-based assessments for optimized practicality.
- While heuristic principles can be applied by anyone, engagement with an expert yields the greatest return on investment. The greater the "heuristic repository," the greater the ability to identify problems.

### Drawoacks

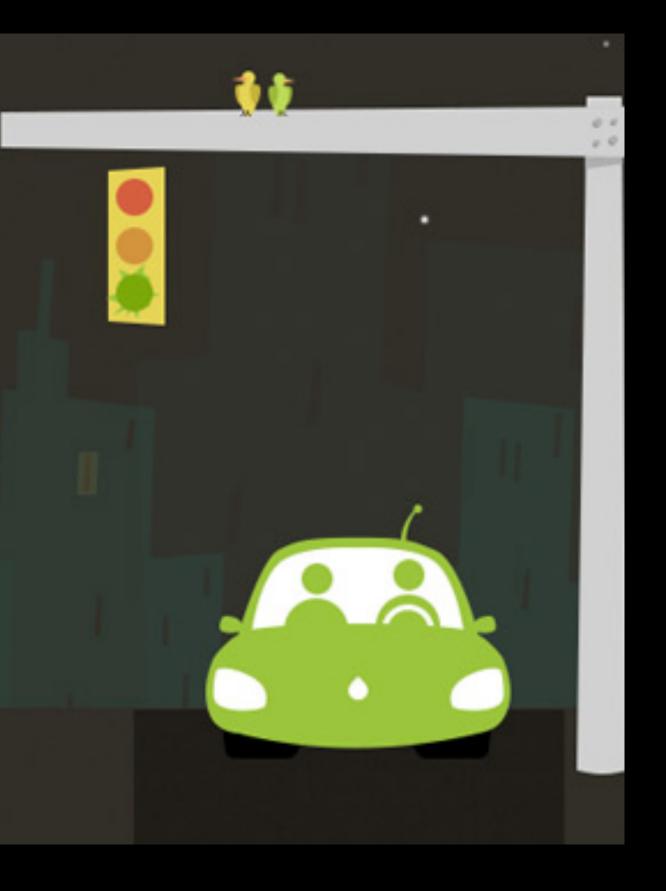
- Not meant to be a substitute for usability testing
- Will not find 100% of design issues
- Is limited to the capabilities and knowledge of those performing the analysis
- Will not overcome bias if those performing analysis have a lower personal UX maturity level



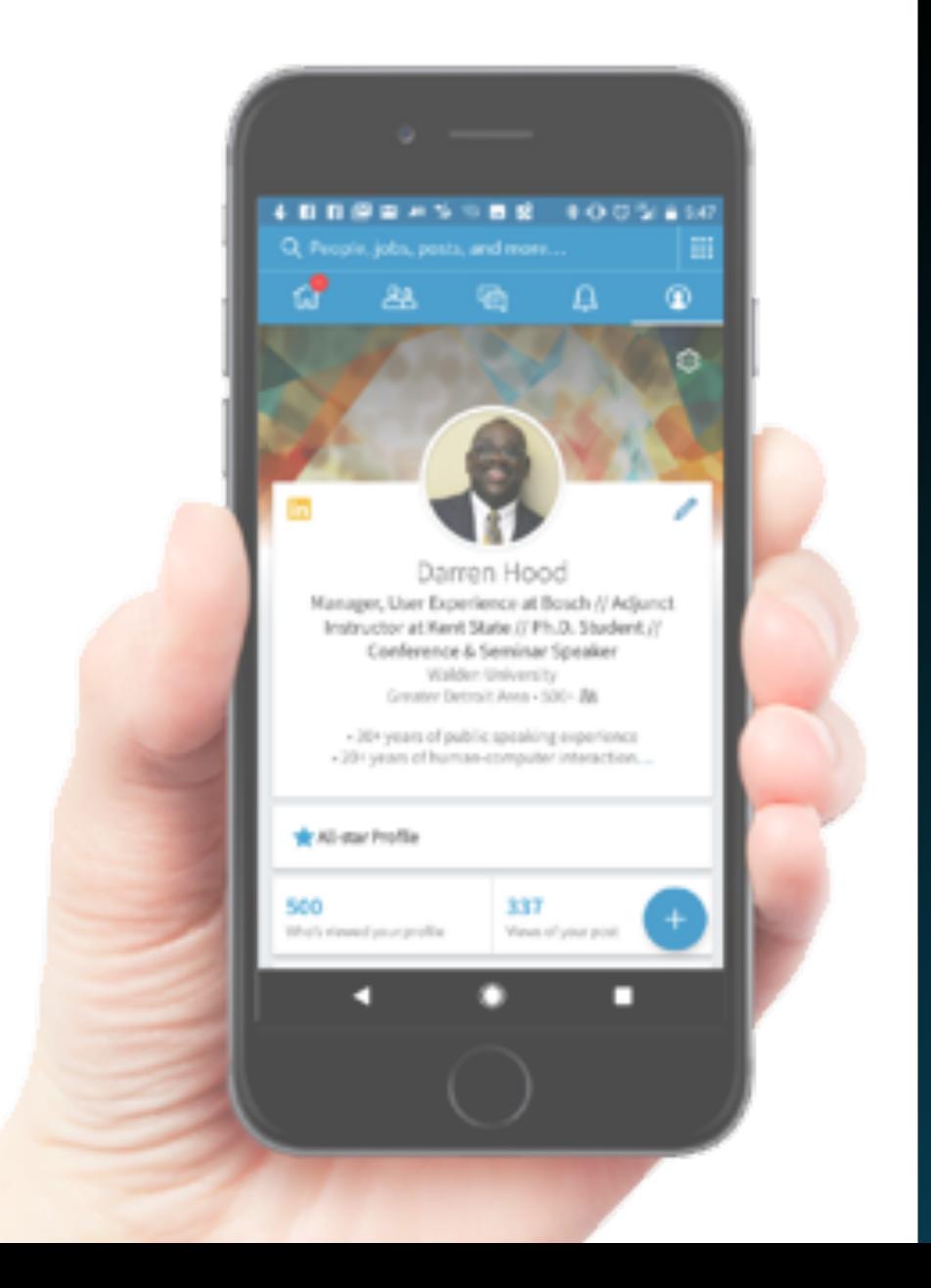
# OF WEBSITES FAIL AT UX

Websites that fail UX suffer from frustrated users and poor conversion rates — but with the right UX team, the development process can be more proactive...and more profitable.

SHARETHE 💙







### thank you.

@darrenhood @emergeux



### References

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- 10 Usability Heuristics with Examples by SaiChandan Duggirala
- Designing for People by Henry Dreyfuss (available at <u>amazon.com</u>)
- Heuristic Analysis for UX How to Run a Usability Evaluation by Miklos Philips
- Pervasive Information Architecture by Andrea Rosmini and Luca Rosati
- Usability Engineering by Jakob Nielsen
- <u>User Experience Heuristics Practical Approaches</u> by John Hutchings, Coniferous Consulting
- What's the Difference Between a Heuristic Evaluation and a Cognitive Walkthrough? by Jeff Sauro