

USABILITY / UX / XD – LAWS / GUIDELINES

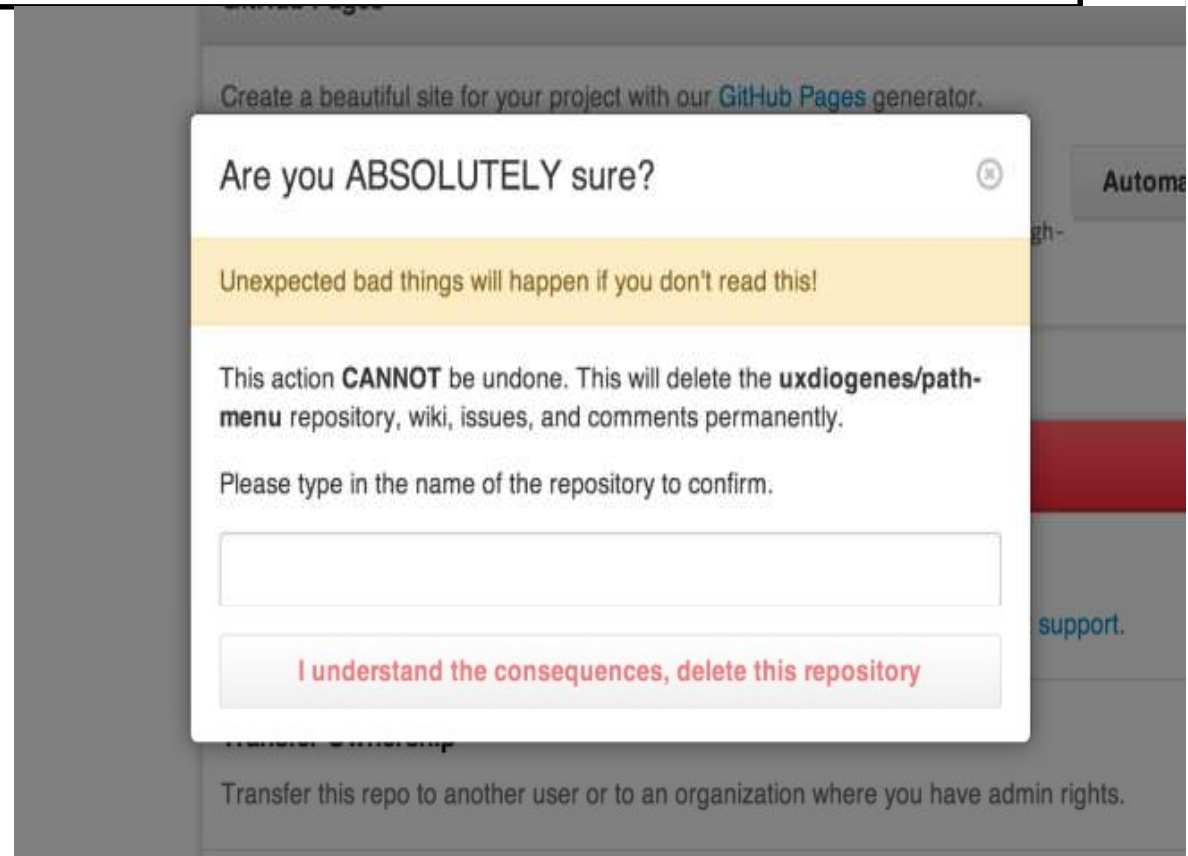
- **ASIMOV'S 3 LAWS** (adapted by) **RASKIN**
- **1st Law of Interaction Design (XD):**
- *A computer shall not harm your work or, through inaction, allow your work to come to harm.*
- Aggravating experience you can have with a computer is losing work
- worse than having to redo work you have already done is losing data that you cannot reproduce exactly, like creative work
- *A computer shall not harm your work or, through inaction, allow your work to come to harm*

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- **1st law – (i) Apps must maintain data integrity**
- has safeguards and redundancy to prevent data loss
- robust undo functionality, and shielding destructive actions to prevent inadvertent data loss.
- GitHub's repository deletion dialog- this one forces you to type the name of the repository to continue
- forces the user's locus of attention to the repository name during the deletion process
- preservation of efforts related to the content the user is working with, as well as the content itself

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Apple's **Time**
Machine and
autosave, and
Dropbox's
revision history
Ideal fits!!

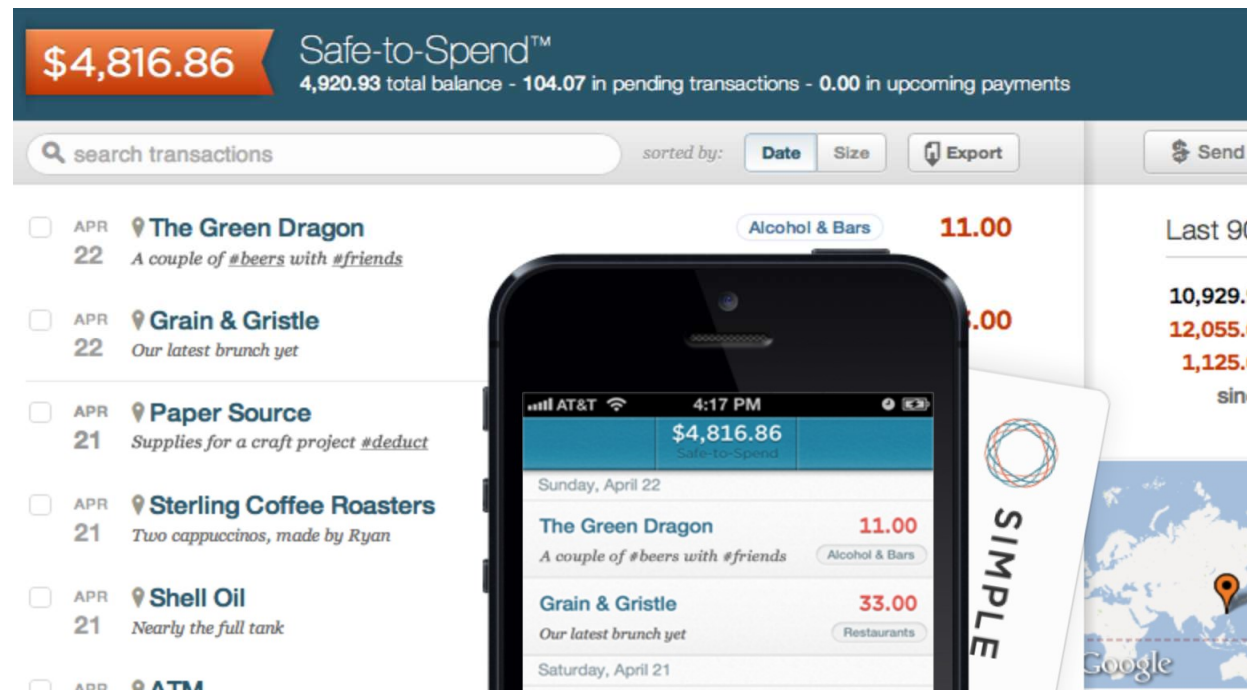


- **preserving selections** across work sessions, and including them in the list of actions that can be undone.
- interface allows a user to customize or rearrange elements, that **arrangement or customization should be preserved.**

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- **2nd law – *A computer shall not waste your time or require you to do more work than is strictly necessary***
- users are burdened with tasks because it was simpler to let a person perform the action manually than to code a system to do it automatically.
- forcing a user to select a credit card type, when that information can be inferred from the number.
- Great interfaces bring information in the system to the user in the way(s) they are most likely to want and/or understand it
- .

- **Simple** -- set money aside for any number of “goals,” and that amount, along with pending transactions is subtracted from your “**Safe-to-Spend**” balance.



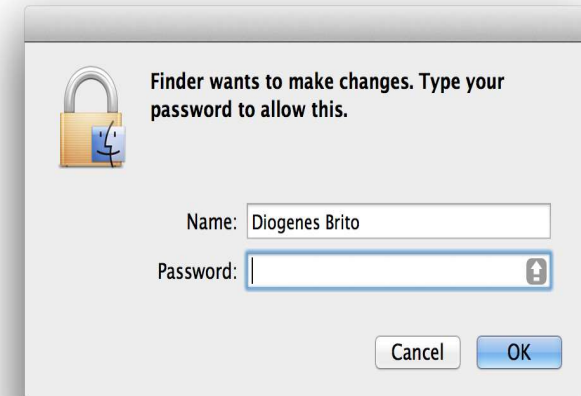
- Simple’s “Safe to Spend” recognizes the way people actually want to use their money

- 3rd Law: An interface should be **humane**; be *responsive to human needs and considerate of human frailties*

- **Focus on user centred design**

- Good interaction design is always about

- **respecting the limitations of the human mind and body**



- sensitive to both our visceral, physiological responses, and our cultural values. have single **locus of attention**
- **CAPS LOCK Light Design**. not a good solution for avoiding slipping into caps lock - **user's attention locus not on the key** when they press it. **Mac solution for this ideal** visual indicator that caps lock is active within the input field itself, - in sync with user locus of attention.

Jakob's Law of Usability (Internet UX)

- Users spend most of their time on other sites
- Leverage existing mental models, V can create superior user experiences - user can focus on their task rather than learning new models.
- Users will transfer expectations they have built around one familiar product to another that appears similar.
- Minimize discordance by empowering users to continue using a familiar version for a limited time.
- users prefer your site to work the same way as all the other sites they already know.
- Design for patterns for which users are accustomed.

Jakob's Law of Usability (Internet UX)

- Users spend most of their time on other sites (than your website!!!)
- More like a **Law of Nature!**. (listen to his video ; it was even debated in UK parliament both Houses!!)
- User will know how to use your website and will start focusing on your product, services,
- In cases of violation people **will not know how to use** and will be confused - **BACK button is always there on the Browser!!**
- Design Conventions /other practices as adopted with most websites. Do not violate just for the sake IT; **it would only kill the product!!**

Tesler's Law on Product Complexity!

- **Tesler's Law / Law of Conservation of Complexity**
- - for any system there is a certain amount of complexity which cannot be reduced.
- *Every application must have an inherent amount of irreducible complexity. The only question is who will have to deal with it. -*

Larry Tesler - XEROX PARC

- way users interact with applications was just as important as the application itself
- removing user complexity - > complexity will not be removed from the system but will move from users to the development team

Tesler's Law

- Unless you have a sustainable monopoly position, the **customer's time** has to be more important to you than **your own**
- **Interface clutter** results in users hunting for what they need - - reduces their efficiency while **increasing the perceived difficulty level of the software!!**
- **No matter how you do it!!! ,**
- **removing complexity can improve the value of your software to users, but keep in mind the law of conservation of complexity when making product decisions.**
- **Nielsen's Mantra – LESS IS MORE (less features more user empowerment!!)**