

INTERAKSI MANUSIA DAN KOMPUTER

DESIGN RULE (2)

Anugrayani

Bagaimana mengukur tingkat usability?

“a measure of the ease with which a system can be learned or used, its safety, effectiveness and efficiency, and attitude of its users towards it” (Preece et al., 1994)

Prinsip-Prinsip Usability

1. Learnability
2. Flexibility
3. Effectiveness

Attitude

1. ***Learnability*** → Kemudahan bagi pengguna untuk menggunakan sistem secara efektif dan mencapai kinerja yang paling optimal
2. ***Flexibility*** → Variasi cara/model bagi pengguna dan sistem dalam mencapai suatu tujuan tertentu.
3. ***Effectiveness/Robustness*** → Kehandalan sebuah sistem dalam mencapai tujuan khususnya dari sudut pandang pengguna

Learnability

Ketika prinsip ini tercapai, so what?, maka :

- Mengurangi waktu dan biaya training
- Memungkinkan latihan yang lebih fleksibel
 - a. Predictability*
 - b. Feedback*
 - c. Familiarity*
 - d. Generalizability*
 - e. Consistency*

Flexibility

- Jika prinsip ini dapat tercapai, so what? → memungkinkan untuk melakukan tugas dengan berbagai alternatif cara/metode
 - a. Dialogue Initiative*
 - b. Multithreading*
 - c. Task Migratibility*
 - d. Substitutivity*
 - e. Customizability*

Effectiveness

Jika prinsip ini dapat tercapai, so what? →
memungkinkan untuk meningkatkan
produktivitas pengguna

- a. Observability*
- b. Recoverability*
- c. Responsiveness*
- d. Task Conformance*

Design Rule

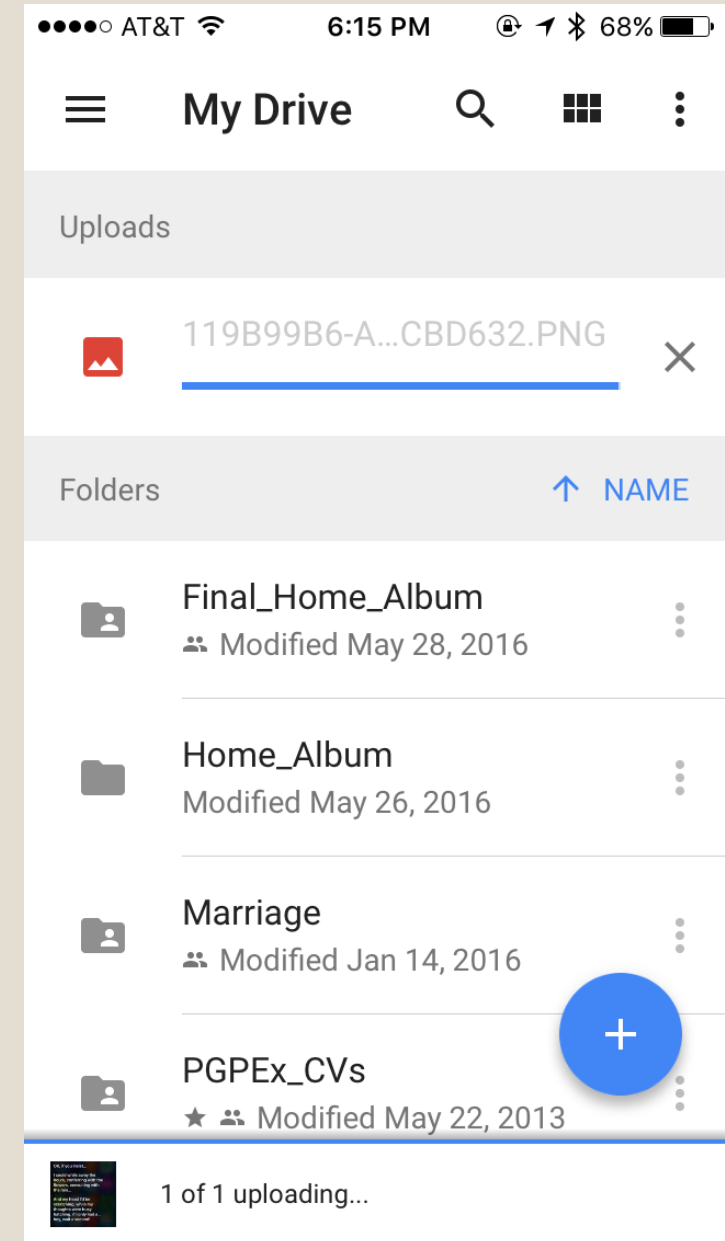
- Better design using these than using nothing
 - **Nielsen's 10 Heuristics**
 - **Shneiderman's 8 Golden Rules**
 - **Norman's 7 Principles**

Nielsen's 10 Heuristic

- Salah satu pelopor yang mencoba mengevaluasi secara objektif pengalaman pengguna pada platform digital adalah Jakob Nielsen dengan evaluasi heuristiknya.
- Mengapa disebut heuristic?
- Aturan **umum** yang luas dan bukan pedoman kegunaan khusus.

1. Visibility of system status

- The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.



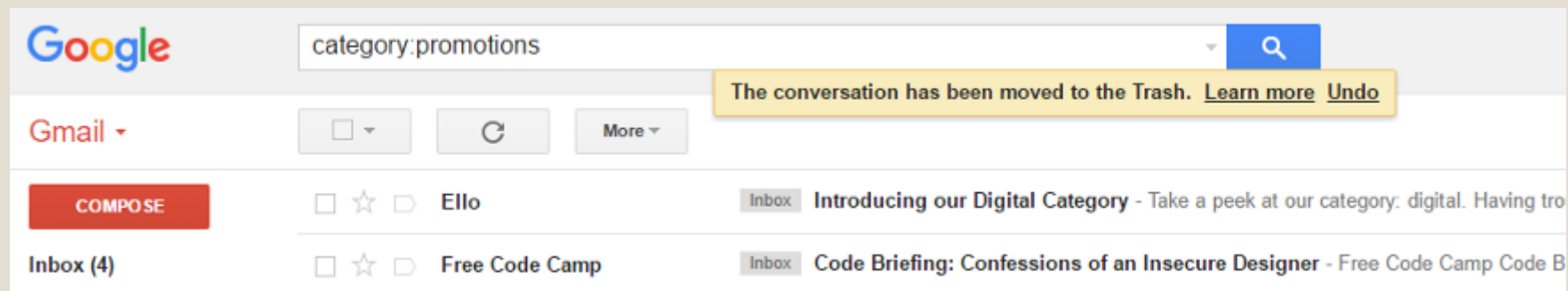
2. Match between system and the real world

- The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms.



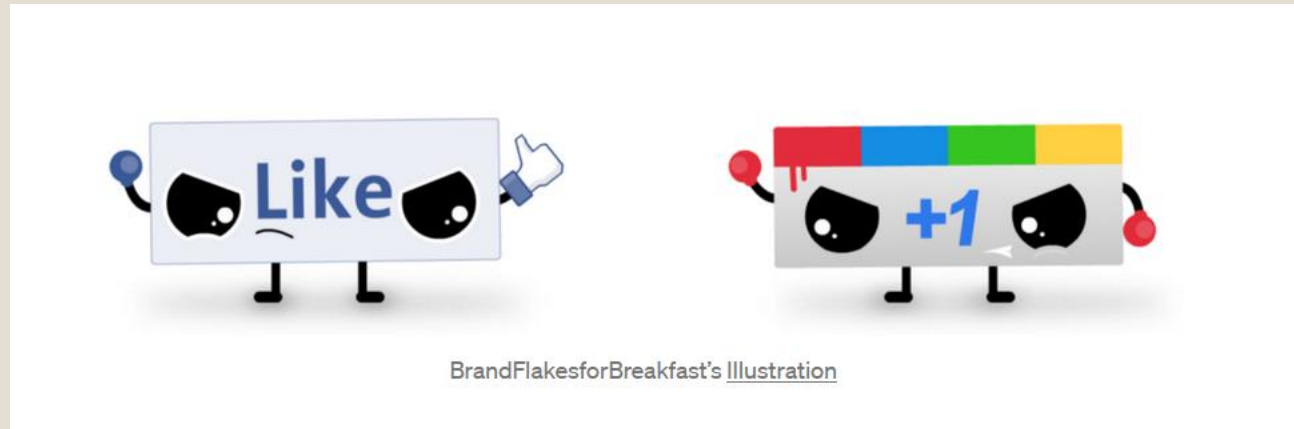
3. User Control and Freedom

- Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.



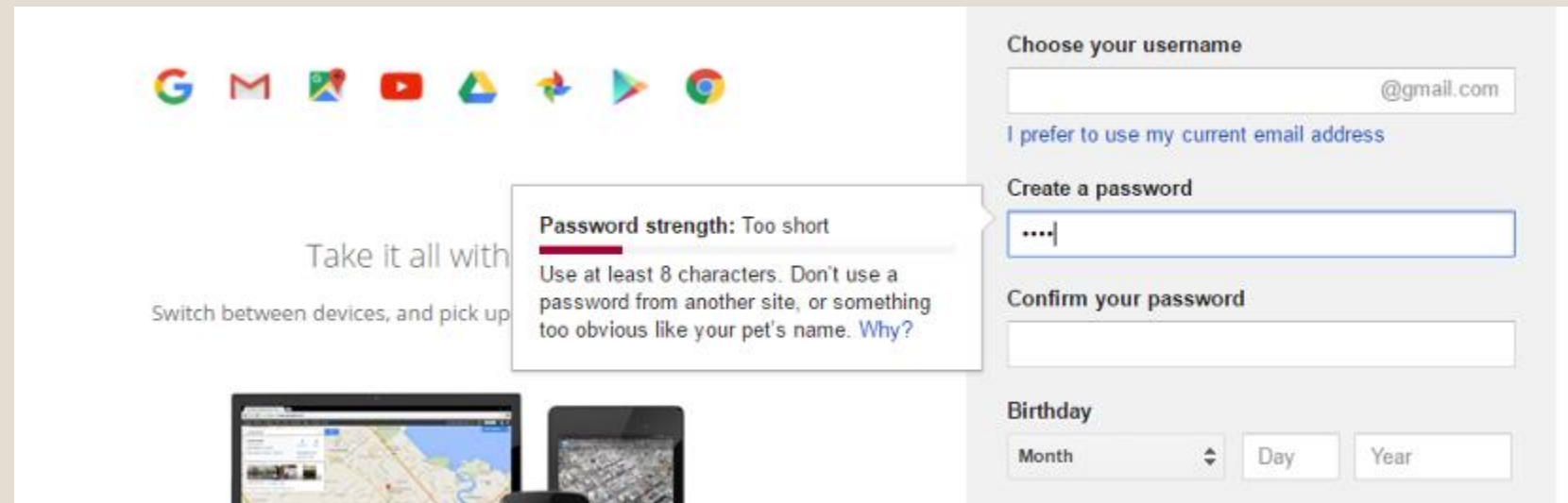
4. Consistency and Standards:

- Users should not have to wonder whether different words, situations, or actions mean the same thing.



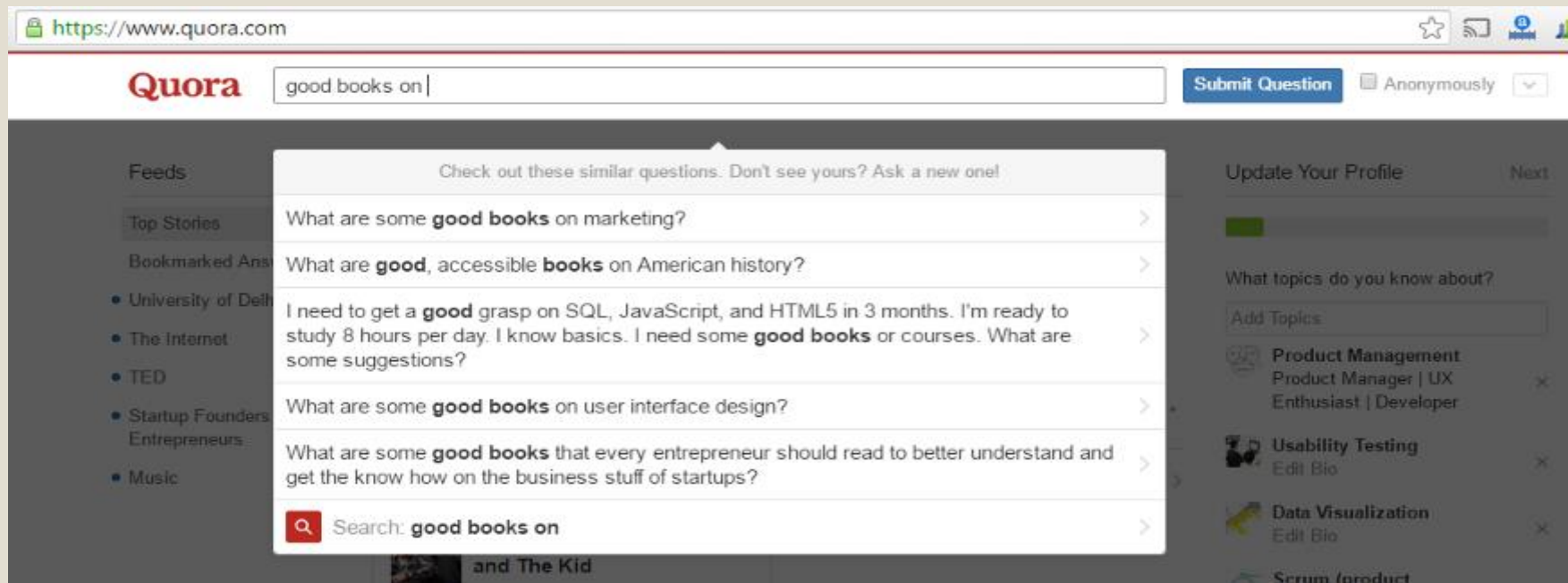
5. Error Prevention:

- Even better than good error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.



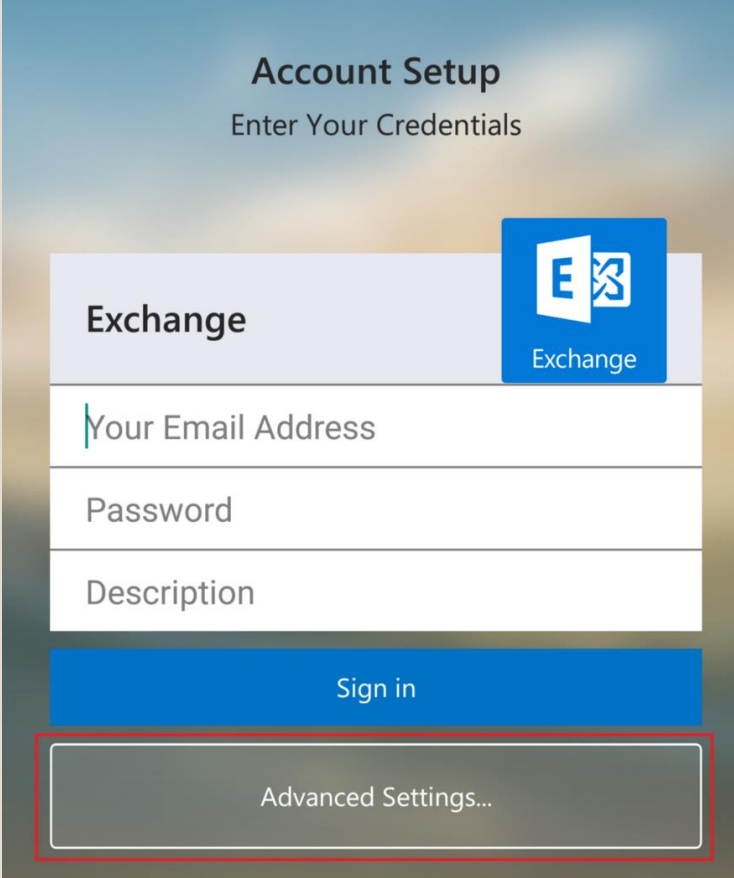
6. Recognition rather than recall

- It's always better to suggest the user a set of options than to let him remember and type the whole thing. The goal is to minimize the application of user memory.



7. Flexibility and efficiency of use

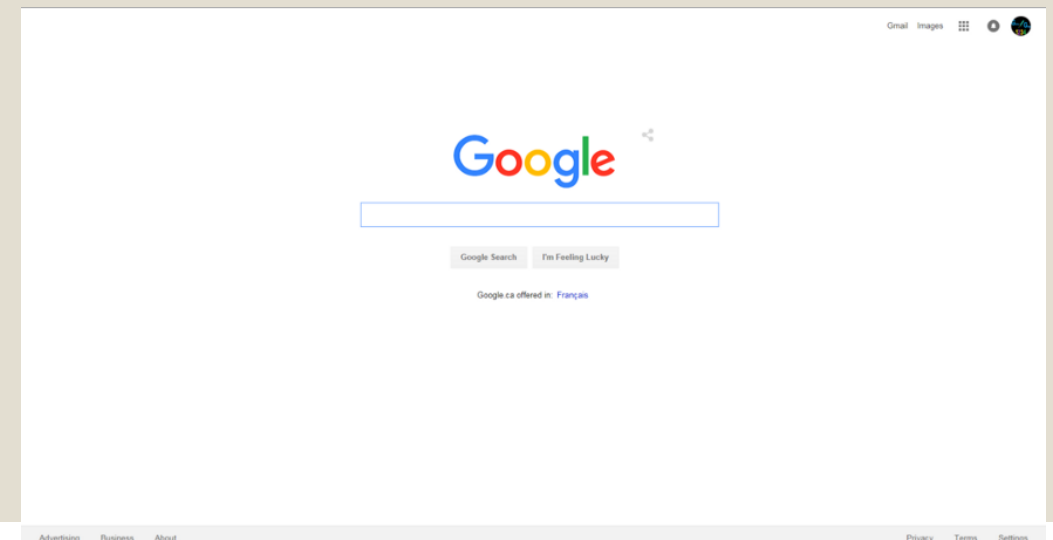
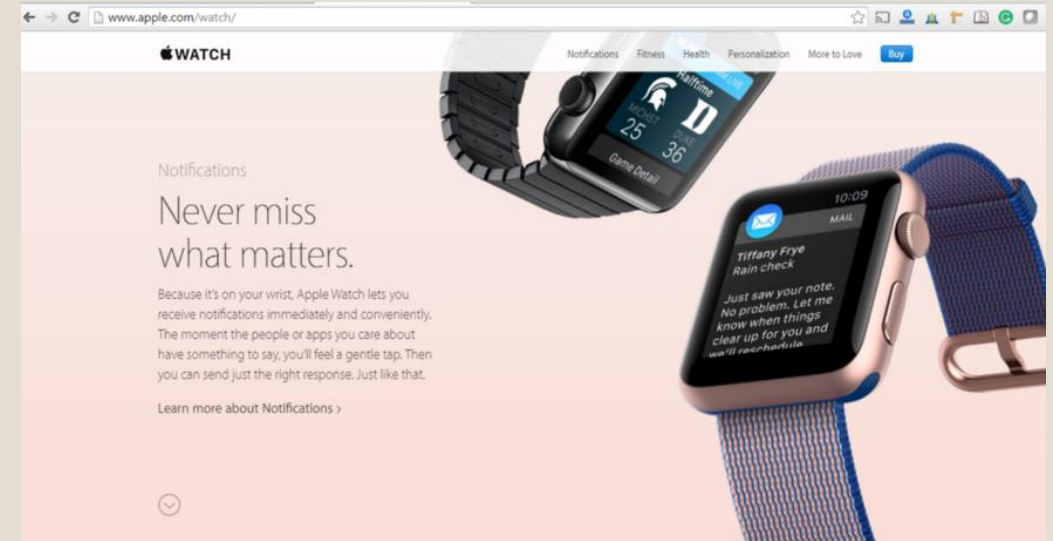
- unseen by the novice user — may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.



The screenshot shows an "Account Setup" window with the subtitle "Enter Your Credentials". It features the Exchange logo in the top right corner. Below the logo are three input fields: "Your Email Address", "Password", and "Description". A blue "Sign in" button is positioned below these fields. At the bottom, a grey button labeled "Advanced Settings..." is highlighted with a red rectangular border, illustrating a feature that can be hidden from novice users.

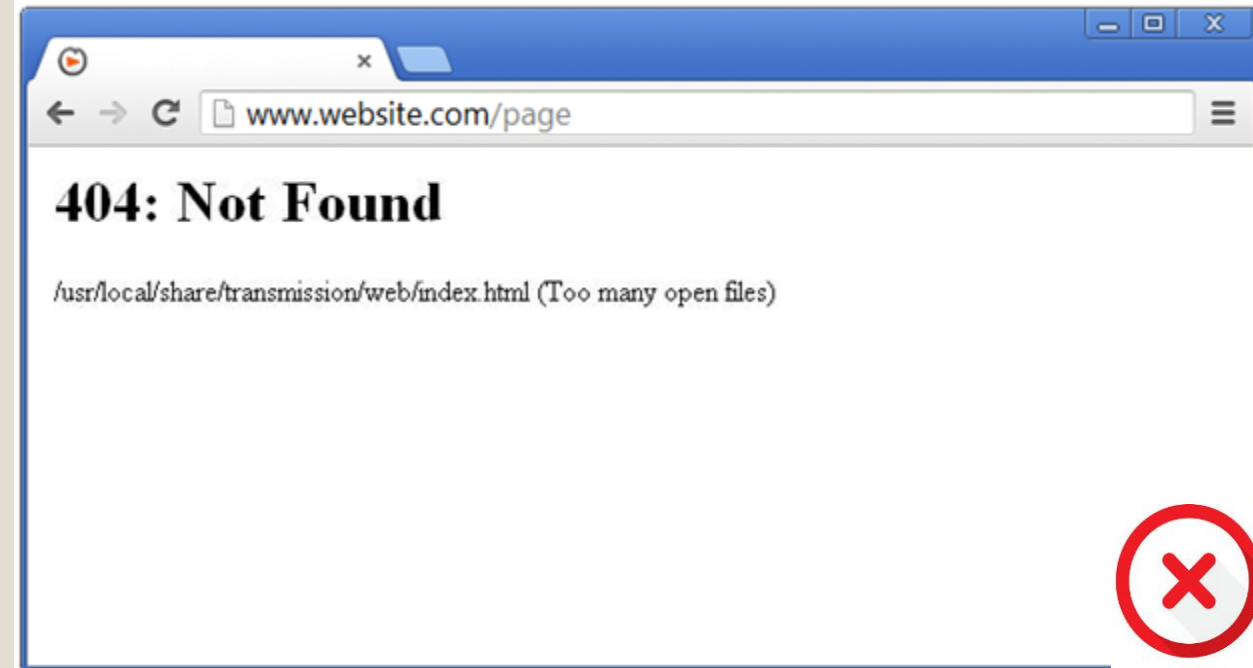
8. Aesthetic and minimalist design

- Dialogues should not contain 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.



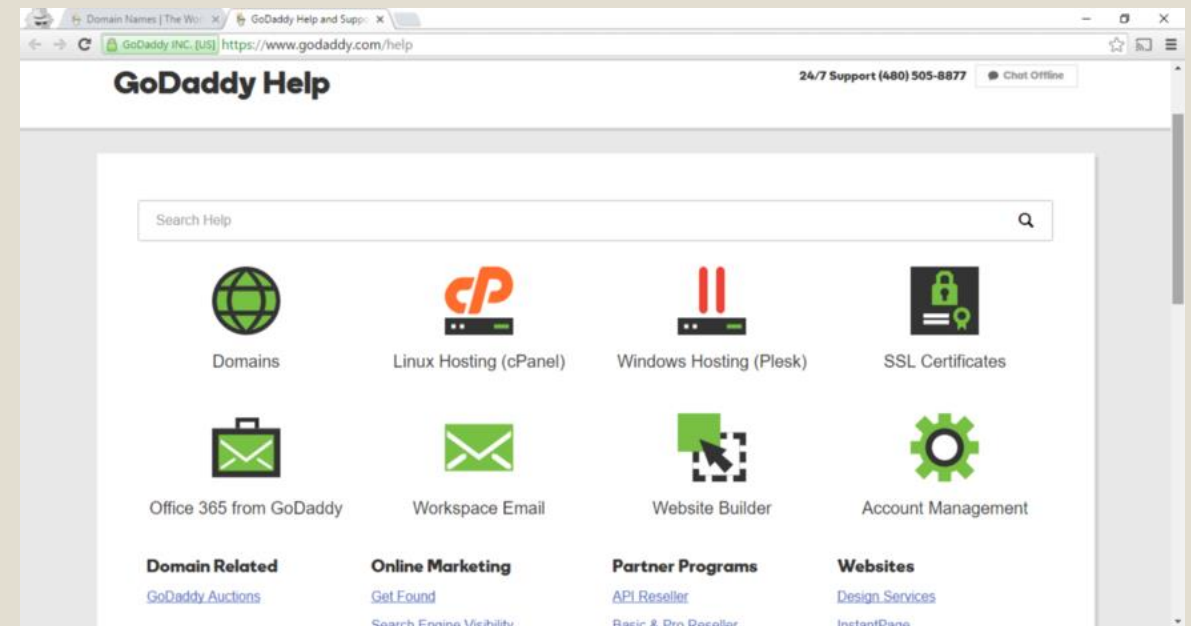
9. Help users recognize, diagnose, and recover from errors

- Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.



10. Help and Documentation:

- Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.



Shneiderman's 8 Golden Rules

- Berbicara terkait UX dan UI tidak akan ada habisnya karena terkait dengan USER dan TREN.
- USER memiliki karakteristiknya masing-masing dan inilah tantangan bagi Designer.
- "Heuristik" adalah aturan sederhana dan efisien yang membantu kita membuat penilaian dan membuat keputusan. Kami dapat menganggapnya sebagai pedoman umum dalam hal praktik terbaik UI.
- Ben Shneiderman membuat salah satu panduan terbaik untuk desain interaksi yang solid yang disebut *Designing the User Interface*

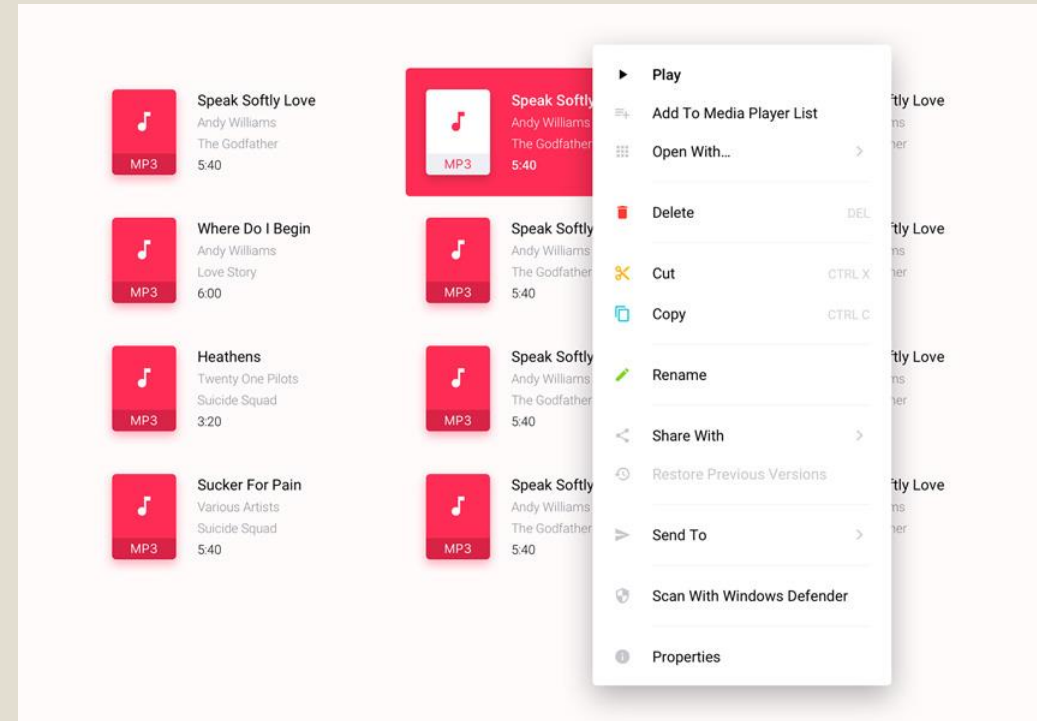
1. Strive for Consistency

- Konsistensi dibutuhkan antar halaman dalam satu aplikasi ataupun antara aplikasi yang masih berhubungan.
- Remember: a consistent interface will allow your users to complete their tasks and goals much more easily.



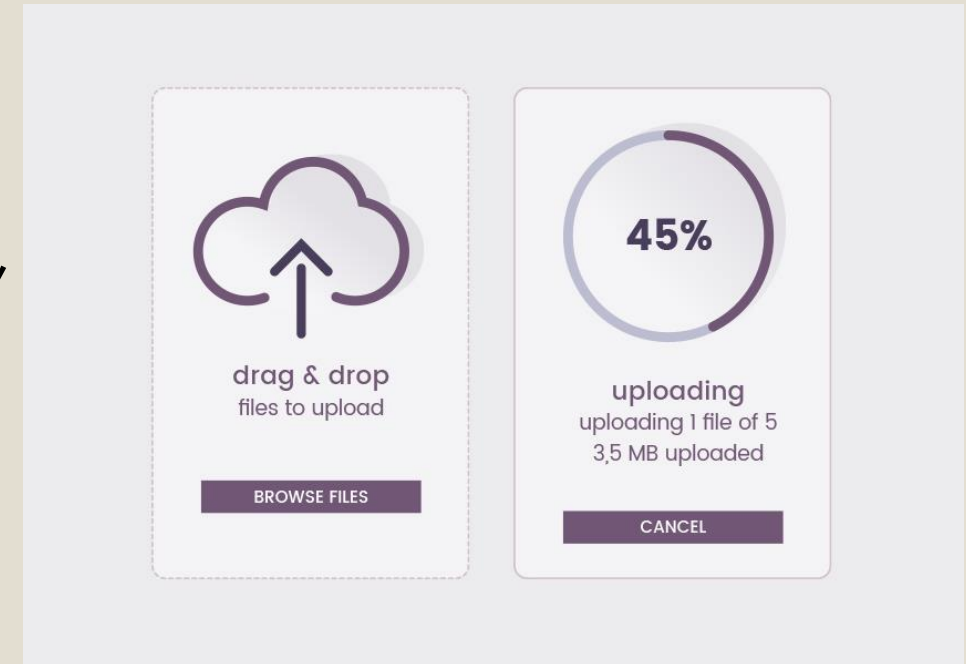
2. Enable Frequent Users to Use Shortcuts

- Speaking of using UI rules as shortcuts, your users will benefit from shortcuts as well, especially if they need to complete the same tasks often.



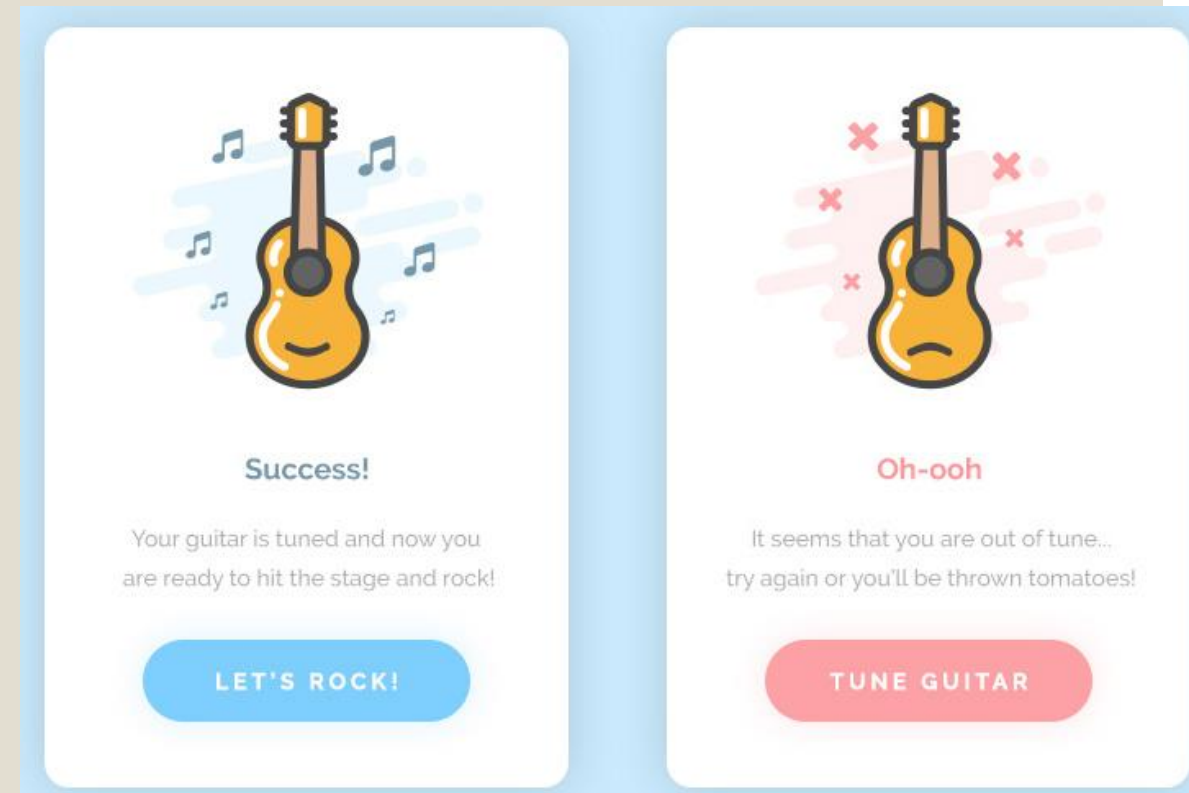
3. Offer Informative Feedback

- You need to keep your users informed of what is happening at every stage of their process. This feedback needs to be meaningful, relevant, clear, and fit the context.



4. Design Dialog to Yield Closure

- Untuk bagian ini mengindikasikan proses yang dijalankan oleh user sudah selesai, user paham bahwa dia tidak perlu menunggu apakah masih akan ada tahapan lain setelah menyelesaikan suatu proses.



5. Offer Simple Error Handling

- Bagian ini untuk menjaga agar user tidak melakukan kesalahan dalam menjalankan proses.



litmus

Sign Up for a Litmus Account

Your plan: Litmus Premium

[Change Plan](#)

Personal details

Jason

Last name

user@litmuscom

Please enter a valid email address

Great choice!

Confirm password

Which email service provider do you use?

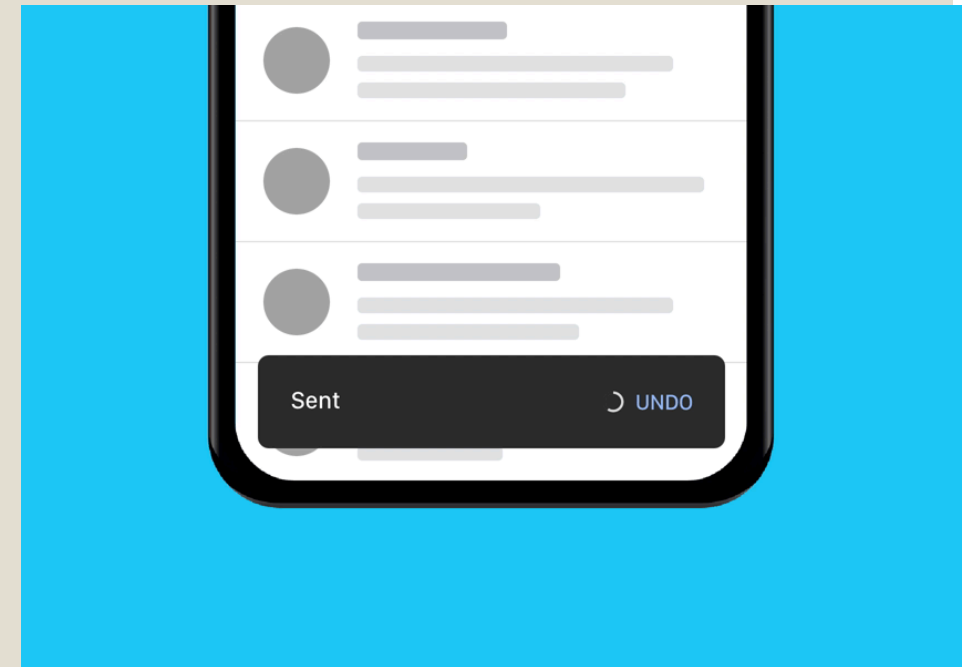


Billing

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6. Permit Easy Reversal of Actions

- It's an instant relief to find that “undo” option after a mistake is made. Your users will feel less anxious and more likely to explore options if they know there's an easy way to reverse any accidents.



7. Support Internal Locus of Control

- Poin ini terutama sangat disukai oleh user yang sudah terbiasa menggunakan aplikasi, karena biasanya user ingin memiliki tampilan yang bisa diatur oleh user sendiri sesuai preferensi dari user. Hal ini dapat meningkatkan kepuasan user terhadap aplikasi yang sangat mempengaruhi UX terhadap aplikasi tersebut.

8. Reduce Short-Term Memory Load

- Pada poin ini biasanya orang lebih memusatkan pada desain tata letak menu dan tombol.
- Tetapi sebenarnya akan lebih efektif jika diterapkan pada proses saat user harus memberikan input ke sistem.
- Dengan menerapkan poin ini, maka user tidak perlu mengingat data yang harus di-input ke sistem. Karena data yang harus di-input, sudah disediakan oleh sistem.
- Di sini, kita dapat merujuk pada salah satu prinsip Nielsen yaitu “Recognition over recall”

Bagaimana dengan **Norman's 7 Principles??**

Silakan di explore mandiri dan kumpulkan hasil pencarian anda beserta contohnya melalui sikola!

Sumber :

- Dix, Alan; Finlay, Janet; Abowd, Gregory; Beale, Russell; 1998; Human-Computer Interaction; Prentice Hall
- Preece, Jenny; Rogers, Yvonne; Sharp, Helen; Benyon, David; Holland, Simon; Carey, Tom; 1998; Human-Computer Interaction; Addison Wesley
- <https://blog.prototypr.io/10-usability-heuristics-with-examples-4a81ada920c>
- <https://webdesign.tutsplus.com/articles/8-golden-rules-for-better-interface-design--cms-30886>