

Interaction Design Principles For Web Apps:

Metaphoric Design

Metaphoric Design

Interaction resembles something else
you are familiar with so you can
use your intuition

Metaphor

“Can’t have your cake and eat it too”

Metaphor is the concept of understanding one thing in terms of another.

A **metaphor** can be a figure of speech that constructs an analogy between two things or ideas

“Cake” takes the place of other desires

You infer things about your situation by the analogy



Shopping Cart Metaphor

The shopping cart metaphor has worked very well for e-commerce sites

It allows users to intuit how their product selections will be accumulated and tracked during the shopping process – because they have all pushed a shopping cart around and went to the checkout.



Source: Amazon.com

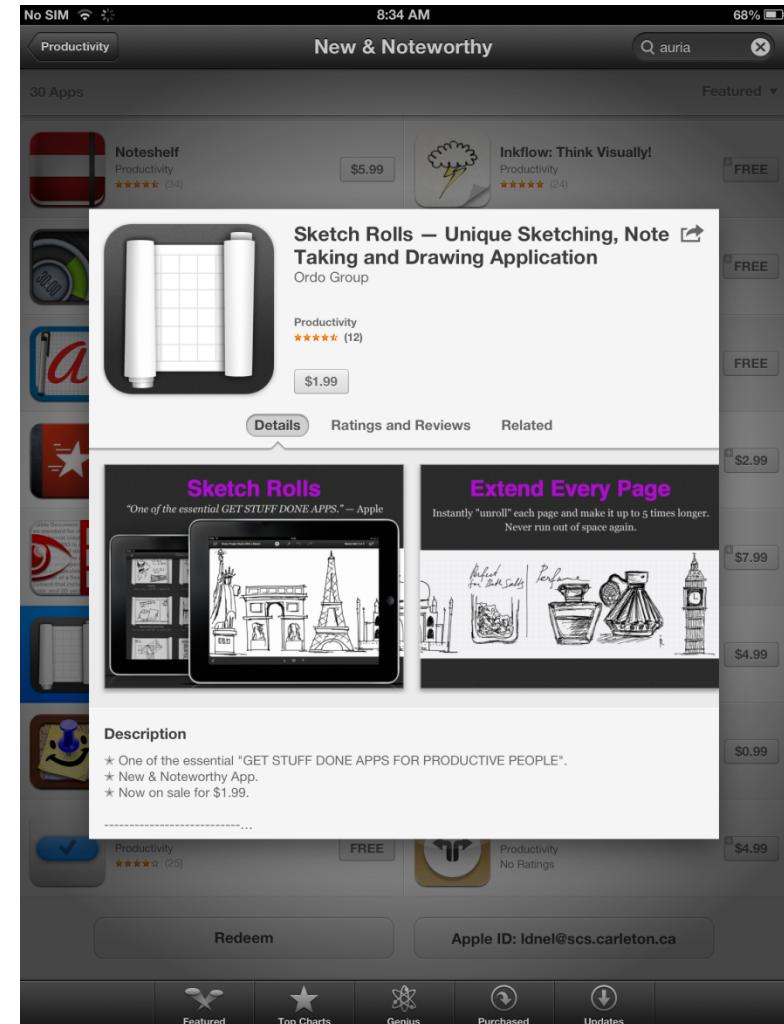


Scroll Metaphor

Scroll (as opposed to book) metaphor

Helps deal with problem of small screens on tablet-type devices

Helps users intuit that they should scroll, or drag, rather than trying to turn pages.



Source: iPad app.

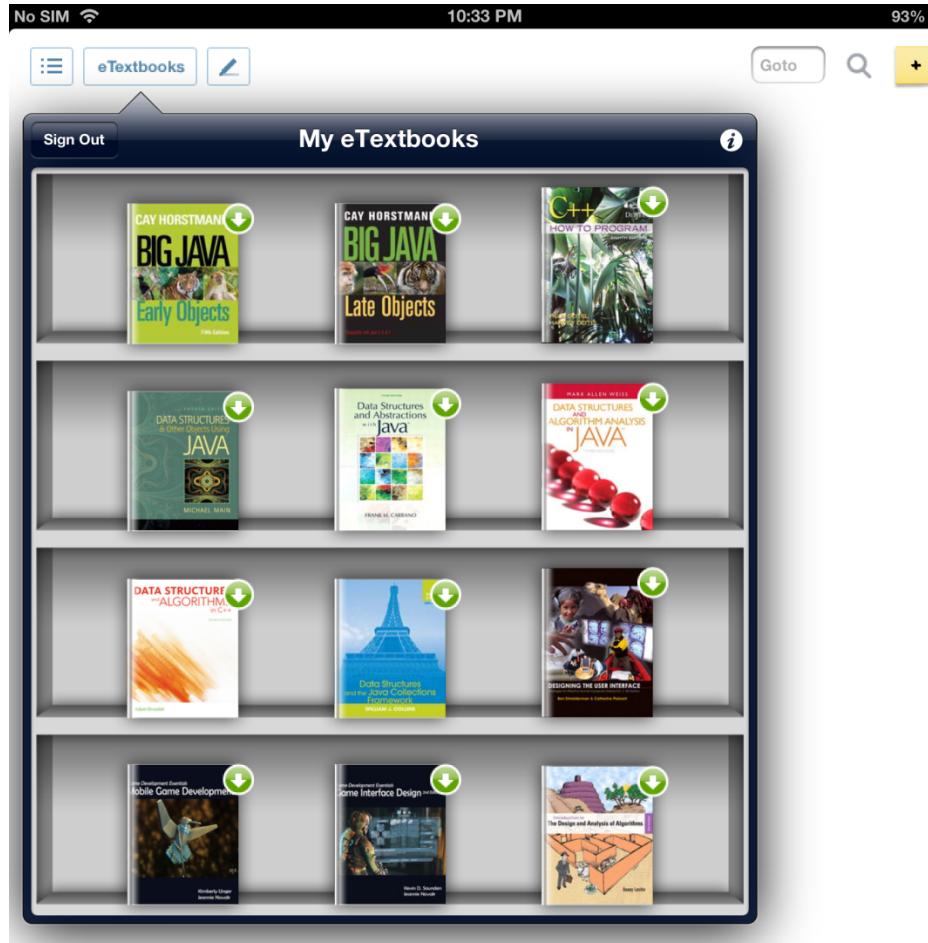
Metaphor-Based UI example

Looking out the window metaphor



Metaphor-Based UI example

Bookshelf metaphor to help market titles an electronic book store





Metaphor-Based UI example

VCR metaphor used to control
a printer

(what does the
rewind button do?)



Source: Interface Hall Of Shame

<http://homepage.mac.com/bradster/iarchitect/metaphor.htm>



Metaphor-Based UI example

Mac trash can used to delete files as well as eject a disk

Is this Metaphor taken too far, or misused.

(Apple admitted this was not a good design.)



Source: Interface Hall Of Shame

<http://homepage.mac.com/bradster/iarchitect/metaphor.htm>

Metaphor-Based UI example

Clapping Metaphor to indicate appreciation or support.

The screenshot shows a blog post on the AndroidPub website. At the top, there's a navigation bar with links for HOME, ARCHIVE, ABOUT, LATEST NEWSLETTER, SUBMIT YOUR ARTICLE, and a search icon. On the right side of the bar are 'Sign in' and 'Get started' buttons. Below the navigation, the main content area features a heading 'One clap, two clap, three clap, forty?' followed by the text 'By clapping more or less, you can signal to us which stories really stand out.' To the left of this text is a circular icon containing a clapping hands emoji, with the number '80' indicating the count of claps. A large yellow arrow points from the left towards this clapping icon. Below the main heading, there's a bio for Adam Hurwitz, described as an 'Android Developer', with a 'Follow' button. To the right, there's a bio for 'AndroidPub' with its description as 'The Pub(lication) for Android & Tech, focused on Development', also with a 'Follow' button. The main content area displays a post thumbnail with the word 'OPEN' in large letters, followed by the text 'More on Android from AndroidPub' and 'How to detect Android application open and close: Background and...'. Below this, there are author details (Dai, 3 min read), a clapping icon (109), and a bookmark icon. To the right, there are sections for 'Related reads' (with a link to 'Open Source Your Android Code — The Complete Guide') and 'More from AndroidPub' (with a link to 'Android Studio tip of the day - #1'). These sections also feature clapping icons and bookmark icons.

Source:

<https://android.jlelse.eu/how-to-use-android-studio-to-write-pure-java23cbe49186e8>

Extended Metaphors

Many metaphors get extended in their software app version.

Spreadsheets extend the Accounting Ledger metaphor

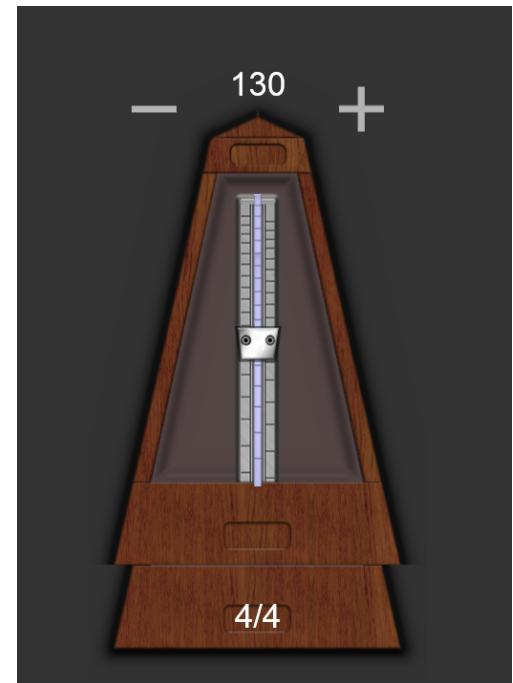


A	B	C	D	E	F	G	H	I	J
1 Hi Excel!									
2									
3	3								
4	3								
5	3.00001								
6	3.14159								
7									
8	6.18159								
9	Yes								
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11	http://www.perl.com/								
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Extended Metaphors

Traditional (Metaphorical) metronome but
with +,- increment buttons.
Is this an odd mix of controls?

What is the point of presenting
the traditional design as
metaphor?



Constrict Thinking

Building a software replica
of a physical metronome:

- Propagates physical limitations
- Introduces awkward mappings
- Misses new opportunities to make it better and easier to use



- Universal Audio makes compressor plug-ins that are exacting replications of old analog gear.
- Metaphoric to the extreme.



- Fab Filter on the other hand builds compressors that take advantage of the processing and UI capabilities of software.
- Same function but not necessarily metaphoric.



Broken Metaphors

- ForScore (pdf music reader) uses library metaphor:
- It has: library, score(chapter), bookmark, collection, **but NO book.**
- It is a broken metaphor and hence frustrating to use.
- It has notion of "searching the card catalog" but no global search -again very frustrating (fixed by popular demand in latest release.)



Extended Metaphors

Extended metaphors actually point out a major weakness of metaphoric design: they are based on old ideas and overlook new capabilities and opportunities.

They build into the app design the limitations of the situation they are based on