**DESIGN PATTERNS**

**Symbolic IO Corporate Website**

**Document Status**: DRAFT

Document Date: 03/24/2015

**Contributors**:

Jesse Rafalko

Table of Contents

KEY MOTIVATIONS 3

GDS DESIGN PRINCIPLES 3

PROGRESSIVE ENHANCEMENT 4

USABILITY HEURISTICS FOR UI DESIGN 4

COMTEMPORARY DESIGN TRENDS (2014) 5

The Good 5

The Bad 6

SOURCES: 7

Additional Resources: 7

# KEY MOTIVATIONS

* Reduce average number of user clicks
* Reduce form completion times
* Minimize users’ cognitive load
* [more…]

# GDS DESIGN PRINCIPLES4

* Start with needs
  + Understand real use needs thoroughly by interrogating data
    - not by making assumptions
* Do less
  + Focus on the irreducible core
    - if someone else is doing it – link to it
* Design with data
  + Learn from real world behavior
  + Understand desire paths
  + Prototype and test with real users
* Do the hard work to make it simple
  + Don’t waste people’s time
* Iterate. Then iterate again
  + Release the Minimum Viable Product early
  + Add features and refinement based on feedback
  + This avoids the 200 page spec document (bottleneck)
* Build for inclusion
* Understand Context
  + How and where are people using our services
  + What other services are they familiar with? (just Facebook?)
* Build digital services, not websites
* Be consistent, not uniform
  + Use the same language and patterns wherever possible
  + Make sure underlying approach is consistent
  + Ensure users have a reasonable chance of guessing what they’re suppose to do
* Make things open: it makes things better
  + Share code, designs, ideas, intentions and failures
  + The more eyes, the better

# PROGRESSIVE ENHANCEMENT5

* HTML is the only part of a page you can rely on
  + Each extra layer should be seen as optional
    - images, styling, behavior
  + Progressive Enhancement produces better, stronger web pages
* Make a new page or feature work with HTML alone
  + Only interactive elements: forms and server-side processing
* Add extra layers from this baseline
  + Images, styling, faster interactions, form validation, interactive data
* Possible extra layer fail-points
  + Network errors, DNS lookup failures, overloaded servers, corporate firewalls, mobile network’s altering content, antivirus firewalls, deliberate feature disabling by the user
* Better experience for impaired users
  + Bold text not useful for visual impairment
    - include alt text and navigation schema
  + Color-coding not useful for certain color-blindness
  + Video/Audio without transcripts unhelpful for hearing impaired
  + Information presented in video with no accompanying audio
  + Mouse-requirement interaction (drag-and-drop, onHover) may not be usable

# USABILITY HEURISTICS FOR UI DESIGN1

* Visibility of system status
  + Keep users informed of what’s going on through appropriate feedback
* Match between system and the real world
  + Speak the users language with familiar concepts
  + Avoid system-oriented terms
  + Follow natural, logical real-world conventions
* User Control and Freedom
  + Users choose functions by mistake
    - provide simple exits from states; support undo/redo
* Consistency and Standards
* Error Prevention
* Recognition rather than recall
  + Minimize user’s memory load by making objects and options visible
  + Easy to retrieve instructions
* Flexibility and efficiency of use
  + Cater to both inexperienced and experienced users by including accelerators (unseen by novice users) and tailored frequent actions
* Aesthetic and minimalist design
  + Extra units of information compete with relevant units of information
* Help users recognize, diagnose and recover from errors
  + Express errors in plain language
  + Precisely indicate the problem
  + Suggest a solution
* Help and documentation
  + It is best if a system can be used without documentation
  + When necessary make documentation searchable, task focused, concrete and not too large

# COMTEMPORARY DESIGN TRENDS (2014)

## The Good3

* CLEAN > FANCY
  + Flat UI will continue to grow in favor over skeuomorphism
  + E.g. Windows 8, iOS7, Skibuddy App
* MOBILE FIRST
  + Mobile usage is overtaking desktop usage
  + Designing with swipe in mind
* SCROLLING WEBSITES
  + Parallax scrolling (multiple background objects scrolling at different rates to simulate depth and perspective)
  + Column-based scrolling
  + Infinite scrolling (loading content as you scroll)
* HTML5 SUGAR
* PERFORMANCE ‘IS’ DESIGN
  + No 1 minute up-front page loads (e.g. Flash circa 1999)
* MICRO UX
  + Sense pleasing menus, transitions, hover states, progress indicators, etc. with microscopic attention to detail.
* LESS TEXT
* MINIMALIST NAVIGATION
  + Need to condense navigation for mobile
  + Icons, Roll-downs, Shrinking navigation
* CSS REPLACES IMAGES
  + E.g. CSS checkboxes
* VIDEO/MOVING BACKGROUNDS
  + Dynamic backgrounds
* RICHER CONTENT EXPERIENCES
  + Blending text, image, video, interaction and scrolling
* MAKE THE MOST OF SINGLE PAGES
  + Lightboxes, Overlays, Expanding/repositioning tiles
* VARIED TYPOGRAPHY
  + Favor bigger font sizes
  + Responsive Typography
    - http://codepen.io/tutsplus/full/xbZwmK/
* MONOCHROMATIC DESIGN
  + Vs. Hypercolor for use with Flat Design
* CARDS/TILES6
  + Aggregated/linked content
  + Bursts of Information
  + Can be manipulated
  + Creative canvas
* BIGGER AND BETTER IMAGERY
* FIXED POSITION CONTENT
  + Content that stays on page while scrolling (navigation)

## The Bad2

* LOADING SCREENS
* HIDDEN NAVIGATION
* MAKING DEMANDS
  + “This site is designed for iPads”
* IMAGES USED FOR TEXT
  + A nightmare for accessibility and SEO
* CONTRAST
  + Low contrast doesn’t work well with cheap monitors
* ANIMATION
  + Distracting
  + Does not add to user experience
  + Not motivated by website context
* MYSTERIOUS ICONS
  + No complimentary text
  + Hover state does not exist on smartphones
* BOSSY BEHAVIOR
  + Self-minimizing navigation
  + Opening pages in new tabs
* TINY FONT
  + And skinny, light font on dark background
* POP-UPS
  + “Create your free account”
* AUTOPLAY VIDEO/AUDIO
* MULTIMEDIA OVERLOAD/UNIQUE NAVIGATION METAPHORS
  + E.g. <http://thebullittagency.com/>
  + E.g. <http://thebullittagency.com/#!/artist/>
* CONTENT DELAYS
  + Throttling how fast images load

# SOURCES:

1. *10 Usability Heuristics for User Interface Design*. Nielsen Norman Group. <http://www.nngroup.com/articles/ten-usability-heuristics/>
2. *14 Lousy Web Design Trends that are Making a Comeback*. E-Consultancy. <https://econsultancy.com/blog/62335-14-lousy-web-design-trends-that-are-making-a-comeback>
3. *18 Pivotal Web Design Trends for 2014*. E-Consultancy. <https://econsultancy.com/blog/64096-18-pivotal-web-design-trends-for-2014/>
4. *GDS Design Principles*. GOV.UK. <https://www.gov.uk/design-principles/>
5. *Progressive Enhancement*. GOV.UK. <https://www.gov.uk/service-manual/making-software/progressive-enhancement.html>
6. *Why Cards are the Future of the Web*. Intercom. <http://blog.intercom.io/why-cards-are-the-future-of-the-web/>

## Additional Resources:

* *Yahoo Design Pattern Library*. Yahoo Developer Network. <https://developer.yahoo.com/ypatterns/>
* Smashing Magazine. <http://www.smashingmagazine.com/>
* Media Queries. <http://mediaqueri.es/>
* *Why we should support users with no JavaScript*. Punkchip. <http://www.punkchip.com/why-support-javascript-disabled/>
* *User Interface Design Pattern Library*. UI Patterns. <http://ui-patterns.com/>
* *The Lazy Person’s Guide to Responsive Typography*. Tuts+. <http://webdesign.tutsplus.com/tutorials/the-lazy-persons-guide-to-responsive-typography--cms-22822>
* *4 Typography Trends for 2014*. Creative Market. <https://creativemarket.com/blog/2013/12/25/4-typography-trends-for-2014>
* *Accessible Rich Internet Applications (ARIA)*. MDN. <https://developer.mozilla.org/en-US/docs/Web/Accessibility/ARIA>
* *17 delightful micro UX effects…* E-consultancy. <https://econsultancy.com/blog/63042-17-delightful-micro-ux-effects-and-transitions-for-your-website>