

# UI Design Framework

By Zulfikar Mohammed

## UI Innovation

Innovative UI design work leads to solid end-user experiences when creativity can build upon a solid plan. It's like a jazz musician improvising on a standard melody to make it soar. In both cases, a strong foundation is essential for innovation where the right brain (creative side) and left brain (logical side) are both engaged. Our framework analyzes both, and measures sites against best practices in order to reinforce strengths and point out weaknesses.

## Our UI Design Framework

builds on the following 9 categories:

1. Content – Does the site deliver value?
2. Navigation – Can someone go from Point A to Point B?
3. Creative Design – Do people want to look at your site?
4. Functionality – Do the site's features work as intended?
5. Homepage – Does the page encourage people to stay and explore your site?
6. User input – Can people enter information without frustration?
7. Professionalism – How polished is the site's presentation?
8. Search – Can people find what they are seeking with search?
9. Guidance – Does the site give feedback and cues to help navigation?

## Using the Framework to Innovate

Recently we delivered a comprehensive usability assessment for a large enterprise website of a publicly traded company. We evaluated the website using 170 criteria across the 9 categories. Here are a few examples:

- Navigation – Clickable objects are clearly identified
- Homepage – Page load time is minimal
- Creative Design – Images convey meaning, not generic stock photos

For the 30 most significant criteria, we benchmarked industry standards to help with comparisons (data is often not meaningful unless compared). With the scorecard complete, we delivered a clear picture of how to improve the site.

The scorecard can be adjusted depending on the industry or market because every industry, business type, and online experience is unique. For example, functionality critical for an e-commerce site like Amazon may not use the same criteria as a content site like the New York Times.

## The Science of UI Design

Most people don't associate UI design with the logical left brain because the finished product is so connected to the designer and the design aesthetic. But UI work is more scientific and logical than the visuals that layer on top of the wireframes. Science is about systematically building and organizing knowledge, and the best usability draws on the logical left brain as a foundation to organize knowledge and ability. This foundation gives the right brain freedom to create, and it often sparks innovation. In our framework, we use the 9 categories of our UI Framework to assure we aren't overlooking anything important when it comes to adding value.

## Sophisticated Simplicity

Utilizing a comprehensive framework doesn't mean the interface is going to be complex. Good UI designers apply universal principles of human behavior, but great UI designers innovate through insights into human behavior. For example, Hick's Law encourages simplicity by asserting that users take longer to decide when faced with more choices. A talented designer anticipates how to minimize perceived choices on a given screen to maximize usability. Our framework helps designers analyze that.

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It's all about aesthetics, simplicity, design, elegance...usability matters...

## User Interface Design Process

The process of user interface design can be quite challenging. Many developers start the project with the best of intentions only to come up with an interface that doesn't seem to deliver on the original idea or purpose. There are also cases where the interface design meets visual expectations

but ends up falling short when tested by users. If either of these scenarios describes your position, then it's time to get a fresh pair of eyes by bringing in outside help to revamp your design.

## Designing a Great User Interface

At Artversion, we know how much work is involved when it comes to designing a great user interface. We always start by studying the target user and the goal of the app before anything else. We then start by coming up with ideas on how to deliver a great user experience and meet the goal of the app. The ideas are translated into a framework where it is organized into an information architecture built to provide a fluid, relevant and intuitive experience.

The next step is to deliver a great user experience. The goal is to make the app organized, engaging, clean, quick and understandable. We want the user to have use the app without any constraints. And there is no assumption that the design delivered the great user experience we originally sought out.

## Visual Design and UI Framework

Finally, we get to the actual visual design that goes on top of the UI framework. The focus is on the actual presentation such as the graphic overlay, fonts, colors, web buttons and other widgets. We also focus on the uniqueness of the product and help you integrate your ideal brand interaction into the app. [/p]

As you can see, user interface design is not just about making your idea fit into a box. There is an immense amount of work that goes into providing a great user experience and great interface design. It is a dynamic process where you have to constantly use your test results and feedback to change the design and structure of the UI. That's why most of our clients come to us in the early stages of their app development.

It's important to understand that user interface design is a critical component in the success of your app. Even if the idea of the app is great, you have to get users to actually use it and continue using it. A successful app is a combination of a great idea, great UX and a great UI. So don't let your user interface get in the way of launching a successful app and don't waste your time taking on this challenging project yourself.

The framework goes through rigorous usability testing and feedback until we feel it provides a sublime UX.

## Information Architecture

Content strategy evolves into a cohesive Information Architecture strategy. It's a thoughtfully designed framework by which the user will journey from one content experience to the next, while experiencing the clearest sense of the brand's message.

## Brand Interaction

All aspects of audience interaction with a brand, its services, products, image, voice, and interactive engagement style, make up what's identified as "the User Experience."

## The User Experience

The website, email campaign, landing page, and all integrated media must meet the needs of the audience in a compelling manner.

## Usability Testing

How do real people use the digital media interface? User interface is one of the most powerful tools at our disposal in the creation of an effective and compelling user experience. The interface is simply the most direct and visible method through which our audience interacts with our brand.

## User Interface Design

UI is the front line of media engagement. UX is the "experience" of that interactive environment.

UX and UI...understanding the difference...

"User Experience" encompasses all aspects of the end-user's interaction with the company, its services, and its products. User experience needs to meet the exact needs of the customer, clearly and directly. Next comes the simplicity and elegance of a custom design that produces a meaningful

and engaging experience. Everything in design comes together here – engineering, marketing, graphic and industrial design, and interface design.

## The Design Review

Design reviews cover websites, Internet services and applications, software designs, email marketing items, and social media campaigns.

UX/UI...not just development buzz words...

These terms are much more than just tech development buzz words... they stand for the essence of great design: inspired form, thoughtful function, clarity, and intuitive usability.

## Get Started Today

Over the last decade, we worked on the user interface design for variety of projects, from network appliances to financial software portals, and user-centric SaaS websites. We have provided our expertise and services to startup organizations all the way to well established major corporations.

Do not hesitate to drop us a line! If you would either, like us to help with a current project you are developing, on your own, by reviewing your current user interface state, or if you need help designing your software's user interface, from scratch, we are here to help.

Having well designed user interface, will provide a best user experience, for your end-user.

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## Facets of the User Experience

When I broadened my interest from IA to UX, I found the need for a new diagram to illustrate the facets of user experience - especially to help clients understand why they must move beyond usability - and so with a little help from my friends developed the user experience honeycomb.

Naturally, the jump from three circles to seven hexagons gave me an instant buzz, but after several months of road testing, I can safely say this diagram has survived the honeymoon.

Here's how I explain each facet or quality of the user experience:

- Useful. As practitioners, we can't be content to paint within the lines drawn by managers. We must have the courage and creativity to ask whether our products and systems are useful, and to apply our deep knowledge of craft and medium to define innovative solutions that are more useful.
- Usable. Ease of use remains vital, and yet the interface-centered methods and perspectives of human-computer interaction do not address all dimensions of web design. In short, usability is necessary but not sufficient.
- 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 design.
- Findable. We must strive to design navigable web sites and locatable objects, so users can find what they need.
- Accessible. Just as our buildings have elevators and ramps, our web sites should be accessible to people with disabilities (more than 10% of the population). Today, it's good business and the ethical thing to do. Eventually, it will become the law.
- Credible. Thanks to the Web Credibility Project, we're beginning to understand the design elements that influence whether users trust and believe what we tell them.
- 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 satisfaction.

The honeycomb hits the sweet spot by serving several purposes at once. First, it's a great tool for advancing the conversation beyond usability and for helping people understand the need to define priorities. Is it more important for your web site to be desirable or accessible? How about usable or credible? The truth is, it depends on your unique balance of context, content and users, and the required tradeoffs are better made explicitly than unconsciously.

Second, this model supports a modular approach to web design. Let's say you want to improve your site but lack the budget, time, or stomach for a complete overhaul. Why not try a targeted redesign, perhaps starting with Stanford's ten guidelines as a resource for evaluating and enhancing the credibility of your web site?

Third, each facet of the user experience honeycomb can serve as a singular looking glass, transforming how we see what we do, and enabling us to explore beyond conventional boundaries.

### A Different Way of Seeing

For example, I realized some time ago that while "information architect" describes my profession, findability defines my passion.

Since then, I've found my focus on findability has opened my eyes, leading me beyond IA while simultaneously making me a better information architect.

Last Summer, while redesigning the Q web site, we identified findability as a top priority. Our quest to make this small site more findable took me beyond the discipline of information architecture and deep into the realm of search engine optimization.

That experience proved useful last Fall, during a redesign project for the National Cancer Institute, in which we used findability concepts and SEO statistics to alleviate an unhealthy fixation on the home page, raising awareness of the need to design findable documents for direct access via the Google, MSN, and Yahoo! search engines.

And this Spring, I was hired to perform my first findability audit for a major international nonprofit. Feeling a bit concerned about dedicating four weeks exclusively to findability, I asked whether I should also consider usability factors. "No thanks," my client replied. "We already had Jakob in last year to focus on usability."

### A Big Hive

Though the findability audit was a success, it did feel ironic to once again be ensnared inside a box (or hexagon) of my own making.

But I'm sticking with findability for now. Between my new seminar, my new book, and findability.org, I'm busy as a bee.

And anytime I feel trapped, I can explore other facets of the user experience honeycomb, or perhaps even create a new diagram.

For me, user experience design is a big hive: a dynamic, multi-dimensional space where there's still plenty of room to build new boxes and draw new arrows, at least for the next ten years.

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As designers we have to be aware of the function of our work and design as much as we care about the aesthetics and visuals. There are a lot of terms for the design of how the site functions and works, from “usability design” to “user experience,” what remains constant is that if we want to become better designers we have to pair these two concepts together.

Using clear and effective design laws as guides we can use proven formulas for better design. These laws both assist in the usability / experience of our design as well as the aesthetic values. Furthermore being able to refer and cite these laws when presenting or discussing design you can further establish yourself as a expert with justified reasons for your design choices.

## 1. Hick’s Law

Hick’s law states that with every additional choice the time it will take for one to make a selection increases. This means that the more options a user has when using your website or web application the more difficult it will be to use. This law really speaks the importance of simplicity.

The classic case study for Hick’s law involves a grocery store which put out free jam tasting for customers. In one case they had 40+ jams to sample and choose from, and in the other only a few samples. What they discovered is that customers purchased more jam when presented with three to four options over the forty plus. Most customers opted not to purchase jam at all rather than pick from such a large selection.

What this means for us designers is that we should minimize the amount of choices a user has to select from. Removing any unnecessary pages, links, buttons or selections will make your designs much more effective.

Read more about Hick’s Law.

## 2. The Pareto Principal, or the 80 / 20 Rule

The Pareto principle stipulates that a high percentage of users will perform a low percentage of actions. Meaning that most of your users are going to go to a small percentage of pages. Or in terms of web applications that most of your users will perform a small percentage of tasks.

Using this principle we can identify what that small percentage of actions that most of the users are performing (using analytics, research, interviews, etc...) We can then put higher emphasis on those tasks and actions to make the site easier to use. Sometimes this can lead to the inclusion of a new navigation, or altering the homepage to make finding and accomplishing those tasks easier.

This can also lead to the pair down and removal of content and features from a website. If the users are not accessing or using the information, then you can improve the site by removing it. This ties into Hick's Law and Occam's Razor.

[Read more about the Pareto Principle](#)

### 3. The Rule of Thirds

The rule of thirds is a method of composing elements to be visually pleasing in addition to identifying ways that users' eyes will scan across the page. Photographers have been using this principle for years to create more visually interesting compositions.

The rule of thirds is used by breaking up a design into thirds both vertically and horizontally. This builds a grid of intersecting lines. The rule states that a viewer is more likely to be drawn to the intersection of those lines. Additionally it is a good rule of thumb to place elements along the lines and intersections as well as avoid placing anything in the dead center of the composition or have a horizontal line dividing the composition in half.

Placing elements so that they take up 1/3rd or 2/3rds of the space will be more visually pleasing to most viewers.

[Read more about the Rule of Thirds.](#)

### 4. Proximity

The law of proximity is often neglected, even by experienced designers. This law states that elements that are near each other will appear related. This sounds like a very simple and obvious law but it is so often overlooked.

What this means is that you must be very aware of how much space you are placing between elements within your design. If you have a series of elements that are too close together, users will assume that this was done so on purpose and that those elements are related. This is often an issue with web applications, where buttons or controls are grouped together yet have unrelated functionality. The result is that users get confused when trying to use and understand the application.

For example a search button that is too close to a save and cancel will likely get the assumption that the search is related to saving or canceling. Some users may think that the search is for searching previous versions of your work or that it is specific search for help, etc...

Proximity should be used carefully as it is extremely powerful. One simple example of good proximity use would be placing headlines closer to the paragraphs they are related to them than the paragraphs previous. You can look at the headlines in this blog as an example.

## 5. Feedback

Feedback is a concept that industrial designers have mastered for decades. Feedback is giving a user clear indication that something has happened, is happening or could happen. This communication is essential in the design of many products, consider a coffee maker that didn't have a light indicating it was on. You would probably be burning coffee constantly!

Since users interact with our sites and applications we need to be aware of providing adequate feedback. This means providing loading bars, hover states on all links, using the visited link property, :focus states on form elements and :active states on links.

Sometimes designers will neglect to have hover states on links out of laziness. However it really does improve the usability and quality of your design.

## 6. Fitts' Law

**fittslaw**Fitts' Law can be described as "The time required to move to a target is a function of the target size and distance to the target." We can apply this to web design by looking at the hit area of our objects. Meaning the larger we can make the clickable area of key links and navigational

elements the easier they will be to click on. Remember that while as web designers we may be extremely proficient at using the mouse and the web, there are a lot of users who still have trouble with these basic functions.

A common misuse of Fitts' law is when a design is coded so that the text of a menu bar is clickable but the tabs themselves are not. Rather than just making the text clickable it would be a great idea to add padding to that link element to increase the clickable area. Sometimes this means turning the anchor into a block level element and wrapping details inside.

This can work in the opposite way as well, meaning items we want to be difficult to be clicked on (such as cancel buttons / links) should have a smaller clickable area. This is why you often see forms or actions that have large "save" buttons but text based "delete" or "cancel" links. WordPress uses this law extremely well.

Read more about Fitts' Law.

## 7. The Golden Ratio

The golden ratio is often confused with the rule of thirds, but make no mistake they are different. The golden ratio looks at what proportions are naturally most visually appealing. This ratio has been used in design, architecture and engineering for hundreds of years. It even has been tied to what features we find most attractive in people (both facial features and body types).

The golden ratio can be described as a ratio with in the elements of a form, such as height to width, approximating 0.618.

When applied to rectangles you can continue to create smaller dissections of the shape using the .618 ratio, which creates a natural spiral pattern. This can be seen in nature by examining sea shells.

This ratio has been used through out history, in everything from the craftsmanship of violins to the design of the Parthenon and Stonehenge.

It is unlikely that some of these items were created with the golden ratio in mind, rather the creators likely preferred the visual appeal of the design when using these ratios.

Ultimately the golden ratio is more likely to produce visually pleasing compositions.

Read more about the Golden Ratio

## 8. Occam's Razor

Occam's Razor put simply, states that "the simplest solution is almost always the best." With the flexibility and power of the web and our design tools, it is easy to get carried away. The result is a very complicated site or design that may have a lot of functionality and information, but is difficult to use, build and maintain. Despite the fact that one might think the site can do more, it actually accomplishes less.

This is commonly an issue where companies feel the need to put everything they possibly could up on the website in the rare case that someone wants the information. What gets ignored is that the overwhelming majority of the users will access about 20% of the content on the site (see the 80/20 rule earlier).

Being ruthless about the value that a page or piece of content provides and removing anything that is unnecessary will make significantly stronger and more effective designs.

Additionally this rule speaks to the age old saying that "A design isn't finished when there is nothing more to add, but when there is nothing left to take away." Design simplicity is elegant, sophisticated and much more effective than the complex decorative style that is so prevalent on the web these days.

Read more about Occams Razor.

## 9. Fibonacci Sequence

The Fibonacci Sequence is a series of numbers in which each number is the sum of the preceding two. For example if you started with 1 it would go like this:

1, 1, 2, 3, 5, 8, 13, 21, 34, 55, etc...

This is significant as it has been found in many classical creative works, is found commonly in nature and is often used in addition to the golden ratio. Patterns based on the sequence are intrinsically aesthetic and therefor should be used in the composition of our designs.

This sequence can be used to create visual patterns, create shapes, organic figures, build grids or dictate sizing and ratios. The Fibonacci sequence is considered to be one of the most influential patterns in both mathematics as well as design.

[Read more about the Fibonacci Sequence](#)

## 10. Mental Models

The Mental Model law states that it is significantly easier for users to understand and learn something new if they can model it off of something they already understand. This is why the concept of tabs works so well and why operating systems are modeled off of real world office situations (folders, files, desktop, etc...)

We can use this concept in making our designs easier to use as well as more effective visually. There are times where it would be effective to model our designs off of real world situations or objects. Consider designs that mimic desktops, papers or offices. Users can learn, understand and draw meaning from these types of designs because they can relate it to their understanding of the objects in real life.

[Use the Laws, Design Better](#)

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Design principles

Effortless interaction

Interaction with Sailfish devices is effortless even in a hectic mobile environment. The core interactions are based on simple gestures, supported by visual, tactile and audio feedback. This enables users to interact with the device via the complete screen estate instead of forcing them to tap on tiny buttons, requiring stretching fingers or moving the device up and down within their hands. As an added bonus this permits to reveal more content during these gestures.

True multitasking at its best

We tend to do a lot things with our phones at once involving several apps at the same time. Sailfish supports true multitasking, allowing you to quickly and seamlessly move around running apps. This keeps you up to date, enables you to fetch and play content and get something done even after pushing the app away from the foreground.

### Reflect your ambiance

In Sailfish, personal style and cooperation with brands are valued. The easy tailoring of the user experience enables users to create a truly individual device, reflecting their personal style and ambiance. Cooperation tailoring can reflect a brand and at the same time integrate offerings and services deeply into the Sailfish OS.

### All screen estate is yours

For the user, content is one of the most important parts of the user experience. In Sailfish the UI Chrome, the static screen estate reserved by the OS, is reduced to an absolute minimum letting the user content shine.

### Simply beautiful

Sailfish designs are simple, beautiful and uncluttered. Content is presented clearly, text is legible, animations, haptics and sounds follow an overall theme and support user interactions. The visual style is simple, though warm and friendly; it is based on metaphors of glass and shining light.

### Logical

Sailfish designs are logical and consistent. Consistency means here that similar interaction flows and visuals are reused for similar tasks. Combined, these create more fluent task flows and greater user satisfaction since users can apply a flow they've learned easily in other areas.

### Magical

Instead of just doing something different, the intention behind Sailfish is to always improve, innovate and create magical design. Such solutions to problems make the user's tasks easier, more pleasant and therefore create a positive surprise, in fact, to make the user smile a smile.

## Integrated services

Sailfish features frameworks that enable a deep integration of services. Users can access service related content and options during their core tasks instead of opening and closing a set of dedicated apps. Developers are able to hook into frameworks via plug-ins and thus speed up development time. A single plug-in is normally much easier to develop than a full UI for service features.

## Tap and hold

Tap and hold is a longer press on the screen. It usually offers a set of secondary actions or more from the control or item.

## Gestures in different views

While an app is in the foreground

- A push from the left or right moves the app to Home
- A push from the top closes the app
- A push from the bottom reveals Events

[Click here to view image](#)

While Events are in the foreground

- A push from any direction opens the previous view

[Click here to view image](#)

Within an application

- When there is a visual indicator (glow) on top of the view, a vertical flick down reveals the Pulley menu and an option can be selected with a tap. Pulling down slowly also shows pulley menu options, but one by one. Releasing the finger from the screen while one of the pulley menu options is in selected state confirms the selection.

- In sub views of an app, there is a hierarchy indicator at the top left corner of the view. A flick from left to right moves one step backward in the app hierarchy. A tap on the hierarchy indicator does the same.

[Click here to view image](#)

Within a dialog

- A flick from left to right cancels the dialog. A tap on the top left indicator does the same.
- A flick from right to left accepts the dialog. A tap on the top right indicator does the same.

[Click here to view image](#)