4 Levels of Design Fidelity

Understanding Expectations

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Designers often get involved in discussions on design fidelity and usually it becomes a very spirited debate to say the least. I think one of the key reason this conversation arises so frequently is two-fold, lack of clear communication and ideas with multiple contexts.

Opportunity

Usually this discussion surrounds low and high fidelity designs. But by setting the dialogue up around the notion of two levels of fidelity setups immediate barriers to understanding and potential confusion throughout the conversation.
Typically a "low-fidelity" design carries the meaning that it is in early stages of design. Low-fidelity may also evoke the words rough, sketch, quick and incomplete. Another word that is usually seen as interchangeable with "low-fidelity" is "static". This can either add context to the conversation or make it more confusing depending on the audience. "Static" in the sense that the design is not interactive or updating in anyway.

"High-fidelity" design carries a different set of biases. "High-fidelity" designs typically are thought of in the terms such as, near complete, detailed and aesthetically pleasing. Other words that are usually associated with "high-fidelity" are "dynamic" or "interactive". However, these words may inaccurately reflect the nature of the material being presented. "Dynamic" or "interactive" may mean that the someone can either click through the design with limited functionality or interact with the design as if it was a fully functional product.

Why do these terms create confusion? Levels of fidelity have different means to different groups of people. Designers may have a much different meaning in their head than a marketer when they hear these words. The core problem is that definitions can seem as vague to others.

Approach

This means that we must add more context to eliminate the confusion between user groups. Many different people and groups must interact with the designs that are created. It may very well be that the designer isn't even always the one presenting the designs to others. Sales may want to show upcoming potential designs to potential or existing clients to increase awareness.

How do we add more context to eliminate the ambiguity of "low-fidelity" and "high-fidelity"? The scope of how these terms are used and understood just be clarified. I believe that two levels of fidelity marginalizes the complexity and stages of design. Four levels of fidelity seem more plausible. These additional two levels of fidelity are not imaginary, they are better explanations of "low-fidelity" and "high-fidelity". There are two specific types of fidelity, Aesthetic and Interaction. Each type has a low and high variation. We will look into these combinations in more detail below.

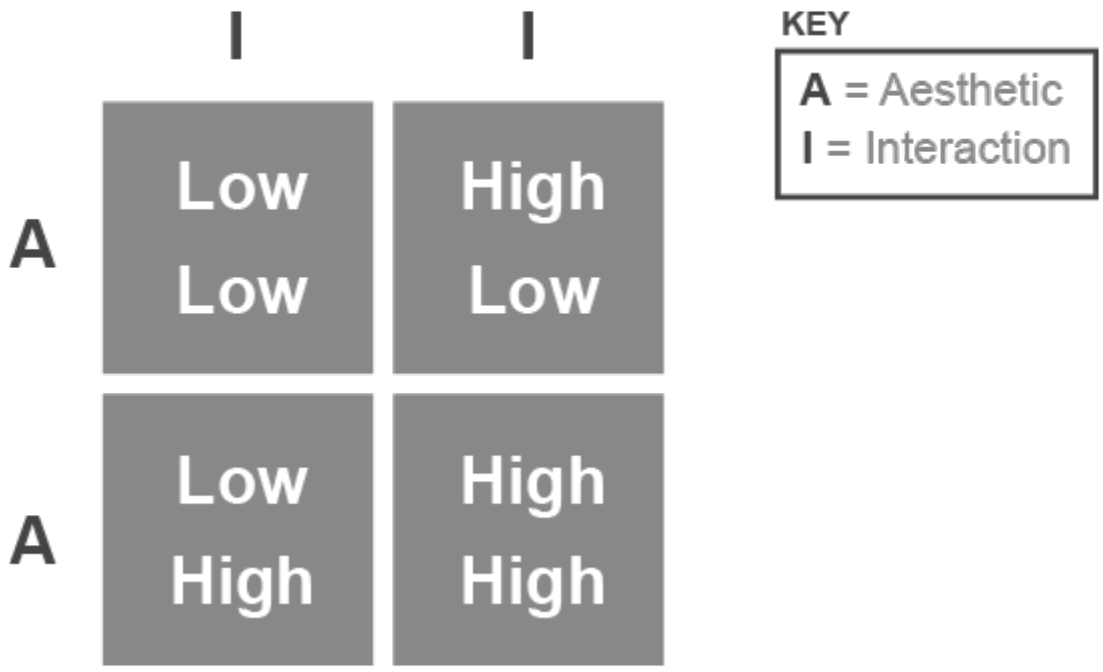

Figure 1 - Four Levels of Design Fidelity Matrix

1. Aesthetic - Low / Interaction - Low

This is the least time consuming level of fidelity. At this stage the concept may still be rough around the edges or maybe you don't have access to all the requirements or content yet. This can limit the information you present. Generally this may be called a "wireframe" because it just looks like outlines and shapes but lacks, color, detail and still needs refined. Interaction is almost non-existent at this level. Generally the interaction is all manual at this point, meaning you will have to change the pages or content for a user who is looking at the concept. There is no dynamic content or interaction at this stage of the concept.

2. Aesthetic - Low / Interaction - High

At this stage, the concept may still be rough around the edges or maybe you don't have access to all the requirements or content yet. This can limit the information you present. Generally this may be called a "wireframe" because it just looks like outlines and shapes but lacks, color, detail and still needs refined. Interaction is almost non-existent at this level. The interaction at this level can be limited dynamic capability or robust interactions. You can create this type of functionality using a specific software program or directly construct it with code like HTML5/CSS3/jQuery. The approach you take to create the rich functionality is up to what works best for you. At this stage part of the interactive prototype could still be rough or non-existent but generally the user will have a good idea of the specific interactions or workflows you are testing.

3. Aesthetic - High / Interaction - Low

At this point the design has been flushed out aesthetically. It will very well look like a fully functional product or system. All branding and styling should be in place. You should also have all of the content or information within the design as well. Generally the interaction is all manual at this point, meaning you will have to change the pages or content for a user who is looking at the concept. There is no dynamic content or interaction at this stage of the concept.

4. Aesthetic - High / Interaction - High

This is the most time consuming level of fidelity. At this point the design has been flushed out aesthetically. It will very well look like a fully functional product or system. All branding and styling should be in place. You should also have all of the content or information within the design as well. The interaction at this level can be limited dynamic capability or robust interactions. You can create this type of functionality using a specific program such as Axure, or directly construct it with code like HTML5/CSS3/JQuery. The approach you take to create the rich functionality is up to what works best for you. At this stage part of the interactive prototype should feel like a fully functional system even if parts of it don't function due to scope of testing. A user should be able to self navigate and explore as if they were really completing tasks associated with their role.

Context

When creating a design, tailor the design to your needs. Overworking a design will only add hours and effort that were unnecessary for the concept to be properly digested by the audience. Similarly, putting an unpolished design in front of a big client may create a negative knee-jerk reaction. How do you know which level of fidelity you should use? Consider the use cases below as guidance.

Use Cases

Aesthetic - Low / Interaction - Low
This level of fidelity is great when ideas need to be fast and keep the focus on improving the concept. These concepts could be used for external stakeholders, however, it should be only early in the requirements development phase. Once requirements are known, a more polished concept should be used to keep the project focused.

- Internal Brainstorming Sessions
- Internal Concept Development
- Internal / External Requirements Development / Refinement
- External Layout Feedback

Aesthetic - Low / Interaction - High
This level of fidelity is great when there is a need to understand the flow of navigation or specific user workflows. These concepts are good for external stakeholders when you are trying to communicate how many pages completing a task will take, the general flow of information or understanding different levels of navigation.

- Internal Navigation Explorations
- Internal / External User Role Workflows
- Internal / External Navigation Simulation
- Internal / External Task Complexity

Aesthetic - High / Interaction - Low
This level of fidelity is very useful when you want to do paper based usability testing or gather feedback on the detailed content of a design. These concepts work well for collecting feedback on detailed content within the design. The high aesthetic fidelity lends users to focusing on the details instead of on general concepts.

- Internal Transitioning From Design To Development
- External Paper Based Usability Testing
- External Collecting Feedback On Detailed Content
- External Early Understanding Of Final Concept

Aesthetic - High / Interaction - High
This level of fidelity is great for simulating the actual product or system. The point of this is to put the user in the mindset of using the product prior to it being completely developed. This is very beneficial or gathering feedback on improving usability and workflow. This is the best fidelity to for fine tuning usability and workflows before they are fully developed and need to be reworked.

- Internal Understanding Full System Prior To Development
- External Interactive Based Usability Testing
- External Presenting Proposed Future Enhancements
- External Detailed Understanding Of Final System

Forward

Remember as you develop your concepts to consider the time frame and use cases you are trying to explore to determine the correct level of fidelity. As you onboard new clients or employees communicate this material to them in a clear way. Good communication is based on a shared understanding.

Keep in mind your approach will be unique, and it should be. You should use this as a guideline not a rigid construct. Your business is unique and your approach to design will be as well. Leave room for flexibility, but ensure that communication is clear about expectations and output.