The Making of

UI in MOTION

Design Capstone 2017
Kate Lampe

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OVERVIEW

A capstone project demonstrates proficiency in the baccalaureate competencies required by the University of Cincinnati and with the content/skills of the Communication Design Program (CODE). All University students are expected to demonstrate their abilities in critical thinking, effective communication, knowledge integration, social responsibility, and information literacy. CODE students are also expected to demonstrate mastery of design methodologies and concepts, aesthetic sensitivity, technical competency, and professional studio conduct. Because the capstone process begins a year before graduation, faculty expect that relevant competencies will continue to develop over the course of the project.

The purpose of this first capstone course is to develop a solid foundation for nalized capstone deliverables including research and exploration through form making. It involves gaining an understanding of the extensive planning, management and research necessary to develop a self-defined and effective design project.

PROJECT REQUIREMENTS

Relevance, Effectiveness, & Aesthetics.

Capstone projects must address a human need via (communication) design in a unique way.

The project must effectively address the problems it claims to deal with, provide the benefit it claims to, and/or convincingly argue that it would provide a desired benefit.

A design capstone should indicate a well developed aesthetic sensitivity and competence in form-making.

— Design Methodology Syllabus 2016

PRELIMINARY RESEARCH

PROCESS BLOG

A weekly recounting of my capstone research during the summer semester of 2016.

5.20.16

Creating a style guide tool for motion within interaction design.

- Web tool that allows user to view and change various examples of motion in an interactive setting. User is able to choose from these examples and receive the data (dimensions, speed, etc…) that can be plugged into whatever animation program they are using.
- Toolkit/application displaying pre-existing styles of animation within interaction design. Search by component such as buttons, page transitions.
- Informative piece on the history/development of motion in web and interaction design and the possible future

Upon talking with various classmates and my professor, I've decided to hone in on the first option: Creating a style guide tool for motion within interaction design. HOWEVER, as you may notice, this current idea is focusing more on a solution than the problem, and even within the problem, it is extremely broad. So, narrowing this down this weekend is what I will be working on.

5.27.16

How can UX/UI designers best incorporate the basic principles of animation into their design process?

However, this is still a pretty big topic to cover, so I've taken to researching three of the components mentioned in the above question so I can continue to narrow in on my Capstone problem statement.

I've split up the above question like so (with one example article for each):

Defining UX/UI designers, similarities, differences, how the terms have evolved.

Animation in user interface design (user interface design needs defining)

Basic principles of animation (12 principles?)

6.9.16

I am still in the process of heavily refining my project brief. Every day, I come across more information that I want to include in my research, but sometimes this hinders my process by adding too much scope rather than helping it. I have had a lot of helpful feedback over the past week and have identified that I need to restructure my Overview/Current Situation like so:

The state of UX/UI design: NEEDS. DEFINING. There is so much conjecture on the overlap of UX and UI and argument over if they are beginning to become exceedingly similar. I know that at some point I just need to put my foot down and define them using merely one of the explanations that I have found in my research.

Disney's 12 Principles of Animation: Defining, giving history. I've been told that I should narrow this down to choosing just 3-4 of the principles, but I fear that this would seem inconclusive? I certainly see the benefit of being able to explore fewer of the principles more deeply and will definitely look further into this though.

How the 12 Principles combine with UX design to create UX Choreography: This is where I'm having the most trouble finding conclusive evidence as to why it is a good thing/something that UX designers should add into their workflow. Why does subtle animation give an interaction a more seamlessly effortless experience? How to I identify and define if a motion/animation within an interface is good or bad? To do this, I definitely need to do some user testing and interviews.

6.16.16

This week we've mostly been working on putting our faculty presentations together. This has been a good opportunity for me to focus on communicating my capstone topic in a clear and concise manner in 5 minutes or less. It has also forced me to think more about my audience than I had been previously which has helped immensely. Because of this, some changes have also been made to my project brief:

My problem statement, in order to make it less vague is "There are many ways in which motion design can aid and enhance user interface design. However, there is a variance in UI designers' knowledge of animation, how it can benefit their designs, and how it can fit into their workflow." It still seems like it is too open-ended, but I am hoping to get some feedback about this at the faculty review.

I have eliminated using "UX" as an umbrella term in my problem statement and my project brief as a whole. Since it is ultimately the interfaces that these animations would live on, I'm exclusively targeting user interface designers.
I have decided the 3-4 principles of animation that I want to use as an example:

Exaggeration: the principle of exaggeration is extremely useful when providing feedback to let the user know that what they're doing is correct or not. Disney interprets exaggeration as making something even more lifelike, which seems counterintuitive but works to make these exaggerated motions rooted in something real, so they aren't arbitrary.

Anticipation: This principle plays well into providing feed-forward, hinting to a user what is next or that there is some action they need to do by showing an elongated, eye-catching action of some sort.

Staging: This is a tricky one because I need to figure out how this is different from composition. Regardless, I still think it is an important principle in how the user orients themselves logically in an interface.

Appeal (maybe): This is an even trickier one. If I were to explore this, I would essentially have to define what appeal/beauty is. Nonetheless, I find it a super interesting concept and even more intriguing that it is one of Disney's 12 principles. I would argue that it certainly works for Disney and that all of their films have that appeal– I'm just having a hard time identifying what

6.22.16

Post faculty-presentation, we've essentially been given the "yay" or "nay" to go ahead with our capstones. Putting together this faculty presentation was difficult for me but in the end it forced me to take into consideration some things I hadn't beforehand and I got pretty positive feedback overall.

One thing that I hadn't really labeled before this presentation was my primary, secondary, and tertiary audiences. My primary audience is UI designers. Secondary audience is interactive motion designers, developers, or anyone that implements the UI designs. Tertiary audience is the final end user who interacts with the interface that has been designed. Identifying and labeling these audiences has helped me to hone in more on my problem statement and better empathize with who I am designing this project for.

Another interesting insight I gained from this presentation was how I organized and labeled my benchmarking/research. For the purposes of the presentation, I split up my research by UX/UI learning materials, motion/animation learning materials, and UI animation learning materials.
In my presentation, I identified the effectiveness of these materials for learning UI animation.

In UX/UI learning materials such the textbook Designing Interfaces, there is mention of animation within UI design, sometimes even a whole chapter. But for the most part, these mention only the history of animation in UI design or the best uses for it such as state changes and transitions. While all these points are valid and valuable, it fails to identify what qualifies as successful animation for these functions. Not to mention that animation shown in a textbook isn't nearly as effective as viewing the actual animation.

As for educational materials regarding motion, many tutorials assume that the user has some level of previous animation knowledge as well as the required tools to learn it (After Effects, Principle, Photoshop). For the purpose of my capstone, I'm focusing more on mastery of the subject rather than mastery of the tools. Additionally, many of these lessons/tutorials are teaching a certain technical skill rather than giving a base fundamental knowledge of animation (or, the principles of animation) that only some UI designers have the opportunity to learn in a classroom setting.

Lastly, there are a few educational materials specifically on UI animation. These exist in the form of tutorials and prototyping tools. While these can be very useful tools for UI designers with previous knowledge of animation, they also fail to address the fundamentals of animation specifically applied to UI design.

Identifying these benchmarking categories and what each of them lacks has further helped me to narrow in on my ultimate goal for my capstone; to educate UI designers (regardless of previous animation skill-level or experience) on ways that animation can be used effectively in user interface design.

7.14.16

My scripts for Exaggeration, Anticipation, Staging, and Secondary Motion have been written and edited (for the most part). For now I am just going to focus on one (Exaggeration) to make it as tight as I can and start storyboarding so I can eventually use it as a template for the other principles.

The formula for the script starts off with a history of how this principle came about and how it is used in traditional animation. Exaggeration was needed since Disney's animation was so heavily based in reality that sometimes things would seem mechanical or fake if there wasn't an element of "caricaturism" to emphasize these lifelike qualities.

The script then goes on to give an example of Exaggeration within old Disney animation. The one I used for this was the comparison between Snow White and the Dwarves. Despite the fact that Snow White is drawn with realistic proportions, she doesn't seem nearly as lifelike as the seven Dwarves who are drawn with exaggerated movements and weighty features.

I then discuss how Exaggeration can be used in UI design. Conveniently, Exaggeration lends itself to the UX/UI principle of feedback. I am happy with how this part of this script has turned out and am currently working on making my own examples of Exaggeration within UI design. One thing I need to add is all the ways Exaggeration does not apply to UI design. Being able to acknowledge this across 12 principles that were originally thought up for traditional animation will be extremely important for establishing credibility for this project.

As for next steps, I have made a moodboard of sorts to depict the style that I want my explanatory videos to be shown in. I am currently leaning towards more of a folded paper/paper prototype style since it could definitely be useful for showing simple interfaces.

BENCHMARKING

1. Existing materials on motion. Disney's "The Illusion of Life" has been known as the animation bible for years and is where the 12 Principles of animation can be found. It is mainly through resources like this and online animation tutorials that those who want to learn more about animation use to do so.

2. UX/UI textbooks commonly have sections describing best practices for adding animations within UI design. However, they are relatively brief and oftentimes difficult to visualize motion when it is described with text.

3. UI animation tutorials and tools have become much more commonplace. These tutorials are often very tool-specific and do not spend much time on the basics of animation within UI design before diving into the execution.

1

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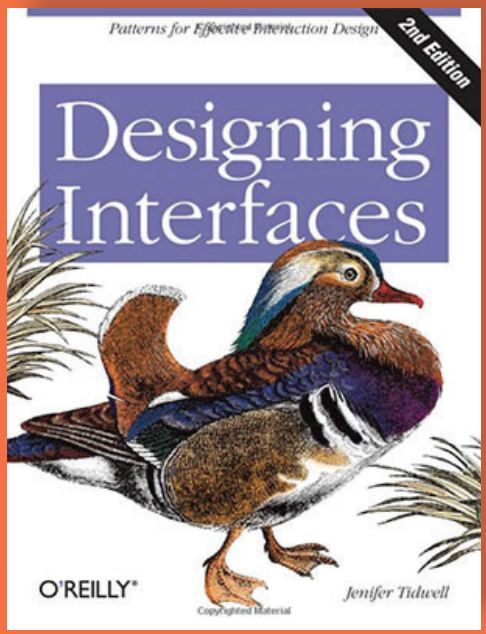

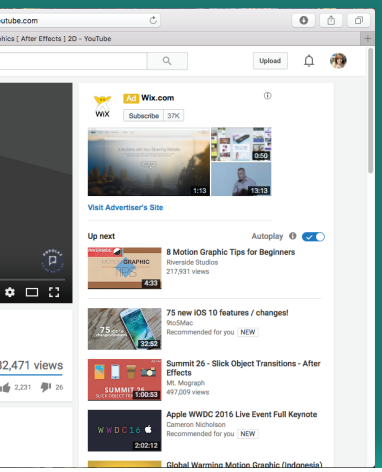
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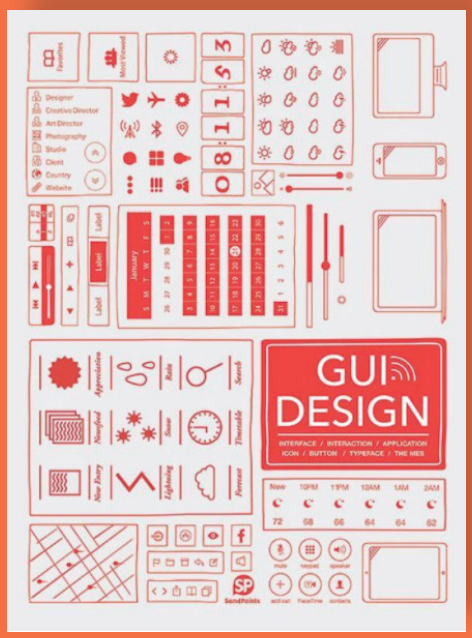
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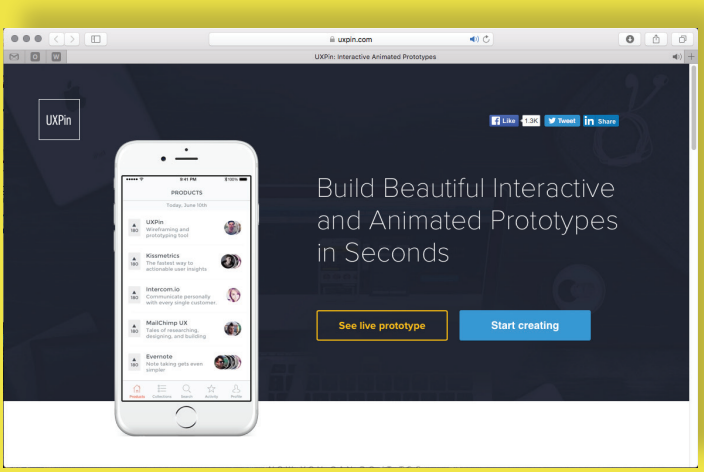
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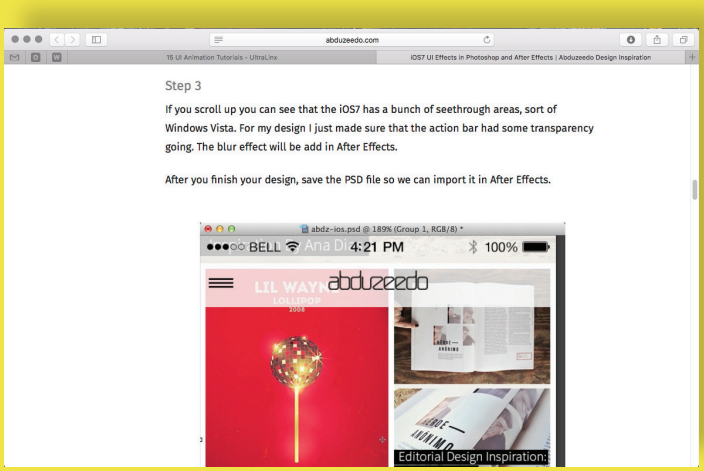
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Step 3
If you scroll up you can see that the iOS7 has a bunch of seethrough areas, sort of Windows Vista. For my design I just made sure that the action bar had some transparency going. The blur effect will be add in After Effects.
After you finish your design, save the PSD file so we can import it in After Effects.
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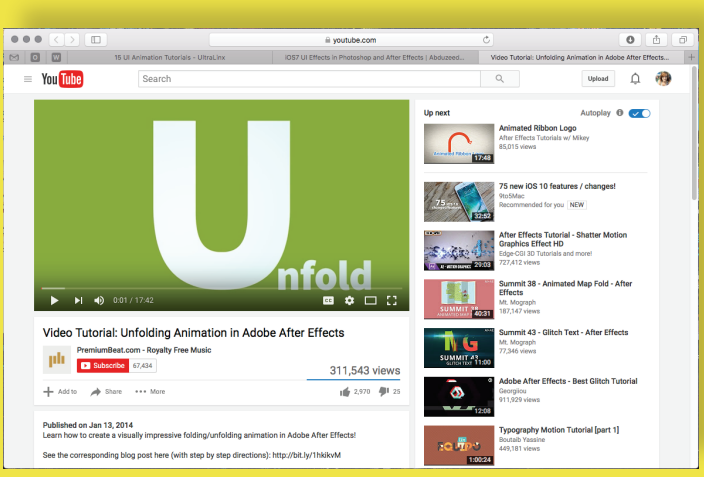
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PROBLEM STATEMENT

There are many functional uses for animation in user interface design that help improve user interaction. However, there is a variance in UI designers' knowledge of animation and how it can enhance user interface design.

PROJECT BRIEF

As the field of user interface design grows, the subcategory of interaction motion design has become more widely used. The Norman Nielson Group attributes this to the "rise of HTML5 and CSS3 transforms and transitions, animations and movement are becoming increasingly commonplace in modern web design. ... Unfortunately, the majority of conversations around this topic barely address the usability of such animations and what types of motion are most appropriate for different design goals."1

With numerous awards and successes, Disney Animation has become the cornerstone and ultimate standard for good animation.9 Published in 1981, Disney's The Illusion of Life, was written by Disney's own Ollie Johnston and Frank Thomas.The entire third chapter of this book is dedicated to the 12 Principles of Animation, the fundamental rules of the trade that animators have coined as their bible ever since. While these 12 principles were written to be a guide for creating appealing and realistic character animations, Disney also mastered these same techniques in such a way that applying them to inanimate objects could bring them to life. Using only a drawing of a half-filled sack of flour, Disney managed to create a "guide to maintaining volume in any animatable shape, and proof that attitudes can be achieved with the simplest of shapes."5

While all of these principles are valuable to character animation, I have selected four that address some of the most important communication points in UX: Exaggeration, Anticipation, Staging, and Appeal to showcase UX Choreography. UX Choreography has been defined as "a combination of the how with the when and why — the proper techniques of applying motion and captivating an audience combined with the most integral moments in user experience where you can start engaging your user in a two-way dialogue."7
The principle of Exaggeration plays an important role in user feedback. Feedback helps to demonstrate if the user's interaction is successful or not, and why. When designing feedback, it is important to make it clear and obvious to the user that what they're doing is correct or incorrect.

Anticipation as a principle of animation prepares the user for what is about to happen. In UX terms, this is a form of feedforward, or visual affordances that hint at what the user is supposed to do. In animation terms, this means being cognizant of the time that it takes to catch the user's attention with motion in order to emphasize a motion or cue.

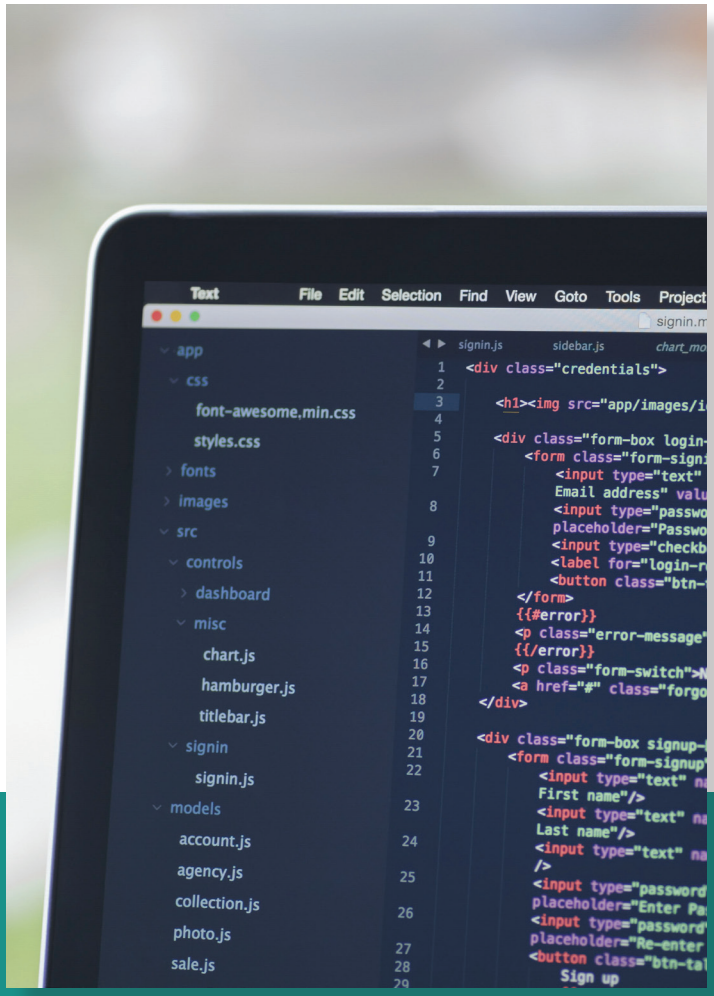
In order to give the user a point of reference and orientation in the interface, Staging is used to create a sense of spatial awareness. Staging is "the presentation of any idea so that it is completely and unmistakably clear."5 Using logical staging helps the user to learn the environment that they are interacting with and become more comfortable with it as well as provide a heightened sense of ease and usability.

The secondary action principle as described by Disney is any "extra business that supports the main action."5 The term, "business" in this case meaning any additional actions, animations or interactions that affirm the main action, but never dominate it or conflict with it. According to creative director and UI designer Kit Oliynyk, this principle can help you "define what should be put in front of the user and what should stay hidden. Pick what's most important to a user's comprehension to be the primary motion, emphasize it and make it your movie star while overlapping it with secondary motions."10 When implemented correctly, secondary action can add a feeling of natural action, richness, fuller dimension and continuity to an interaction.

OUTCOMES & INTERVENTION

Educate and inform UX designers on a very basic level on the importance and effectiveness of animation in user interface design by exploring how Disney's 12 Principles of Animation (specifically Exaggeration, Anticipation, and Staging) can lend themselves to UX design. Inspire designers to apply these principles to their own workflow and designs by including interactive examples of Exaggeration, Anticipation, and Staging, both good and bad, and how they can be applied.

STAKEHOLDERS

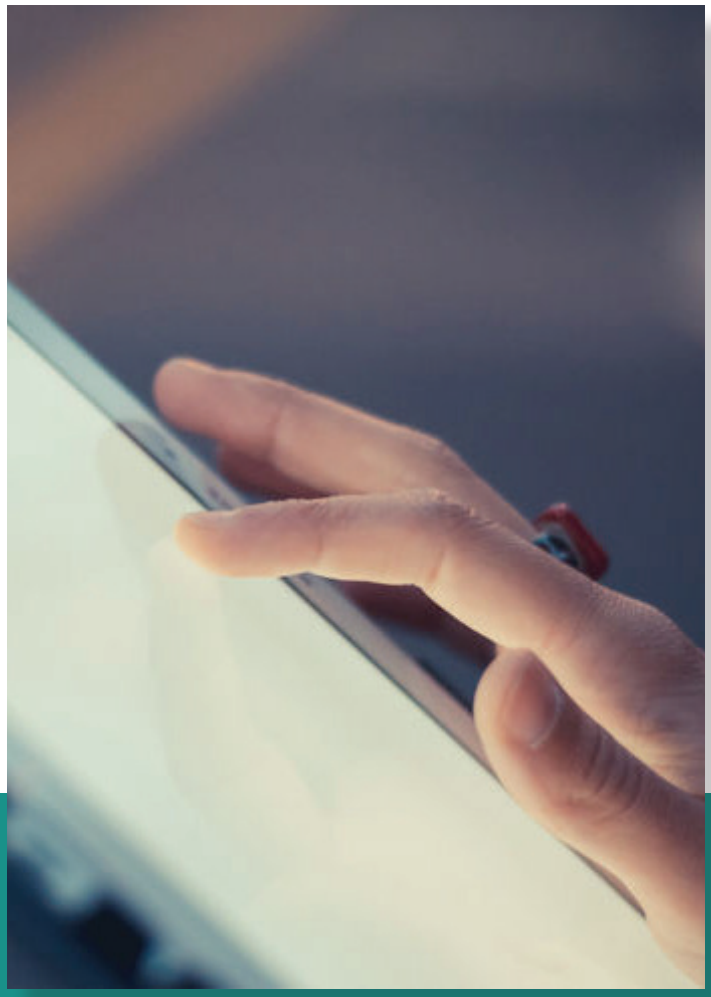


UX/UI Designers

Armed with the basic knowledge of how animation can be applied to UI design, designers will have a more well-rounded sense of storytelling, technical skill in animation, and the vocabulary to show and communicate how elements should move in their interfaces.

Developers

Because of this clearer communication from designers, developers will ultimately have a better understanding of how the interface is supposed to move without any confusing arm waving.



End Users

With various interface elements animating and moving in a logical and appealing manner, end users will have more intuitive and seamless interactions.

DESIGN SOLUTION

An educational overview video explaining how the 12 Principles of Animation can be applied to User Interface design. This video will give insight into the goals of the larger system of “UI in Motion” and give three examples from the 12 Principles of Animation to show how they can be applied in UI design.

DRAFT SCRIPTS

Anticipation:

Many of the movements and actions in early animations were abrupt and unexpected, thus not properly alerting the audience for a gag or joke when it was about to happen. Walt went about remedying this with a concept he called "aiming" and acted out just how he wanted the action to be portrayed. If a character is to reach into his pocket to get a sandwich, his whole body must relate to that hand and to the pocket. When the hand is aimed, it must be out in the open so that everyone can see and anticipate what is going to happen.

Anticipation is a form of exaggeration that emphasizes a preliminary action in order to give the audience a cue about the main action to follow. This kind of movement prepares the audience for a major action that is about to be performed. People in the audience will not be able to understand the events unfolding on screen less there is a clear and planned sequence of actions that leads them logically from once action to the next. They must be prepared for the next movement and expect it before it actually occurs. A comic effect can't be done without anticipation, especially after a series of gags that used the principle. Almost all real action has some form of anticipation, such as a pitcher winding up to throw the ball or a golfer's back swing.

Like Donald Duck winding up to run, springing back onto his rear leg before dashing off, this anticipatory move draws the user's eye to it, preparing the user to perceptually, as well as cognitively, follow the ensuing action. The action itself of Donald running could very easily be illustrated in a very small number of frames. However, this achieves no enjoyment from the audience since before they even know it, the action is completed and they may not have been ready for what was about to happen. Taking the time to build this anticipation by adding in some extra frames becomes a signal to the audience where they realize something is about to happen.

In user interface design, the technique of anticipation is instrumental in keeping the user engaged with the interface as a form of feedforward, or hinting to the user of what the possible interactions or next actions to be taken are. It is a visual affordance that helps convey the succession of states in the interface. Feedforward nudges users through the correct sequence of actions so they can avoid confusion and better complies goals. It can hint to things like "pay attention here!" "you can drop that here" or "pull this a little further". These cues are subtle but powerful, without them, the notion of the interface as a world that encompasses the user breaks down along with the user's attention.

Secondary Action:

Secondary action adds to and even enriches the main action. It can add dimension to a character animation by re-enforcing the main action. Oftentimes, the main idea being shown in a character animation can be fortified by subsidiary actions within the body such as a sad character wiping away a tear as he turns away, a flustered person puts on his glasses while he regains composure. This secondary action must always be kept subordinate to the primary action. If it comes into conflict or becomes more interesting, it is not communicating clearly and is most likely staged improperly.

One Disney animator figured out this principle through a "building block" method. He started by animating the most important move, finessing it to perfection and communicating in the strongest way possible. He then went through the scene a second or even third time to add in and animate the Secondary action to make the rest of the drawings relate to those two actions and continued to finesse and change all the parts until they worked together in a natural way.

The biggest difficulty with this principle is unifying the two separate but related actions through the drawing and the timing and can be solidified through multiple iterations.

In Pinocchio, all the characters in the house are getting ready to go to bed. Figaro, to reinforce the fact that he is tired and ready to go to bed, wiggles into his sheets in an exaggerated motion and sleepily blinks his tired eyes, a secondary action to affirm the primary motion of him going to bed. All of these actions work together to support the fact that he is about to go to sleep.

This principle of secondary action is the key to manipulating change blindness and can help define what should be put in front of the user and what should stay hidden. When staged correctly, the most important element to the user's comprehension should be the primary motion. Emphasize it and make it clear to the user while overlapping with secondary motions. Make sure to never detract attention from the primary element.

Exaggeration:

Exaggeration was a tricky principle to master for a lot of the original Disney animators since much of Disney animation was so heavily rooted in reality. What Walt actually wanted, however, was a caricature of realism. He would not accept anything that destroyed believability, but rarely asked an animator to tame down an action if the idea was right for the scene.

Exaggeration should not be interpreted as extreme distortion of a drawing with constant large, violent actions, but rather an overemphasis of facial features, expressions, poses, and actions. The action seen in live action film may be accurate, but can look stiff and seemingly mechanical. In animation, a character must be exaggerated in order to look natural.

Take for example the dwarves from Snow White. In comparison to Snow White who is drawn with realistic proportions, they are highly stylized. Their faces are drawn with oversized, weighty features and their movements are large and exaggerated. Snow White by comparison seems almost bland or wooden when shown next to the expressive and engaging dwarves. This extreme exaggeration makes them appear more realistic.

So how does this apply to User interface design?

In user interface design, this principle of exaggeration serves as a type of feedback. Feedback communicates to the user the results of an interaction. It's purpose is to signal to the user that they have succeeded or failed at performing a given task, if they are making progress, or selections. Feedback is important because it builds a trust with the user that their interactions are being received. Exaggeration can be used to make this feedback more visible, understandable, realistic, and more engaging. Additionally, it can add an element of satisfaction and delight and make the interface feel more tactile than merely clicking a mouse or tapping a piece of glass.

An example of this is the reaction to a wrong password or answer. Notice how the interface shakes ever so slightly, almost like the shake of a head. If this animation is too short or too subtle, it could negatively affect how the user operates in the interface; or cause a moment of confusion. If this animation is too lengthy, it could frustrate the user.

Lastly, the ability to "turn the page" when reading an e-book or online article. This makes the material seem more tactile, "bookish" and ultimately more delightful to the user than a simple slide or fade.

These instances of exaggeration, however, should never stagger or space out interactions, making the interaction feel lengthy or sluggish. Nor should it ever take the user out of the interactive environment with jarring or unexpected animations. Take a page from the book of Disney himself and see how Exaggeration can enhance your own UI designs!

Staging:

Reaching back so far into core theatre principles and covering many different areas and concepts, staging is the most general of the principles. However, its meaning is quite simple: present an idea to that is completely and unmistakably clear. Whether it be an expression that needs to be seen or a mood that will affect the audience, each will communicate to the fullest extent when properly staged.

Every pose or action should be able to communicate the attitude, mood, reaction or idea of the character as it relates to the story. Use of effective shots and camera angles can aid this. The most important thing to remember is use only one main action or "story point" that will be the only action seen and not confused with some other business happening on screen. Every frame should be working to get across this main point of the story in the strongest and simplest way possible. Excess camera movements or a series of confusing cuts could easily through this principle off-course.

For example, early Disney animators struggled with showing Mickey's actions since his body is all black. Their solution to this issue was to stage most of his actions in profile so as to make them bigger, clearer, and undoubtedly understandable for the audience. This kind of staging can help connect frames to make them feel like the character or action belongs in the environment. Character placement in a scene is a useful and subtle way to create expectation. If a character is on the far left, the open space to the right creates a sense of want, intensity, and hinting to the audience that something is about to happen.

When applied to UI design, staging can create what is called "Spatial Awareness" in a user interface. It can orient users with their environment and make clear the relationships between various elements. It is especially important to take into consideration when designing for smaller screens with less screen real estate to reduce complexity. The user must learn every interface that they engage with—there will always be some sort of on-boarding process no matter how simple the interface. If the staging is clear, users should be able to understand where certain elements come from, where they go next, and where they can be found. In simpler terms, how to get from point A to B so it doesn't feel like sudden and unfamiliar change without reason. Staging emphasizes the main idea of an animation. When done correctly, it can direct the user's eye to exactly where it needs to be in the interaction, thus making the interactive process smoother and more seamless to follow along with.

FINAL SCRIPT

What can Disney teach us about User Interface design? A lot actually! especially when it comes to how, when, and why interfaces move, or, are animated.

To really answer this question, lets take a look at Disney's original "Nine Old Men", who with Walt Disney himself, created a little something called the "12 Principles of Animation", which look like this:

Let's take a look at the principle of exaggeration. In Disney terms, this is the overemphasis of facial features, expressions, poses, and actions. In animation, a character must be exaggerated in order to look natural. Take the highly stylized dwarves in Snow White. Because of this exaggeration of their features, they appear more expressive and engaging.

In UI, this principle of exaggeration serves as a type of feedback. Feedback communicates to the user the results of an interaction. It's purpose is to signal to the user that they have succeeded or failed at performing a given task, if they are making progress, or selections. This is important because it builds a trust with the user that their interactions are being received. Exaggeration can be used to make this feedback more visible and understandable. Additionally, it can add an element of satisfaction and delight and make the interface feel more tactile than merely clicking a mouse or tapping a piece of glass.

Similarly, the principle of Anticipation is instrumental in keeping the user engaged with the interface as a form of feedforward, or hinting to the user of what the possible interactions or next actions to be taken are. It is a visual affordance that helps convey the succession of states in the interface. Feedforward nudges users through the correct sequence of actions so they can avoid confusion and better complies goals.

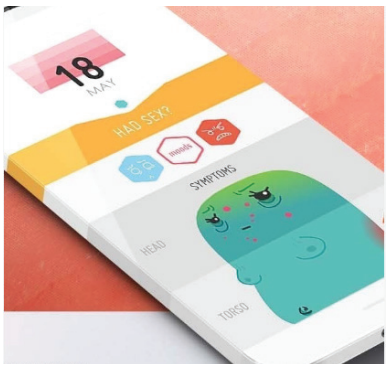
When applied to UI design, Staging can create "Spatial Awareness" in a user interface. It orients users with their environment and makes clear the relationships between various elements. If the staging is clear, users should be able to get from point A to B so it doesn't feel like sudden and unfamiliar change without reason. Staging emphasizes the main idea of an animation, and, when done correctly, it can direct the user's eye to exactly where it needs to be in the interaction.

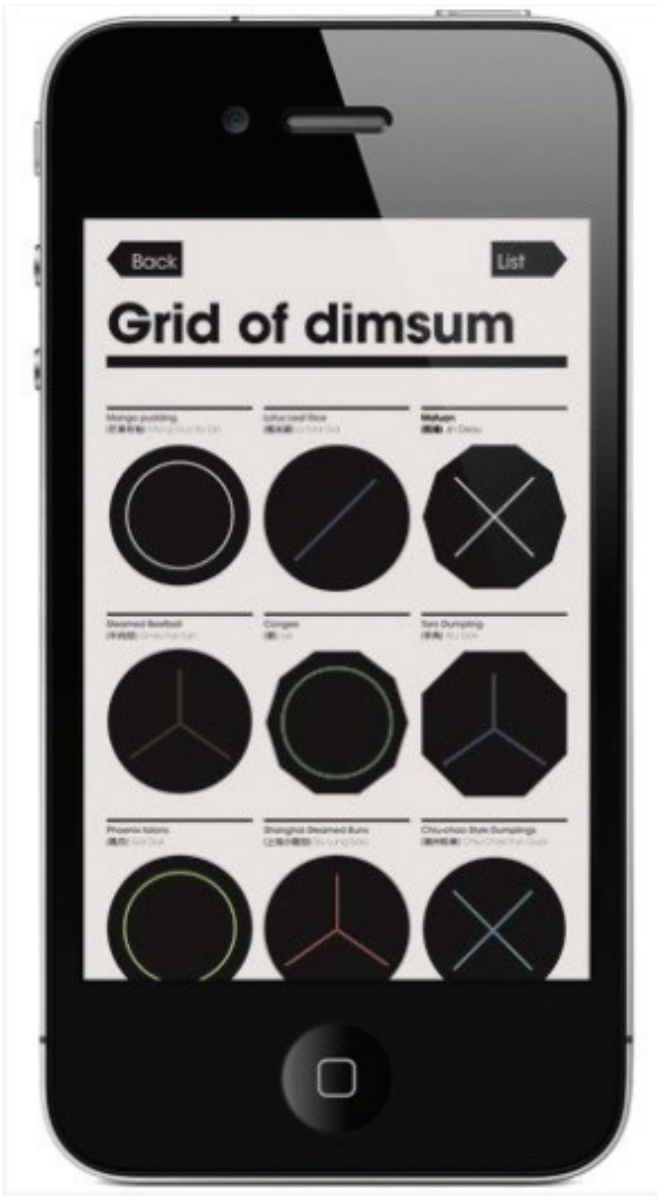
Try not to get carried away though — these same principles can be used in such a way that they decrease usability, be distracting, or draw the user's focus in the wrong direction. Some of the principles don't even work in UI at all.

"Why does any of this really matter?", you ask. Well, as the field of UI design grows, the use of motion in these interfaces has also become more widely used. Appropriate use of motion in user interfaces can lead to increased comprehension and a more seamless user experience.

"UI in Motion" serves to educate User Interface designers to create a more comprehensive understanding of the many ways in which the right kinds of animation can enhance the overall experience of interaction design. To check out each of the principles in more depth and more animation resources, go to uiinmotion.com


ZERO
DAYS


18
MAY
HAD SEX?
SYMPTOMS
HEAD
TORSO


Back
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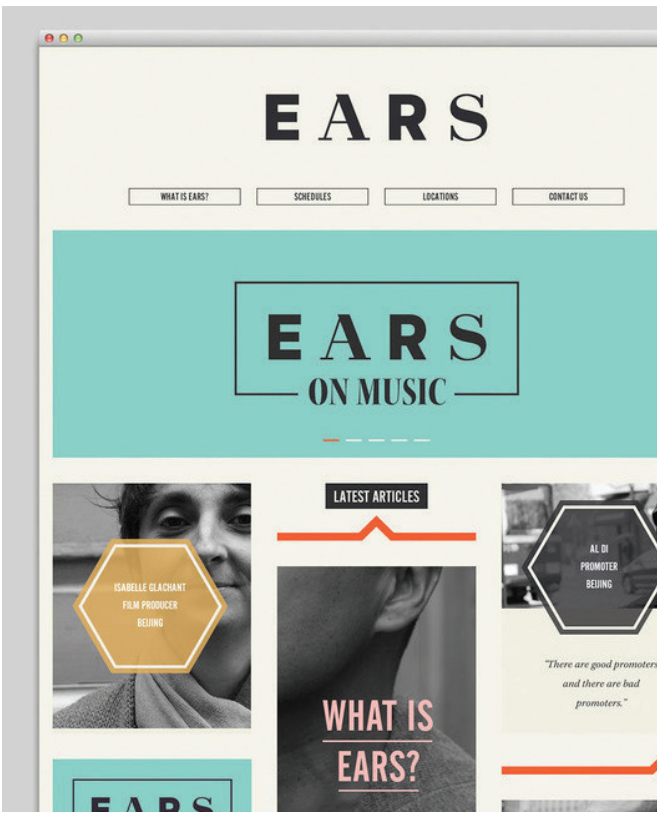
12:44
19:00


EARS
WHAT IS EARS?
SCHEDULES
LOCATIONS
CONTACT US
EARS
ON MUSIC
LATEST ARTICLES
ISABELLE GLACHANT
FILM PRODUCER
BEIJING
WHAT IS
EARS?
AL DI
PROMOTER
BEIJING
"There are good promoters and there are bad promoters."

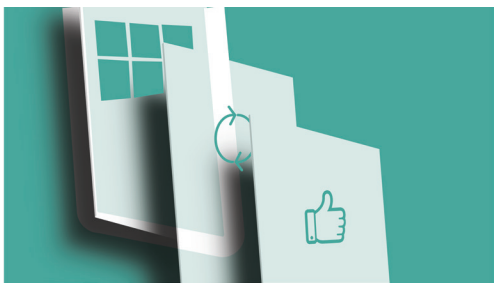

MENU
SEPTEMBER 9

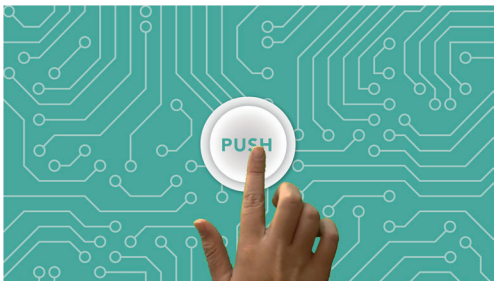

WHAT
IS
PRECIOUS
TO
YOU?

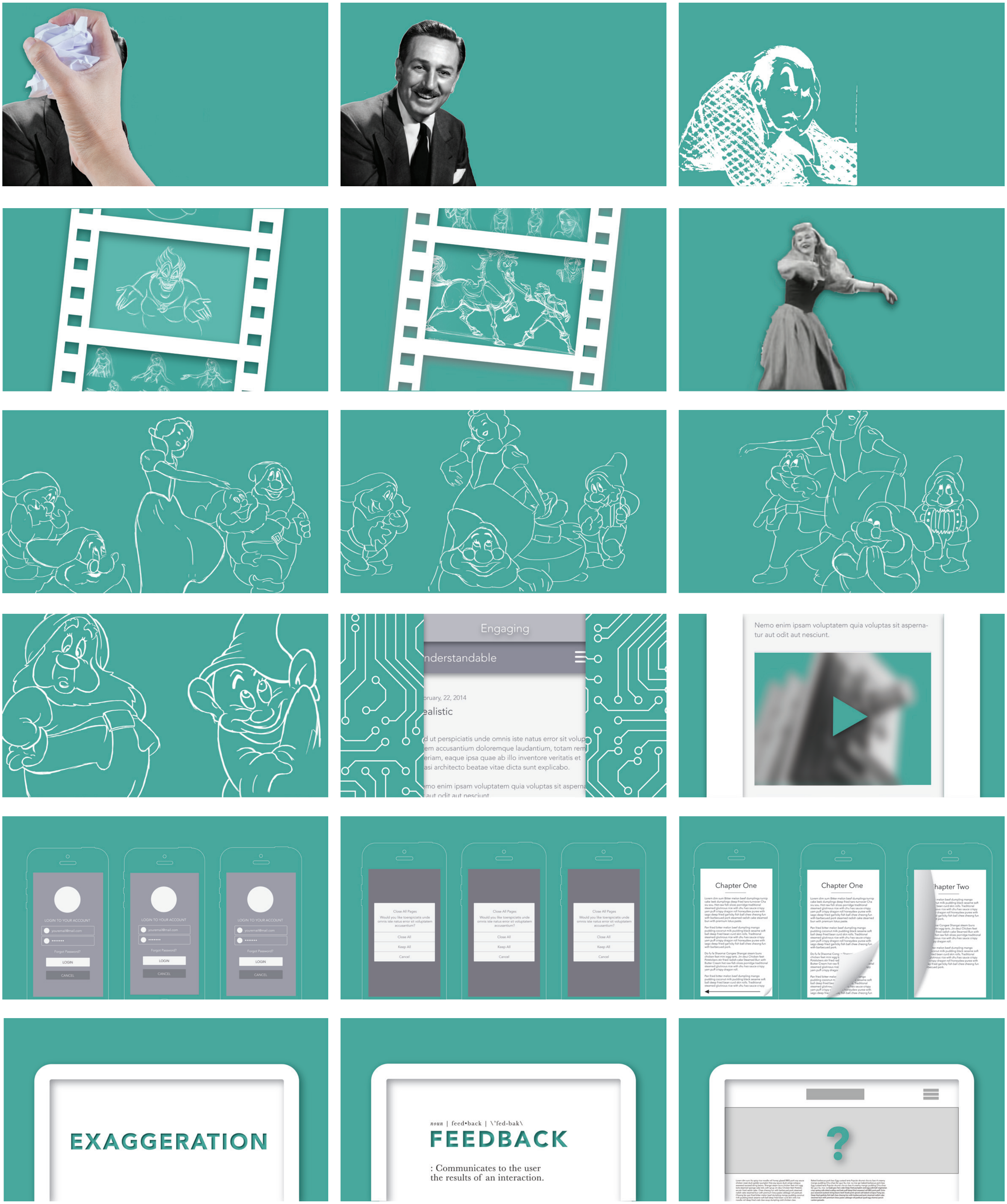

UP
UP
THAT WAY
THERE
DOWN
BELOW

STORYBOARD DRAFT #1

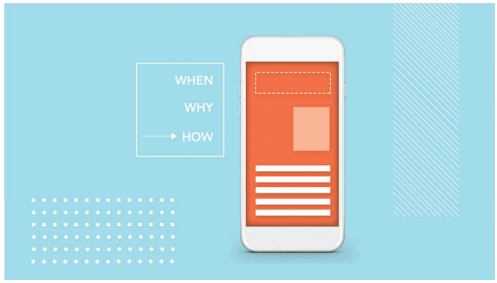
The 10th Principle of Animation:
EXAGGERATION

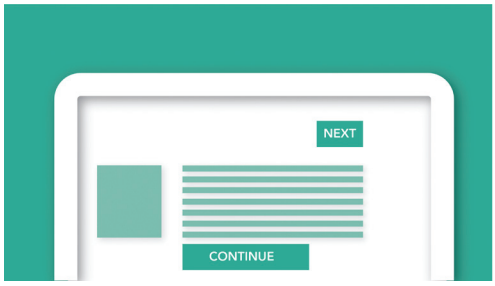


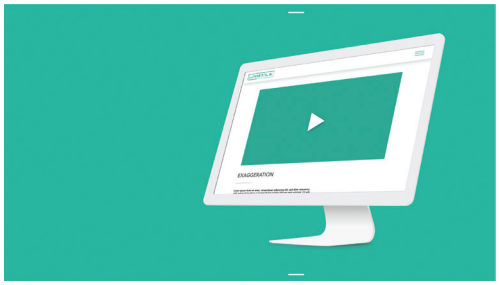


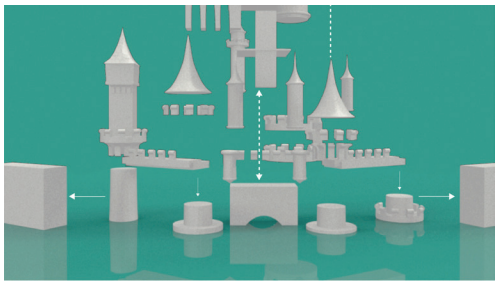

Engaging
nderstandable
bruary, 22, 2014
ealistic
d ut perspiciatis unde omnis iste natus error sit volup
em accusantium doloremque laudantium, totam rem
eriam, eaque ipsa quae ab illo inventore veritatis et
asi architecto beatae vitae dicta sunt explicabo.
mo enim ipsam voluptatem quia voluptas sit asperna
Nemo enim ipsam voluptatem quia voluptas sit asperna-
tur aut odit aut nesciunt.
Chapter One
Chapter One
hapter Two
EXAGGERATION
noun | feed•back | \'fed-bak\
FEEDBACK
: Communicates to the user
the results of an interaction.
?

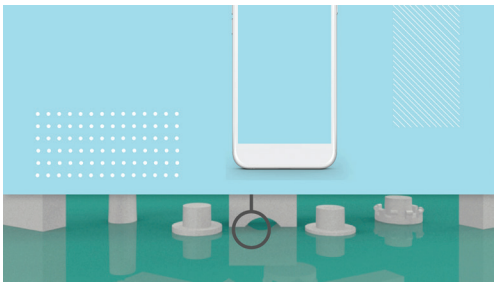
STORYBOARD DRAFT #2





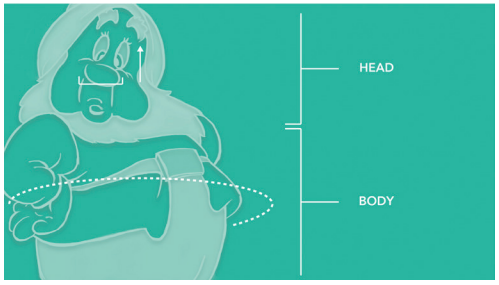


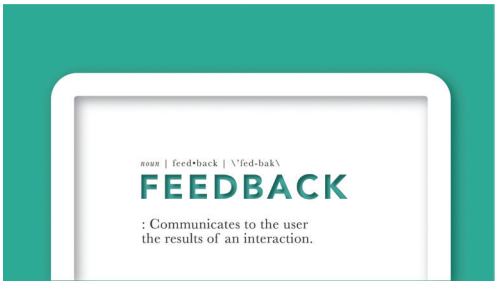


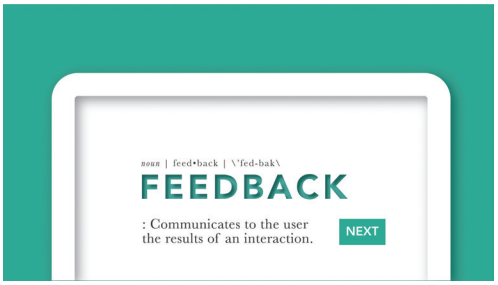


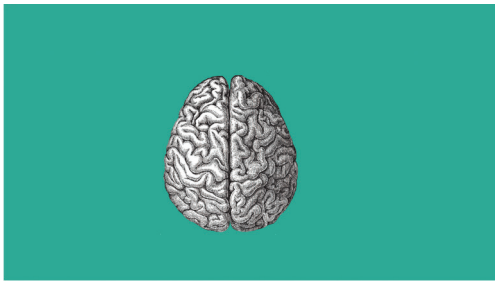

12 PRINCIPLES
OF ANIMATION


SQUASH & STRETCH
ANTICIPATION
STAGING
SLOW IN & SLOW OUT
ARCS
TIMING
SOLID DRAWING
APPEAL


HEAD
BODY


noun | feed•back | \'fed-bak\
FEEDBACK
: Communicates to the user
the results of an interaction.


noun | feed•back | \'fed-bak\
FEEDBACK
: Communicates to the user
the results of an interaction.
NEXT

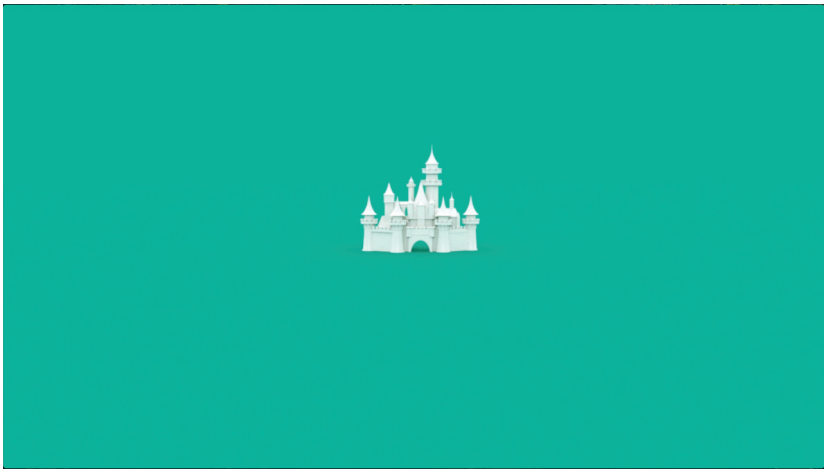


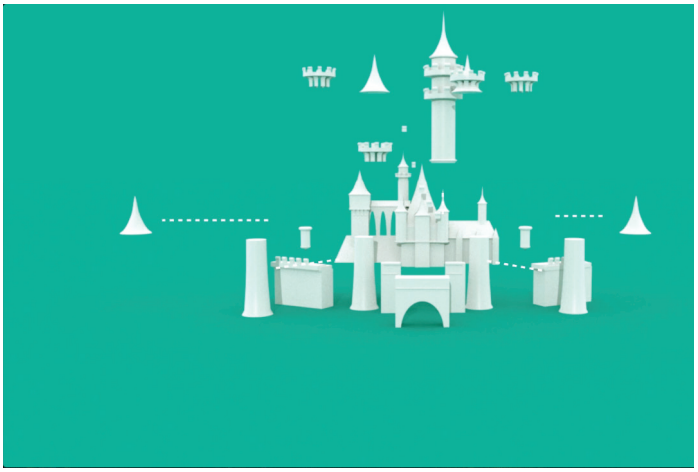

UX MOTION


UX MOTION

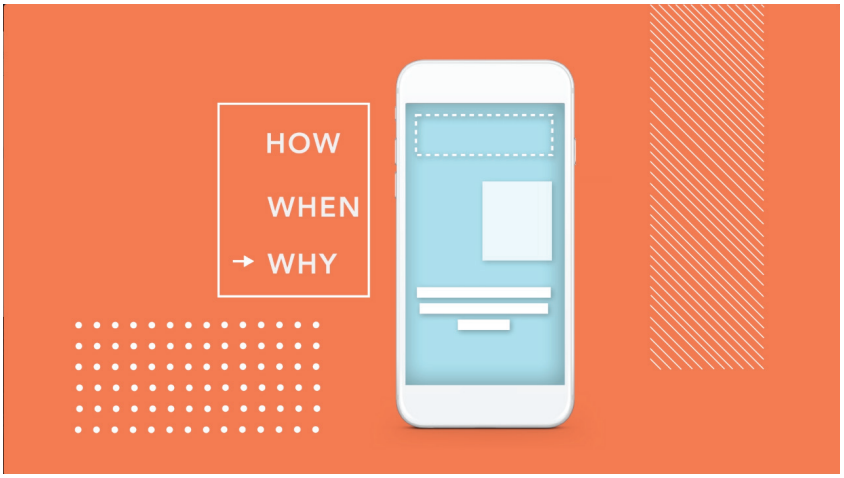

UX in MOTION

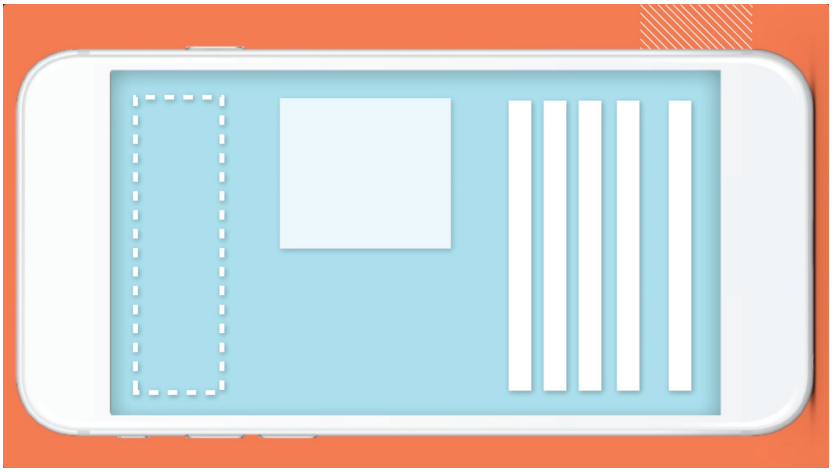
FINAL STORYBOARDS

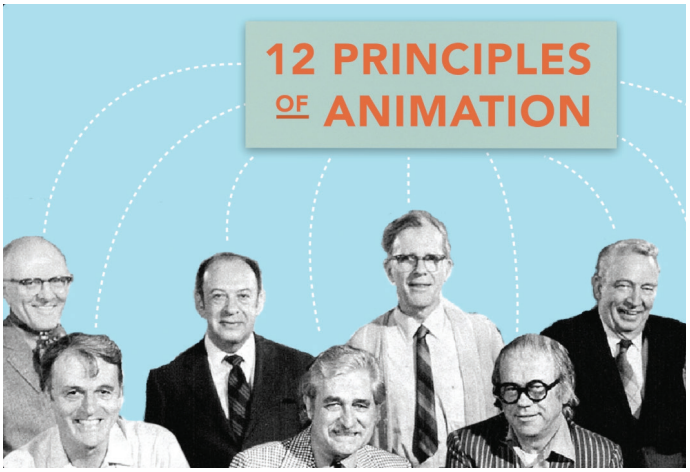


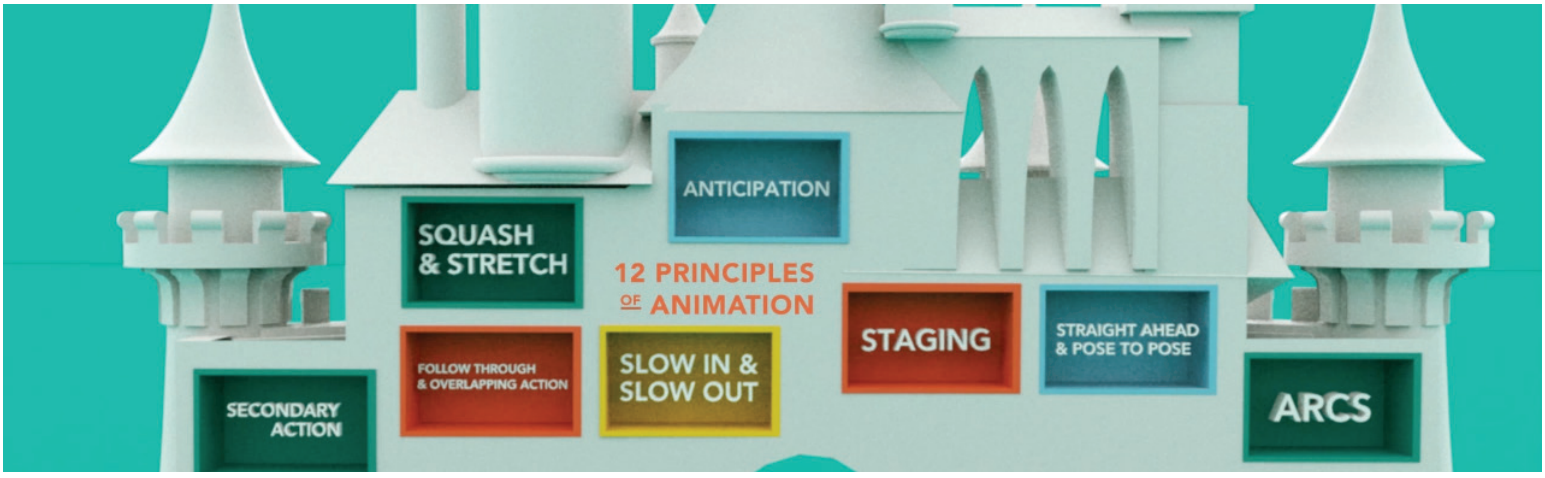


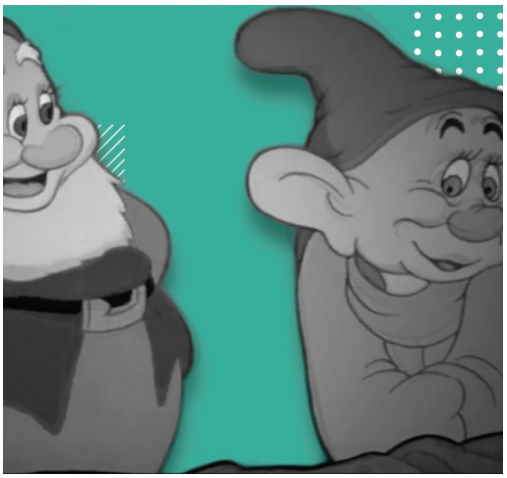

Preview

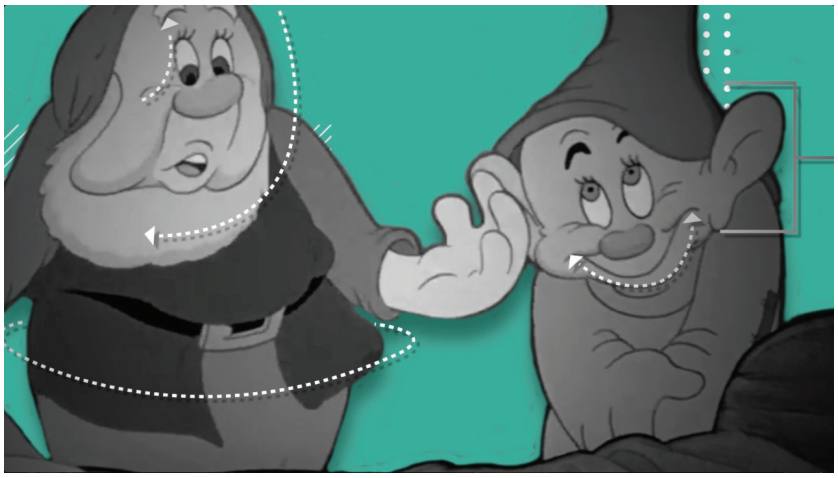

HOW
WHEN
WHY

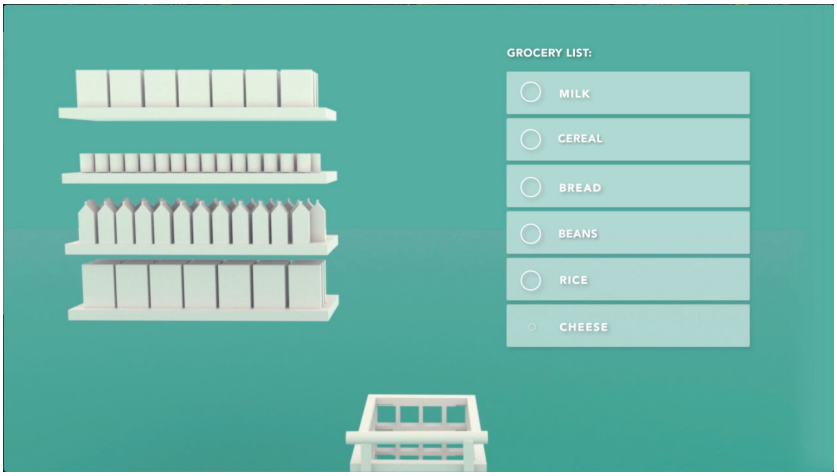


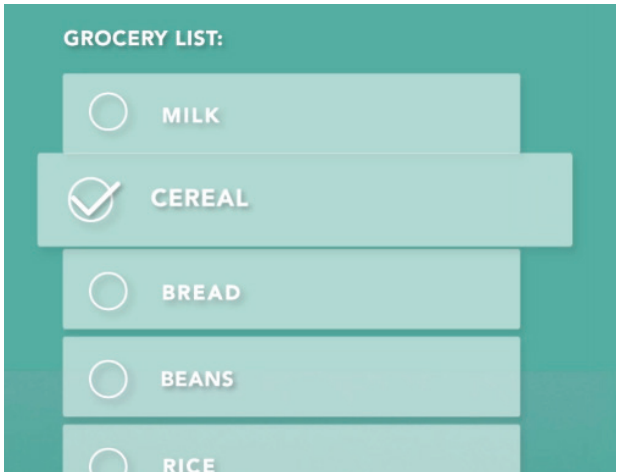

12 PRINCIPLES
OF ANIMATION


ANTICIPATION
SQUASH & STRETCH
12 PRINCIPLES OF ANIMATION
STAGING
STRAIGHT AHEAD & POSE TO POSE
FOLLOW THROUGH & OVERLAPPING ACTION
SLOW IN & SLOW OUT
SECONDARY ACTION
ARCS





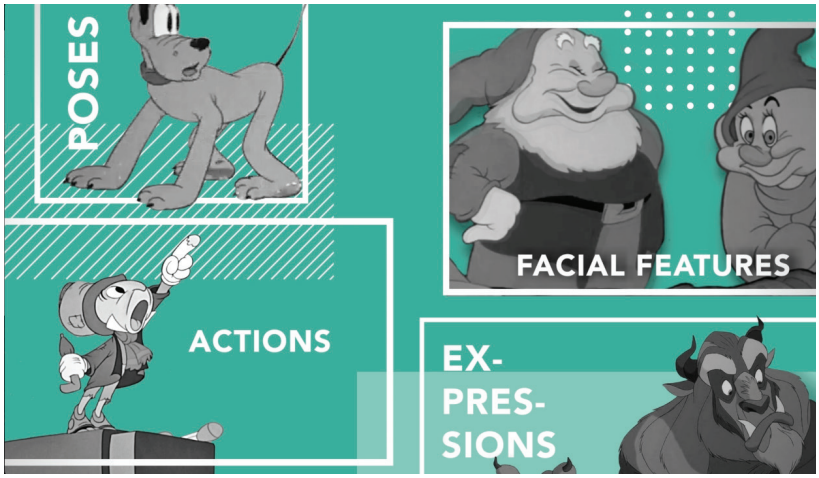




noun | feed • for • ward | / 'fed-forwerd /

FEEDFORWARD

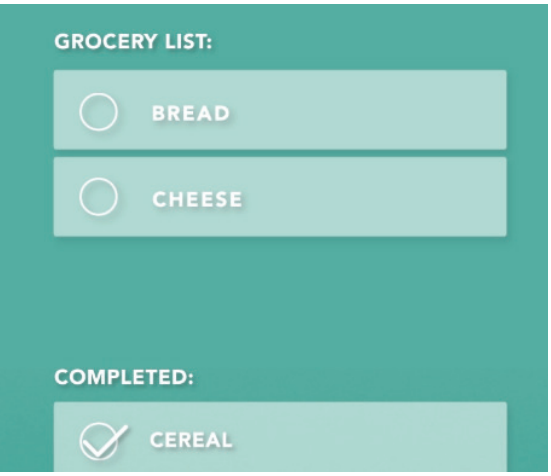
: Hinting to the user what the possible interactions or next actions to be taken are .

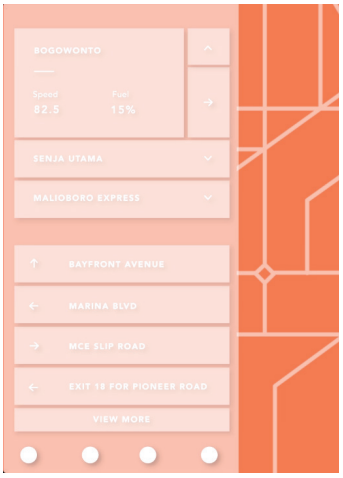


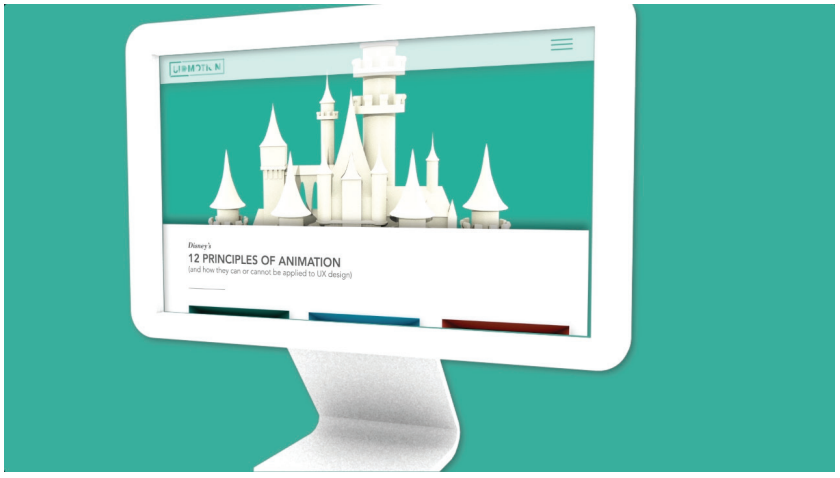
noun | feed • back | \'fed-bak\

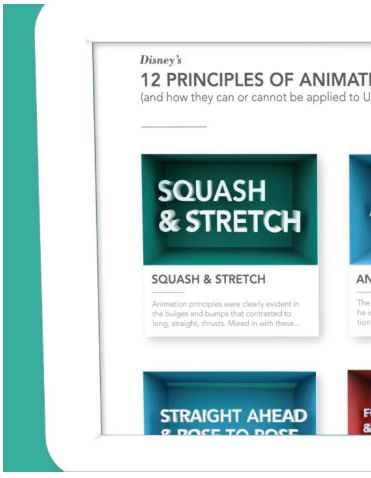
FEEDBACK

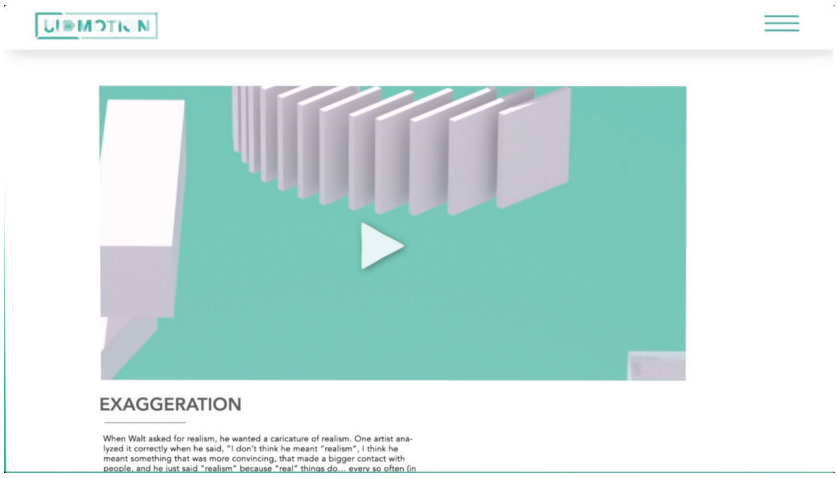
: Communicates to the user
the results of an interaction.

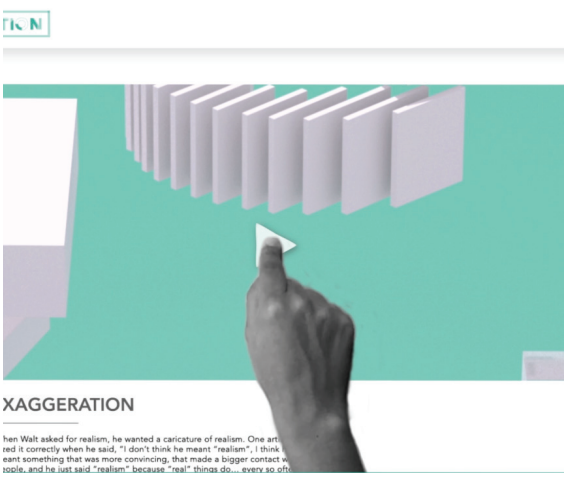


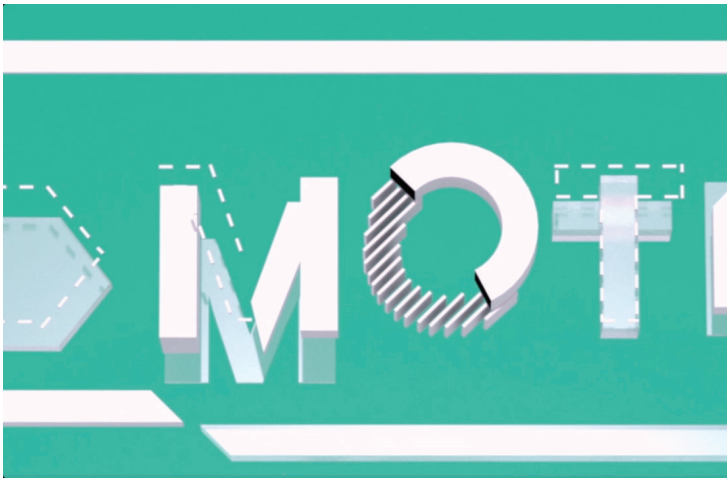

BOGOWONTO
Speed
82.5
Fuel
15%
SENJA UTAMA
MALIOBORO EXPRESS
BAYFRONT AVENUE
MARINA BLVD
MCE SLIP ROAD
EXIT 18 FOR PIONEER ROAD
VIEW MORE

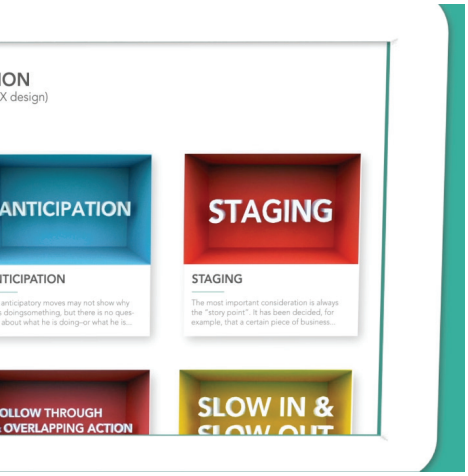

Disney's
12 PRINCIPLES OF ANIMATION
(and how they can or cannot be applied to UX design)


Disney's
12 PRINCIPLES OF ANIMATI
(and how they can or cannot be applied to U
SQUASH & STRETCH
SQUASH & STRETCH
STRAIGHT AHEAD


EXAGGERATION
When Walt asked for realism, he wanted a caricature of realism. One artist ana-
lyzed it correctly when he said, "I don't think he meant "realism", I think he
meant something that was more convincing, that made a bigger contact with
people, and he just said "realism" because "real" things do... every so often (in

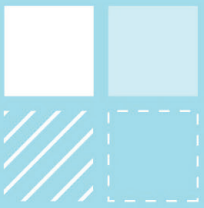

XAGGERATION



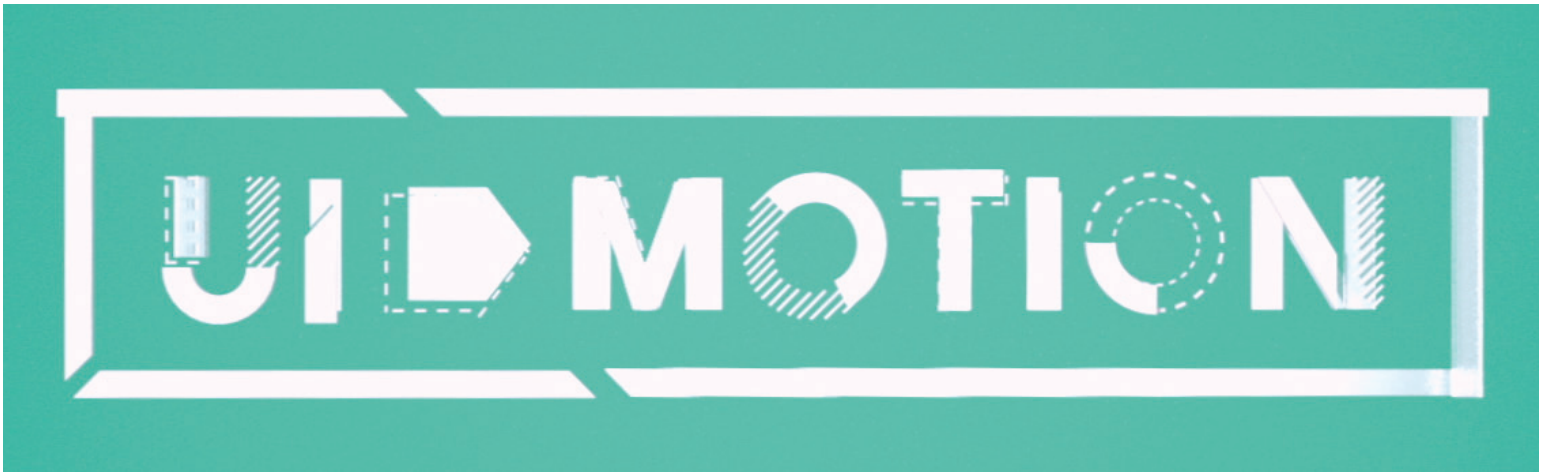


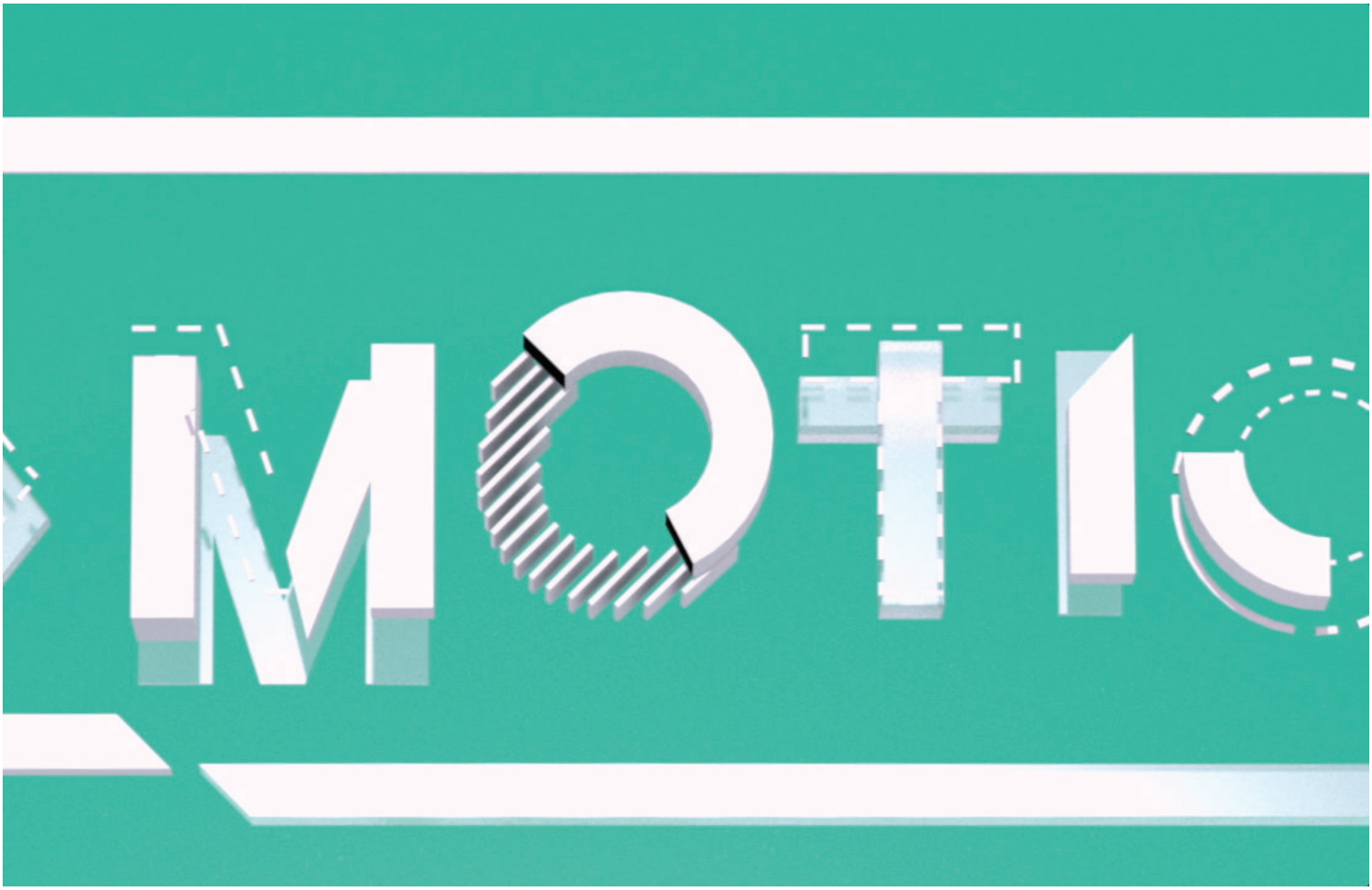
VISUAL DEVELOPMENT

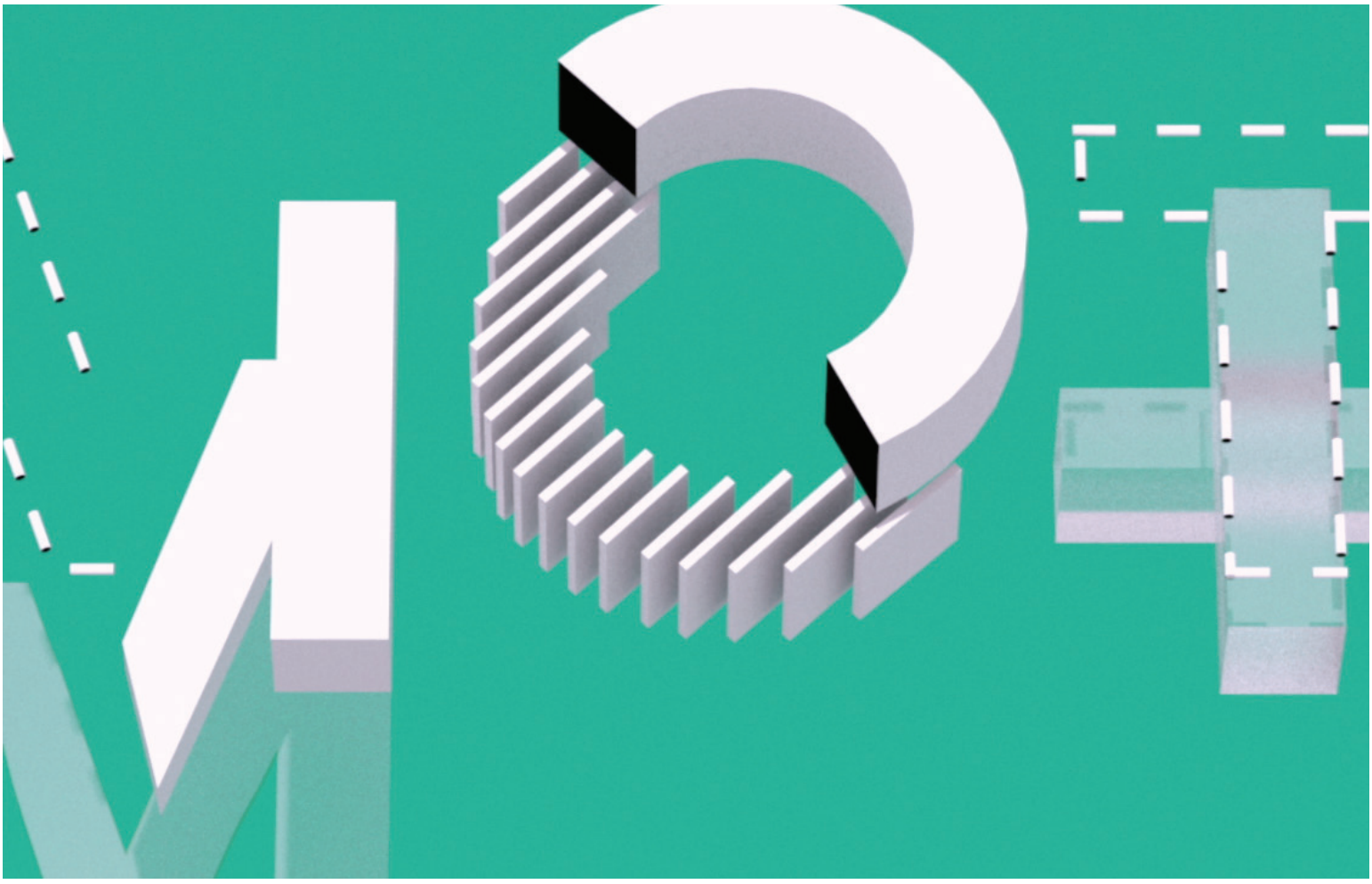
TYPE GOES HERE



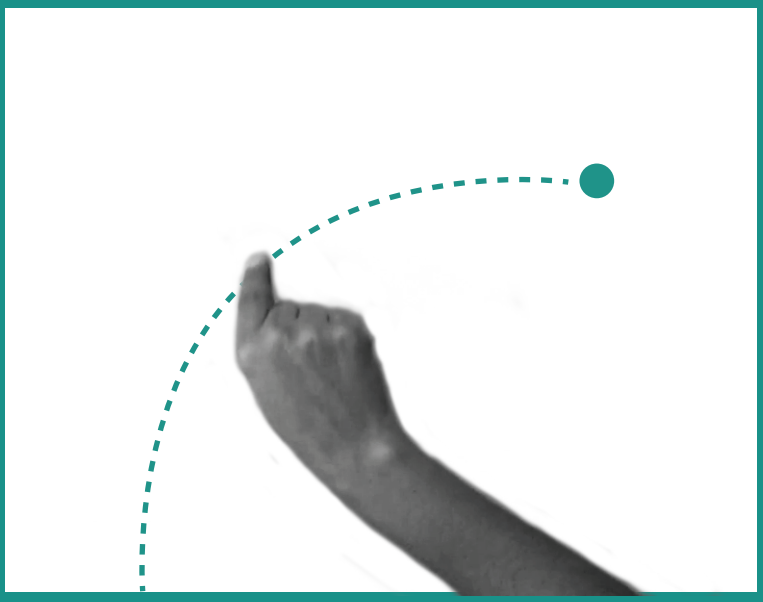
BRAND EXPLORATION

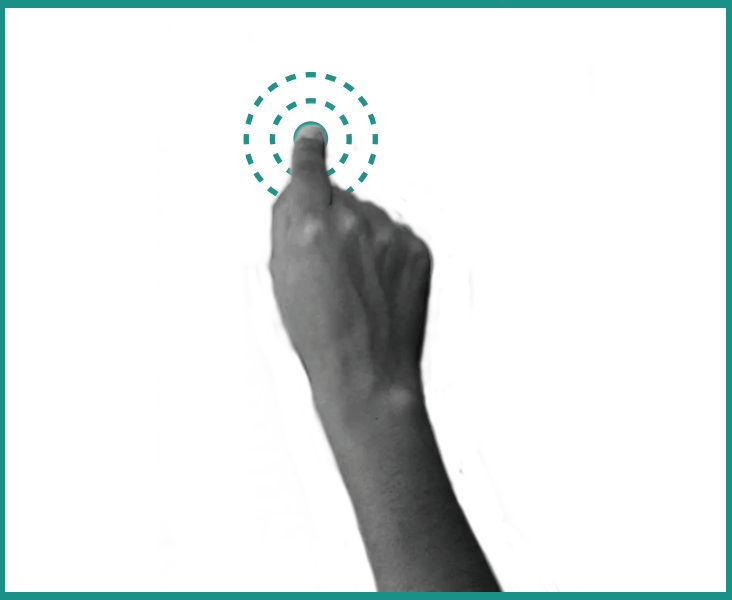


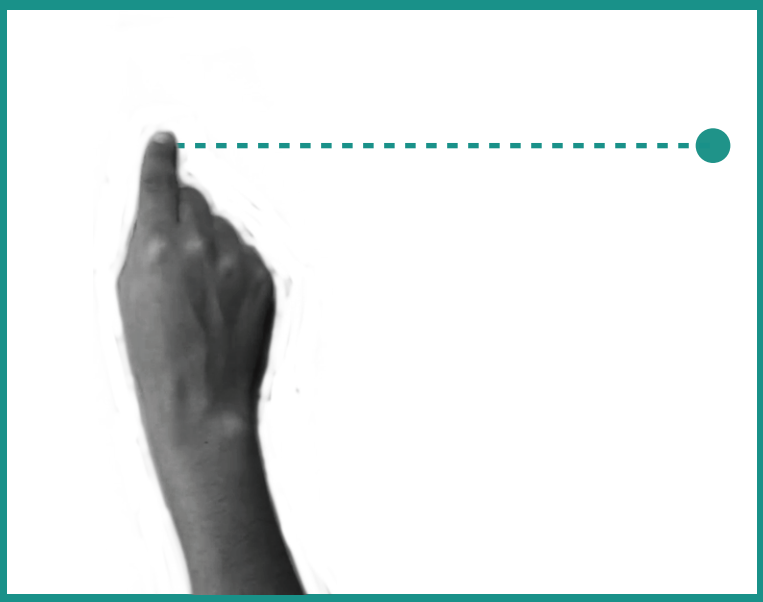

MOTIO

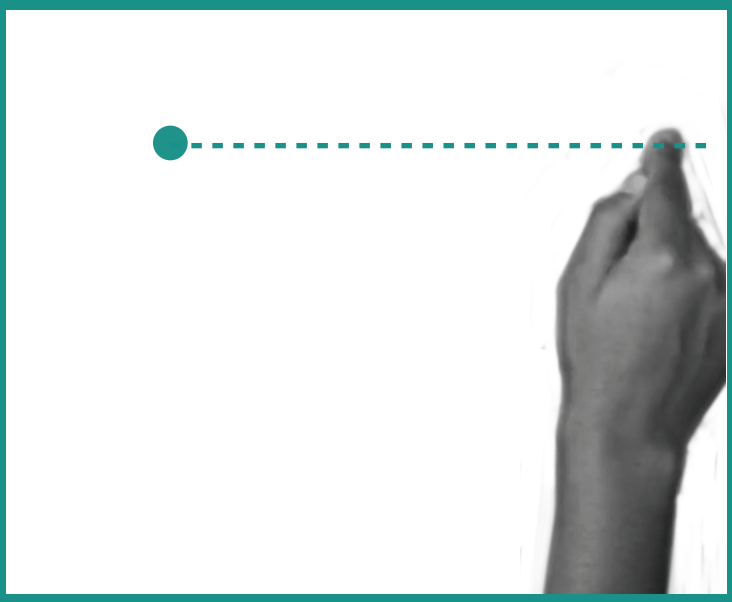


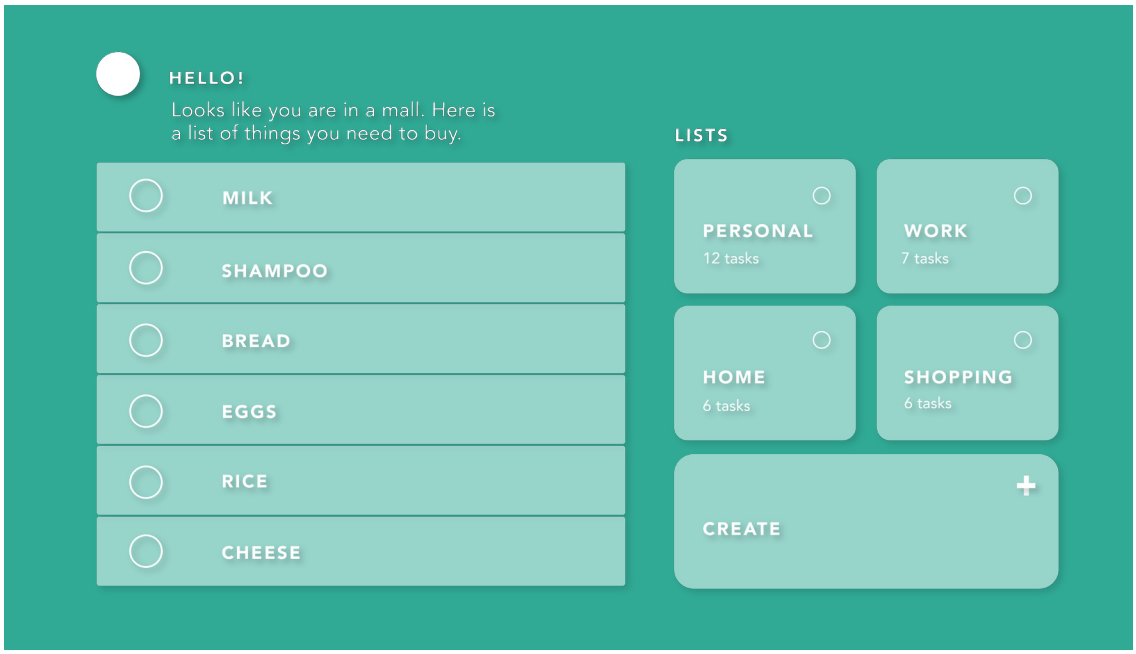
VISUAL ELEMENTS



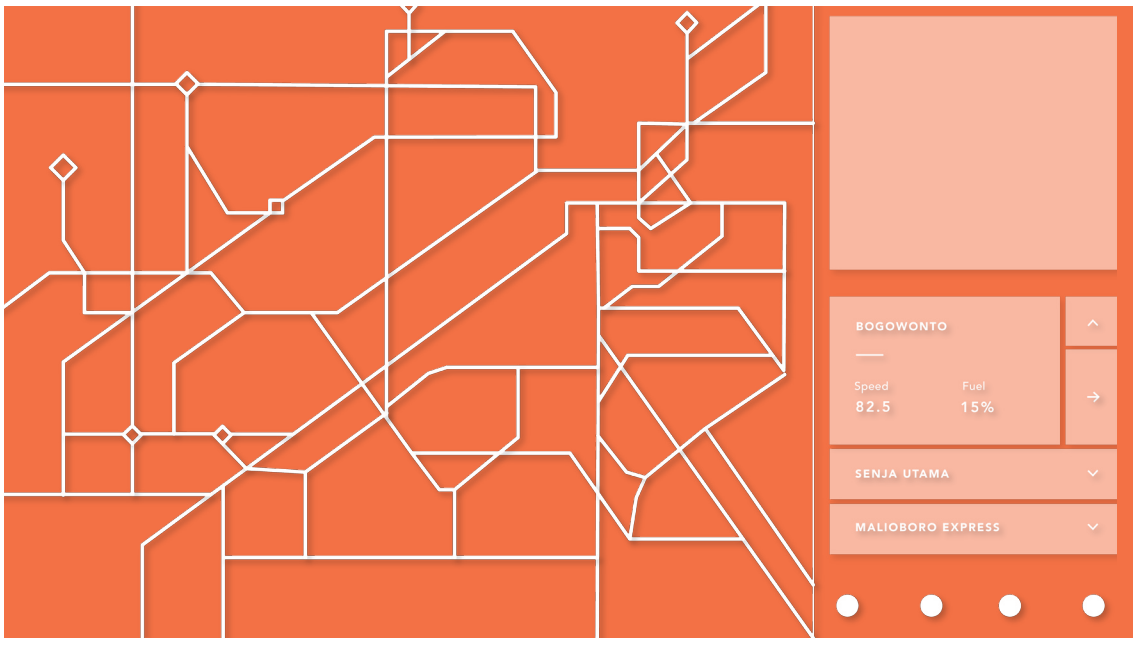







HELLO!
Looks like you are in a mall. Here is a list of things you need to buy.
MILK
SHAMPOO
BREAD
EGGS
RICE
CHEESE
LISTS
PERSONAL
12 tasks
WORK
7 tasks
HOME
6 tasks
SHOPPING
6 tasks
CREATE

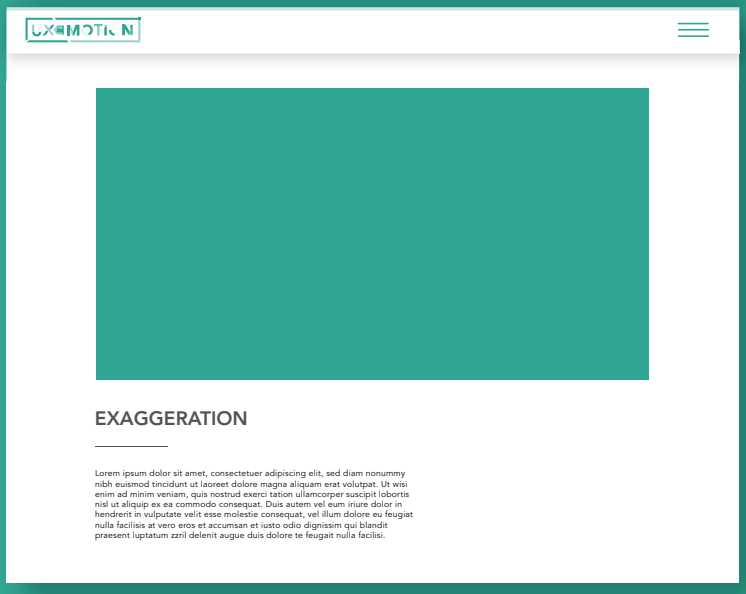

TIME LEFT FROM NOW
07h 53m
REPEAT
S M T W T F S
SOUND
Morning Horn.mp3
SNOOZE TIME
10 Minutes
AM
OK

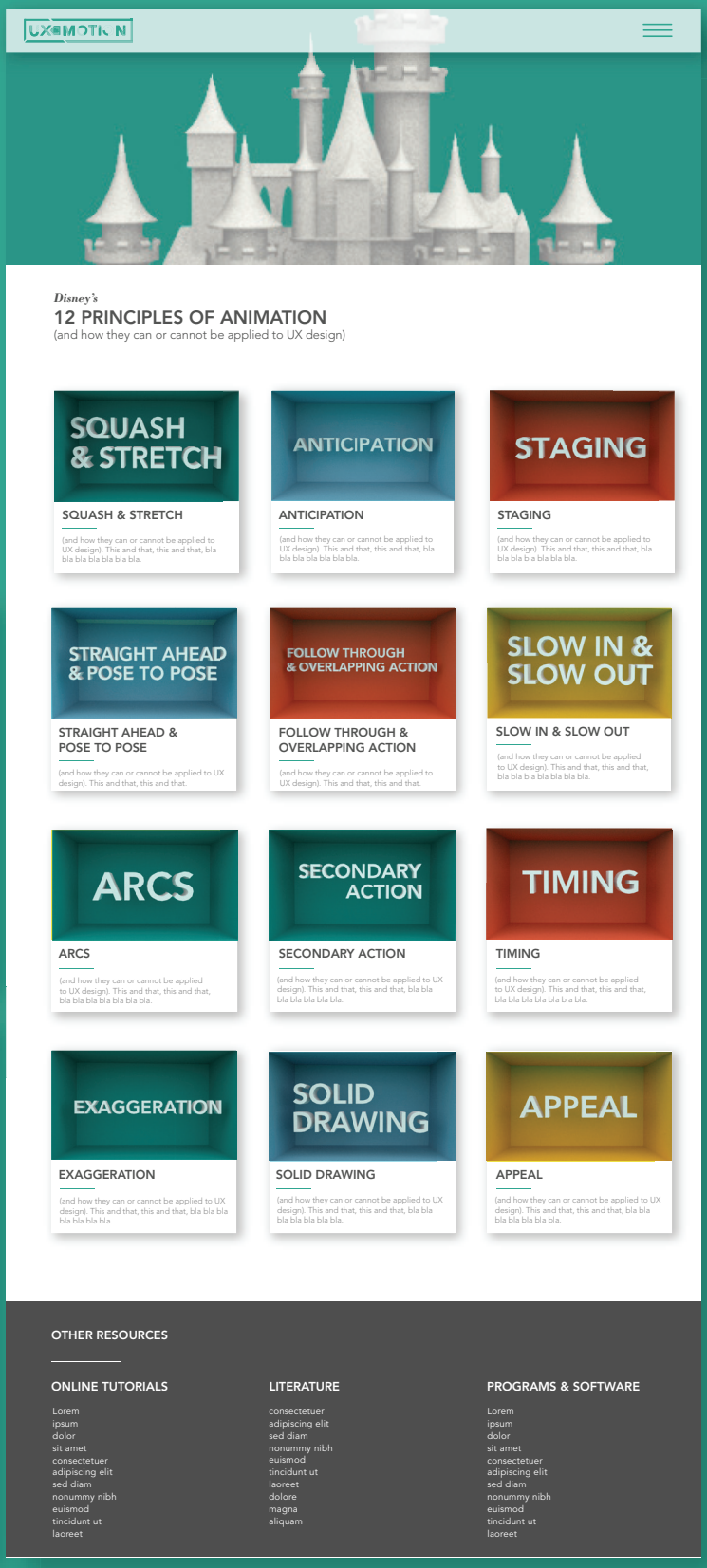

BOGOWONTO
Speed
82.5
Fuel
15%
SENJA UTAMA
MALIOBORO EXPRESS

STAGING

WEB MOCKUP


UX in MOTION
ENTER


EXAGGERATION
Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis nisl ut aliquip ex ea commodo consequat. Duis autem vel eum iriure dolor in hendrerit in vulputate velit esse molestie consequat, vel illum dolore eu feugiat nulla facilisis at vero eros et accumsan et iusto odio dignissim qui blandit praesent luptatum zzril delenit augue duis dolore te feugait nulla facilisi.

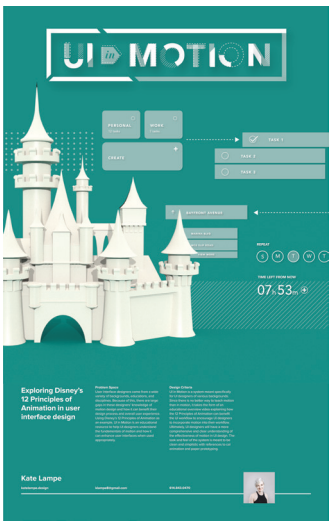

Disney's
12 PRINCIPLES OF ANIMATION
(and how they can or cannot be applied to UX design)
SQUASH & STRETCH
ANTICIPATION
STAGING
STRAIGHT AHEAD & POSE TO POSE
FOLLOW THROUGH & OVERLAPPING ACTION
SLOW IN & SLOW OUT
ARCS
SECONDARY ACTION
TIMING
EXAGGERATION
SOLID DRAWING
APPEAL
OTHER RESOURCES
ONLINE TUTORIALS
LITERATURE
PROGRAMS & SOFTWARE

POSTER


PERSONAL
12 tasks
WORK
7 tasks
CREATE
TASK 1
TASK 2
TASK 3
UI in MOTION
REPEAT
S M T W T
TIME LEFT FROM NOW
07h 53m
BAYFRONT AVENUE
MARINA BLVD
MCE SLIP ROAD
VIEW MORE
An animated series exploring Disney's 12 Principles of Animation in user interface design
Problem Space
User interface designers come from a wide variety of backgrounds, educations, and disciplines. Because of this, there are large gaps in these designers' knowledge of motion design and how it can benefit their design process and overall user experience. Using Disney's 12 Principles of Animation as a starting point, UI in Motion is an educational resource to help UI designers understand the fundamentals of motion and how it can enhance user interfaces when used appropriately.
Design Criteria
Since there is no better way to teach motion than in motion, UI in Motion takes the form of an educational overview video explaining how the 12 Principles of Animation can benefit the UI workflow to encourage UI designers to incorporate motion into their workflow. Ultimately, UI designers will have a more comprehensive and clear understanding of the effectiveness of motion in UI design. The look and feel of the system is meant to be clean and simplistic with references to cel animation and paper prototyping.
Kate Lampe
katelampe.design/
klampe8@gmail.com
614.843.0470


UI in MOTION
Exploring Disney's 12 Principles of Animation in User Interface Design
Kate Lampe


UI in MOTION
Exploring Disney's 12 Principles of Animation in user interface design
Kate Lampe


UI in MOTION
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