

Lesson 1 Notes

Welcome to the Course

The people you see on the screen, are students doing the last design project for this course. That's what you'll be able to do, as well. Creating a useful product using the design principles of affordances, conceptual models and signifiers. Plus the design skills that you learned in the earlier projects. Now, here's a brief overview of the course. In Lesson 1, we'll ask you to go out and



take some photographs but we'll also show you how to take photographs that tell a story. Sometimes one will be enough, sometimes it might be four or five photographs. And then we'll learn how to critique them. Decide whether this is effective, does it do a good job? In Lesson 2, time to construct something. We're going to have you do a surprising construction. One that, well, guess what? It'll really be pleasurable and fun; unexpected. Lesson 3, we're going to put it all together. That's the capstone course. So in



Lesson 3, you have a project that's going to put together all of the principles you've learned, and the projects that you've done before. Enjoy.

THE BOOK

This course is based upon Chapters 1 and 2 of the 2013 edition of Design of Everyday Things, Revised Edition, by Don Norman. The book is not required for the course, but because it goes into more depth on topics covered in the course, it is highly recommended. We provide specific readings suggestions under "Instructor Notes" as concepts are introduced.

The English language edition is published by Basic Books (New York). In the UK, the book is published by MIT Press (London, UK).

There are several earlier editions of the book, including one with a different title (Psychology of Everyday Things). All these earlier books are identical, with the exception of different prefaces and the title change. While they can be used for the course, their examples are out of date and some of the topics in this course are not covered in them.

http://en.wikipedia.org/wiki/The_Design_of_Everyday_Things

<http://www.amazon.com/The-Design-Everyday-Things-Expanded/dp/0465050654>

Throw the box

Don: Hey, Kristian, you caught it.

Kristian: I did.

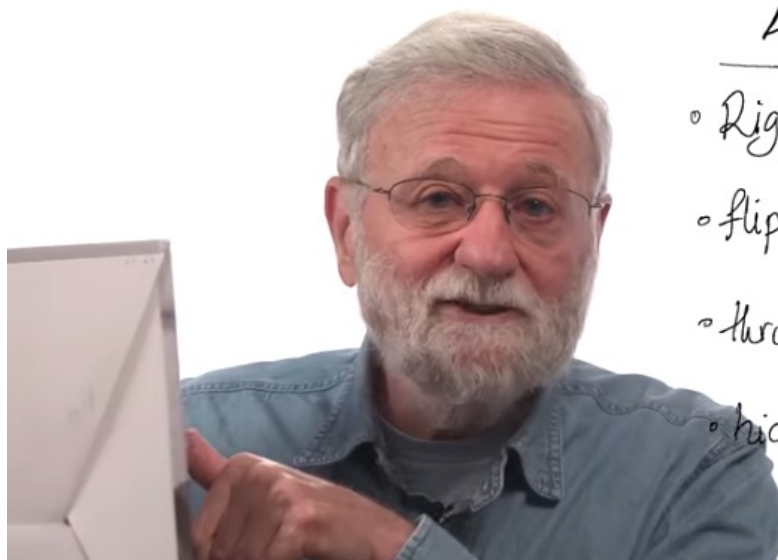
D: How come, how, what made it possible to catch?

K: Well, it was light enough. It was grip-able.

D: Yea.

K: It's about the right size.

D: Mm-hm. So, we call those features affordances. It's about the right size, you can flip it around, you can throw it and catch it, and, you know, you can even hide behind it,



Affordances

- Right Size
- flip it
- throw it
- hide behind it

because it doesn't afford the transmission of light. So, affordance is very important.

K: Wow. Thank you. Hey, there's something inside.

D: How do you know?

K: Well, I heard something inside when I shook it.



D: And that means.

K: That I have a model that, that there's object.

D: We call those conceptual models.

K: Oh, is it a gift?

D: Open it. What are you looking for?

K: I'm looking for something that tells me I can open it. [NOISE] because this lid doesn't open.

D: Mm-hm.

K: There's a tab here that tells me something. It slid out.

D: A-ha, it signifies that you can open it there and we call that a signifier.

K: [NOISE] Oh, you shouldn't have.

Conceptual Models

Signifier

K: I'm Kristian Simsarian.

D: And I'm Don Norman.

Chelsey: And I'm Chelsey Glasson, and together, we'll be teaching the Design of Everyday Things.

K: Look around you. Everything is designed. If you thought a designer was the one who helped you choose curtains, then we'll show you that it's broader and deeper. It's about how things look, how they work, and just as importantly, how they make you feel.



D: And, we're going to give you the scientific principles behind good design. The things that make it understandable. You already know three. Affordances, Signifiers, and Conceptual Models.

C: We'll also help you take the first steps in designing the world around you, yourself.

Why Are You Here

Design is a collaborative process. And to promote collaboration in this course, we've built a space where you and your fellow classmates can meet, discuss the course and share course deliverables for feedback. Let me give you a tour. To access the forum, just click on the Forum icon or the Start a Discussion button from any course page. The forum will open in a new tab. And you'll see that it's organized by categories for each lesson and the final project, in addition to a few other categories. Categories consist of instructor defined topics which you'll see are pinned to the top of the list in addition to topics started by students. After creating a user name, you're free to navigate interesting topics, post questions, and even answer some questions yourself. To post your response to a question, just click the reply button and start typing. At various times in the course, you'll want to upload deliverables to share with classmates. To do so, click the appropriate lesson or project category, navigate to the topic you want to address and remember, instructor initiated topics are always pinned to the top. Click the reply button, and start typing. You can also upload photos or other files by selecting the upload button. Each udacity course page has a section titled discussions, and any questions found there are directly related to the information shown in the video on that page. You can add your own question to the course page by clicking the ask a

question button, and typing in your question. If you get lost while using the forum, just click the home icon in the top left hand corner to come back to the forum home page. Now give it a shot, go to the forum and tell us why you're taking the Design of Everyday Things.

<https://design101-forum.udacity.com/t/why-are-you-taking-this-class/36/2>

Interview with Tim Brown

DON: I'm with IDEO, one of the largest design companies in the, in the world. I'm with Tim Brown, the CEO of IDEO, and, Tim has written this very interesting book, Change By Design, which includes among other things, a big section on the importance of design

thinking. So Tim, design thinking. One of the points you argue, is that it doesn't just make you a better designer, it makes you better at anything. Tell us about that.



TIM BROWN: I've always thought as, the one of the wonderful things about being a, being a designer is not just that I get to lots, work on lots of exciting projects, but it helps me in my life, right? So when I want something simple as, "I'm going to throw a dinner party for some friends," so instead of just turning up at, you know, at seven, I try



and design that experience. I think well who am I going to bring together and what's the space going to be like and how does the food and the space work together. All of these things that I naturally think about as a designer. And I think that's what design thinking does for you. It's a set of tools that allows you to approach life, particularly the parts of life where it might be advantageous to solve the problem differently. That allows you to approach that with some level of confidence because you got some ways of going about it. We're taught at school many ways of analyzing problems, of picking them apart and studying little pieces of them. Often that's very valuable. But, design thinking gives you a different way of tackling a problem. Often, ones that are centered around the needs of the people you're trying to solve for. That might be yourself. It might be a customer if you're in a professional environment, it might be your colleagues. In a work environment. It's centered around that. And so it starts with thinking hard, looking hard, listening hard and trying to study people. And understand, in this instance, what their issues might be, what their problems might be. How they're thinking, how they are navigating the world or dealing with the world at hand. And then using that as the starting point for having ideas.

D: Mm hm, I actually, I often describe it, don't solve the problem. In fact, as a consultant never solve the problem you're given, but figure out what the real problem is.

TB: Yeah, figure out what the question is. I mean, many of us think we're talk about, when people talk about creativity or design, I think it's all about solving the problem and, and being creative about that. But I find generally the most interesting solutions come out of the most interesting questions and, and so that insight about what the problem might really be, is often the most important step, and the biggest creative step. And so, if you just assume you know the question then especially if it's the same question that everybody else is asking. Then you'll probably get to the same answer that everybody is getting to. But if you study a little bit and think a little bit, and maybe look at things from a slightly different perspective, really get under the skin of the people that you are trying to serve, it's surprising how often you end up completely re-framing the question.

D: And so, as you point out, this could be used by anybody, a business person, an artist, a journalist, anybody.

TB: Yeah. I mean, you, you can think about how you use it. I mean, one of the things I talk about in my book is, is ways of applying design thinking to your own life. I mean, think about your career. How can I apply a design thinking approach to my career, to the choices I make, or absolutely how you apply it in your workplace. No matter what you do. You might work in the finance department, in a company, and be thinking, well how could I find more creative solutions for the processes that work within our organization. Or the way that we come together as people. And so I think whatever your background, if you have the thinking tools at hand, and the confidence to use them, that design can be a great help.

D: Thank you.

<http://www.amazon.com/Change-Design-Transforms-Organizations-Innovation/dp/0061766089>

<http://designthinking.ideo.com/>

Understandable and Confusing Design Quiz

The first part of understanding good design, is being a good observer. To help you become a skilled observer of design. This course consists of several observation exercises. For your first exercise, I want you to take a photo of a design you think is understandable. And a photo of a design you find confusing. Answer the following questions. What made the understandable design, understandable? What made the confusing example, confusing? Please share your examples and reflection, on the course discussion forum.

Understandable and Confusing Design

Take a photo of a design you think is understandable and one that you think is confusing.

What do you think makes the designs understandable and confusing?

You may post your description and links to photos in the fields below.

	Understandable Design	Confusing Design
Photo	<input type="text"/>	<input type="text"/>
Description	<input type="text"/>	<input type="text"/>

In the table above, post links to your photos of confusing and understandable design in the photo row. In the description row, talk about why you think each of the examples you found are confusing or understandable.

We also recommend you share your examples in the [course forum](#) and compare and contrast with your fellow students!

Why is this called a "Quiz"?

As you go through this course you will see numerous quizzes, but they won't appear to be quizzes: there may be no questions and there are often no correct answers. They are really "Exercises" -- like this one on Understandable and Confusing Design.. Why is it called a quiz?

Udacity courses started out in science and technology areas where there were multiple quizzes, always with correct and incorrect answers. The teaching philosophy was to have numerous quizzes, each with a single question. The quizzes were not difficult, but they forced students to stop, review the lesson they were learning, and reflect upon the material in order to answer the question. Therefore, the programming infrastructure for udacity was built around the quiz.

But how about courses in literature, humanities, or the arts, where there are few occasions for such straightforward quizzes? What about design?

Until the infrastructure of Udacity is updated, the quiz module is the best way to ask you to stop and reflect, to provide your examples. So, most of the time when you see the word "quiz," in your mind simply think "reflection sequence" or perhaps "exercise."

Design in the Real World

Why can't we just fix the Udacity infrastructure? Ah, that's the topic of Course 3: Companies have multiple constraints. There is always far more work to be done than the resource allow. In a young, growing company, the problem is even worse, because there are too few people and too many pressures as new products (courses in this case) need to be developed. Some things have to be pushed down the priority list: Everyone agrees that this needs to be fixed, but it isn't as important of many of the other issues. This is a lesson about the limitations of design in the world of business.

Understandable and Confusing Design Solution

Here's a picture of the seat heater control in my car. When I push the control, it prompts the highest temperature. And then I can push again to lower the temperature. This design is confusing to me because this is not in alignment with my conceptual model of how temperature controls should work. Most temperature controls I've encountered start with the lowest temperature. And then move to the highest temperature. I wonder why the designer designed it this way. What would your guess be? For the example of

Confusing Design



understandable design, here's my iPhone's text messaging feature. The design is pretty straight forward. The interface guides me through entering texts into the two required fields. And then once complete, the Send button is activated. It's hard to make a mistake here, in large part because it's easy to discover what to do, and because of the excellent feedback provided during interaction. That said, there's usually always room for improvement in design. How could this design be improved? And now back to Don with examples in the world.

Understandable Design



Strange Looking Object Quiz

Let's try a simple exercise. See the object in the photo? That's a strange looking object. So let's see if you can figure out how it can be used simply by what you can see and infer from the photograph. Here are some possibilities, this doesn't exhaust the possibilities. Think of some yourself, and type them in the box below. Maybe it's an upside down candle holder and it can be moved by those three handles. Or, maybe it's a decorative flowerpot. Oh, it's a cup for a three-handed person. Or, maybe it's pottery made by a drunk. You know, as William Shakespeare said, it's made by an idiot full of sounds and fury signifying nothing.

Strange-Looking Object

What do you think the object shown in the picture is used for?
Here are some possibilities.

- It's an upside down candle holder, and it can be moved by the three handles.
- It's a decorative flower pot
- It's a cup for a three-handed person
- It is pottery made by a drunk.

Come up with a unique possibility and enter it in the text box below:



Strange Looking Object Solution

The photograph shows a Tyg, T - Y - G. A multihanded cup widely used in Europe in the 15th through 17th centuries, and in the pilgrim colony at Plymouth, Massachusetts in the United States, in the 1620's. As the picture below shows, the handles make it really use to share a cup. You can give it to a person on the left or right. If you want to, say three people want to drink from the same cup, but they each use a different handle. Then they drink from different spots on the rim. The multiple handles are signifiers as well as useful affordances for sharing. These are really useful, why they've dropped out of favor, I don't know. The only place where you can buy them, as far as I know, is the Plymouth Plantation in Plymouth, Massachusetts where they try to recreate 17th century living.

Don Norman gives a brief description of Tygs on his website:

http://www.jnd.org/dn.mss/the_tyg.html

You can also find an article on Wikipedia:

<http://en.wikipedia.org/wiki/Tyg>

Don bought his (both large and small versions) at the Plymouth Plantation:

<http://www.plimoth.com/reproductions/tyg.html>

Strange-Looking Object - a "Tyg":

As the picture shows, the multiple handles makes it easy to share a cup, giving it to the person on the left or the right.



Interacting with a New Object

So I want you to think about the first few minutes or seconds when you're interacting with a product for the first time. What do you typically do? You might play with it, look for directions. I don't know. You might even smell it. Basically, you're figuring out how to use it. And what supports that process? Well, signifiers and affordances.



What's on Chelsey's arm?

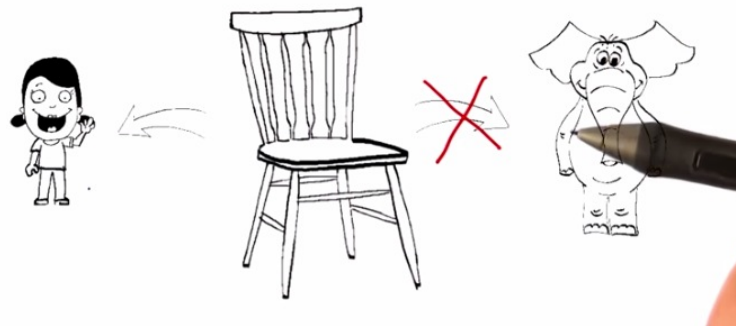
You might be curious about the strange contraption on Chelsey's right arm. It is called an "external fixator," and Don and Chelsey discuss it in a later video. (If you simply can't wait, [here it is.](#))

Chelsey appears with and without the device in various videos. Why? Because she had surgery partially through the development of the course, so whether she is wearing it depends upon when we filmed the video.

Definition Affordance

Here I have a chair. Which affords sitting. This affordance exists, because of the shape of the chair combined with the abilities and shape of the human body. The same chair does not afford sitting for an elephant. An affordance is the relationship

Affordance: the relationship between an object and a person.



between an object, such as a chair, and a person. Affordances enable particular kind of interaction between people and objects. And the presence of an affordance, is jointly determined by the properties of the object. And of the abilities of the person who is interacting with the object.

NOTE:

Pages 10-23 of the revised edition of Design of Everyday Things. (The discussion of affordances and signifiers are coupled, but feel free to read it all as we discuss signifiers soon.)

Affordance Example Car Handles

This car shows two excellent examples of door design. So, black, so you can see that this is the handle and a space, you can insert the hand. So it makes it obvious.

You put your hand in here and you pull. Now, over here, a vertical door handle. Again, nicely done. Space, makes it obvious. The hand can fit. Vertical slot. Put my hand in an pull. One car, two different door handles. Both well designed.



Posts in Japan Quiz



What do you think is an affordance of the bars in this photo?

- Exercise: Stretching and turning; run around them as fast as possible in loops for 5 minutes.
- Leaning bicycles on them
- Poles for a net that is then stretched between them.

See those three bars sticking up in the middle of the road? So why are they there? What are their affordances? Well, maybe they're for stretching and turning. Maybe you're supposed to run around them as fast as possible, in loops for five minutes. It's part of an exercise course. Or maybe you can lean your bicycles on them. Or maybe they're stands for a net that you stretch between them, and play games. So what do you think?

Posts in Japan Solution

Affordances provide the opportunity for actions. Anti-affordances, prevent otherwise possible actions. So these bars appear to be examples of anti-affordances. Bars that prevent cars, trucks and other large vehicles, from driving on the road. And anti-affordances, are quite useful in many situations. But, these bars only look like anti-affordances. They clearly signify non passage. But, but look at the photographs. While the vertical bars appear to signify that an automobile can't pass over them. In this case, they're fake. They're false anti-affordances. They signify non passage. But in fact, they allow it. How? Well they bend when a car passes over them. Or as shown in the photo, if someone steps on them.

What do these bars afford? Anti-Affordances and False Affordances



Photographs by Don Norman taken in Japan (by the Usui Daisan Kyoryo Bridge in Annaka).

The posts in the first photograph appear to block passageway by automobiles and trucks: they are anti-affordances. However, the second photograph (on the right) shows Prof. Naomi Miyake of the University of Tokyo stepping on a post, demonstrating that the apparent blockage of the road is illusory.

Why false anti-affordances are useful

The illusion is valuable. Park visitors think the posts are real, so they do not try to drive on the roadway. However, park employees know that they are illusory, so they do drive their service vehicles on the roads. Of course, as soon as a visitor sees one of the official vehicles driving over the posts, the illusion is revealed, but this

does not seem to have hampered their power to deter unofficial motorists. (This is how I discovered the trick -- I witnessed a park truck driving through the posts.)

False anti-affordances are used in many situations where the desire is to block actions by unauthorized people but permit them by those authorized. I discovered a lot of these when I was given a back-scenes tour of Disneyland. In numerous places, what appeared to be a solid wall turned into a secret passageway so park employees (Disney calls them "cast members") could easily gain access to the area behind the scenes.

Definition Signifier

Signifiers, are communication devices. That tell people what to do, and where to do it. Think about it. People oftentimes, need some way of understanding a product or service they wish to use. Some sign of what it is for. What is happening,

Signifier: communication devices.



and what the alternative actions are. People search for clues, for any sign that might help them cope and understand. And these signs, are called signifiers.

NOTE:

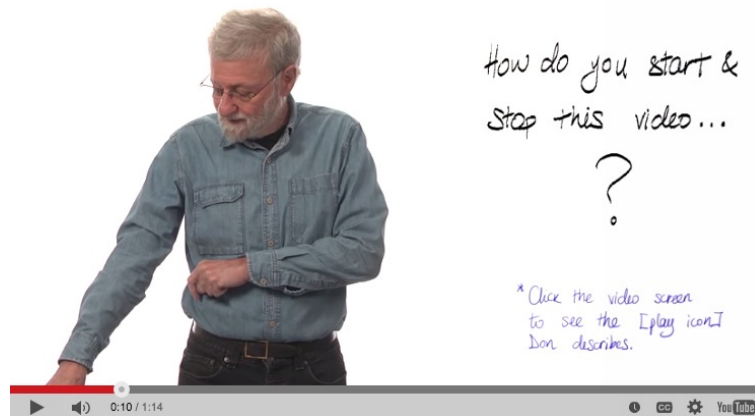
Pages 10-23 of the revised edition of Design of Everyday Things. (The discussion of affordances and signifiers are coupled, but feel free to read it all as we discuss signifiers soon.)

Click the video (Missing signifier)

Let me illustrate the use of signifiers. How do you start and stop this video? Feel free to experiment. See that right pointing triangle, down there? That's a pretty

universal symbol, to mean play. Click on me to play the video. And when you click on it, it changes to two vertical bars. Again, pretty universal symbol for pause. Click on me to stop the video. Now, how would you know that, before you ever experienced it? Usually you have to be told. Or sometimes they label it, play and pause. But once you've learned it, it's the same all over. So that simplifies things. But hey, there's more. Click any place on the screen, it stops the video. Click again, it starts it. Pretty neat, huh? But no visible signifier. How would you ever learn that? You just have to know. Oh, and while you're at it Double-click.

What happens? Hm. So what do you think? These invisible signifiers that make it easier to do the thing. Is that good design, or bad design?



Missing Signifier

You know, modern cars may still have a keyhole. But you don't have to use it. As long as the key is nearby, it senses that you're an authorized driver. So, how do I unlock this car? I just put my hand inside and watch, it unlocks. Nice. Really, simple. Easy. Turns on the interior lights too, so I can see inside when it's dark. Now suppose I leave, and I want to lock the car. How do I do it? Well you can't see, but there's a little ridged area here. And if I touch it, watch. It locks. Oh. But I left all the windows open. And the sunroof open. Do I have to open the car, and go in and manually shut them? No, there's a secret way of shutting it. Secret, hm. See, if I hold my finger here for a little while. The windows shut. And the sunroof shuts. But it is a secret. How do you ever learn it? Well, it's in the manual. But who reads the manual? It's a big thick manual. People don't read the manual. I know lots of people who own this car. Who are not aware that they can shut all the windows and sunroof, without going back inside. Nice feature. Hard to know about it.

Signifier, but Missing Affordance

DON: That's clearly the door handle, but there's no perceived affordance. So it's a signifier that this is a handle, but it's only half a signifier. It tells where the handle is, but not what to do, so, I don't know, how do you open it?

IRENE AU: Hi, Don.
How are you? What
are you doing with
my car?

D: Trying to
understand how to
open it. What did
you do?

IA: Well I have the
key, so it knows that
I'm coming, so it
automatically opens.



D: Oh, that's clever. This is a really good example of hiding
a perceived affordance. Hiding, the signifier, because you
don't need to have it there. The owner of the car knows how
to use it, and when the owner of the car comes near with a
key, it automatically opens, you can grab the handle. That's
very clever design.



Signifiers or Affordances Quiz

For each of the three examples, say whether it's an example of an affordance, or a
signifier. Barbed wire. A very high voltage wire with a sign saying. Danger: keep
away. High Voltage. A traditional door knob.

	Affordance	Signifier
Barbed Wire		
A high voltage wire with a sign saying: “Danger: keep away. Hlgh Voltage.:		
A traditional door knob.		

Signifiers or Affordances Solution

That was a trick question. We wanted to emphasize that affordances and signifiers are quite different concepts. They're independent. Affordances are the possible actions an actor can take upon an item in question. Signifiers are the signal. Signal conveyed to the person about the possible actions. Something can be in affordance or a signifier or both or neither. It could even be a signifier of something but not afford doing it. The correct answers to the questions therefore are, the barbed wire. Yeah, the barbs on the barbed wire, they're both signifiers and anti-affordances. The danger sign, yeah, that's a signifier. The sight of the high voltage line? Well, that's a signifier to some people, but meaningless to others. And a very high voltage itself is an invisible affordance. It doesn't afford getting near. You'll kill yourself, because for a high voltage, if you're within one meter about three feet, it can be fatal. But there's nothing to see. It's invisible, so the very high voltage is actually at invisible anti-affordance. The doorknob. It's a partial signifier and an

Signifier or Affordance?

For each of the three examples, mark whether it is an example of an affordance or a signifier:

	Affordance	Signifier
Barbed wire	✓	✓
A high voltage wire with a sign saying "Danger: keep away. High Voltage."		✓
A traditional door knob.	✓	✓

affordance. The signifier is only partial because it indicates where to do the action, you know, pushing, or pulling, or turning, but not which action to do.

Five deliberately misleading affordances or signifiers Quiz

So far, you've been looking for examples of useful affordances, useful signifiers, so now reverse it. Find examples of affordances or signifiers that are deliberately misleading, so they're false or invisible affordances, anti-affordances or signifiers. Find five examples of deliberately misleading cases.

1.
2.
3.
4.
5.

Five deliberately misleading affordances or signifiers Solution

Want some examples? Almost anything done by a magician. You know, magicians are masters at manipulating your attention, providing misleading signifiers, and misleading affordances. Secret doors. For example, hidden behind a bookcase that swings to the side when one of the books is pulled. Another one, many homes or business display fake video cameras and security warnings. They're trying to scare away criminals but without the expense of putting in a real camera or hiring a real security company. And I own a fake watch. Now, that is, it's a real watch. It tells

Five deliberately misleading affordances or signifiers. Want some examples?



Fake additions to products which make them look like they have more features than they really do, like pockets sewn shut or extra knobs on this watch:

good time. But it has extra buttons and dials that make it look like an expensive chronometer. The buttons don't even move, and the dials, well, they're just printed pictures of dials. It was given to me as a present, and it certainly fooled me.

Reflection on Signifiers and Affordances Quiz

Which of the following is correct?

- ☐ A physical elevator button acts as an affordance and a signifier
- ☐ A coffee mug handle acts as an affordance and a signifier?
- ☐ The words "Pull" on a door provides an affordance
- ☐ Traffic lights at an intersection are signifiers

NOTE:

Pages 10-23 in the revised edition (this section covers both affordances and signifiers)

Reflection on Affordances and Signifiers Answer

Elevator floor buttons and coffee mug handles are both affordances and signifiers, because they both signal that an interaction can happen, and their physical characteristics allow the interaction to take place. Also, traffic lights are indeed signifiers. The lights themselves don't permit an interaction between an object and an agent. But, by cultural convention, they do signify that certain actions should and can take place. The incorrect statement here is statement C. The word pull on a door does not permit action between an object and an actor, and so it's not an affordance. The sign does, however, signify that the door should be operated. We'll talk more about signifiers next.

- ☒ A physical elevator button acts as an affordance and a signifier
- ☒ A coffee mug handle acts as an affordance and a signifier?
- ☐ The words "Pull" on a door provides an affordance
- ☒ Traffic lights at an intersection are signifiers

Don and Kristian reflect on objects

Hm. You know, I bet you're curious what the stuff you're learning has to do with real design. We've talked about affordances and signifiers and a little bit about conceptual models. Well, here's some real design. Let's, let's talk about it. See this? It's a tape dispenser. And we have the tape, something designed at the end so it doesn't stick. And the holder, the dispenser and look at this. The packaging. The designer has to think it all through. It isn't enough to design the product. You have to design how it's mounted, the packaging, instruction manuals, even the box in which it shipped. That's kind of what's exciting about design, it's the whole system.



Photography Instructional Video

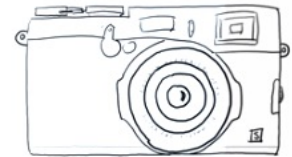
One of the most important things we want you to learn from this course, is to develop the eye of a designer. So you should be walking around the world, looking all the time. Looking at things around you. Judging. Saying that's a really good example. Or, ooh, that's a bad example. But when you do this, it's really good to document it. Not only for your own benefit, because you want to show them to other people. You might want to show them to clients. You might want to give a talk and illustrate the points. So you have to have pictures. And the pictures have to be effective. Show exactly the point you're trying to make, and tell a story. So it may take several pictures of the same object, to tell the story. So, in this next assignment, we're going to cover that. So let's start off though, with what it takes to make a good picture. First of all the camera. Doesn't do any good to have a great camera if it isn't with you. So the most important aspect about a camera is, have it with you. A cellphone camera. It's always with you, that's a virtue. The problem is, it's not really a good camera. It can't be, it's just too small. So if you want to take a picture, and the image is really small. But if you want to enlarge it, the cellphone camera isn't good enough. But, in an emergency this is the best camera to use. I use it all the time. The best camera would be a single lens reflex camera. It takes high quality pictures, it has a very big sensor. High quality lens. But it's big, it's bulky. So I myself, don't use it. I would love to. But I just can't imagine carrying it with me all the time. So I compromise. I carry a medium-size camera. Carefully chosen, so it's of the highest quality. Yet small enough though, that it will fit in my pocket. Or, it fits in a bag on my belt. Has a good lens. Has a fairly large sensor. So it takes high quality pictures that I can blow up. And all the pictures, in the design of everyday thing that I took, were taken, with this camera.

Second point. Take lots of pictures. Don't take one picture. And don't sit there and just try to take one or two. Professionals might take hundreds of pictures just to get one. So take lots of pictures from different angles, different zoom lenses. Closer, further away. And with different lighting. Don't use flash. Flash wipes out all the details.

But make sure turn on all the lights. And maybe use a piece of white paper as a reflector. Do whatever you can do, to light it as well as you can. Naturally.

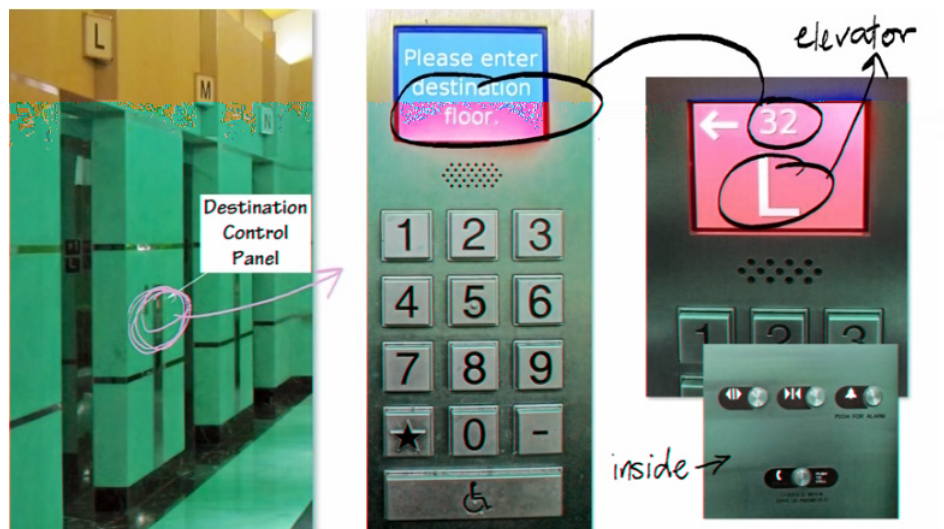


1. Have it with you.



Good Photo Illustration

You know, the point about taking these pictures is to tell a story, to communicate. Don't try to win an art contest. Don't try to win a photography contest. Don't have artistic lighting that puts some things in shadow or in the dark. We want to show the design features. What's really important for the designer to understand, or for you to tell the story to your audience? So let's take a look. Here's a picture of a train station. I wanted to show that accidental social cues can serve as signifiers. You know when you rush to the train platform, how do you know if you missed the train? Well if there are people waiting, you probably didn't miss it. If it's empty, oops maybe you did. So to tell the story I had to get to the train platform long before the train was scheduled to arrive, carefully lean against the post sign, wasn't going to change my position, and take pictures as the people arrived. More and more pictures, because I didn't know when the train would come. When the train finally came, I then waited until the train left and the platform was empty and I took the last picture. Was it worth it? Yes. To tell the story of the destination control elevator, took a lot of pictures and some editing. And even editing a label to



understand the picture The photos took a lot of work with a photo application, because I had to crop the photos. So you could put them together properly. And I cropped the photos, so when I wanted to show the controls, you saw only the control and nothing else that was distracting. So, four different pictures tell the story. But once again, it was worth it. Sometimes a single photo is enough to make the point. You don't always have to have a sequence of photos. So here's one, a picture of push and pull doors. Same hardware in both doors, yet one is push and one is pull. I crop the original photograph and I darkened the glass, so the objects behind the window were not as visible. That's okay to do. It would not be ethical to fake it. To put objects in that really weren't in the scene, or to take away things that really were present.



Photographs of passengers at a train station

This is the commuter train station in Evanston, Illinois where I used to catch the train to Chicago. The photographs were used to illustrate what I called "Social Signifiers" in my book *Living with Complexity*.

Destination control elevator

Want to learn more about destination control elevators? If so, read pages 146-149 of the revised and expanded edition of *Design of Everyday Things* (where you will see the photos illustrated here as Figures 4.8 A, B, C, and D). Alternatively, use your favorite search engine to search for "destination control". Some good articles found this way are:

Wikipedia: Elevator

http://en.wikipedia.org/wiki/Elevator#Destination_control_system

Dr. Richard Peters of Peters research: "Understanding the Benefits and Limitations of Destination Control:

https://www.peters-research.com/index.php?option=com_content&view=article&id=100%3Aunderstanding-the-benefits-and-limitations-of-destination-control&catid=3%3Apapers&Itemid=1

Wikia: Elevator Destination Dispatch

http://elevation.wikia.com/wiki/Elevator_Destination_Dispatch

Project 1 Improve a Confusing Signifier

Here's your first project. Go out and find a signifier that's confusing to you or others. Document that with photographs, like you just learned. So here's your challenge. How are you going to fix it? How would you make it better? How could it be less confusing? Take materials that you find anywhere, and improve upon it, so it's not confusing. Then, [submit all that](#), and later I'll show you a solution for a signifier that I found confusing, and how I decide to fix it.

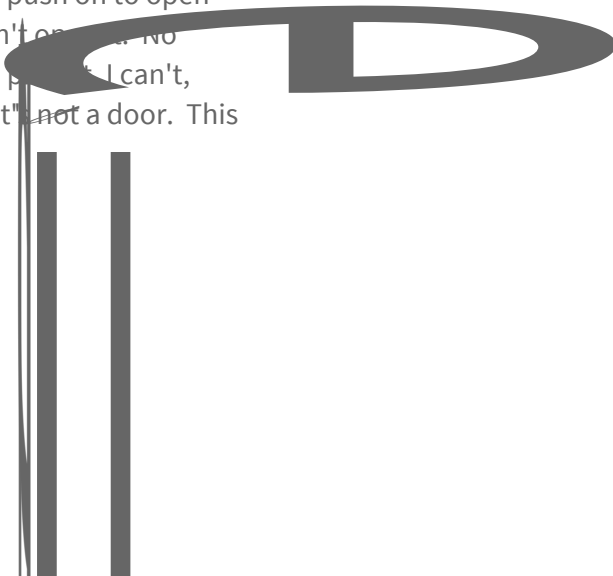
Go out in the world, find and observe examples of affordances and signifiers, and then [share what you find](#).

- Step 1: Observe the world around you and take photos of a confusing signifier.
- Step 2: Share these photos with the forums.
- Step 3: Fix the confusing signifier in some way. A sign, a design change, whatever.
- Step 4: Share your observations and solutions with the forum.
- <https://design101-forum.udacity.com/t/share-your-photos-for-project-1/42>

Project 1 Improve a Confusing Signifier

Answer

Well, here we are in my example of a confusing signifier. It's this door plate thing. Well, actually, I'm not sure what to call it because this is a door handle and this, I thought, was something I could push on to open the door, and I can't open it. No matter how hard I push, I can't, well, it turns out, it's not a door. This is a



mechanism here and the lock mechanism, see inside, is about this big. Well, I think the designer wanted to have some symmetry so they made these two plates the same size, but in so doing so, they have kind of an aesthetic form there, but they've created a function or a false signifier that is confusing.

So, how might we make this better? Well, let's see. Let's assume we want to hide the lock. Maybe we just want to make this smaller and keep the symmetry here. So we might make a plate this big. That would be really too small to put my whole hand on it. I don't think I would confuse that for a plate.

Or, if I just wanted to hide the lock, maybe I could make something really small, like that. Either way, it would be a little bit better, because I feel like if I push this too hard, I might actually do some damage to this glass wall.



Ending Reflection

So, here's the end of lesson 1. We've learned a couple of things, affordances and signifiers. For many people, this is surprising, its a new word for something they've walked around the world with thinking about, but not having a term for it. What was new and surprising for you?

[Share your thoughts in the forum!](#)