Responding to Audience and Context

image source: fitbit.com

Think about driving your car every day, you need to keep your eyes on the road but periodically will glance down for information about your speed or to check the time or the radio station. Automotive designers had to consider their audience and the contact of use. The information must be easily discernable in a quick glance to be useful. It makes me wonder if they usability-tested the displays on screens showing them for half a second or less to see how accurate people were in perceiving the information on the dashboard display.

Perhaps, in the age of quantified self in which we find ourselves, you are one that wears a Fitbit or similar device. You may want to get an understanding from the app of how you are sleeping or how your weight sent from your smart scale varied over the course of the last couple of weeks. These are common scenarios where we are looking at data visualizations on a small screen as part of our routine.

Later in the day you want to check and see how your stocks are doing on your phone and perhaps on the weekend do more detailed research of historical trends on your tablet which may serve better for financial research.

As you are many weeks into this course, I know you have gained a keen eye to identify flaws in data visualizations online and in print. Now I'd like you to take a broader look this week and think about

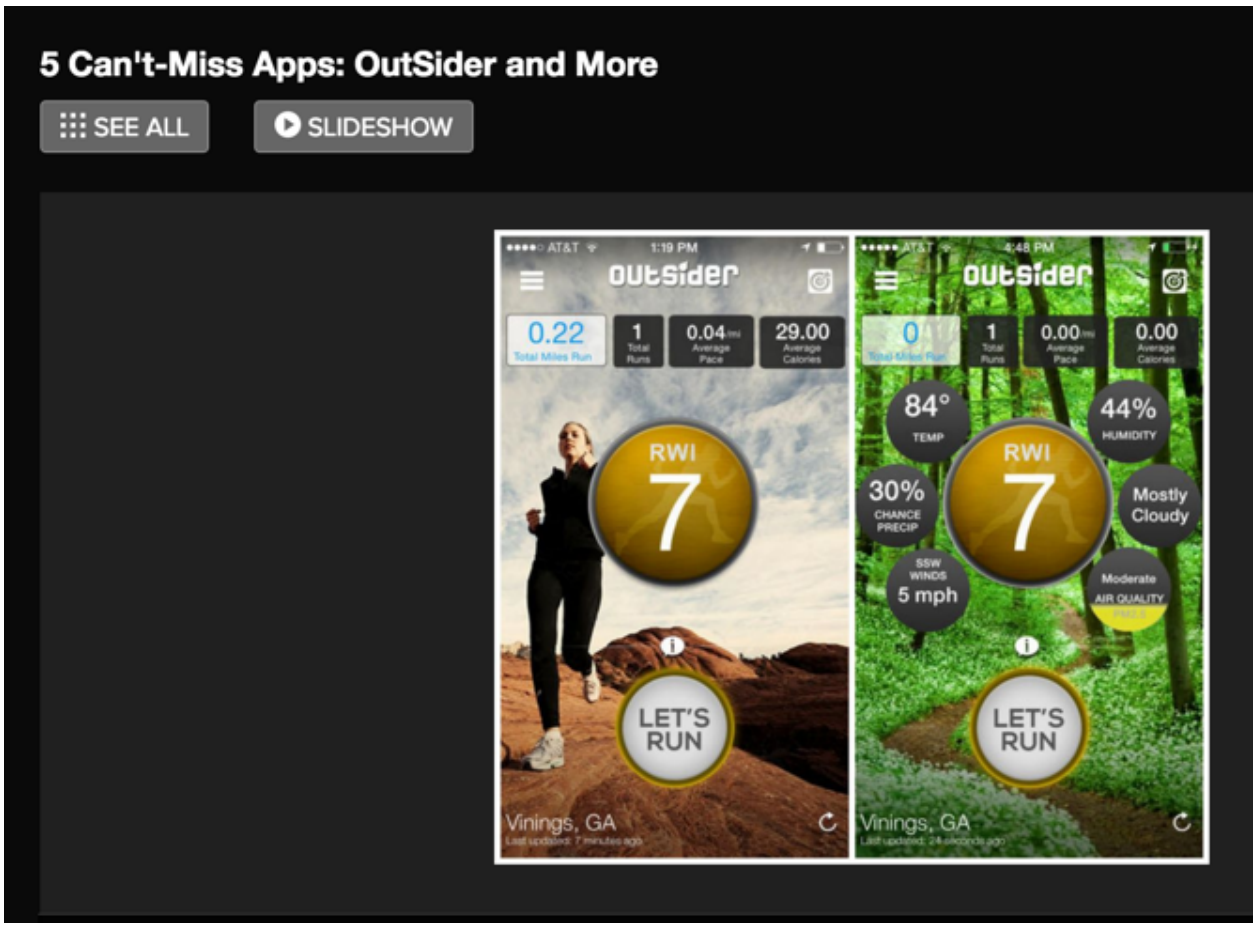
various screen sizes, different lighting conditions, different attention demands, as well as some unique device capabilities.

Speaking of device capabilities, for example, when designing for mobile you know that you can choose to view in portrait or landscape, consider whether you want to just enlarge the visual or enrich it with additional labels/functionality when in landscape. Also you want to ensure if making it interactive that you are following best practices for the minimal tappable target area that should be used. Also think about lighting. Recently through my own daily ritual of going to Starbucks, I noticed the Starbucks app wisely auto brightens the screen when you touch pay to aid in the scanning of the bar code. Similarly, you might choose to do other things by leveraging the ambient light sensor. Perhaps you want to increase contrast or use special colors at certain light levels to aid in readability. Of course that is extreme, but I'm making a point to not just be aware of the context of use and the audience but also be aware of leveraging the device capabilities when it may improve the experience.

Consider that when looking up directions on the internet, the default display is often a list of direction steps to follow to reach your destination. However, that same experience on the phone, given the built in GPS, defers to presenting a line on a map to follow to your destination and removes the memory taxing need to remember or read steps.

If you are a runner who uses tech, then you are familiar with some of the challenges of reading information while your body is moving about. Consider if the data will be displayed on a device that will be affixed or worn. Are there ways to make it more readable like removing clutter, increasing font size, increasing whitespace around elements to perhaps aid in being able to view it on the run? You might also consider other ways to convey information when certain resources like vision are not optimally available. For example, could pulse rate be conveyed through haptic feedback or sound in your headset above your music if you got into danger zones?

Unique environments or display sizes may challenge your design skills. You may be forced to challenge what you think is the right or expected chart type for the data you are presenting. For example, I've seen weather apps that just tell me what the day will be like relative to yesterday. A little colder, a little warmer, the same, expect rain. For most who are just trying to use weather to decide what to wear, this may be adequate. In a running app that I designed for the weather channel, we opted to use a weather run index. Basically reduce the data to whether it was a good day or a bad day to run based on the optimal conditions for the unique parameters set by the user. Through a tap you can quickly see weather factors like temp and humidity as well as other factors that went into it but by viewing just the index the user can decide whether or not it will be a good time to run. You can see an example of clear data presentation for runners in the graphic below of the OutSider app for runners.



Outsider App: showing Run Weather Index
Source:Mashable 5 can't miss apps http://mashable.com/gallery/5-cant-miss-apps-628/53af4a09b05f9d72cc00a35f

To recap, focusing on the decisions the users will make from the data can help shape the way you present it rather than just relying on how that type of data is typically displayed.

When solving a design issue, you need to take into consideration the whole context: the type of data to be displayed, device or platform used to display the data, how the information will be used, and the environment or circumstances in which it will be used.

Finally, I can't stress enough, always test with your target audience and iterate and refine the design based on user feedback.