Exploring Intuitive Ways To Recognize Escalators' Directions

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Part 2

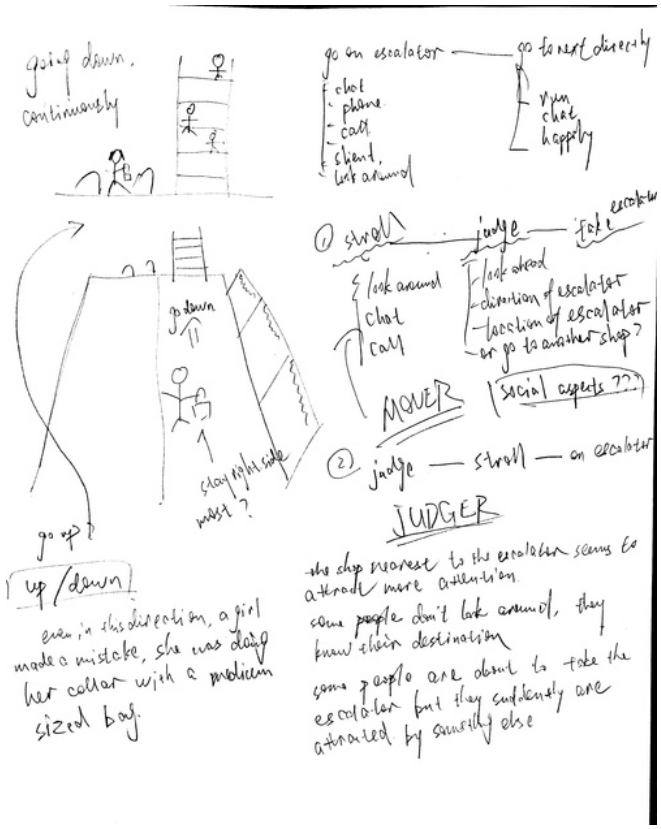
Thick Description – Second Round Observation

Observation Description

Escalators are now widely used in all kinds of buildings, while they help people go to upper/lower floor, it is sometimes difficult for people to recognize their directions (going up or going down). In the previous assignment, I've explained part of the reasons why they are not so user-friendly: in a certain location of the shopping mall, the 3D escalators will appear to be 2D, and the missing dimension contains the information of directions, which means that people at the certain location lacks information to judge which escalator should they go to. Having said that, a social aspect will certainly help users to identify the escalator directions: when there are other people on the escalators going up or down.

In this assignment, however, after more observations I've discovered that the problem is much more complicated than I've ever thought before. The correspondence and inter-action appears to be too limited in A1. The social aspect, in fact, has little help when identifying the direction. The dimension conversion is only one reason that people make mistakes. In this assignment, I'll explain these problems in detail.
The methods include thick descriptions about how people use escalators in real world, and horizontal and vertical slicing of the process.

Excerpt



Explain a preliminary question to address the need

To understand why people make mistakes when taking escalators, we need to answer this

question first: why people go to Water Tower Place (shopping malls)? Needless to say, the main reason to go to shopping malls is to buy things.

But is that true? I spent quite a long time in water tower place watching people come and go, I found there is definitely a deeper reason for shopping, that is people need to social with friends, and shopping malls provide a good environment for relaxed social activities. I would claim this becaue most people in shopping malls are with friends, they chat, drink coffee together, and laugh (isn't this the most common situiation?), compared to the time they spent in buying clothes or other things, they spent much more time in their social interaction (also demonstrated in the sequential diagram). This is not to say buying things is not the reason to go to malls.

You can still find a lot of people, who are by themselves, go from shops to shops looking for a T-shirt. But these guys also have other reasons to come to the shopping mall, perhaps they really want to buy something, or perhaps they just want to relax. In this case, they're actually interacting (this "interact" has similar meaning of "communicate", it's not the same as the concept of "interaction") with themselves.

Knowing such kind of social aspects is important, because it means that when people make mistakes in inferring the escalators' directions, they're not under the context of "want to buy something", instead, they are under the context of "social with friends" or "interact with themselves".

Behaviors

After clarifying the preliminary question, describing customers' behaviors will help us better understand their contexts. When people go around malls and look for escalators, there are several behaviors they'll perform. While these behaviors are performed by almost everyone, different people have different focuses, based on this analysis, we'll define two kinds of behavior modes.

Interact with the environment: When people first enter the mall or are just out from a shop, they seldom go to the escalators directly even though they know where the escalators are and they want to head to the next floor. Instead, they'll look at other shops on their right or left side when they pass by, look at the goods from outside and decide whether or not they should go in. If there is not enough trigger for them to go into the shop, they'll just leave, look around again, search for another shop, and decide. If they found something interesting or are just interested in the shop, they'll stop and go into the shop and take a deep look, but this doesn't mean they'll buy something for sure. When they are looking around, they may also pay attention to other things, like the building, the environment of the mall, the people around them.

Interact with friends: Most of the people will be chatting with their friends, they talk about various topics such as rumors, news, films, etc. When they are looking around (as mentioned above), they'll also talk about the interesting things they've just found. Deciding whether they should go to a shop is also topic. Some people go to malls by themselves, these people usually have a strong purpose such as buying a certain suitcase, take photos, get some coffee, etc. Although they will also look for interesting things and pay attention to their surroundings, they usually just have a simple look and will not change their routes. They have no friends to chat with, but it does not mean they are not doing anything, they will

probably be thinking about if there are any suitcase shops on this floor, or whether this floor can provide a good view if they want to take a photo, or what they are going to do after they finish shopping.

Interact with escalators: If one is at the escalator of the 1st floor and is going to 3rd floor directly, without any stop at the 2nd floor, then this people won't have the trouble looking for the correct escalators, because once they get to the 2nd floor, another going-up escalator is just at their left hand. However, in other cases when customers just left a shop and want to go to the next floor, they will look for a cue to judge the direction of the escalators. Even if they are interacting with the environment or with friends, they'll stop, turn their eyes to the escalators, look at the people on the escalators or examine the movement of the escalators, then determine if there is a desired escalator in his sight.

The two behavior modes

Among the three actions discussed above, interacting with the environment is the thing that everybody in the shopping malls will do, and this action is carried out more unconsciously. However, when it comes to interacting with people or interacting with escalators, based on their priority, there are two different behavior modes, I define them as the Mover and the Judger.

The Mover

The first priority of the Movers is to interact with friends, they will not care much about how to choose the escalator. Even when they know they need go to the next floor, they do not look for cues until they are right at the escalator. The movers do not plan ahead because they are busy talking or doing other things. They are also easily distracted by the environment, once they saw something interesting, they'll probably stop going to the escalator and go to watch the thing that interests them. The Movers are often a group of people, however, if one person is doing something, e.g. thinking while he is walking, packing his bags, this person can be regarded as interacting with himself, thus he is also a Mover.

Obviously, Movers tend to make mistakes in choosing the correct escalators. In fact, they do not choose, they just run into any escalators and see if they are in the right direction. They do not pay any attention to the dimension conversion or the social aspects that indicate the escalators' directions, even when there are many people on the escalator which clearly shows which direction the escalator is going, Movers will still make mistakes because they are either interacting with other people or interacting with themselves.

The Judger

The Judgers concern more on interacting with the escalators than interacting with people. They look for every cue to judge the correct location of their escalators. It does not mean that they'll do this with first priority every time, instead, they'll probably look up, watch the escalators for seconds, then infer how to get to the right one. After doing this, they'll return to what they were just doing or interact with the environment, but head for the escalator he had just determined to take.

It's true that people who go to malls alone are probably in the Judger mode when choosing escalators, but even among those who are with friends, there will probably be someone who

act as a Judger when others being Movers.

Rethinking of correspondence/inter-action

In my previous assignment, I've claimed that "the correspondence is the attraction between the shopper and his destination floor, the escalators serve as passive transducers", and inter-action happens when "people can not see the movement of the escalators, which is a 3D property, thus they have no idea which directions the escalators go".

However, after defining the Mover and the Judger, we know that people go to shopping malls usually with friends, so the subject of correspondence should be a group of people, rather than single ones. As for the dimension conversion of escalators and how people use social aspects to make judgements, we can also see that only the Judgers will be influenced by these two factors, they'll get annoyed if they can't see the movement of the escalators, and they'll infer the correct escalator based on the people's movement on the escalators. However, on the other hand, these two factors have nothing to do with the Movers, because the Movers seldom pay attention!

Thus, we need to correct the correspondence and inter-action as the following:

Correspondence

the correspondence is the attraction between the shoppers and their destination floor, the escalators serve as passive transducers.

Inter-action

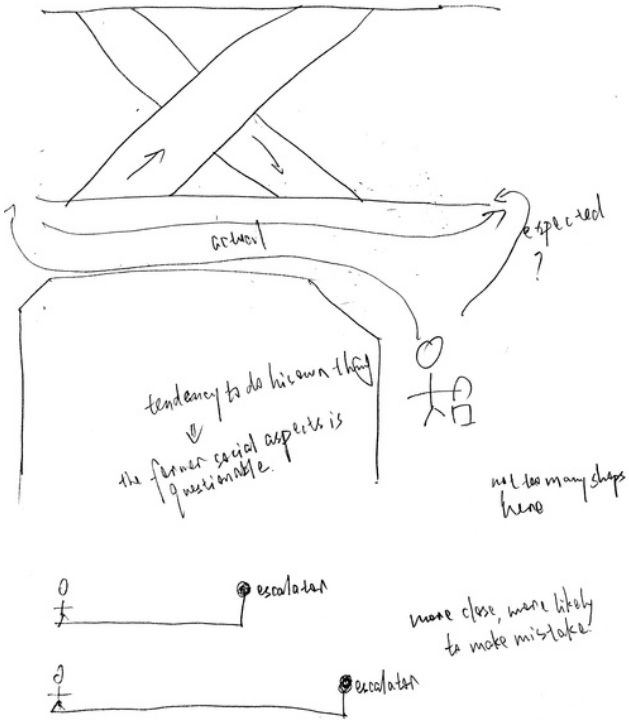
For Movers: when they are so immersed in talking with friends, they'll forget looking for their escalators.

For Judgers: people can not see the movement of the escalators, which is a 3D property, thus they have no idea which directions the escalators go.

Similarly, some potential design solutions, such as giving indicators to show the escalators' directions (which is demonstrated in the storyboard in the previous assignment) , will not be useful at all for Movers. An embodied solution is definitely needed and we should come up with some ideas that require no proactive attentions.

A Strange phenomenon

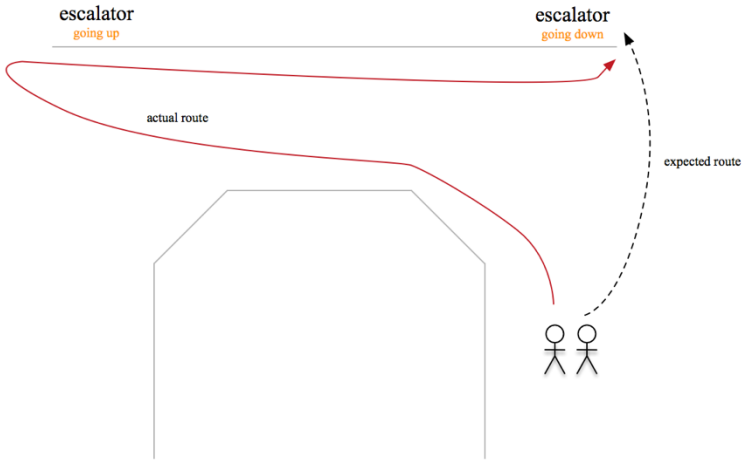
Excerpt



The phenomenon

The picture below shows the plan of one floor curtly in water tower place. The escalators are distributed on both the left (going up) and the right side (going down). Imagine there are two Movers wanting to go to the lower floor, they start from the location shown in the picture, they are talking happily. Which escalator will they go to first?

Usually, we may think that these two guys will just go to the escalator on their right hand directly because it is going down. Even if they can't see and don't infer the direction of the escalator, this escalator is also the nearer to them, they should at least have a look and see if they should take this escalator. It seems they have plenty of reasons to head for this escalator.



However, this is not always true. Some people I observed didn't go to the escalator on the right side directly, instead, they went to the escalator on the left side first, which was going up, when they were at the escalator, they realized this was not their direction, then they went back to the escalator on the right side (as shown in the picture, the red line is the route they actually went through)!

This is really a strange phenomenon that you can never imagine without observing on the scene. You'll also be surprised how frequently this happens!

Speculation

I've no idea why this phenomenon happens, but obviously this is quite important to the final design solution. It clearly shows that anything requiring proactive attentions will fail to attract people.

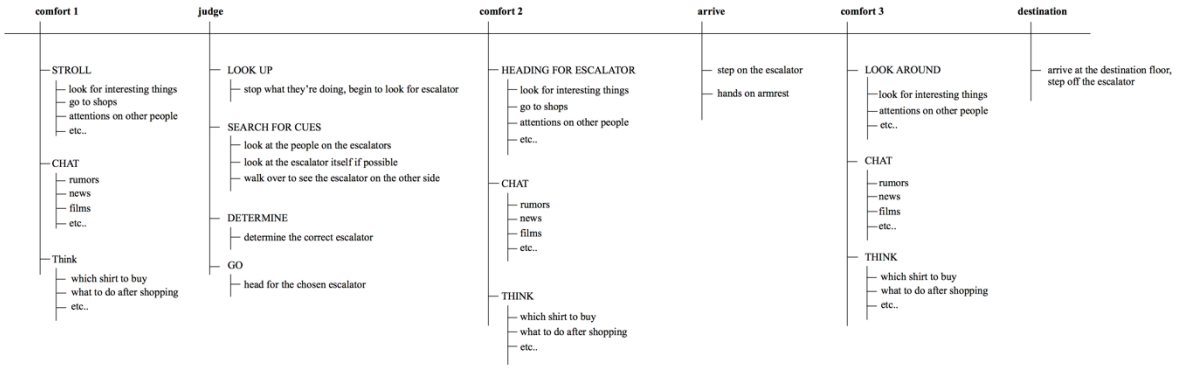
I have two speculations:

People may tend to maintain their current mode: as demonstrated by the picture above, the two movers' current mode consists of "walking and talking", if they go to the nearest escalator and take it to the lower floor, their mode will be changed to "standing and talking", they need to stop walking to stand, there is a small interrupt during the process.

They enjoy the talking and want to talk more: this occurs usually when the two Movers are interacting with each other and almost ignore everything else, including the environment. They may probably have noticed there is a nearer escalator, but subconciously they want to maintain the talking and hang around for more time instead of going to their destination directly.

Although there are two people included in this example, in fact, even those who are alone will also have the same experience. I observed one man who was packing his bag while walking towards the escalators, he was so focused on his own stuffs that it seems he was not paying any attention to his surroundings, and finally he chose the left side escalator prior to the right one.

Sequential diagram



Reflection

How did the design ethnography approach of A2 differ from A1?

In A2, the observation is in detail. I watched the whole process of people using the escalators, from strolling the mall, looking for escalators and finally reach their destination floor.

In A1, the observation is quite general. I went to the shopping mall, watched people using the escalator and identified the problem. I only observed the result, that is, people make mistakes in recognizing the directions of the escalators, but I only tried to explain the problem in a rational way, which is mainly the dimension conversion. I only noticed that losing information in the real world would result in problems, but I never realized that the lost information may be useless for people to make judgements, and there are more subjective reasons that people make mistakes.

In A2, the observation is in detail, I mainly focused on observing how people actually used the escalators -- from strolling the mall, looking for escalators to finally reach their destination floor -- to find out the reasons why they make mistakes instead of trying to explain it rationally. I found two kinds of people in the shopping mall, the Movers and the Judgers, whose behavior modes differ from each other, and thus the possiblities of making mistakes in judging the escalators directions of the two are also different. I also observed a strange phenomenon which can hardly be explained by any rational thinking.

In conclusion, in A1, I only identified the problem and tried to solve it theoretically while in A2 I tried to explain it empirically.

How did approaching A2 differ from approaching A1

In A1, I used cell phone to take photos and videos of the scene, becaue the main task is to identify the problem, for me, photos and videos can reflect what I saw in the shopping mall and help me analysis afterwards. I only tried to identify the problem by observing how many people made mistakes, after I saw one man encountered the problem, I just simply ignore him and wait for another people to make the same mistake. I only did the analysis theoretically with my own experience and didn't consider the different process that different people went through.

In A2, I mainly used sketches because this time I was trying to record the actual process that people went through and dig out the reason behind the phenomenon, sketches and descriptions are convenient to note down such process and your thinking during the observation, while in photos there is only a picture and you'll probably forget what you've found and what you were thinking at that time. Also, unlike in A1, I observed the whole process of the customers from shopping, strolling, chatting, to going to escalators. I even followed some customers and tried to understand what they were actually doing, and I changed many positions in the shopping mall to conduct my observations.

The most challenging part of the observational portion

I didn't encouter any specific chellenges during my observation. There is enough traffic in the mall, and there are really a lot of people who made mistakes in recognizing their escalators,

it's also quite convenient and interesting to sit there and watch people to make mistakes. The only challenge for me is that it's almost impossible to idenfity the users' mental process. As I've explained, after observing more carefully in this assignment, I think people make such mistakes not only because of the design of the escalators, but also some psychological or social reasons (the social aspects appears to be too strong according to what I've observed), which the customers themselves can't even understand, it looks like there is something that's encouraging people to make such mistakes. However, to observe the psychological and social reason is almost impossible for me.

How easy or hard to tease out the sequencing

It not too difficult, but because of the nature of my topic, the process of looking for an escalator is actually really short, it may only last for several seconds, you have to think about it in micro level and break down all the actions the users take.
Besides, while customers may spend a whole afternoon in the shopping mall, they are actually just repeating some simple actions -- talk, walk, look around, go to shops -- again and again. This is especially true in terms of looking for escalators, that's why I found there are three "comfort" stages in my sequence diagram, they are keeping comforting themselves until they realize they should do another thing, upon finishing that thing, they just return comforting themselves again.

Gaps

The first time I went to the shopping mall, I identified the two kinds of customers and the actions they will perform: interact with people, interact with the environment, interact with the escalators. But when I was trying to identify the actual order when making the diagram, I think I may miss something if I just prioritize these actions. So I went to the mall again and that's when I found that the action of "interact with people" (in the diagram I transcribed as "comfort") is actually the main thing that people do in shopping malls, that's why you can see there are actually three stages of "comfort" during the process of looking for an escalator.

That said, I must admit that this diagram demonstrates only the Judgers' process, and different Judgers have different orders to do all the actions. The Movers will probably only have a "comfort" action throughout the whole process.

How is the sequential diagram helpful

It definitely helps to better understand the whole process that customers go through. Through the diagram, we can clearly see that the action of looking for an eacalator is really not a final action, instead, it's only a small interruption which happens when users keep themselves in a comfort zone. Understanding users' comfort zones and how willing they are to keep it is just as important as studying the mistakes they make when inferring the correct escalators.