Fundamentals of Interaction Design
*Journal Entry #3*

⧈ UTS

Principles: *Visibility and Signifier*   **Technology:** *Self-Checkout Kiosk at Coles*

Goal: *Self-Checkout Kiosk: Using a Coles self-checkout kiosk, make at least one purchase and pay via card with a receipt.*

Name & ID:	Tutorial room location:
Tutor:	**Date:**

Context of use: I was heading towards UTS and I felt hungry. Like most students, I had very little money, so I wanted to purchase some food at the local Coles in Broadway. I knew that I had classes in the afternoon, so I wanted to buy enough that would last me until dinner. The self-checkout section of Coles was not crowded. I was not distracted by other people, but I was carrying my backpack, so my mobility was slightly limited.

Figure 1 - Self-checkout kiosk device
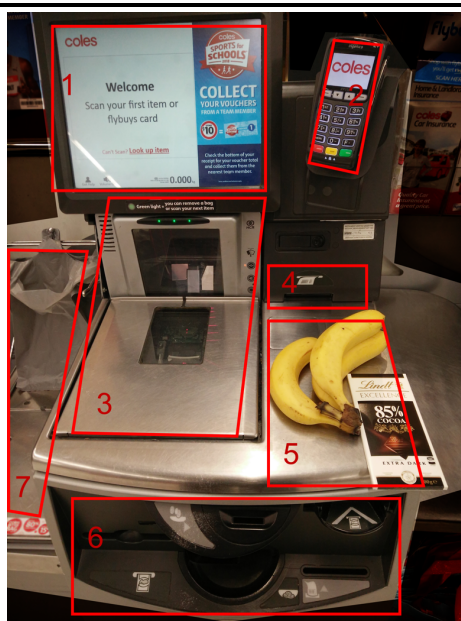
The complexity of the use case necessitates this photo.
1 – Main screen
2 – Credit card device
3 – Scanner and scales
4 – Receipt printer
5 – Place to put items (pre-scanning)
6 – Cash payment and change section
7 – Item placement section (post-scanning)

I move the chocolate (from 5 to 3) across the bottom of the base of the kiosk to scan it. The text on the screen (1) "Scan your first item or flybuys card" is a signifier which tells me I can perform an action (scan item or card) but doesn't really show me what that action entails. The three green lights and explainer text above the scanner (3) is also a signifier that tells me when to scan and when to wait based on the green lights. The text "Look up item" on the mains screen (1) utilises the visibility design principle, telling me that if the above prompt doesn't suit my needs then I can always look up an item that I can't scan. These attempts to design with visibility and signifiers in mind are difficult to follow, especially since the entire system shows all its interactive components together without a clear sense of what to engage first. Large step-by-step instructions and arrows on the main screen would be much more helpful instead of the tiny text links and advertising on the right-hand side of the screen. The main screen shows a prompt to place the item in the bagging area. I select "Skip Bagging" in the screen prompt. I place it on the left side of the kiosk (7). The screen prompt is a good example of visibility as it presents two clear options, although it doesn't explain what the "bagging area" is. If you, the reader, are thinking "the bagging area is where the plastic bags are (7)", then spare a thought for those who have never used this system before, are too short to see the plastic bags while standing in front of the machine or can't read English (either due to a language barrier or vision impairment). A few ways to improve this include: using images of a "bagging area" instead of text, using arrows to signify the act of moving the item to the "bagging area", swapping the position of (5) and (7) so as to align this system with cultural convention (left-to-right) and also using audio to guide the user in case of vision impairment. I placed the bananas on the electronic scales (3), tap "select item lookup" on the screen, choose bananas on the Fresh Produce screen, then select "Skip Bagging" and place them in the bagging area (7). The "Select Item Lookup" is a grey button on the bottom left of the screen, so visibility was poor regarding how to price a barcode-less item. This made it difficult for me to know how to proceed, forcing me to visually scan the entire screen for options relating to produce. The Fresh Produce screen was also difficult to decipher, as the produce items on the screen not only did not afford tapping, but there were no signifiers that instructed my next action (ie. tap on the bananas). This meant even when I found the appropriate image (banana), I wasn't sure how I was supposed to select it as there were no instructions and the image of the banana did not look like a button to tap. Rather than use text, once again an image of produce (carrots,

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Figure 2 - Finger tap icon

apples etc.) could have been used in the "Select item lookup" button to make the identification of non-barcode items easier. Likewise, an icon of a hand icon with spreading rays (see Figure 2) could be used on the Fresh Produce page to signify the act of tapping to select an item. Also, the produce images could be placed inside buttons to make it clearer to the user that they can press the produce items. Finally, I tap the bright, red "Pay" button in the bottom right of the screen. This was both good visibility in that it clearly showed me how much I was accumulating in cost but also bad visibility because red is usually used as a warning colour, so should I be concerned that it's red? Am I supposed to tap something that is giving me a warning? If I had a design this differently, I would use a different colour that still drew attention but didn't communicate an emergency, such as a soft orange or dark green. I tap "Card" in the "Select payment type" prompt, wait a few seconds, and placed my credit card in front of the credit card machine (2). The picture of a credit card machine on the main screen (1) signified my need to engage the credit card machine. A large arrow pointing to the credit card machine to the right of the main screen would be helpful as people may not see it at first glance. I tap "Yes" when the screen asks me if I want a printed receipt, which shows the visibility of the two options No/Yes. I take the printed receipt located underneath the credit card machine, take my items and leave. The lack of visibility or signifiers on the main screen regarding the receipt was not helpful, especially if I was in a hurry, and I've certainly seen instances of completed purchases with a receipt left behind, implying that some users have decided to print the receipt but also forgot to take it with them or changed their minds about it. To improve the uptake of receipts, the receipt machine should be placed to the left of the main screen close to the bagging area so people can see the receipt printout as they are picking up their purchased items. A large "receipt" image or text sign would be a good signifier of what the machine wants the user to do. ie. Pick up the receipt before they leave. Or they could just send receipts via email to save paper and machine parts, but what do I know? I'm just an interaction designer.