Improvements to Existing Apps

- Clive Gomes

This review is mainly focused on the “Safety Tips” app. At first glance (See Fig. 1), it is clear that the app has a lot of (useful) information, which could prove to be overwhelming for the user at the time of disaster, especially if they have not extensively looked into the app in advance. A lot of the information provided on the startup screen is focused towards informing the user of impending disasters (earthquake warnings, weather warnings, etc.), and helping users prepare for them (“Learning Materials”). There is also post-disaster information such as useful emergency contacts, medical institutions, and transportation routes. Concerning information that users may need in the moment, the only information provided (“Evacuation Advice” and “Civil Protection Information”) is solely in Japanese. The app also has an extremely useful tool called “Flowchart”, which can help users quickly identify their next actions right after a certain disaster has occurred. However, this information in buried under “Learning Materials”, due to which most users may not even be aware of such a feature, unless they have spent a decent amount of time researching the information provided by the app (which most users don’t). Thus, this review proposes a multi-modal approach, having a “Daily/Normal” mode containing the existing information, but also an “Emergency/Disaster” mode that would efficiently provide time-sensitive information to the users during a disaster. This new mode would contain the following information:

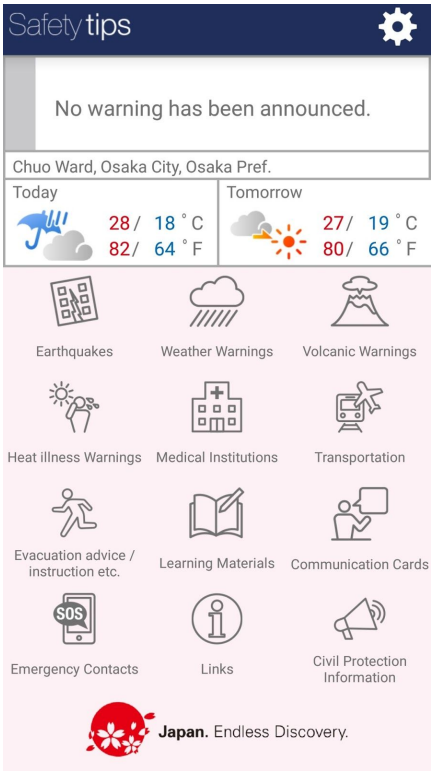

Figure 1: "Safety Tips" App

1. Evacuation Instruction (In English)
2. Emergency Contacts
3. Flowchart Feature
4. Communication Cards

A second point of consideration is the use of QR codes. A number of organizations, at different levels of government, have started to promote the use of QR codes in common public places such as train stations, parks, and so on, to provide information to people in a relatively easy way. However, a majority of the foreign tourist population do not have a QR scanner app, and only the most recent cellphone models have an in-built one. It is also not very likely that tourists will download a QR scanner app (unless they have been informed in advance that they need one) solely for their 2 or 3 week stay in Japan. Therefore, having a QR scanner feature as part of the existing “Safety Tips” app would remove this necessity of having the user download multiple apps (which would have further discouraged people from downloading them).

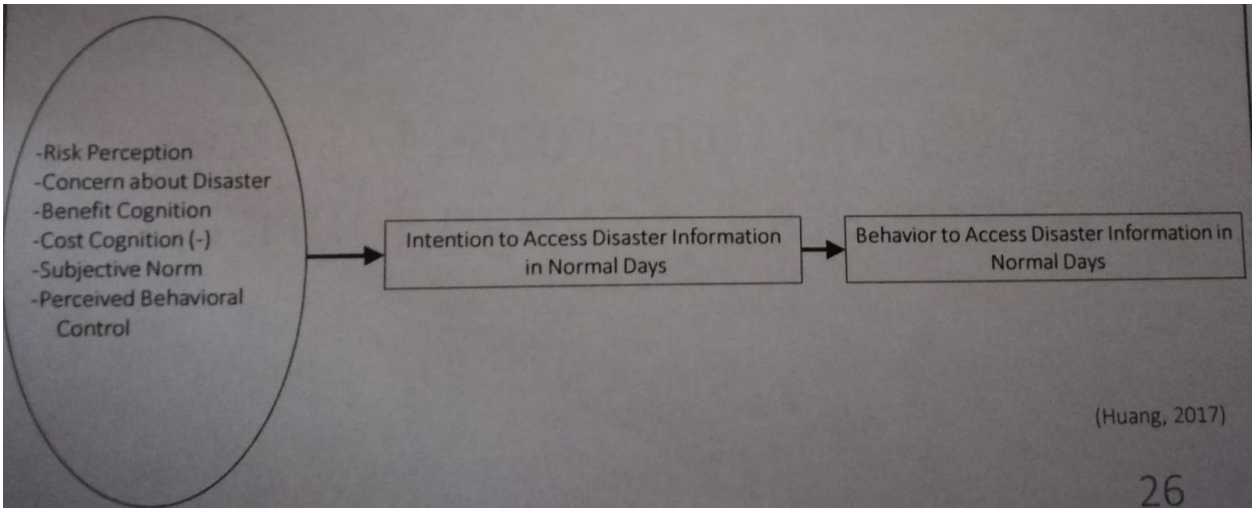

Figure 2: Factors Affecting Disaster Prevention Information Accessing Intention

Lastly, it is important to consider why most foreign tourists don't (generally) download such disaster-preparedness apps, despite their apparent need. Professor Toyoda, Yusuke, in his lecture at Ritsumeikan University on June 11, 2019, provided a chart listing the factors that affect foreign tourists' information-seeking behavior (see Fig. 2). Among these, it is worth considering the "Cost-Benefit Cognition" factors as these are most easily controlled in a mobile app setting. The "Safety Tips" app is free for all users, and is thus already slightly appealing to tourists (as opposed to those disaster-management apps that require users to pay for certain features). Another strategy that could be used to encourage users to download the app is to provide a certain benefit of using it, possibly in the form of discount coupons for popular restaurants, clothing stores, and the like. Considering the app will already possess a QR scanner feature, this could be transformed into sort-of a game where the users would have to look up the nearest evacuation centers to their location, and scan certain QR codes at such places. Points could be allotted for scanning these codes, and the users can be awarded with coupons after attaining a certain number of points. The app could also have a "Map" feature which would display only the nearest evacuation centers to the user's location. The main benefits of the proposed idea are as follows:

1. People would be encouraged to download the app (even if they don't "think" they need it)
2. They will always know the location of the nearest evacuation centers
3. Each individual QR code can embed a specific safety tip/piece of disaster-preparedness information for people to read when they scan the QR code to attain points

A few screenshots of a prototype app designed based on the proposed idea are presented at the end of this review (See Fig. 3). To test the effectiveness of this strategy, a survey could be conducted to ask tourists whether such a feature would encourage them to download the app, and if not, ask them what kind of features would be more appealing.

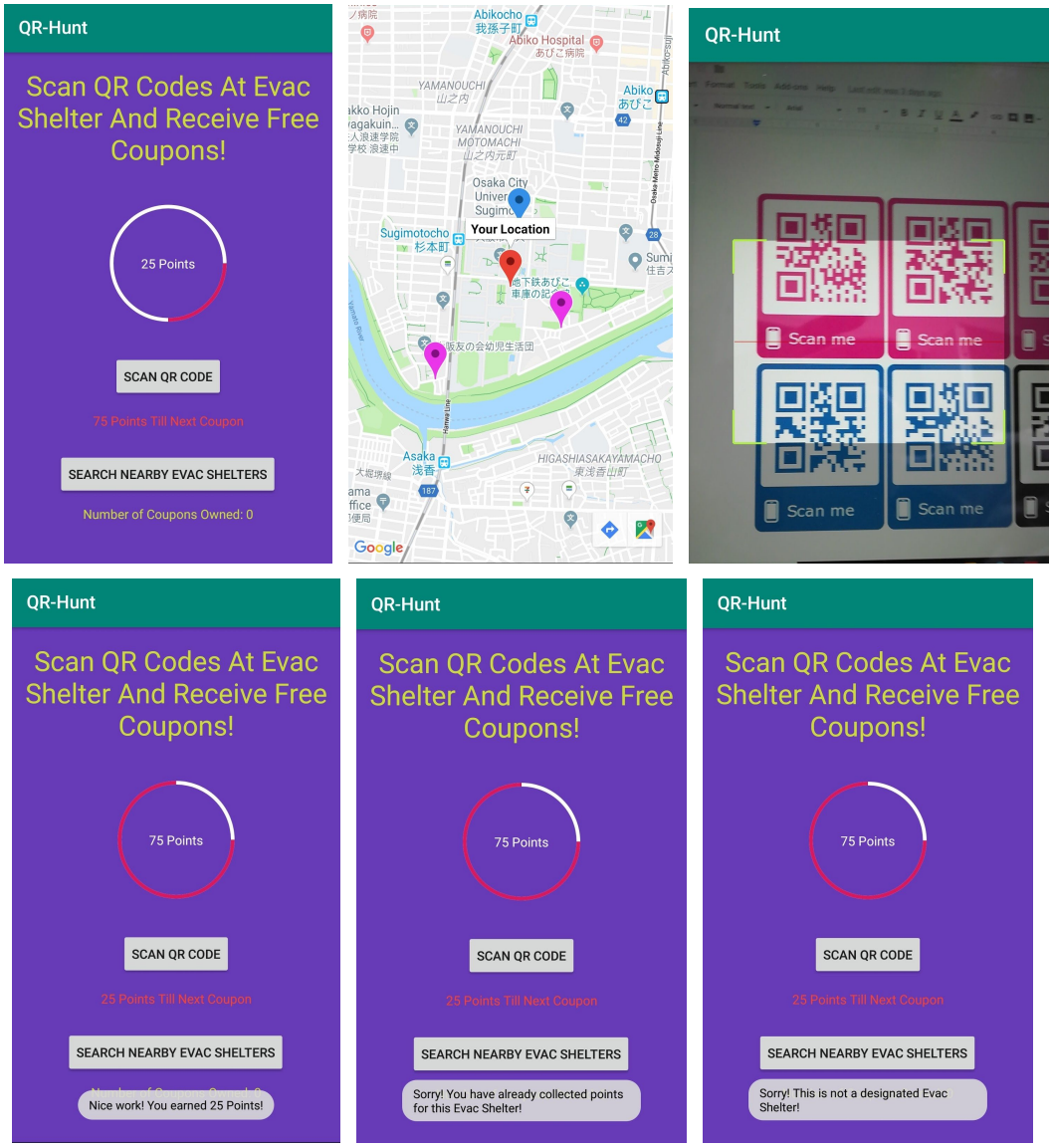

Figure 3: (a) "QR-Hunt" app startup screen, (b) "Maps" feature, (c) In-app QR scanner, (d) Points awarded after scanning a valid QR code, (e) Attempt to recollect points from a scanned QR code, (e) Attempt to scan an invalid QR code.

References:

- ➔ Toyoda, Yusuke. (2019). Challenges of Increasing Disaster Awareness of Foreign Tourists. “College of Policy Science, Ritsumeikan University, Osaka,” 25-26.
- ➔ Huang, X. (2017). Determinants of Disaster Prevention Information Accessing Intention: Focusing on Foreign Residents in Japan. “Graduate School of Interdisciplinary Information Studies, University of Tokyo” 93, 1-17 (in Japanese).

Feedback:

- Existing “Safety Tips” app has too much preparatory information, and not enough in-the-moment info. Too cluttered
- Safety Tips “emergency mode”, QR scanner integrated, QR code game which rewards people for looking at nearby shelters
- “QR-Hunt” would incentivise downloading the app
- The point system count be a great motivator