PROG7312 POE

PART 1

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Introduction

With the development of a municipal services application for South Africans, it is important to consider the various engagement strategies that will be incorporated. These engaging functions are crucial for maintaining user interaction with the application, allowing it to fully serve its municipal functions to the South African communities (StocchiFlinders, et al., 2018). The following list outlines features that are considered engaging to future users of this municipal services application. (McLean, 2018), (Garnett, et al., 2015), (Bazarova, et al., 2015), (Lee, et al., 2021), (Carzaniga, et al., 2001)

Engagement Strategies

<u>User Survey Forms:</u>

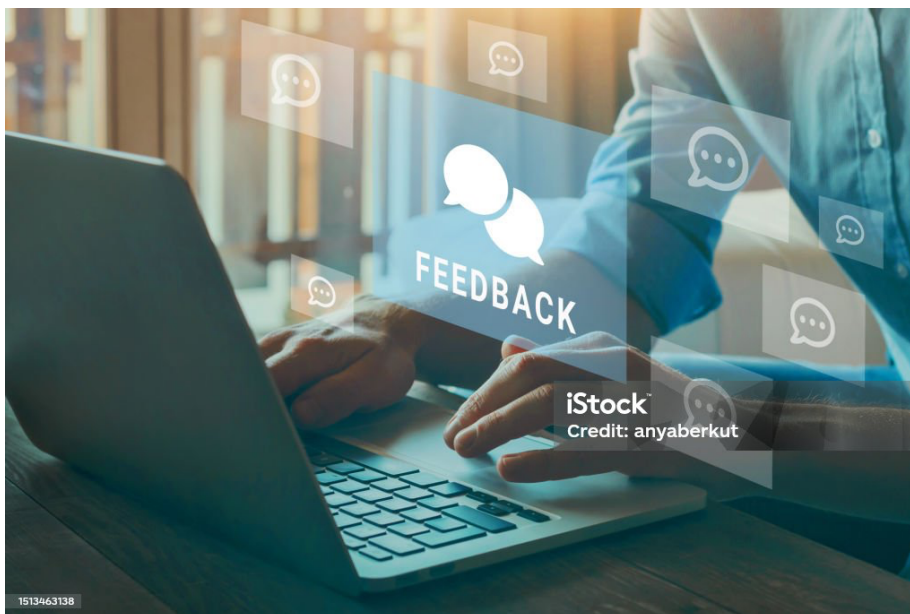*Figure 1: Feedback on events and app features (anyaberkut, 2023)*

Gaining the feedback of users for the municipal application is an important engagement strategy. User feedback is an important mechanism for introducing the user perspectives and improving the application in ways that retain users (Wahyono, et al., 2017). Thus, a feedback and rating system will be implemented in the application.

According to Cheng, Danescu-Niculescu-Mizil, and Leskovec (2014), feedback is an important element of engagement that shapes the behavior of the application users. This emphasizes the importance of implementing user feedback, because if not addressed effectively, it can decrease user engagement and retention.

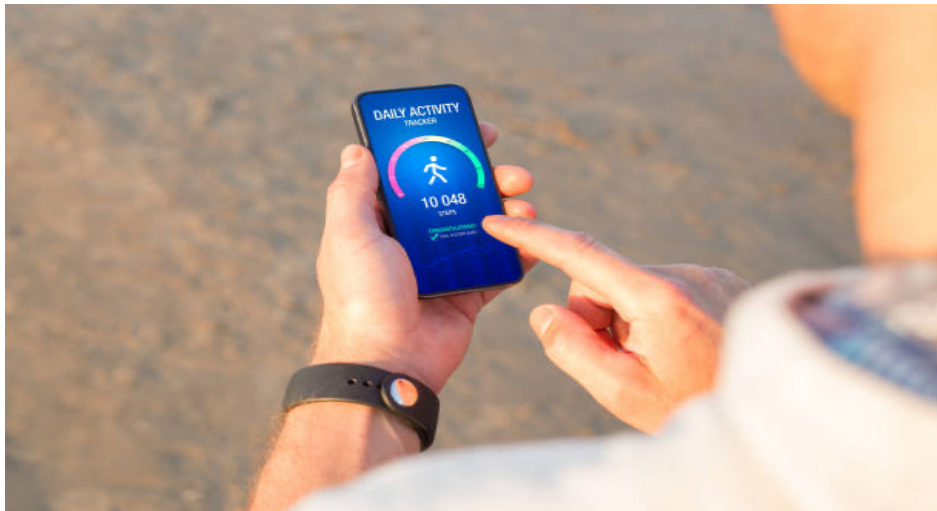Daily and weekly tracking feature for app use:

Figure 2: Daily tracking of activity on the app. (grinvalds, 2021)

Applications like Snapchat make use the ability to create streaks with other individuals. This is a form of gamification to the app that would also encourage engagement as a feature for the municipal app. If gamification is applied correctly within the context of an app, it can strongly encourage consistent engagement from its users (Bitrián, et al., 2021). This feature will begin with a daily and weekly tracking streak of the user's engagement with the app. Gamification features may also be applied throughout the app, like reporting an issue.

According to Galloway (2017), the attention span of most individuals in society continues to degrade as the pace of information over the internet is increased. This means users need to constantly be engaged with the purpose of the app without getting distracted or deterred. Thus, this emphasizes the importance of the gamification feature, which creates more fun and fulfilling interactions with users through the app.
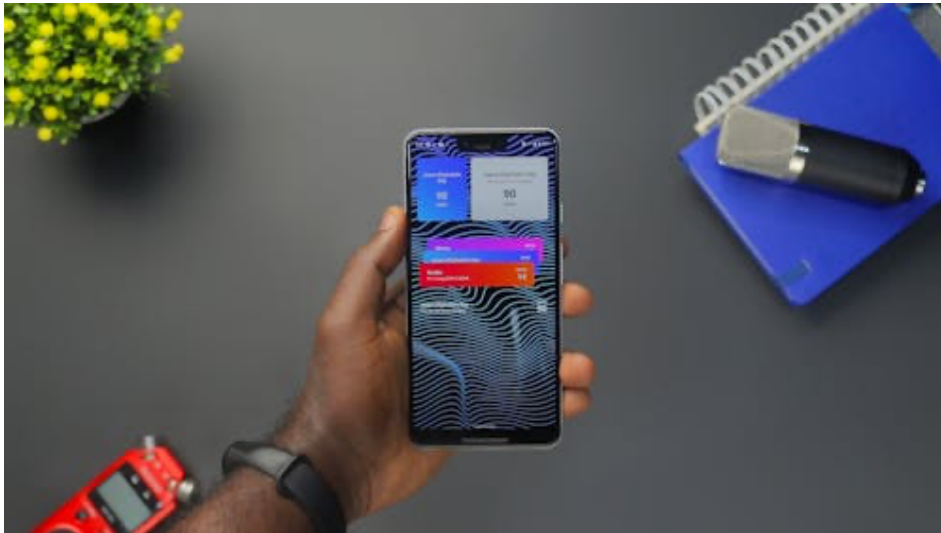
Live notifications of recent events posted:

Figure 3: Notifications of important events. (Eliphalet, 2021)

Notifications that are delivered to users at optimum times throughout a day can improve and encourage engagement with an app (Freyne, et al., 2017). Thus, notifications of important alerts or key issues in a user's specific areas can improve the engagement users have with the platform. This can be achieved by sending notifications to the user about specific areas that they have selected, as well as sending important notices about critical events.

Users may also tend to forget the existence of many apps if they are not encouraged to engage with it consistently. Furthermore, users ignore the notification spam of many apps that they do not interact with on a frequent basis (Visuri, et al., 2019). Thus, notifications should be regulated based on the use data of the application collected from its users.

Incorporating an interactive chatbot into app:

Figure 4: Service chatbot feature of an app. (hirun, 2023)

In a study conducted by Crane and Brown (2019), they identified the use of a supportive chatbot doubling the engagement with user an experimental app designed to help quit smoking. Thus, a chatbot feature in the municipal service app can further encourage user engagement with the app. It can be used to answer frequently asked questions, provide 24/7 support for issues with the app, and briefly inform users of upcoming communities events if necessary.

The directive with the chatbot will be to act as a personal assistant to any users requiring aid (Dokukina & Gumanova, 2020). Thus, the chatbot can be trained in different environments like answering frequently asked questions, providing feature breakdowns and tutorials, and connecting to a human assistant if it fails to address the needs of the user.

Design an effective user onboarding process for users:

Figure 5: Flow of the onboarding process. (Pexels, 2015)

The first impression, feel and use of an application are very important. According to Pinco, Salanta, Beleiu, and Crisan (2024), a well thought out onboarding process for participants leads to greater user engagement and retention over time. Thus, designing an easy-to-use onboarding process and simple tutorial use of the app can prove effective for encouraging continuous user engagement.

Popular and highly encouraged onboarding processes are through interactive tutorials and videos (Dhanoa, et al., 2022). A sequenced tutorial for the municipal services app can be included for newly registered users. The chatbot feature can also be used to breakdown specific sections of the app and provide a demonstration video of how the specific feature is intended to be used.

Gamification features of the app:

Adding various gamification features to an application can serve as multiple elements of engagement to its users. Some of these key elements include healthily competition, achievement, and recognition (Alsawaier, 2018). These aspects can be included in the design of the municipal services application at different points.

Daily & weekly Tracker:

As mentioned previously, the first of the gamification features will include a daily and weekly tracker of each user's use of the application. The element of a streak tracking feature encourages user efforts, achievement, and maintenance of the ongoing consistency (Weathers & Poehlman, 2023). Thus, this feature will be implemented onto the landing page of the application. Signed-in users will immediately be displayed with their personal daily and weekly streaks of using the app in a graphically pleasing way, including an encouraging message based on the current streak length. This small gamification feature aims to encourage users to interact with the app daily to get information of the local municipal efforts and status.

Feedback & recognition:

Figure 6: Recognition for contributing to the app. (Naca, 2023)

Another gamification feature can be implemented when a user successfully reports and event issue on the app. According to Darby (2001), immediate feedback on encouraged behaviors

provides a sense of accomplishments and thus encourages further engagement with that activity. This was identified through the immediate feedback giving to participants of the study upon saving energy consumption and reducing waste. This same principle can be applied when a valid issue is reported by a user. When the user reports and issue they will receive immediate feedback and recognition for the reported issue, including credit for the issue reported that will be shown to other users on the platform. Including this feature will give users a sense of achievement and contribution to their municipality through the application.

Municipal Leaderboards:

Figure 7: Top contributors to each municipality on leaderboards. (champpixs, 2023)

Creating a healthily competitive environment is also part of gamification features that can be implemented. Spaces of competition help improve engagement from participants and encourage further interactions (Jones, et al., 2015). Thus, to include this feature in the municipal application, a point system can be implemented. This point system will reward a certain number of points toward the user while engaging with the app in various ways. This would include reporting issues, giving insightful feedback, sharing events posted, etc. These points will then contribute toward the accounts of individual users. Each municipality will have a leaderboard and display the top 5-10 leading contributors to the app and the community. Every month the top 3-5 contributors will be recognized on the events page before resetting the values for a new month. Having the feature function in this way will subtly encourage users to contribute to the application and community to showcase their participation.

Conclusion

Having various engagement strategies prepared for the municipal services application is an important aspect to consider. These engagement strategies keep regular users invested and contributing to the application and their communities; thus, these five strategies were identified.

These engagement approaches include enabling the sharing of posted events across different social medias, providing live notifications of important information, providing an interactive support chatbot, and designing an effective onboarding process for new users. The most in-depth and diversified strategies involve gamification of various elements of the app. These include providing daily and weekly tracking of the app use for each user, providing instant recognition of the contributions of users toward the communities, and creating a leaderboard for each municipality.

With these five engagement strategies implemented into the application, users will be highly encouraged to continue ongoing use of the app features on a daily and weekly basis.

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Articles Summary

Paper No.	Publication Title	Publication Year
1	The rules of engagement: how to motivate consumers to engage with branded mobile apps.	2018
2	Building a popular mobile application by utilizing user feedback.	2017
3	Enhancing user engagement: The role of gamification in mobile apps.	2021
4	Push Notifications in Diet Apps: Influencing Engagement Times and Tasks.	2017
5	Does the addition of a supportive chatbot promote user engagement with a smoking cessation app?	2019
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11	How Community Feedback Shapes User Behavior.	2014
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13	Understanding smartphone notifications' user interactions and content importance.	2019
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