**Chapter 3 Part 3: Notification Settings**

The first problem we articulated in Chapter 2 was Turkle's "life-mix", the co-presence and conflation of the individual's physical presence with his online presence. We found that the main bridge between those two selves is the red alert notification, the invitation that calls the user to move from the physical world to the online world. Rather than study the fact of a social media platform having notifications at all, which has many advantages, such as the ability to alert the user to relevant activity, we questioned how the notifications in current platforms behave. For this, we turned our attention to notification settings.

We suggested two improvements on notification settings in an alternate design. First, we recommended that the default notification alerts, both when the user signs up to the platform for the first time, and as new notification alerts emerge, should not be completely opt-out. Further, we recommended that the user be directed to the notification settings page when she first signs up, so that she can alter them to her liking at that moment and be aware of the altercations she is allowed to make for future use. Secondly, we suggested that users have a way of dealing with notification settings as a whole, such as the ability to turn on a "do not disturb" mode, which pauses all notifications until a desired date. In response to these recommendations, we expect two counter arguments.

The first counter argument is that human beings are logical creatures, so they should not have any problems identifying what notification settings they would like to have, finding the corresponding settings, and changing them. In other words, it should not matter whether certain decisions are opt-in or opt-out, given that there exists a way for the user to curate the settings that are desirable for him.

Nobel Award recipient behavioral economist Richard Thaler names the predictable ways in which human behavior deviates from the dictates of logic as "nudge theory". He explains the mantra of this theory as follows: "If you want people to do something, make it easy" (cite). In other words, even if it there is a set of decisions that are more advantageous for a person, she may fail to make the "rational" choice and settle with the default if there are barriers to changing behavior, no matter how small. For example, in his study outlining the measures necessary to increase enrollment to retirement plans in the US, Thaler claims: "There is now conclusive evidence that automatic enrollment, where employees are automatically signed up unless they opt out, is extremely successful in overcoming the procrastination that can impede signing up. Opt out rates average about 10%" (34). The study eliminates other possible explanations to be able to make the claim that the increase is tied to the default option. If individuals are unwilling to a significant extent to make an active effort to change the default behavior in a long lasting and impactful decision such as retirement savings, it is difficult to imagine that users would be more willing to make an active effort to change their notification settings, an admittedly smaller-scale and less impactful decision.

Furthermore, it is not only opting decisions that change ultimate results, but anything that affects how difficult it is to make a change. Thaler's paper outlines other results that reaffirm the potential impact of our suggestions, one of which is as follows: If forced to actively decide rather than passively accept the default investment rates, employees prefer higher investment rates, which is assumed in the paper to be a desired result. Then, we can safely assume that if users are taken to the notification settings page when they first sign up, they will be more likely to curate settings that are to their benefit, whatever they might be in individual cases.

The second counter-argument we anticipate is that providing more options cannot be a blanket-solution to all software problems, since this itself introduces new problems of user-friendliness. If there was no tradeoff, social media platforms (and any other technology, for that matter) could introduce more granular preferences ad infinitum. For notification settings, as well as for other areas of social media design, we have made recommendations that include adding more options. Therefore, this criticism deserves recognition and response.

Hick's law suggests that as the number of options in a given environment increase, the time it takes for a human being to decide on what to do next increases. (38) Although there are exceptions to this, it is true that giving more options has the tradeoff of requiring the actor to consider a larger field of possibilities, increasing the likelihood of overwhelming the user. This becomes a problem in the case of software design especially combined with another fact: Human attention is a scarce and fragile resource that is easily distracted, especially when challenged (35). Therefore, Hick's law is a rule of thumb in human computer interaction which anticipates that engagement and conversion rates tend to drop when a technology introduces numerous options without consideration for user friendliness.

Particularly in the case of notification settings in which the user could easily fall on the default settings in order not to make decisions that challenge their attention, one could argue that the increased number of options only creates a perception of choice, whereas most users will most likely continue with the default settings, thus failing to have the impact the choices were intended for. As the Interaction Design Foundation puts it: "Users bombarded with choices have to take time to interpret and decide, giving them work they don’t want" (38). If the decision is necessary for the user to continue with the website, the effect of the bombardment can go as far as pushing the user to close the website to delay the decision making.

There is no denying the Hick's law is a fundamental design principle that we must recognize. Design is ultimately a game of finding the right balance between tradeoffs; compromises must be made to ensure a happy medium between complexity and simplicity; between flexibility and usability. Therefore, we turn to the suggestions of design literature on how to mitigate the complexity added by more choices.

The Interaction Design Foundation explains that if more options are essential, grouping choices by high-level categories and progressively disclosing more details allows the user to be familiar with the field of possibilities in every screen. Breaking down the decision process such that going into each screen, the user knows what choice they make allows us the make use of the main exception to Hick's law: If the user knows what they want before encountering the screen, having more choices does not have the same effect. In this case, the user simply peruses until she finds the option she is searching for, rather than deliberate on each individual option. Hence, our recommendation in Chapter 2 includes a set of meta-options: "Permissive", "Conservative", and "Power User". By grouping all notification settings in three broad categories, we hope to avoid overwhelming the user without losing functionality.

Furthermore, by grouping the items in these specific categories, we make use of another design principle called the "Pareto Principle" or the "80/20 Rule". Although the rule has been applied to all types of data, within UX, it argues that 80 percent of users use merely 20 percent of the functionality (38). In the case of notification settings, we assume that the needs of most users are covered by either permissive settings, which basically correspond to the default settings social media platforms provide today, or conservative settings, which require opt-in consent from users who wish to be mostly unbothered by notifications. The power user case allows us to target the remaining 20 percent of the users who wish to build custom settings for each type of notification.