UX Collective ·

From RPGs to UX: How progress indicators affect user engagement

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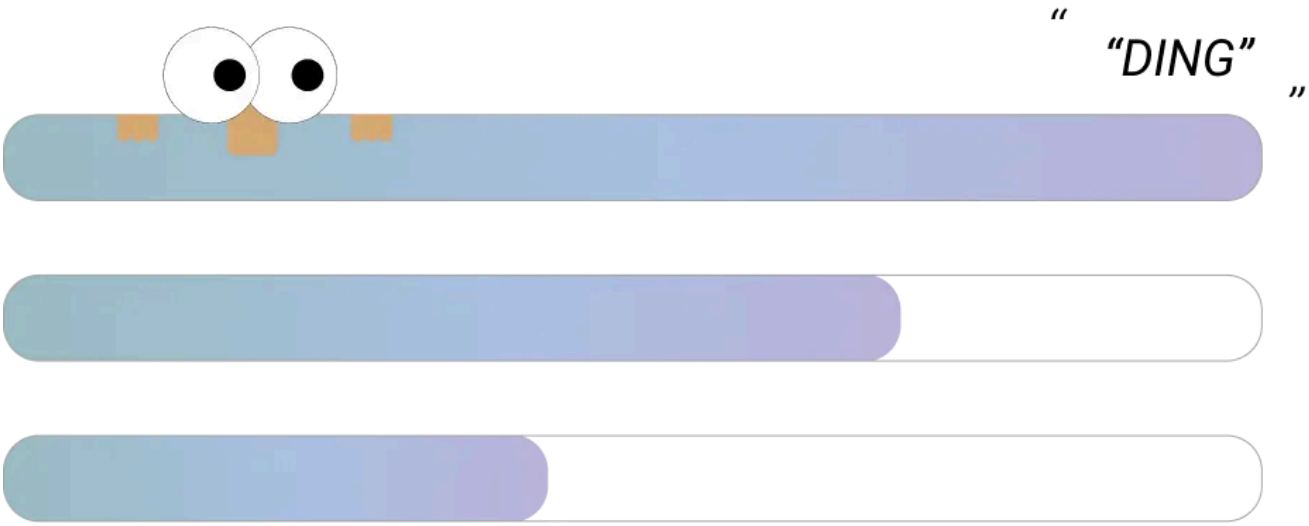
The use of progress indicators, from video games to other digital applications.



Level 99. The level indicator reads at the top of the progress bar as I hold my Gameboy colour with sweaty, Cheeto crumbed covered fingers. I’m engaged in an intense battle with my Pikachu fighting against my rival. I’m mashing the buttons rhythmically as though I can change the outcome of the game if I just press it hard or fast enough, I Quick Attack the remaining life away on the rival Pokémon and I’ve won the battle. The victory tune plays through the little 8 bit console and the progress bar fills with experience points and I hear that sweet ‘Ding’ sound as the level 99 ticks over to 100.

Progress Bars in the game Pokémon

That is around the time when I first encountered progress indicators, or better known in the gaming world as progress bars.

What are progress bars?

A progress bar is a graphical element used in user interfaces to visually represent the completion status of a task or process.

Progress bars are also commonly used in graphical interfaces as an indicator of system status, say when a page is loading or when files are transferring, they are useful to let users know visually how long certain tasks will take. They are an indicator of progress. They map your position in relation to your end goal and give a visual measure that progress is being made, reassuring you that the system is working towards completing the task you've assigned it, or that you are making progress in completing your desired goal.

Progress Indicators in video games

Video game interfaces are filled with progress indicators, usually referred to as experience bars or progress bars by gamers.

Final Fantasy XIV Progress Bars

They were commonly seen in role playing games such as Pokémon and Final Fantasy and are still being used today as a method of measurement to assess your power level and progression within games, as you gained points in the form of experience points (XP). As you gain XP you advance from one level to the next, you become more powerful and the game rewards you with improved equipment and stronger abilities. This simple progression system often fueled my desire to play, providing a satisfying sense of accomplishment as the numbers rose, keeping me engaged and eager for more. Despite its simplicity, this model effectively hooked me into playing the game more frequently as the rewards increased.

A famous example of their use is within the online game World of Warcraft. The game prominently displays a large progress bar along the bottom of your screen ensuring that users are constantly aware of how far away they are from their goal. This simple bar fuelled millions of gamers' efforts around the world as they completed tasks in the form of quests in order to fill it and get to the next level, unlocking new aspects of the game.

What's interesting in these games are the changes to the speed at which the progress bars fill. When you first start playing, the bar fills quickly, allowing users to progress through the initial levels in a reasonable amount of time. However, as you continue, the bar fills more slowly, requiring increasingly more effort to advance as you reach higher levels.

This gives users a sense of satisfaction early on by rewarding them with quick progression at the start of their journey with the game, as a way to keep them playing. Once users have invested sufficient time or money and have essentially become hooked, progression slows and requires more time investment. However, despite this slowdown, the rewards tend to be larger later on, offering additional incentives to continue playing.

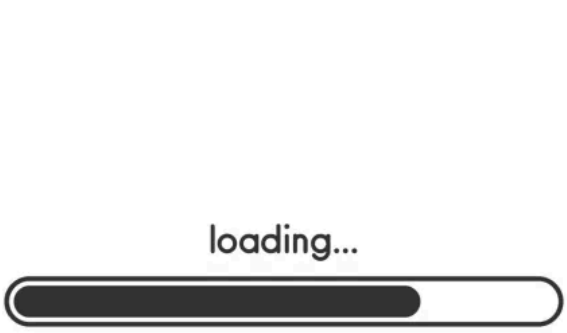
Final Fantasy VII Menu Showing Progress Bars

The strategy is used to quickly reward new players, reducing the risk of early abandonment at a point when they have invested less. As players invest more of their time and resources into the game, they increase their stored value and attachment to it, making them less likely to quit even as progress slows. This, combined with the anticipation of larger rewards, keeps them hooked and engaged.

Effects of Progress Indicators on User Psychology

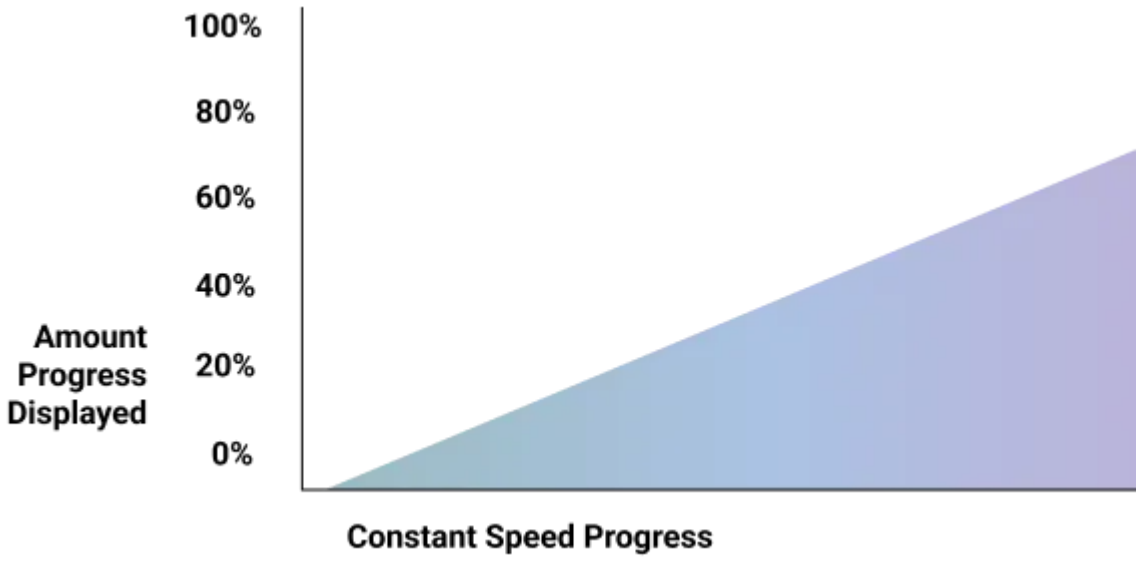
Progress bars or progress indicators, applied in games and other user interfaces can have beneficial effects on encouraging users to complete tasks within a digital application. However it isn't as simple as just providing a progress indicator within

an interface to ensure users complete these goals. An interesting study sought out to determine what effect progress indicators had on task completion.

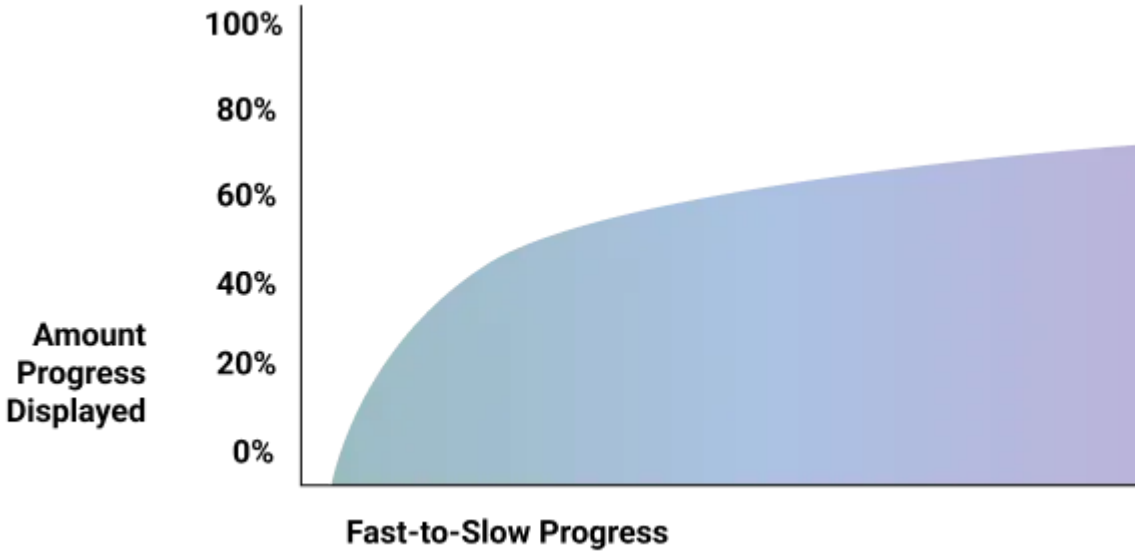


A survey was set up and created three different progress indicator conditions with variable speeds, to examine their impact on user task completion rates.

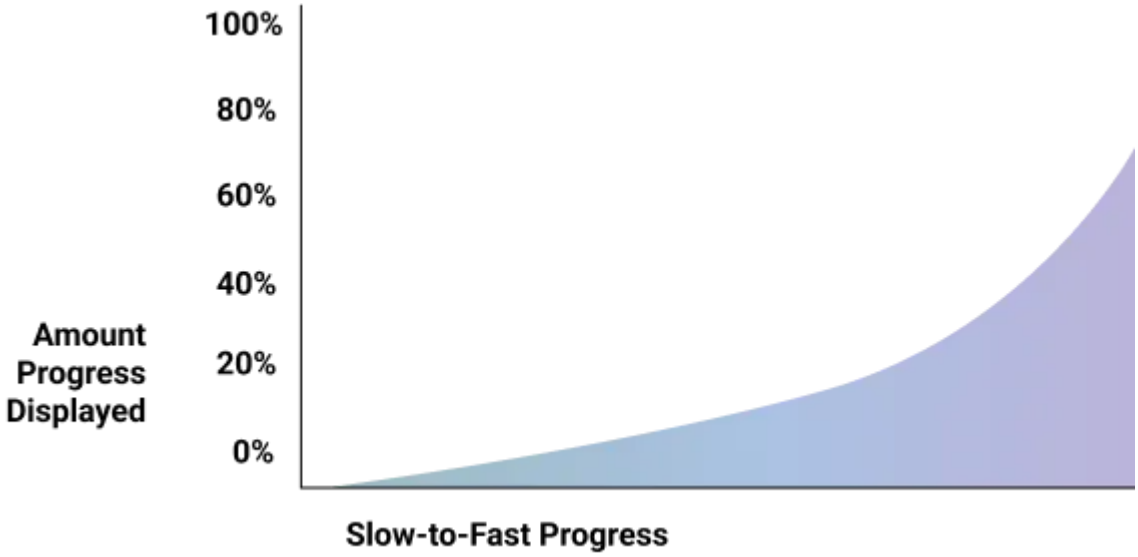
- **Condition 01 (Constant Rate):**
  A progress indicator that moved at a constant, steady rate as users went through the survey.



- **Condition 02 (Fast-to-Slow):**
  A progress indicator that moved fast at the beginning of the survey and then slowed as users neared completion.



- **Condition 03 (Slow-to-Fast):**
  A progress indicator that moved slow at the beginning of the survey and then fast as users neared completion.

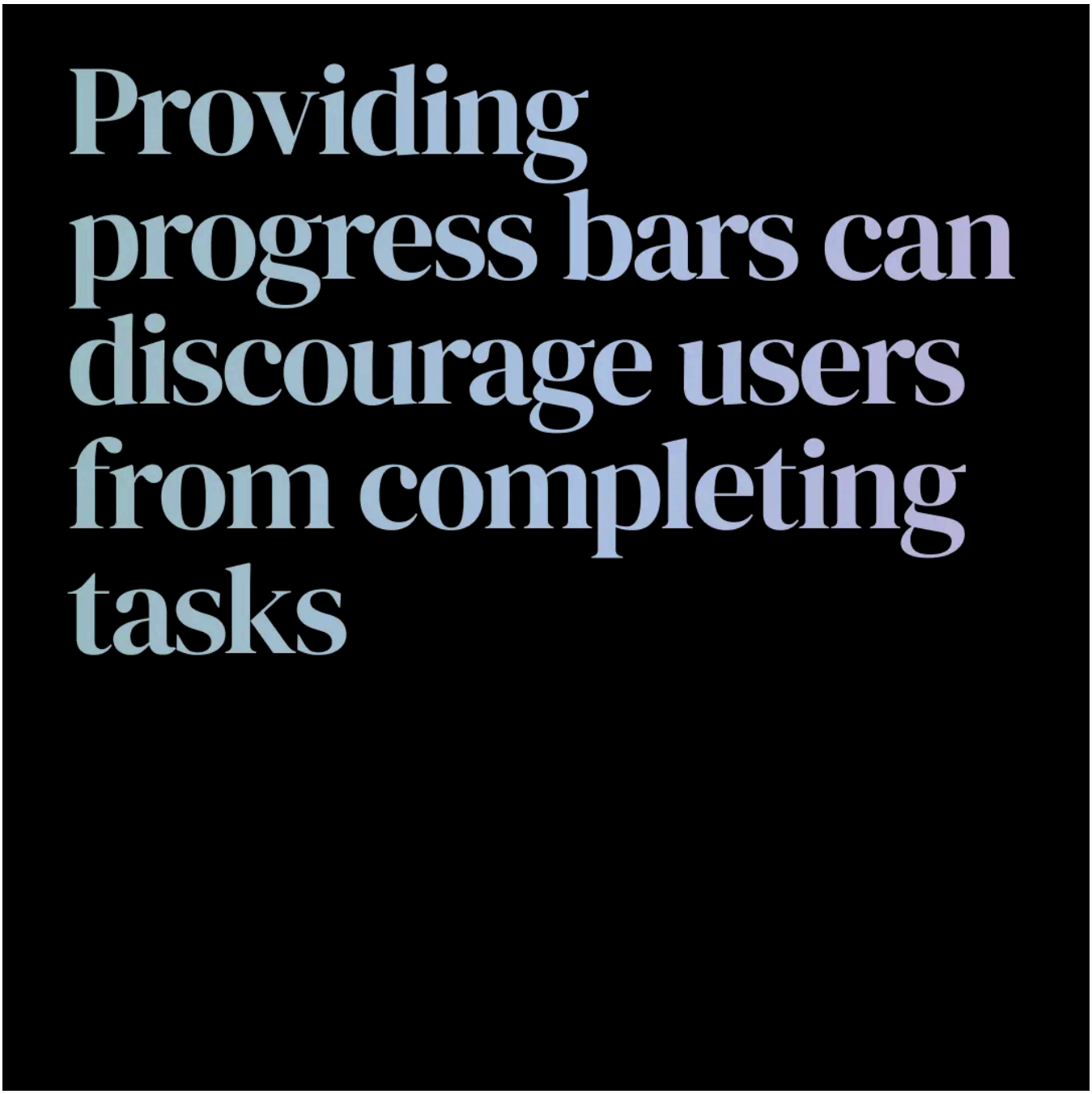


The results showed that people were more likely to abandon the task when the progress feedback was slow-to-fast (was discouraging) with a breakoff rate of 21.8%.

Users were most likely to complete the task when the progress feedback started off fast and then slowed towards the end of the task (was encouraging) with a breakoff rate of 11.3%

When progress was shown at a steady, consistent rate they had an average breakoff rate of 14.4%.

Surprisingly, this indicated that showing progress can actually have a negative effect on user completion rates and can be discouraging. If users feel they are progressing slower than expected, they have a worse experience and are more likely to quit the task. So if the progress indicator is only increasing in very small amounts, then this can put users off potentially leading to higher abandonment rates.



They also found that the speed of the progress indicator affected their enjoyment of the tasks, with users who completed surveys in the fast-to-slow indicator group (encouraging), reporting higher enjoyment rates than users in the other groups.

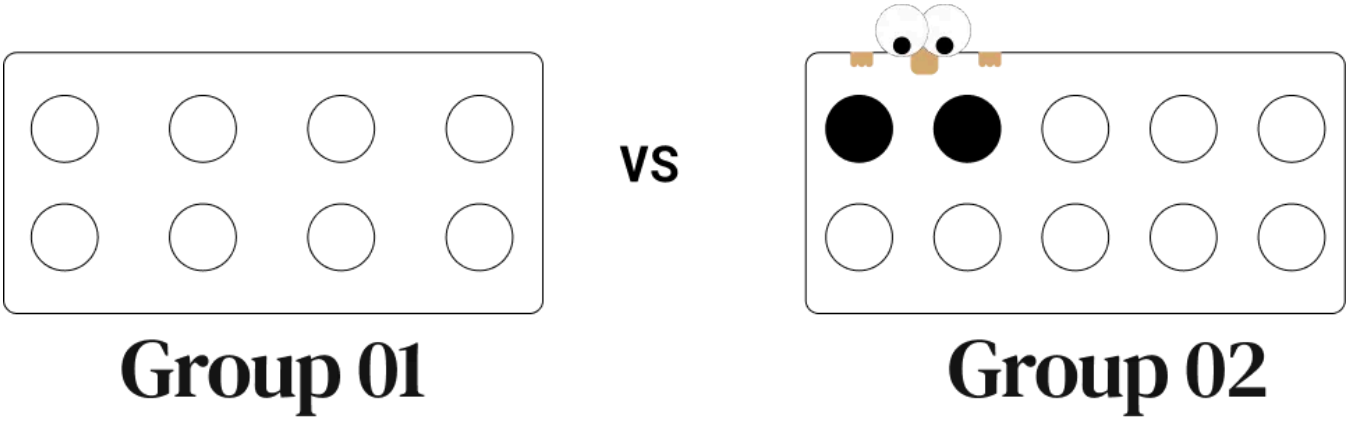
The best results were observed when users experienced faster progress early on. If users felt they were advancing more quickly than expected, they were not only less

likely to give up but also felt more positive about the task. This fast-to-slow progression is commonly seen in video games, as in the examples mentioned above, and is a proven method for hooking users and keeping them engaged.

Endowed Progress Effect

The findings from the above study on progress indicators is also somewhat supported by another study by Joseph C. Nunes and Xavier Dreze that looked at a phenomenon called the endowed progress effect. This is a psychological phenomenon where people are more motivated to complete a task if they feel they have already made some progress towards it, even if that progress is artificially created.

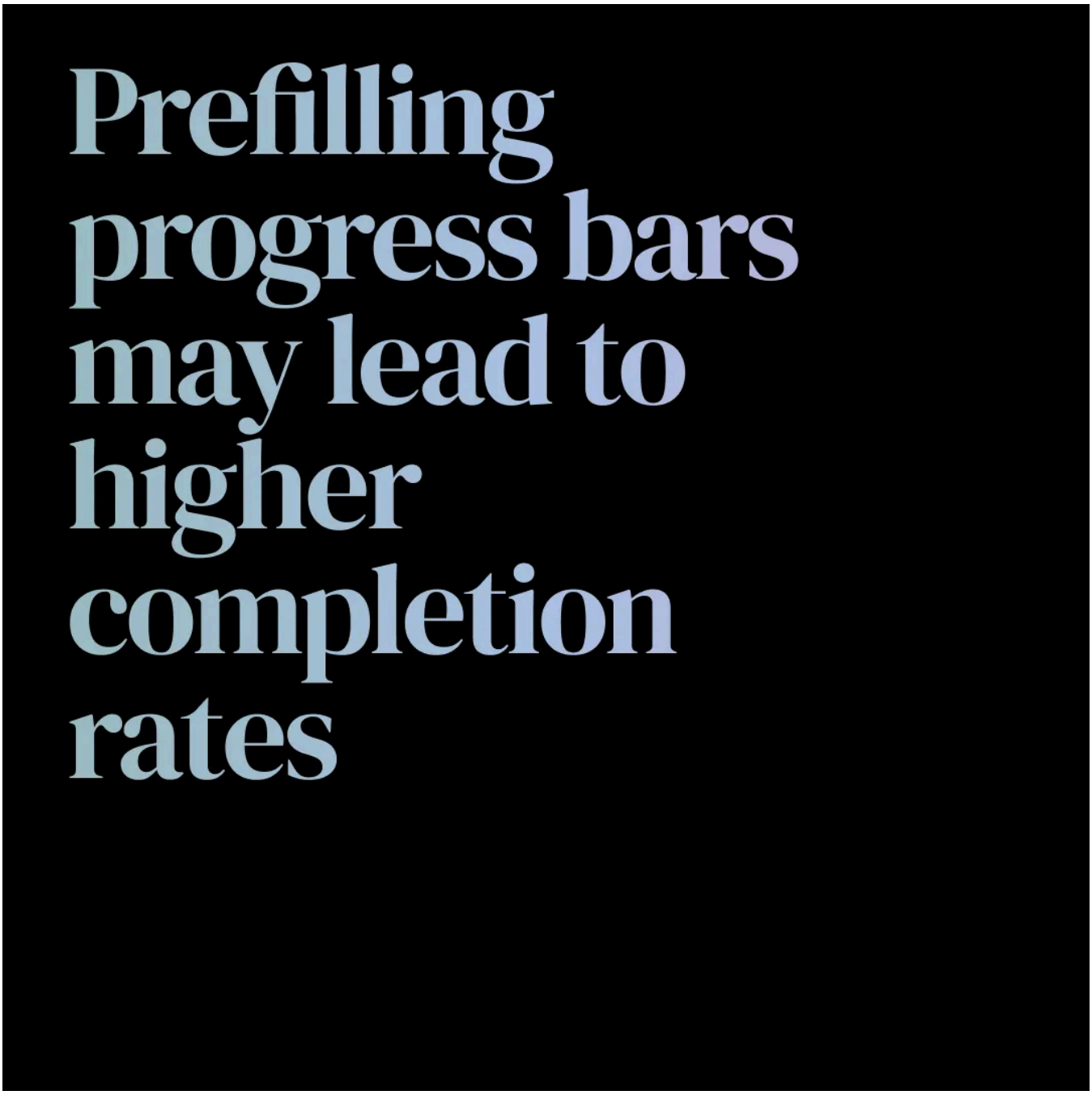
The study took two groups and gave each group a different punch card that awarded a free car wash upon a certain number of washes.



Group 01: Was given a blank punch card with 8 squares to fill.

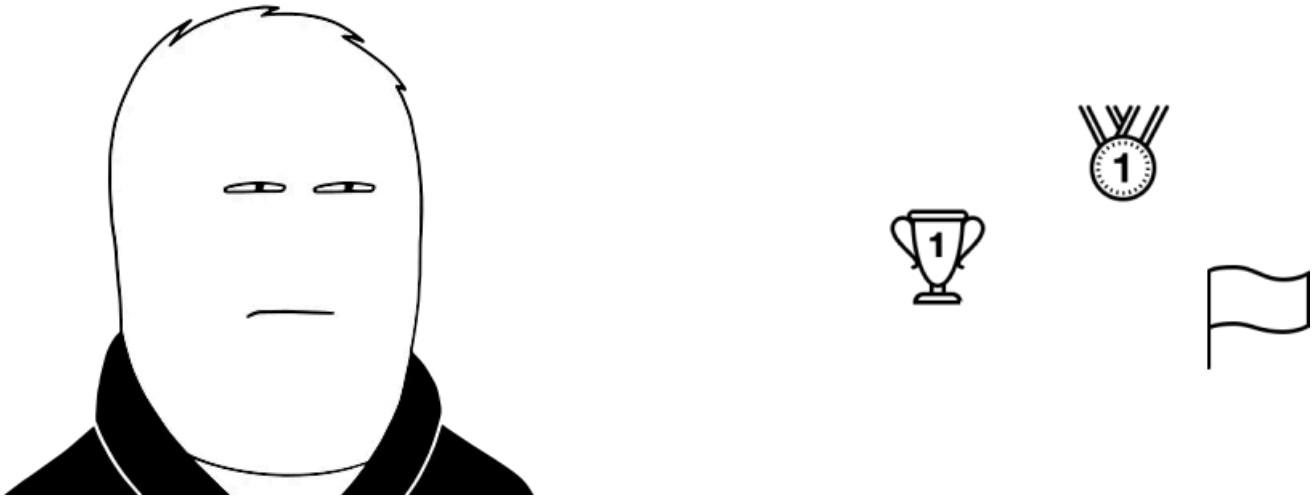
Group 02: Was given a punch card with 10 squares, that included two punches already pre-punched.

Although both groups had the same number of washes to complete before redeeming a free wash, Group 02 had a higher redemption rate than Group 01. This suggests that by using strategies like pre-filling progress bars slightly for users before they even start a task, you can encourage higher completion rates.



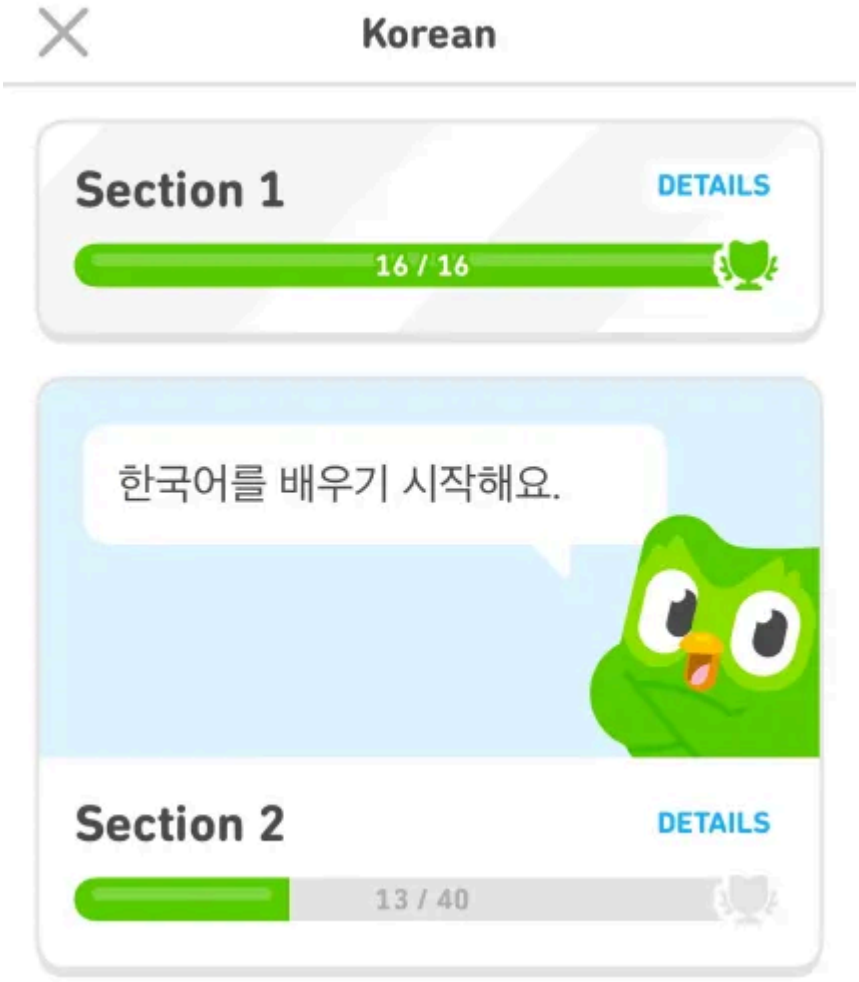
Progress indicators in UX Design

The success of progress indicators within video games has seen the adoption of them used in a similar fashion within other digital interfaces, contributing to a term in UX that is also known as gamification. As we have seen from the studies above, designers can use progress indicators and leverage these with strategies such as the endowed progress effect by pre-filling them or changing the perception of the amount of progress being made so that users are more likely to stay on their platform and complete tasks. Below are some examples of these progress indicators being used in popular digital interfaces.



Duo lingo

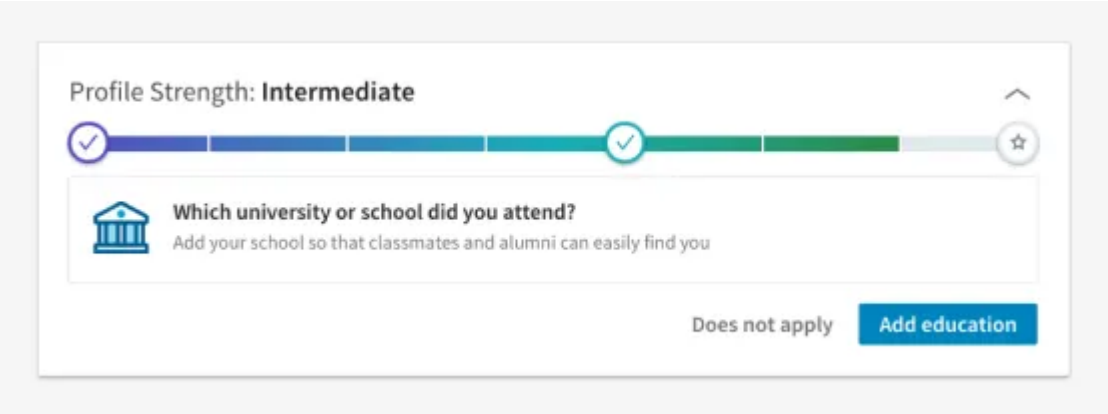
Platforms like Duolingo use progress bars to show learners their progress through courses. This visual feedback motivates users to complete lessons and stay engaged with their learning goals



Duolingo Interface

LinkedIn

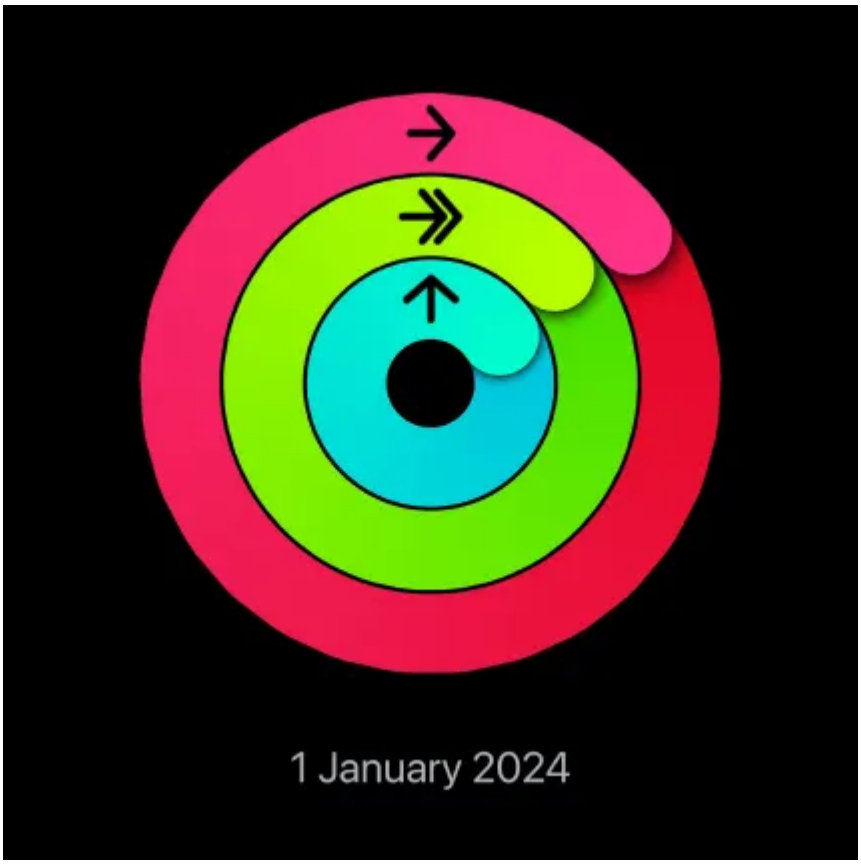
LinkedIn is a good example of using the endowed progress effect as each user starts with a progress bar that is prefilled, encouraging users to take small steps to improve their profile. This is a way LinkedIn encourages users to give them more information, which leads to increased user investment, leading to higher retention.



Linkedin Progress Indicator

Fitness Apps

Apps like Fitbit and MyFitnessPal use progress bars to encourage users to achieve fitness goals. Seeing progress towards daily or long-term goals can motivate users to keep healthy and further engage with the app. It also gamifies fitness and can give users a visual sense of progression, allowing you to compare your goals and even compete with other users.



Apple Fitness Progress Indicator

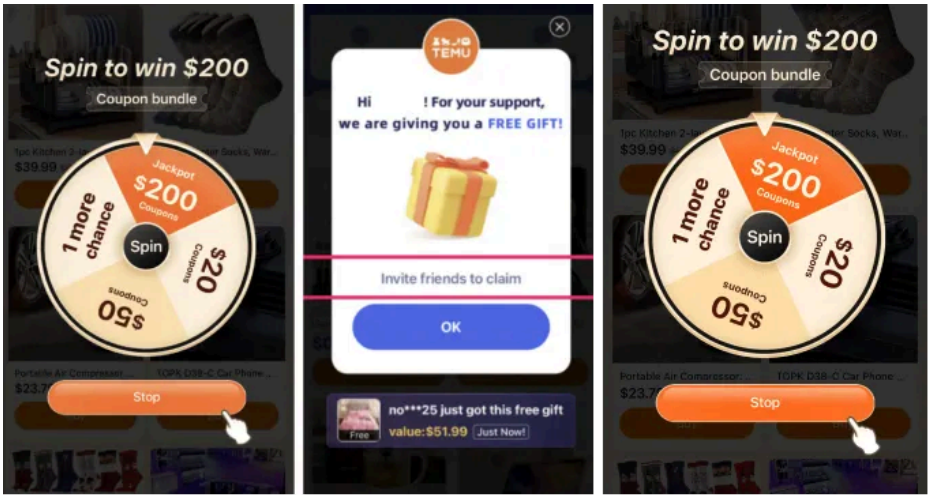
Customer Loyalty Programs
Customer loyalty programs use progress indicators like partially filled progress bars to create an initial sense of achievement, motivating users to continue engaging with the brand. They set milestones and reward tiers to show users how close they are to earning rewards, creating motivation for users to spend more money through enticing users with the promise that they are almost at the next loyalty milestone.

Ethical Use of Progress Indicators

Of course, there are ethical implications that should be considered when implementing these progress indicators before you decide to include them within your user interface. Two aspects for consideration are the ideas of manipulation and honesty.

Creating Excessive Engagement via Manipulation:
Designers have the potential to exploit users' psychological triggers potentially leading to compulsive behaviour and forming addictions by gamifying these systems. Designers should ensure that they're not contributing to creating harmful addictive patterns and should also reflect on what habit they're encouraging users towards. For example, encouraging spending more money by locking or severely slowing progress unless users pay money, a tactic often seen in free to play gaming

models, is a fine line between unethical usage of these seemingly harmless graphical elements.



Temu Gamification

Misleading Progress via Dishonesty:
There may be a temptation to mislead users into thinking they have made more progress towards a goal then what they actually have. Designers should try to ensure that the progress indicator accurately reflects the true progress being made and efforts involved. As we saw with the study comparing speeds of perceived progress, by artificially speeding up the progress indicator at the start of the task, it can encourage users to stay on the platform and complete the goals you want them to complete. Designers should be able to strike a balance so that users are not overly misled but are also not discouraged by a slow moving bar.

Conclusion

In my research into progress indicators, these seemingly simple and innocuous UX elements, I've discovered their potential to be a powerful tool in influencing user engagement and behaviour. From the early days of gaming to modern digital applications, progress bars have persisted as not only a way to track advancement but also influence user motivation and satisfaction.

The studies and examples explored reveal that while progress indicators can enhance user experience by providing feedback and a sense of achievement, they also come with ethical considerations. Designers must balance the psychological triggers they tap into with a commitment to honesty and user well-being. By understanding the nuances of how users perceive and respond to progress, we can

design interfaces that not only engage but also respect and support users' goals. We can reinforce good habits in users when used in fitness apps, but can also become detrimental when used nefariously in gambling applications.

As we continue to integrate these elements into our digital experiences, the challenge lies in leveraging their strengths while remaining mindful of their potential pitfalls. Ultimately, the goal is to create interfaces that are not just effective and engaging, but also ethical and respectful of users' time and attention.

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