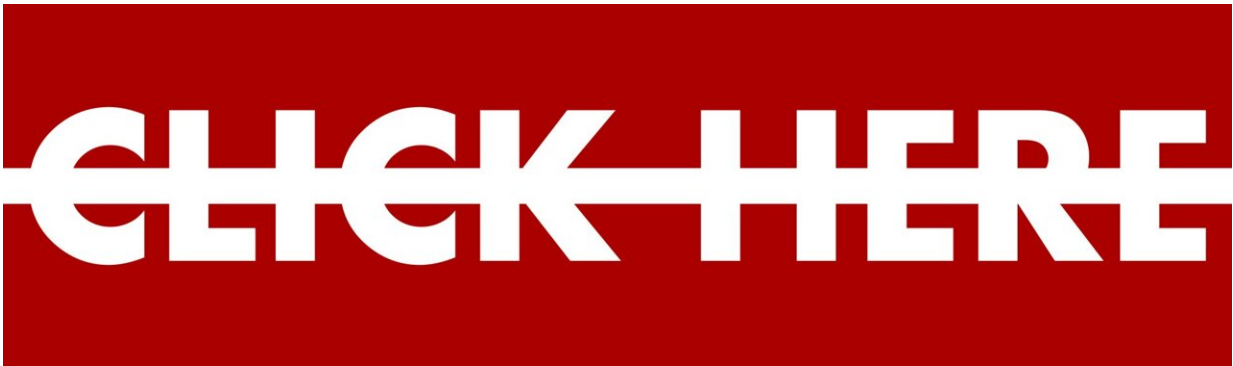# How choice architecture facilitates consumer uptake of mobile apps

January 25 2023, by Marilyn Stone

Credit: Pixabay/CC0 Public Domain

Researchers from Temple University, Columbia University, and Baylor University published a new *Journal of Marketing* article that examines the effectiveness of adopting different choices to guide digital consumer behavior and clarifies the underlying psychological mechanisms.

Companies spend over $75 billion annually on advertisements designed to increase app downloads on smartphones. This is not surprising given that over 3.5 billion people worldwide use smartphones and over 200 billion apps are downloaded each year. In addition to advertising, companies use promotions or other incentives to motivate consumers to install their apps and enable their features.

Changing how [smartphone users](#) interact with apps can have considerable effects on companies' bottom lines. A prime example is Apple's recent opt-in policy that requires apps to ask permission before tracking or sharing user activity across other apps. This change caused the percentage of users who allow tracking to plummet and resulted in lost income for app developers that rely on data tracking, such as Facebook, which lost over $12 billion after this [policy change](#).

App adoption can influence a range of outcomes. For example, the launch of a news app can increase visits to the corresponding news website and adoption of a physical activity app can cause greater levels of physical activity. Features like in-app purchases and premium upgrades provide direct revenue for firms, while firms can make money from acquiring email addresses, location tracking, or other user data. In some cases, enabling app features is also necessary for an app to function properly; for example, digital contact tracing apps often entail three key features (e.g., exposure notification, exposure logging, and Bluetooth) and these apps don't function properly when users don't enable any one of these features.

Nudging the consumer

How can managers encourage more consumers to fully adopt an app and its key features? This new research examines how app design changes influence adoption of app features and explore how managers can facilitate this adoption. Across seven experiments, the research team shows that several inexpensive techniques can make users more likely to enable important app features and complete app onboarding.

As Reeck explains, "We test these 'nudges' in multiple contexts, including experiments that focus on digital contact tracing apps with a smartphone interface mimicking actual presentations. Because managers and [app developers](#) often want to make the funnel smoother from

downloading an app to fully enabling the app, we examine three techniques that could help accomplish this goal and explain the mechanisms underlying their influence on digital consumer behavior." These techniques are:

- Integrating multiple feature decisions into a single choice rather than separating them increases adoption. This finding is consistent with the notion that presenting separate decisions leads to focus on the attendant risks, thereby diminishing the likelihood of installing the app.

- Changing colors to match those commonly found in current digital interfaces appears to increase adoption. For example, since blue is commonly used for "continue" buttons, users are more likely to select blue than gray buttons during installation.

- Wording options as if they will be enacted (saying "continue" as opposed to "continue without enabling") makes people more likely to accept the feature during installation.

Small changes, large effects

"App developers, user experience teams, and other industry experts say that failure to enable app features is a major problem. Numerous apps have critical features such as location tracking and other privacy features that users must enable by making several choices," says Posner.

Other consumer behaviors, such as accepting cookies on websites, initiating subscriptions, or signing up for vaccinations, also involve many steps and choices that could be integrated to increase uptake. "The effects of these small changes can influence many types of decisions, with implications for consumer privacy and customer relationship management as well as regulation," adds Mrkva.

The study examines these effects across different app types, including COVID-19 exposure notification apps, health and fitness apps, and employment search contexts. These contexts are used because:

- They represent situations where the interests of the firm and consumer are largely aligned, in that both parties would benefit from the app's installation.

- The exposure notification software is timely and relevant to multiple stakeholders during the COVID-19 pandemic.

- These are contexts in which installation would benefit not only the firm or consumer, but society as a whole.

Johnson says, "Our research comes at a time when practices that shape digital consumer behavior are gathering more interest. For example, the Federal Trade Commission has issued new guidance that subscription sign-ups must be transparent and easy to cancel to address complaints of 'sludge,' meaning cases where designs are intended to exploit consumers."

Government agencies in the United States and Europe are documenting cases where digital practices encourage behavior that may harm consumers or make it much more difficult to make one choice than another (e.g., enabling versus disabling cookies). This research documents the effectiveness of adopting different choices to guide digital consumer behavior and clarifies the underlying psychological mechanisms.

 More information: Crystal Reeck et al, EXPRESS: Nudging App Adoption: Choice Architecture Facilitates Consumer Uptake of Mobile Apps, *Journal of Marketing* (2022). DOI: 10.1177/00222429221141066