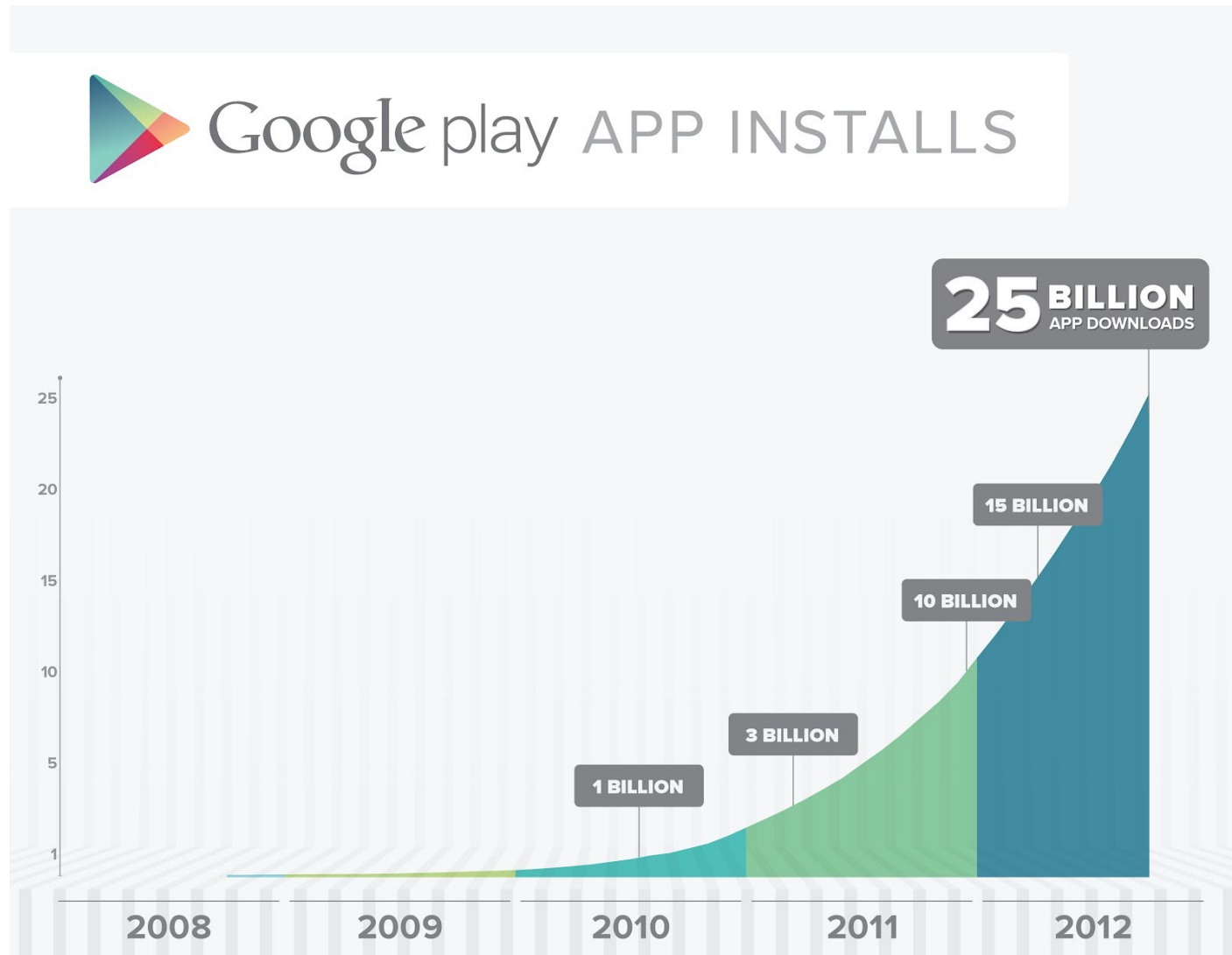


Improving Users' Mental Models of Android App Permissions

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- Android is the most widely used mobile operating system, with more than 675,000 apps available on Google Play



- While Apple enforces stringent quality control on its App Store, Google does not
- Privacy becomes an issue when apps can access personal information
- Social networking apps are obvious examples

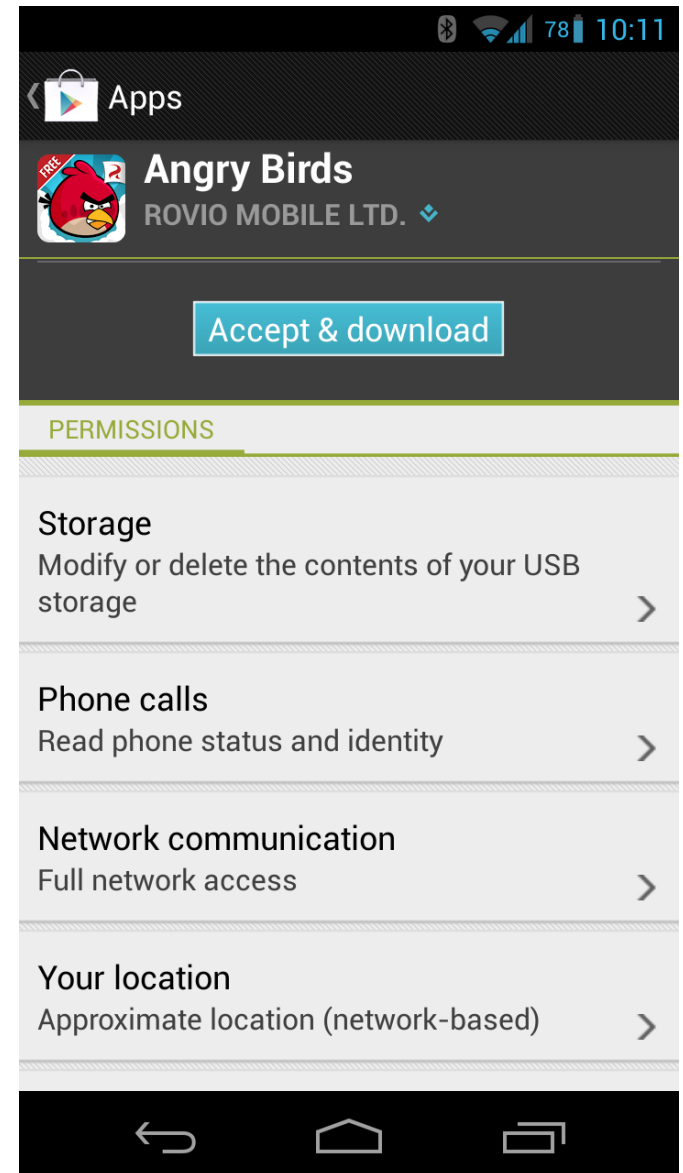


- A paper by Jialiu Lin, et al. introduced a model for privacy, *privacy as expectations*
- Found that people were often surprised at what resources apps had access to, and they could not reason out why this access is needed
- Knowing the purpose of resource access made people more comfortable with installing an app



Android Permissions

- Every Android app must declare what permissions it needs to function
- Permissions are granted at the time of installation and cannot be changed
- Permissions may be required for core functionality, minor functions, or for target advertising or market analysis



- Many users don't read the permissions screen
- Apps can request permission to read the user's contacts, location information, send SMS messages, make phone calls, etc.
- My project: develop an app that helps improve users' mental model of what permissions the apps on their device have
- A start: rank the apps based on the permissions they use

