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
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