

Marketing Colloquia

2021 Fall

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Wednesday, September 29, 2021

12:00 PM to 1:10 PM

JMHH 741 Conference Room (Colloquia will be held in person, on campus)

Zoom: <https://upenn.zoom.us/j/94346584250>

NETWORK EXTERNALITIES AND CROSS-PLATFORM APP DEVELOPMENT IN MOBILE PLATFORMS

WITH KARTIK HOSANGAR AND AVIV NEVO

ABSTRACT: The benefits consumers get from a mobile phone depend on the software apps available to use on that phone. These indirect network effects are especially important since apps are specific to a platform (e.g., iOS or Android) and are often not available on all platforms at once. We measure the cost to a platform of having delayed entry of some apps, and study the effectiveness of cross-platform development frameworks that allow developers to build an app on one platform and distribute on another. To do so, we develop a model of demand for both handsets and apps that takes into account the heterogeneous indirect network effects between apps and handsets as well as developer entry decisions. We estimate the model using a unique dataset of mobile phone sales and app downloads. We find that delayed developer entry cost the Android platform over \$400M in phone sales in 2013 and 2014. We also find that cross-platform frameworks are unable to steer developers towards developing on Android first unless they can generate near-native quality iOS apps.