



Testimony

of Ahmed Siddiqui

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before the

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on

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Commissioner Reinsch, Commissioner Shea, distinguished panelists, my name is Ahmed Siddiqui and I am pleased to speak with you today about the importance of addressing China trade and the mobile app marketplace.

I am the creator of the iPhone app Go Go Mongo! and a member of the Association for Competitive Technology. ACT is an international advocacy and education organization for people who write software programs – often referred to as application developers – and providers of information technology (IT) services. ACT represents over 5,000 small and mid-size IT firms throughout the world and advocates for public policies that help its members leverage their intellectual assets to raise capital, create jobs, and innovate.

I make education apps for young children that help them develop healthy eating habits. I knew that kids love characters like Dora and Mario so I created Mongo, who kids steer toward healthy eating decisions. Making a game out of Mongo's eating choices allows children to have fun while learning. Sometimes they don't even realize they're learning when it seems like a game.

Evolution of the Software Industry Initiated by Smartphones

Revolutionary changes taking place in the mobile marketplace make apps like Go Go Mongo! possible. Mobile technology has led to a renaissance in application development; small software companies that once wrote applications exclusively for big software platforms at the enterprise level are now able to create innovative apps and sell them directly to consumers. The emergence of this app marketplace has broken down the longstanding barriers to entry, like marketing costs and publisher delays, that limited opportunities for independent software developers like me.

The rise of the app marketplace has coincided with the explosive growth of smartphones. Sales of these devices continue to outpace all predictions and are providing a huge boost to our economy. [Total smartphone sales](#) in 2011 reached 472 million units and accounted for 31 percent of all mobile devices sales, up 58 percent from 2010. In the United States and Europe,

smartphones sales have begun to overtake feature phones and that trend is expected to continue.

Smartphones derive considerable value from the apps that run on them. Consumers are attracted to phones based on the functionality these programs provide. Telephone companies and handset makers have devised entire ad campaigns built around highlighting the apps that run on their platforms. “There’s an app for that” is probably one of the most recognizable ads in the technology space.

The App Marketplace: An Incredible Success Story

It should come as no surprise that the growth of the app industry has been a dramatic success story, even in the face of our enduring economic slowdown. The mobile app market got started in 2008 when Apple launched its App Store and allowed independent developers to sell applications for the iPhone. Since then, over 30 billion apps have been downloaded in the App Store, earning developers over \$5 billion. Over a million apps are available across all platforms and the mobile app marketplace has grown to a \$20 billion industry since its inception four years ago. Over the next four, analysts expect that number to rise to \$100 billion.

This success has had a dramatic impact on job creation. A recent study by the University of Maryland found the Facebook platform for app developers has created more than 182,000 jobs and generated over \$12 billion in wages and benefits. Facebook is just one platform that app developers write for, with iOS, Android, Windows Phone 7, and Blackberry also attracting mobile app developers. [Another study](#) identified nearly 500,000 jobs created by the app economy and ACT’s own research estimates that the current mobile apps economy has created, saved, or supplemented more than 600,000 jobs nationwide.

Foreign Markets: New Opportunities, Recurring Challenges

App developers are creating jobs and growing businesses. They are optimistic about expanding into new markets and creating even more jobs.

The 99-cent price point of apps makes them accessible in developed and developing countries alike. Foreign markets – particularly those in Brazil, Russia, India, and China – offer considerable opportunities for our members. The BRIC nations produce more than 50% of revenues for the technology industry and offer far more in growth opportunities.

While piracy has historically posed a challenge for developers across the world, the emergence of mobile app stores has offered a partial reprieve. Apple, Microsoft and Blackberry sell apps in curated stores. Phone users can only install apps through a store that reviews each piece of software before approving its admission. Although some developers chafe at the control these stores exert and the conditions required in the approval process, they largely appreciate that stores greatly cut down on the piracy rate.

Each app installation from a curated store – even free apps – involves a transaction record. This has cut down on pirated sales, relegating them to open platforms such as [Android](#) where they proliferate as free downloads. It is still possible to hack phones to provide access to alternative app stores where pirated apps can be found, but this involves technical expertise and voids the terms of service. Since this action denies the user access to technical support, upgrades, and virus protection, most Americans opt not to pursue this illicit route.

In China, however, this has not been the case for multiple reasons. The incidents of hacked or “jailbroken” phones is high with estimates as great as 60%. Combined with China’s traditionally lax enforcement of intellectual property rights, U.S. developers’ export opportunities are limited at a time they should be rising.

I am one of those developers.

Case Study: *Go Go Mongo!*

I released *Go Go Mongo!* just a year ago. My app sells for just \$0.99 in the store and has over 40,000 downloads in the United States alone. At launch I didn’t spend too much time thinking about the Chinese market. After

several months, however, I was contacted by a Chinese app marketing site wanting to sell ads on a forum dedicated to my character, Mongo. After running a quick Google translate on some of the websites I found hundreds of posts raving about the game, about the Mongo character, discussing game tactics, and even talking about how much they were looking forward to the next app. It was incredibly exciting to realize my product had attracted so many fans abroad.



However, this excitement was quickly replaced by anger and disappointment when a check of my iTunes App Store sales in China revealed only one copy of the app had been sold in China. The community of hundreds or maybe thousands of *Go Go Mongo!* players in that country were almost entirely using pirated copies of the app, copies for which I earned nothing.

These Chinese users were visiting pirate app stores that sell apps for phones that have been hacked. The pirates even sell ads on my game and keep all the profits.

I've made a decision to try to expand my product into China and take advantage of the interest in my product. I've hired a translator and have spent many hours to update my app to appeal to the Chinese market. But this is a huge risk. I already know my app is being pirated by the thousands so my attempt at expanding into this marketplace could fail before it even starts. Not because my product isn't successful, but because pirates have no fear of recourse. I hope that Apple's recent decision to allow Chinese citizens to purchase mobile apps through the legitimate iTunes store using RMB instead of U.S. currency will help me.

However there are still difficulties that app developers will face even in legitimate, curated stores.

Case Study: Dotfuscator

PreEmptive Solutions

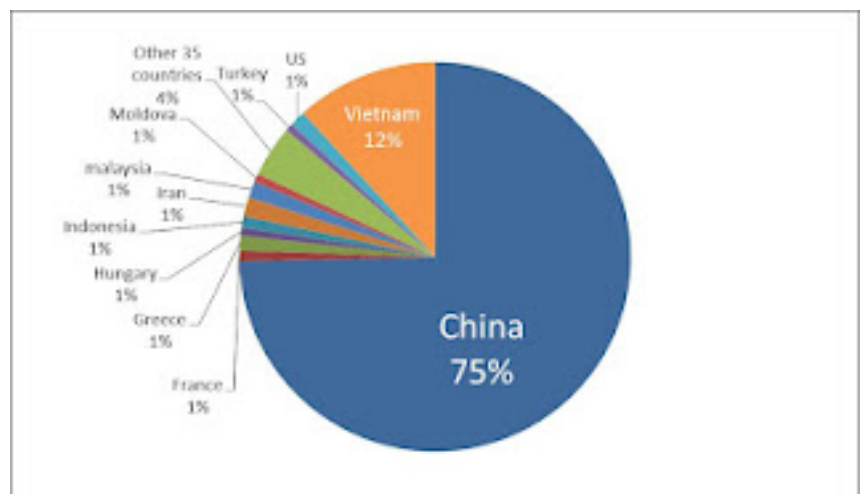
Despite the piracy protections that the curated store model provides, developers are now facing an old problem emerging in a new form, the “application chop shop.”

PreEmptive Solutions, based in Mayfield, Ohio, created Dotfuscator, a software application that protects intellectual property within apps, prevents piracy, and monitors application usage.

PreEmptive reported a recent incident involving 22,604 reported cases of stolen Dotfuscator key usage in a total of 46 countries. Of those stolen keys, only two were actually hacked. It was replicated, pirated, and installed another 22,602 times. This happened in a rather unexpected fashion.

Due to the sophistication of Dotfuscator, the tamper alerts were not disabled when the keys were stolen. Because of this, the distribution patterns of the stolen keys were accessible to PreEmptive and provided an interesting revelation; this wasn't pirated software sold in some illicit marketplace. This was an app completely copied, re-engineered, and sold in the App Store as if it was an original product. It was the brazen act of a new piracy phenomenon, the application chop shop.

The irony of pirates seeking to protect the intellectual property of their counterfeit goods from other thieves was not lost on Dotfuscator's creators. But profits from



the sale of 22,602 copies of software were lost. The tamper alerts allowed PreEmptive to see what region was responsible for the proliferation of its stolen software. The data pretty clearly pointed to China.

Apologists for intellectual property theft in the software industry often claim there is no identifiable harm since the product was downloaded for free. Their argument is that there are no lost profits since the downloaders would never have paid for the product and there is no additional cost to the developer for downloads. The application chop shop demonstrates this is a false argument.

The pirated product in Dotfuscator's case still commands a price in the app store and is a clear instance of lost profits. Additionally, a hacked app often requires the app developer to bear the expenses of the additional traffic from unauthorized users hogging resources for hosting, bandwidth, and human support.

Removing an app built with your legitimate content from an app store is a time-consuming process. The curated store must verify ownership before pulling an app, and that's a good thing. But what has happened recently is that pirated apps, once taken down, appear almost immediately under a new name with similar, if not identical, stolen content, forcing the legitimate developer to begin the process all over again. This is most difficult for the smallest companies. Curated stores are unlikely to accidentally approve an unadulterated copy of Angry Birds. But small apps with limited market share are exactly the kind that is most vulnerable to counterfeiters. Not every reviewer is familiar with all the apps in the store.

Conclusion: China Presents Enormous Opportunities but Old Risks are Enduring

These are just a couple examples of a widespread problem with profound implications for American app developers. China has passed the United States as the nation with the greatest number of smartphone owners. The country's two largest mobile telephone companies serve over a billion customers combined. As Chinese smartphone ownership continues to

grow, it will emerge as one of the most important marketplaces for software developers.

Recent research by ACT has shown that some American apps are selling reasonably well in the app stores in China. Apple's decision to accept RMB in its China App Store has helped improve opportunities as discussed. But the problem of piracy could scuttle all of this. It will be very difficult for developers to succeed in China if they find piracy threatens their work, even in a curated market like Apple's. It is clear that demand exists in China for U.S.-made apps. It is critically important for American app developers to ensure that this demand is realized through sales rather than theft.

The U.S. must confront to these obstacles to ensure that the global marketplace remains dynamic and competitive. The future of the app economy looks bright for American small businesses, and developers will continue to find success, as long as these challenges do not go unanswered.

Thank you for your time and consideration on this important topic and I look forward to any questions you may have.