Chapter 7

Exponential: Leveraging Ecosystems

Benjamin Pollock was a famous printer of toy theatres in London at the turn of the twentieth century. You can now buy "Pollock's Toy Theatre" as an application on various Apple platforms. It is developed by a company called Zuztertu. Not only is the genre very different from the countless games and other applications in the Apple App Store, but its founder, Gerlinde Gniewosz, has a very different background compared to the typical developer.

Gniewosz has experience at Yahoo! (the web company), Orange (the telecommunications company), and McKinsey & Co. (the strategy firm). She has an MBA from Harvard Business School. She was born and educated in Australia, went to business school in the United States, has worked in Germany and the United Kingdom, and has traveled the world. She's what you might call cerebral—like the portfolio of over 70 Zuztertu mobile apps, aimed at a wide set of markets from apps for small children to education for adults.

At the other end of the spectrum are the applications featured in the GEICO (the insurance company) commercial, which asks, "Do people use smartphones to do dumb things?" It features BroStache, musical instrument, and popping champagne bottle mobile apps as office colleagues at their juvenile best start planning for the weekend and turn their chairs and tables into a rock concert stage.

The BroStache app advertises, "You can choose a 'stache for any occasion—meeting, birthday party, or hot date. Just open the BroStache app, choose a 'stache, then hold it up to your mouth and start talking."[1] Yes, maybe even say something cerebral like Gniewosz would!

The more than 600,000 (as of November 2011) and growing applications in the Apple App Store range from the sublime to the silly. But the sheer size of the marketplace is a formidable Apple asset. The head of iOS development, Scott Forstall, has commented that Apple has, in the iOS App Store, "created the best economy in software in the history of the planet."[2] It is important enough for Apple to go to court to say Apple licenses cover iOS developers, when a company called Lodsys sued some of the developers for alleged patent violation.[3]

Ecosystems—Old and New

From IBM archives: "In 1988 IBM introduced the Application System/400 (AS/400) . . . . As part of the introduction, IBM and IBM Business Partners worldwide announced more than 1,000 software packages in the biggest simultaneous applications announcement in computer history."[4]

The AS/400 went on to be one of IBM's most successful products. Look closely, though. Just 1,000 applications qualified for the biggest announcement in computer history? Compare that to today's slogan for the Apple App Store: "There's an app for that. Hundreds of thousands, actually."[5]

Successful platforms have always boasted large application catalogs, but the scale of the catalog and the downloads in the billions in the Apple App Store and the Android ecosystem are unprecedented.

The Apple/Android Footrace

At Google's I/O conference in May 2011, Hugo Barra, Product Management Director of Google Android, announced to the cheers of 5,000 developers in the audience that Google had exceeded 100 million activations in 112 countries. That ecosystem had over 450,000 developers who had developed 200,000 applications, and users had downloaded 4.5 billion copies. Not bad for a platform that did not exist three years prior! These, by the way, did not include numbers from Android marketplaces that Amazon, Verizon, and Vodafone had started on their own.

The next month, Apple, at its own developer conference, presented even more impressive numbers. Two hundred million iOS devices sold, 425,000 applications, and a whopping 14 billion downloads. And that did not include 15 billion songs sold via iTunes and 130 million e-books sold through iBooks.

Apple and Google both have fans and critics. Gniewosz of Zuztertu, introduced earlier, says: "Personally, I prefer Apple's approach to the app marketplace than Google's approach. When I worked in the telecom industry, I saw firsthand how a lack of quality control on the market offerings led to WAP/Ringtone market revenues dropping to a third of what they were at peak because of scandal and a loss of trust by consumers. The Android platform has a similar lack of quality control at the moment and it will only take a few bad-egg developers to destroy the market for everyone."

In contrast, *BusinessWeek* wrote about Apple: "To keep its developers engaged and loyal, Apple sweats the small stuff. Developers rave about the quality of the company's 'development environment'—the collection of technical specifications, manuals, and programming tools used to write apps."

The article, however, cautioned, "Smaller players wait in frustration to see if Apple's app-approval staff will give their blessing, with almost no means of influencing the decision."[6]

Charlie Wood, whom we introduced in Chapter 5, agrees about the Apple "black hole," its lack of transparency, and is more in Google's camp. "I like the personal relationships with and the support from Google's marketplace team. There are no partner contracts to sign, no red tape,

anyone can get started easily. The approval process is painless and relatively transparent."

In the meantime, the war of words between the vendors themselves escalates. At Google I/O, a projected image of Android's green robot chomping into an apple was greeted with thunderous applause. Apple, in turn, mocks the multiple Android stores and says it will only confuse users and developers. In Walter Isaacson's biography of Steve Jobs, Jobs left little doubt he considered Android a "stolen product."

But love them or hate them, both Apple and Google have a blistering lead as Amazon and others try to catch up.

The Amazon, Microsoft, and RIM Catch Up

Amazon opened its own version of the Android app store in March 2011 with 3,800 apps. To get attention, it started with a big promotion, offering Rovio's popular Angry Birds game for free. It needed to start off with a bang to have a shot against Apple, which has more than 50,000 games in the App Store.

Like Apple and unlike Google, Amazon will be reviewing apps before putting them on its store. Unlike Apple and Google, Amazon will be setting the price for the apps, though developers can suggest a retail price.

Amazon, of course, is playing catch-up and has to react to the price leadership of Apple and Google. Wood chuckles about Apple, "The greatest trick the devil ever pulled was convincing developers to sell their apps for 99 cents."

Apple welcomed the Amazon store with a lawsuit for using the name App Store.[7] While that may sound frivolous, it shows the high stakes associated with these ecosystems.

Microsoft "realizes it can't catch up in the near future, if ever. So the company is trying to fuel creation of must-have apps by giving developers free expertise, coding help, phones, and even waiving—for up to one year—the 30 percent sales commission on ads placed on the app that it typically takes."[8]

RIM, as described in the case study at the end of this chapter, is trying to ramp up with several partners, including Microsoft.

The Love-Hate Relationship with the Developer Community

Amazon's decision to control pricing for apps in its store set off The International Game Developers Association. The professional association for game developers sent its members an open letter accusing Amazon of being developer-unfriendly.[9]

Some of the wording included:

> While many other retailers, both physical and digital, also exert control over the price of products in their markets, we are not aware of any other retailer having a formal policy of paying a supplier just 20 percent of the supplier's minimum list price without the supplier's permission.

The love-hate relationship between developers and the platforms they develop for is well documented. Fred Wilson of Union Square Ventures, an investor in Twitter, says, "You should expect that the platform you're building on top of to do something that's not in your interest. If you're going to stay on top of that platform forever you might wake up one day to find that the owner of the platform is competing with you."[10] Twitter launched its own photo service after discouraging developers from launching more client applications.

Newsweek wrote, "Facebook has been finding clever, albeit arm-twisting ways to wring revenue out of the software companies like Zynga that live in its ecosystem."[11]

Nintendo President Satoru Iwata has commented, "I fear our business is dividing in a way that threatens the continued employment of those of us who make games."[12]

Jevon Macdonald, an investor and entrepreneur, offers this advice:

> Customer relationship development is the key to building a healthy company. Within most application ecosystems the customer is treated as a commodity and is effectively traded as such by the platform provider. In return for cheap distribution, small vendors are giving up direct customer ownership and relationship management while ecosystem providers continue to own the customer relationship at its most crucial junctions: activation, acquisition, and retention. Other than distribution, ecosystem vendors receive surprisingly little in

return: no guarantees, no platform stability, and no substantial sup-
port. The tradeoff between cheap customer acquisition and customer
relationship ownership is significant and should not be underestimated.

Impact on the Enterprise

Dennis Howlett, who blogs for ZDNet, describes a conversation with
Bill McDermott, co-CEO of SAP, at the company's event Sapphire Now
in Orlando in 2011:

> I was not expecting a great deal from the event. Imagine my surprise
> when I went for a tour of the mobile applications area. Everything from
> simple expense receipt handling through to dispensing prescriptions,
> mobile banking, and complex analytics were shown running on all of
> the popular devices. iPad, iPhone, BlackBerry PlayBook along with
> Android devices of every description were shown running mobile
> applications.
>
> SAP? Who would have thought? It sparked my imagination into
> wondering what it would mean if SAP opened up its Sybase Unwired
> Platform and turned it into a developer's playground. I went away and
> scribbled some "back-of-napkin" calculations in an effort to try to
> understand what this might mean.
>
> The following day I met with McDermott. I explained my think-
> ing and suggested to him that SAP has in its hands a golden opportu-
> nity to capitalize on the potential value of its huge developer network.
> "Imagine what would happen if SAP had a kind of App store where
> there were hundreds, thousands of applications. Imagine what it would
> mean for the democratization of development." McDermott sat there
> pondering those thoughts and then I showed him my numbers along
> with comparisons of selling the platform the way SAP usually likes to
> do things. You know software licenses for a few million dollars plus
> 22 percent maintenance.
>
> "Which numbers do you prefer?" I asked him. "I like that one
> over there," said McDermott pointing to a huge figure and beaming
> from ear to ear. "I can be 90 percent out on any of my calculations
> and still beat anything SAP will likely get selling the platform to its top
> 400 customers. So what do you think, Bill?" I inquired. For the first
> time in all the meetings I've had with McDermott he sat still and said

nothing for a few moments: "I'll need to take that under advisement," he answered, smiling wryly.

Will SAP move away from its traditional partners like Deloitte Consulting and go with individual developers as Apple and Google have? Not just Amazon and RIM, the enterprise vendors and enterprise users have to factor the new ecosystems in their plans.

Impact on Labor Markets

An even more dramatic impact is occurring in the talent marketplace. When Apple shares 70 percent of revenues with a developer, when Google shares 95 percent of Chrome revenues, and they absorb significant marketing, credit card processing, and other fees, it is compelling to become an entrepreneur rather than go work for IBM or Accenture implementing SAP or other enterprise mobile apps.

Ryan Nichols, who used to lead Solution Marketing for Appirio, a mid-sized systems integrator focused on cloud, social, and mobile applications, sees an interesting convergence:

> Today's mobile apps will absolutely inspire a new wave of enterprise productivity, but those productivity gains are likely to be actually delivered by a different set of vendors than we see in the existing (consumer) ecosystem. Developing mobile apps for the enterprise still requires a fundamentally different skillset (and development culture) than developing consumer apps. We'll see a lot of unsuccessful copy/pasting by the incumbent enterprise vendors (SAP is exhibit A here: right ideas, wrong technology). And once again, we'll see a new ecosystem emerge focused on bringing mobile innovation to the enterprise. It's still early days, but Appirio hopes to be a core part of this ecosystem. We'll be inspired by existing consumer app developers, hire from them, and maybe even partner with them, but are convinced that we bring something unique to the table.

App Stores Galore

In Chapter 16, we see the Smart Apps library downloadable on the Lexmark Genesis printer. Garmin has its own store where you can

download a variety of maps. Verizon and Vodafone have subsets of the Google Android marketplace and offer subtle differences like allowing customers to add purchases to their monthly billing statement. Nowadays, any smart product has to think about attracting developer communities around them to make them vibrant.

Even the U.S. government has jumped in with its own mobile app store with information about product recalls, jobs, and agencies like the Transportation Security Agency (TSA).[13]

In the next case study we see the approach RIM has taken and adjustments they have made to try to keep up with Apple and Google.

Conclusion

A thick application catalog has always been important for a technology platform's success. It's become dramatically more important in the past few years as Apple and Google, in particular, have shown. In the next section, we will see how RIM has had to react to this new world.

Case Study: RIM's Evolving Ecosystem

"CrackBerry."

That's what BlackBerry users fondly call the devices to which they and their thumbs are addicted. For a while, a BlackBerry was a standard corporate issue in many enterprises, along with an ID badge. President Obama insisted on using one even after entering the White House to the consternation of the Secret Service. RIM, the Waterloo, Ontario-based company that makes the device, was a local darling and a showpiece for Canadian technology.

A few years ago a trend started where people would carry their corporate-issue BlackBerry in one pocket and an iPhone or another smartphone in the other.

And even the standard-issue BlackBerry started to be questioned in many companies. Goldman Sachs analysts explained it as "We believe this is largely due to CIOs following the individual consumer preferences of their employees, similar to the dynamic that has unfolded in the smartphone market."[14]

It reflected the reality that BlackBerries had not evolved in features. Co-CEO Mike Lazaridis is said to have commented, "There will never be a BlackBerry with an MP3 player or camera."[15]

And RIM was just as slow in developing a robust applications ecosystem like Apple had. As corporate interest stalled, consumer interest grew, particularly in the teenage demographic, which likes the free BlackBerry Messenger (BBM) as a substitute for text messaging. (Indeed, in the London riots of summer 2011, BBM earned the dubious distinction as having been the collaboration platform of many of the rioting youth.[16])

As RIM continues targeting the consumer market with smartphones with cameras and other features, and now tablets like the PlayBook, the need for an apps ecosystem has grown even more.

During his opening session keynote at Mobile World Congress in early 2010, Lazaridis introduced the concept of a "Super App":

> Super Apps are the kinds of apps that people love, that they use every day because they offer such a seamless, integrated, contextualized,

and efficient experience. Our developers are able to build in that en-
hanced experience because of the unique capabilities of the BlackBerry
platform.[17]

The RIM thinking was to let Apple and Google brag about hundreds
of thousands of applications; they would focus on the really useful ones.
In February 2011, RIM announced there were 20,000 BlackBerry apps
available—quite an improvement from a few years earlier but still only a
fraction of the volume in the Apple and Android marketplaces.[18]

"Subscribers are facing—on most platforms—thousands of applica-
tions to choose from and what's scarce is attention right now. . . . It used
to be that services were scarce; now the services are abundant and atten-
tion is scarce," Alan Brenner, RIM's SVP of the BlackBerry platform,
rationalized in an interview.[19]

He makes a valid point. A Nielsen survey showed the 10 most-used
Android apps accounted for 39 percent of all time spent on apps. The
total jumped to 61 percent when you account for the 50 most-used
apps. That means that hundreds of thousands of apps are competing for
the remaining 39 percent of the pie.[20]

Same with the Apple ecosystem. Indeed, Trip Hawkins, the founder
of the gaming giant Electronics, calculated that each app in Apple's store
earns, on average, about $4,000. He told a conference:

"Four thousand per application: Do you see a problem with that? . . .
That doesn't even pay for a really good foosball table."[21]

That may be so, but empty malls are a turnoff, as we all know. As
Robert Dutt wrote, "Consumers don't care about 'true multitasking,'
'type to share,' 'synergy,' or surfing with Flash. Businesses care even less
about these things. What they care about is what they can do with the
device. And today, that's defined more so by the ecosystem of developers
around the device than it is by the manufacturers of the device itself."[22]

So, BlackBerry World in Orlando in May 2011 saw quite a
turnaround. It started with Adobe CEO Shantanu Narayen announcing
that most of the 3,000 tablet apps for the RIM tablet, PlayBook, were
built on Adobe AIR.

Adobe, of course, could not wait to respond to Apple's very public
banning of its Flash products on its products and Steve Jobs' lashing,
"The avalanche of media outlets offering their content for Apple's mobile

devices demonstrates that Flash is no longer necessary to watch video or consume any kind of web content."[23]

Then onstage came Microsoft CEO Steve Ballmer announcing that Bing would become the official search and map applications for Black-Berry. Of course, just a couple of months prior, Microsoft and Nokia had announced "the third ecosystem" (the other two being Apple and Android centric) with Nokia deemphasizing its proprietary Symbian and licensing Windows Phone for future products. Microsoft had every incentive to line up even more partners like RIM to regain its once dominant position around mobile phones.

Ballmer was followed by Facebook's vice president of global mar-keting solutions Carolyn Everson, who announced that the PlayBook would be the first to get Facebook's tablet app.

Adobe, Microsoft, and Facebook—that's an impressive trio RIM lined up. But wait, there's more.

RIM execs also demoed the "Android Player," which enabled "PlayBooks to run apps created for Google's Android OS. Devel-opers can contention their existing Android binaries to BlackBerry App World, and PlayBook owners will download the apps from App World."[24]

Now there are at least four Android marketplaces—Google's, Ama-zon's, Verizon's, and Vodaphone's. So potentially those Android appli-cations could also be "binaried" over to BlackBerry.

Has RIM overdone it?

Jobs of Apple had already taken a jab at the proliferation of Android stores during a conference call with analysts:

> In addition to Google's own app marketplace, Amazon, Verizon, and Vodafone have all announced that they are creating their own app stores for Android. So there will be at least four app stores on Android, which customers must search among to find the app they want, and developers will need to work with to distribute their apps and get paid. This is gonna be a mess for both users and developers.[25]

There's Android, Adobe, Microsoft, and Facebook in addition to BlackBerry's own ecosystem of applications. So RIM may ramp up its application ecosystem portfolio in a hurry.

How do you effectively set up governance across so many parties? How do you share revenues? Where do you encourage developers to focus? All thorny questions.

In November 2011, Adobe announced it was deemphasizing Flash for mobile devices and moving its focus to the industry standard HTML5. Larry Dignan, Editor-in-Chief at ZDNet, when asked in an interview what this means to RIM, commented:

> Flash support was actually the differentiation point in the beginning for RIM's PlayBook tablet. Adobe's decision changes all of that in a hurry. In the broader context, RIM is fumbling around for an app strategy and any differentiation point. Ultimately, RIM is going to need its own innovation—not just support for technology others control—to regain its luster.

The ecosystem journey RIM has taken is a fascinating one and as it unfolds will determine whether we continue to use the moniker CrackBerry to reflect a central role in our digital lives.