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Tablets

Forking Android

Sep 3rd 2011, 22:43 by G.F. | SEATTLE

AMAZON twice upset the book industry's apple cart in recent years. When it first burst onto the the scene in 1995, the virtual bookshop let readers order pretty much any book they wanted, without getting out of the house. Since it dispensed with the need for expensive brick-and-mortar outlets it could offer reads at heavily discounted prices. Then, even more disruptively, Amazon launched the Kindle, the first widely sold electronic-book reader, transforming a trade which has, since the invention of the printing press in the 15th century, relied on paper.

Rumours have been rife for some time that Amazon is taking aim at another cart, this one dominated, rather fittingly, by Apple. The online retailer, which has over the years diversified away from books into just about every conceivable consumer product, was thought to be preparing to launch a general-purpose tablet running a form of Google's Android operating system. Now TechCrunch, a technology website, has offered a detailed overview of the next Amazon Kindle, a 7-inch tablet that it says is in final production testing and will hit the virtual shelves in October, just in time for Christmas, with a price tag of $250. TechCrunch, which is sometimes criticised for sketchy information, may have got some of the details wrong, but the gist of its apparently hands-on account rings true.

So far alternatives to Apple's svelte tablet have failed to inspire. Apple still controls about two-thirds of the market for such devices. Some rivals, like HP, which announced it would stop making its underwhelming TouchPad, have thrown in the towel. Apple's strength stems from several factors. Since the firm uses the same operating system across all of its mobile devices, most of the existing library of hundreds of thousands of apps developed for the iPhone were available for the iPad, too. It also made it easy for developers to adapt existing apps to the iPad's larger screen. Some tens of thousands of apps now work exclusively on the iPad or in dual small- and large-screen versions. The company's cash hoard has apparently allowed it to purchase components, including 10-inch touchscreens, in such quantities that it obtains a higher margin, while locking down supplies. And its swanky Apple Stores let consumers easily try out and purchase the gadgets—or dispatch them for repair.

1 day   1 week   2 weeks

Less frequently mentioned, though no less important, is Apple's vast catalogue of television programmes and films, and the infrastructure for delivering them. (Nearly all downloadable music stores offer only unprotected and standardised MP3 or AAC formatted audio, which can be played on any device.) Google, HP, RIM and other firms often stress how delightful watching video is on their assorted tablets. None, however, has offered seamless access to such content. Streaming was possible using an app from Netflix on a limited number of platforms and phone models, but streaming video, tolerable over Wi-Fi, is difficult and expensive over mobile networks. For travel, downloading remains a must.

Unlike earlier challengers to Apple, Amazon already has deals in place to stream tens of thousands of films and TV shows. It once offered downloads to certain devices and could easily revisit such arrangements. Film studios and television networks ought to

embrace a rival to Apple which, as the sole serious incumbent, has exerted pressure on them to forge deals and cut prices.

The operating system may also prove less of a challenge for Amazon than it did for other tablet hopefuls. HP bought Palm for its webOS system, and RIM grabbed QNX, another OS maker, to power its PlayBook. Like Motorola (which is being acquired by Google) and Samsung, Amazon is sticking with Google's Android, broadly similar to a version of Linux it has used for years to run its e-book reader. But if the TechCrunch report is accurate, Amazon has decided to ditch its own Linux flavour, and take a mature, licence-free version of the Android open-source software and start building an in-house system on top of it. Such forking, as the practice is known in techie circles, means that development paths of the open-source software and Amazon's version of it will diverge. As a result, software built for one will not easily run on the other.

This would let Amazon create a platform independent of Google, which remains Android's main developer. The open-source code may be licence-free, but the Android ecosystem is constrained. Google only permits other firms to use the Android trademark, the associated app store, Google-created apps and any related data if their versions of the software pass certification tests and adhere to other terms.

Amazon had already annoyed Google by launching an Android app store without the search giant's consent. So far it only offers thousands of apps whereas Apple's App Store and the official Android Market offer hundreds of thousands (though only several hundred of the Android apps are designed for tablets; the rest are meant for smartphones). But it was an important precedent. If Amazon sells enough devices which run existing Android apps, developers may chose to move along with it—and away from the ebbing Android tablet mainstream.

Like Apple, Amazon has tens of millions of user accounts already linked to credit cards, and a reputation for no-fuss customer service. Forrester, a research firm, thinks that Amazon could shift as many as 5m devices by the end of the year, if the price is right. That would still put it behind Apple's 9.25m iPads sold in its most recent fiscal quarter and over 20m in the last fiscal year. But it would be well placed to chase after Apple's cart and, one day, perhaps even to upset it.

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Zorba the Geek wrote: Sep 3rd 2011 10:35 GMT

Marketing a tablet computer based on a forking Android is not a game for children. Even for the giant Amazon, competing with Apple in this realm could be a tremendous task. Can Amazon do more than offer something pricier than a Kindle but less charismatic than an iPad? ... The iPad has earned its successes: with some limitations, the iPad gives us a computer that -- thanks to the inexpensive apps -- does 101 useful things.
The evolution of the Kindle is inevitable: the Kindle cannot now handle color ebooks, nor can it display the immanent new species of multimedia ebooks that will be made possible by "EPUB 3." Amazon will need to deliver a device that does much more than peddle Amazon's media: videos, music and ebooks. There will be no half-successes: this new Kindle -- call it, "The Amazon Flame" -- will either rise like a rocket to the stars, or plummet to the Earth like a dozen feckless (and forkless) tablets before it.
--Michael Pastore, author
50 Benefits of Ebooks: A Thinking Person's Guide to the Digital Reading Revolution

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No Mist wrote: Sep 4th 2011 4:19 GMT

Good news ! I have always loved since the day they debuted. And I am sure Amazon haters are very hard to find among the fickle tech consumers. This is an enormous advantage. At any given day, there are scores of tech conscious consumers who are critical -sometimes bitterly- about Micro$oft, Google and Apple. But I am yet to find any widespread criticism of Amazon.

All their products have been trendsetters. Apart from the ones mentioned here, I would like to mention AWS. It is the best cloud service money can buy ... by far ... far superior to anything competitors offer. Its API is actually a delight to use. I am yet to find as much sophistication anywhere else.

I wish Amazon had chosen Meego instead of Android. Meego already has a development in pipeline of differently flavored OS's for IVI, Tablets, Phones, Media Centers, etc ... it is very impressive and fits neatly into the purported scheme of Amazon. It is backed by Intel (so there would never be a conflict of interest as Intel doesn't make money by selling software), another true blue tech company with very high standards of competence and ethics.

Way to go Amazon !

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Thebigapp wrote: Sep 4th 2011 7:44 GMT

Apple won't be running scared over this one. It's pretty obvious Amazon will have to do better than to just copy the iPad. I'm not convinced they have the creativity or the guts to really compete. At best, this will up their game a little and they will see some traction coming from the lower price, but not much. Traditional Amazon customers need to be convinced that they need this device. Whereas anyone who buys books immediately sees that advantage of having a Kindle. Amazon's market was ready and waiting and the Kindle was priced to sell. This market is undefined and the tablet is just expensive enough for people to think twice. The have the infrastructure to pull this off but I think they have to beat the iPad and can't assume their faithful clientele will choose their product over the iPad.

Http://thebigapp.tumblr.com

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Artemio Cruz wrote: Sep 4th 2011 9:37 GMT

While Amazon might well fork Android, I think there is little for them to be gained by doing this and breaking compatibility. There is an important difference between running your own app store for badged programs that work just as well on other flavours of Android and forcing developers to release Amazon only versions.

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MegaChan wrote: Sep 4th 2011 2:20 GMT

I think Amazon will be very successful in delivering a tablet that challenges Apple. The
Amazon ecosystem is much better than Google as was pointed out by the article. Tablet
are mostly for media consumption and current Android tablets just doesn't have the kind
of cohesive solution as the iPad. If Amazon is successful and they don't incorporate
Google services into their tablet then Google will have lost not only the revenue stream
but also giving Jeff Bezos a nice os en gratis. It will certainly go against their original
strategy. I guess that's why Google is not ready to release the honeycomb tablet source
code just yet. It will be interesting to see what they will do with the 4.0 source code
which is supposed to be open to all.

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G.F. (The Economist) wrote: Sep 4th 2011 3:10 GMT

@Artemio: "While Amazon might well fork Android, I think there is little for them to be
gained by doing this and breaking compatibility"

By not forking, they remain tied to Google's agenda, contracts and inconstancy.

For instance, Google's decision (possibly in violation of some open-source licenses) to
suppress release of Android 3 (Honeycomb) because it wasn't fully baked enough for use
by others than a few anointed early tablet makers is a negative impact on all parties
that Google didn't anoint.

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MathsForFun_1 wrote: Sep 4th 2011 9:11 GMT

I strongly suspect that when techies get a chance to have a REALLY good look at
Amazon's tablet computer, we're going to find that it's not as forked as it first looks, and
that most of what has been done is cosmetic.

The REAL threat to Apple is the new Android tablets from Motorola and Asus (new
version of Transformer being released on October - just a few weeks from now). They
will have:

* ICS (Ice Cream Sandwich - the new version of Android)

* the Tegra 3 processor - 5x the processing power of today's best tablet computers
with ultra-low power consumption

* twice the display resolution. Movies at 1080p will GENUINELY show at FULL
RESOLUTION

* the new Asus Transformer is rumoured to be approximately the same price as the
current model

These tablet computers will make the iPad 2 look profoundly obsolete - and the iPad 3
won't be available until March 2012 - six to seven months from now.

It's not possible for a gadget to be "cool" when out-gunned so massively by the
alternatives.

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jomiku wrote: Sep 4th 2011 10:00 GMT

1. This may well not be much of an Apple competitor but a complement, a separate
product that fills a slightly different niche. Siegler's write-up highlights some of the main
points of difference, but to summarize: this isn't a full fledged tablet of the same power
and capacity (or size). It may well be good for Apple to have the market expand
because if all tablets are iPads then the whole market remains a niche.
2. The losers may well be Samsung et al who are trying to make a smaller tablet - similar
size - which some indicators and industry gossip say aren't selling. Amazon may drive
these people out. They are well positioned to hue them.
3. This highlights a main issue with Android: the fragmentation and incompatibilities.
There are reasons to control code. Another issue is security. I'm curious to see how
Amazon does with this, because we assume it sells and the number of exploits for

Android is increasing. This fits this paragraph because the iPad has had essentially no security issues so far despite selling so much.

3.

Voice Of Reason wrote: Sep 4th 2011 11:39 GMT

Not a chance this Amazon tablet makes an impact - it is nearly obsolete -second Gen tablets are already being released. And others (like Lenovo) are introducing better tablets at substantially lower price points.

The tablet to beat will be the soon to be released Asus Transformer 2 - first quad core tablet and its excellent (but optional) keyboard dock that will run the all new Ice Cream sandwich OS for Android. The recently announced Toshiba is the thinnest tablet and comes with a great array of ports/storage is more than a match for the ipad2.

By contrast, Amazon's 7" tablet is underpowered running ancient os with screen size that has fared very badly (10" tablets Dominic ate the space) - they may sell a few, but it will be on the back of good marketing of a mediocre tablet.

claeton.giordano wrote: Sep 5th 2011 9:26 GMT

By launching its own Android market, Amazon is signaling its support for Android, not its intent to undermine Android by forking the code. Forking the code is not the issue - breaking application api compatibility is. In the 1980's unix was balkanized as each hardware vendor forked the code. Applications could only run on one flavor of unix, crippling the accessible market. The app store concept provides a powerful incentive for hardware vendors to *not* fork the code. For platforms, application capture drives users, user capture drives platform adoption, and platform growth drives applications. Because hardware platforms are almost useless without apps, Android device makers will not fork the code and will follow the successful model of contributing their changes into the open source Android development process. After 30 years of the closed Wintel model, device makers recognize that an open source device architecture is necessary to enable innovation. Amazon recognizes that unless Android succeeds, the largest (and only) install-base of reader devices it can economically reach will be the iPad.

BJSMD wrote: Sep 5th 2011 5:12 GMT

I can't help but wonder if Amazon's business prospects would have been better in the long run if they did not offer their Kindle on other platforms (iPad, etc...). This allows people who like the other features of the iPad to still buy Amazon books without buying the Amazon Kindle. Now if Amazon is going to want to sell a tablet, they truly will be in competition with Apple and not offering something completely new. One thing Amazon has to work on I feel is with the publishers in getting copyrights for books not as country specific. I know it's not Amazon's problem specifically but I feel they are in a position to do something about it (kind of like people say Wal mart is in a position to get prices lowered on certain times they sell).... I would love to get several books with a UK copyright on my Kindle but I am unable to do so. I have to either buy the book in paper form on Amazon.co.uk and pay high shipping costs or find it elsewhere which is what I have been doing (via bookdepository.com). Not only would this unify all the different Amazon sites but it would spread the printed word - a nobel goal!

deminister wrote: Sep 5th 2011 6:56 GMT

Amazon does not stand a chance. Just like we do not watch movies and read books on the tiny screens of our mobile phones the 7" screens are simply not going to cut it. Add to the mix an Android operating system that looks more like UNix in 1980's, a OS that is only "open and compatible" in name a system from which not even the version numbers make any sense. Sometimes a closed ecosystem is better than the lie of an open system. Moreover people are not interested in a state of the art system with lots of possibilities, people follow, they used to follow MS in the PC business and they will follow Apple in the iPad business. Apple is not in the business of selling tablets, Sony, Samsung and Amazon are. Apple sells iPad's.

emilper wrote: Sep 5th 2011 7:14 GMT

Re-branding the graphical user interface does not make a fork, and porting one application from Amazon's Android to Google's Android should not be more difficult than making the application use the customized GUI libraries ... at least as long as the kernel stays the same. Well written Java applications still can run on wildly different platforms (Linux, Windows, Mac) without trouble.

I saw SWT (java graphical user interface toolkit) tucked inside the Android SDK, so I am willing to bet that in one year we'll have applications that would be ported from Windows to the Android tablets, and there will be talk about competition with the desktop, not with luxury tablets made by Apple.

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cjhunter48 wrote: Sep 5th 2011 10:01 GMT

The world has entered a digital age, consumers have been socialized to expect many of their daily undertakings (i.e. shopping, ordering, reading, communicating and researching) to be available online. As America is a capitalist economy which, as stated by David Rachman, "allows the demand to dictate what products will be produced" (9), consumer acclimation to online services has directly impacted the "traditional" warehouse/storefront marketplaces. In an attempt to fulfill the growing demand for E-commerce markets, online giants such as Amazon, Apple, and Google have arisen, widening the market for their respective products and monopolizing to some extent their section of the market. Amazon's virtual bookstore has been a huge success, as noted by the above article which states, "Amazon twice upset the book industry's apple cart in recent years, then, further revolutionized the industry which has always relied on paper by introducing 'Kindle,' the electronic book-reader." Amazon, building on its success in the book industry, has expanded its business to include a wide variety of consumer products. Now, it looks to become a main competitor to Apple products by manufacturing its own tablet. In the free market economy of America, any company can present itself as a competitor, provided it, as stated by David Rachman, "can compete with its rivals in terms of price, quality, or innovation" (11).

Amazon has already out-competed traditional store outlets and is now poised to attempt to close in on Apple's market. Recognizing, as stated by David Rachman, "changes in popular taste, technology, the economy, and the competitive environment are constantly creating new business opportunities" (12), Amazon is attempting to assert itself in the film, television, music, and tablet world, "two-thirds of which is controlled solely by Apple." As Apple's products have monopolized the market, pushing out any competing brands, the competition from Amazon - if Amazon can maintain its success – will be welcome in the market.

Works Cited:

Rachman, David, Michael Mescon, Courtland Bovee, and John Thill. Business Today. 6th ed. New York: McGraw Hill. Print.

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Reagy wrote: Sep 5th 2011 10:39 GMT

You've got it all wrong. Amazon's tablet was never, or will it ever be positioned to challenge the iPad. Their direct competitor is Barnes & Noble's Nook which has been a direct threat to Amazon's main ebook business as of late. And the soon to be released Nook 2 should make this an interesting match-up.
One more thing; Amazon has nowhere near the same international brand recognition as Apple, leading to fewer developers willing to make apps for the platform and obviously a smaller marketshare.

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G.F. (The Economist) wrote: Sep 6th 2011 2:56 GMT

@emilper: "Re-branding the graphical user interface does not make a fork". True. However, if Amazon is using Android 2.1 and 2.2, and is forgoing a close match with 3.0 (not publicly released) and the ostensible near-term shipment of 4.0 (which will merge

smartphone and tablet trees and be released), the likelihood of maintaining perfect compatibility is quite low.

Amazon needs to provide a solid development environment with a massive reach that would make it worth it for developers to pursue a deviant course. They may be in a position to do so.

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Kevin Marks wrote: Sep 6th 2011 4:57 GMT
Saying "only several hundred of the Android apps work on tablets; the rest are meant for smartphones" is hugely misleading. In fact, most Android apps work on tablets; Android has had a flexible layout design model for a while, as apps need to support a wide variety of screen sizes already. Apple's fixed-pixel layout model meant a much more jarring difference between iPad and iPhone/iPod apps, with pixel-doubling or a black border 4 times the size of the app.
At present only a few hundred apps are specially tuned for the larger screen sizes of Android tablets, but the rest do work, and work well on the whole.

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notthefly wrote: Sep 6th 2011 5:05 GMT
I think the way forward for Amazon is to create tight software (content) and hardware ecosystems with easy payment integration. What Apple is lacking is a really good reading solution. The book-reader(s) are specially made for reading. LCD displays are not specifically made, in resolution/contrast/glare and other optical terms, for reading. Also battery life of a reader may generally be very long. If Amazon becomes the Apple of the bookworld with a tight sw/hw ecosystem and good readers there is real biz to be made. And I think the iPad is nice but for me it just cannot compete with a good book reader (or a real book for that matter) in terms of display definition, ease of use or battery life.

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G.F. (The Economist) wrote: Sep 6th 2011 5:31 GMT
@Kevin Marks: Good point, and the article has been revised to be clearer. I'd argue it's a point of dispute about whether as a blanket statement the 100,000s of Android apps "work" on tablets—they function, but in my experience and reading, there's an enormous amount of variability. The Apple approach of shrinking or filling an iPhone-only app (one that hasn't been written to work on just the iPad or on either the iPad or iPhone/iPod touch resolutions) provides a consistent, if non-ideal experience. However, it's also possible that the iPad pixel-precise emulation motivated developers to more quickly update relevant apps for the iPad's display.

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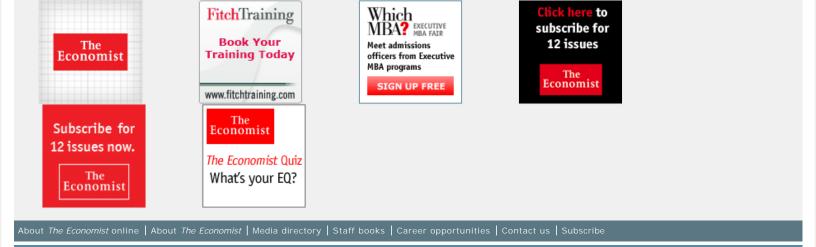
hereone wrote: Sep 7th 2011 2:30 GMT
Nook Color Android-based tablet/eReader from Barnes & Noble has been on the market for over a year and sold millions of units at $250. Gives Flash, apps, videos, color magazines and ebooks with video inserts, and the best anti-glare coated screen on the market. Technology "leader" Amazon is finally catching up with the book store company by copying their device.
Kindle only supports eBooks in its proprietary AZW format. Nook, on the other hand, supports both DRM-protected and DRM-free ebooks in ePub format thus it supports ebooks from B&N store, from any other DRM-free source on the web, and from public libraries.

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