SMARTPHONE WARS: DATA OWNERSHIP, ACCESS AND STORAGE IN THE NEW ERA

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Synopsis:

Over the last two years, tremendous consumer enthusiasm for smartphone devices has revolutionized the mobile phone industry. Led by the Apple iPhone, Android G1, Blackberry Storm and more recently the Palm Pre and Motorola CLIQ, these devices bring enhanced functionality and user experiences embraced by consumers worldwide. Through APIs (application program interfaces) many of today's smartphones have become almost seamlessly integrated with social networking sites and other web services. While handset manufactures, mobile carriers and websites have all benefited from this integration, these technological innovations are forcing new battle lines to be drawn among the various players in the mobile ecosystem over consumer data ownership, access and storage. This article explores the sea of competing interests and the ever changing legal landscape in this new era of the mobile revolution.

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Over the last two years, tremendous consumer enthusiasm for smartphone devices has revolutionized the mobile phone industry. Led by the Apple iPhone, Android G1, Blackberry Storm and more recently the Palm Pre and Motorola CLIQ, these devices bring enhanced functionality and user experiences embraced by consumers worldwide. These same technological innovations, however, are forcing new battle lines to be drawn among mobile carriers, handset manufacturers, web sites and consumers over consumer data ownership, access and storage.

Integration and the API.

The technology innovation primarily responsible for enabling these functionality enhancements was the development of APIs (application programming interfaces) by large community brands (such as Facebook and MySpace) and other services that are user profile centric. An API is an interface that a software program implements in order to allow other software to interact with it. APIs were originally used as a method for a variety of services to use data in a new manner or new method of presentation. One of the original functions of an API was in the form of RSS (Real Simple Syndication), which allows users to aggregate a variety of information from different sites into a consolidated viewer or news reader. Beyond news readers, APIs became a method for applications or web sites to share information with one another. For example, APIs can create widgets that allow users to create objects to imbed on their blog or other personal web page that draw data from other sites.

Originally, these APIs were very simple and could be used to do things like display the weather or to show the user's most recent photo upload to a commonly used photo site. Over time APIs became increasingly complex and full featured. Today, for example, developers can create full blown web applications for social networking sites such as Facebook and Myspace using API frameworks made available by those companies. Users can play Texas Holdem Poker, send each other virtual gifts or invite each others' friends to play a variety of games or explore new services. Some of those services, like Tripit and Zynga, are now able to sign up users by using the APIs provided to them by sites like Facebook and MySpace.

While these new features are extremely powerful, a number of functions historically have not been available to developers either (1) because the supporting documentation did not exist, (2) the function was not available or (3) the site simply did not want third parties to provide that functionality. Access to APIs for login or account creation, for example, typically has been restricted, as such access could, among other things, allow third parties to spoof user accounts to gain unfettered access to all of a user's data or to create applications that generate hundreds or thousands of fake accounts. In general, the means for authenticating a user with this security issue in mind is handled by using some sort of token or handshake verification method that involves specialized handoffs between the third-party application and the web site while maintaining the

integrity of the general login process.

A good example of this handoff process was the original Blackberry Facebook application. While the first deployment of the application was useful, whenever a customer wanted to do something beyond a set number of functions, the application would hand the user off to the WAP (mobile web) site of Facebook for the user to complete those actions. This was not a significant problem, and in fact, it allowed rabid Facebook fans on Blackberry devices a useful way to check up on friends, update their status and do the things one would normally do on the Facebook site from the convenience of the phone. On the other hand, the experience certainly was not as seamless as it could have been if the consumer were able to complete those actions from within the application, without needing to launch a separate browser.

An example of a more seamless integration is the Palm Pre's "Synergy" feature. The Synergy function uses the login credentials from the various services the consumer uses (such as Exchange, Facebook and Gmail) to grab contacts from those accounts and create a consolidated address book in the Pre's contacts application. When a user selects a contact from the Pre's address book, the user sees the contact information associated with the various services mapped to that contact. More recently, Motorola unveiled its CLIQ device with a new form of the Android operating system called "Blur" that further unifies the elements of integrating the phone address book with third party APIs.

After witnessing the benefits handset manufacturers reaped through tight integration via APIs, mobile operators began to look at ways to use those same APIs to enhance the value proposition of all their consumer devices , independent of a specific device. From a product perspective there are a number of ways to "enhance" that experience. MySpace and the mobile operator Helio, for example, created a dedicated application that tightly integrated the MySpace messaging facility with the Helio device. While there are several other examples of such tight integration, the launch of the INQ phone with the mobile operator, 3, in the United Kingdom, took integration to a new level. The company, INQ Mobile, is a wholly-owned subsidiary of Hutchison Whampoa Limited, which is an investor in Facebook. INQ released a lower end handset that was known as the Facebook phone. The Facebook phone brought an optimized Facebook experience to the device, and most importantly had tight integration between Facebook and the address book of the phone. Facebook phone users were able to see all of the updates from their friends, populate their phone address book with their Facebook friends and easily send pictures to the Facebook web site. This device was awarded the best handset award at the Mobile World Congress show in Barcelona in 2009 against handsets that were much more sophisticated, primarily because of the level of integration between the device and the web site.

Competing Business Objectives and Legal Obstacles to Integration.

The benefits and limitations of the application integrations described above have led to a certain degree of tension between handset manufacturers, mobile operators, web sites and consumers. The Blackberry and Synergy applications were developed directly by the handset manufacturers. Manufacturers are motivated to provide useful applications for their consumers in order to create demand for their handsets. Manufacturers want to make it easy for the consumer to upload photos, change status, etc. and to otherwise generally extend the usefulness of the device. Mobile carriers also want to provide enhanced functionality to consumers, but they have a competing need to make sure that there is a unified customer experience. The mobile carriers have the burden of acting as the first line of support in the case of customer complaints or issues with a particular offering on the devices they sell. Social networking web sites want users to be able to access their sites on the go, but they also want to maintain brand consistency and control over the user experience of their sites. Social networking web sites commonly resist integration because their sites provide a very specific experience that is not easily replicated in the mobile environment. These web sites also generate revenue through advertising, and often want users to access their site through web pages that serve ads. Furthermore, social networking web sites are particularly concerned that providing access to APIs could allow third parties to misappropriate information that would violate their privacy policies or the data rights of their consumers. In order to address these privacy/data rights concerns, the agreements between third party developers and the web sites have very specific policies about the use of data. Specifically, the use of the APIs are generally subject to specific approval of the sites. Developers and operators have to respect the boundaries delineated for their use of the site or risk having their access to the APIs turned off.

Despite the best efforts of the social networking web sites to control the integration process, problems occur. A recent class action lawsuit brought against Tagged, Inc. highlights one problem -- concern for consumer privacy[3]. In their August 12, 2009 complaint, the plaintiffs, two California residents, allege that Tagged misappropriated its members' personal information by accessing its members' address books in order to obtain email addresses to solicit new users to the site.[4] When a user signed up for the Tagged services, they were induced to enter their email and password so they could be "matched up" with their friends.[5] However, Tagged would then access the user's account and send e-mails to the

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[3] Complaint, Slater v. Tagged, Inc., No. 09 Civ. 3697 (N.D. Cal. filed August 12, 2009).

[4] Compl., supra Note 3, at 4-5.

[5] Compl., supra Note 3, at 6-7.

user's contacts.[6] The e-mails appeared as if they were sent by the user, rather than the Tagged service.[7] In their complaint, plaintiffs allege Tagged violated a variety of laws, including the U.S. Stored Communications Act (18 U.S.C. § 2701, et seq.), the U.S. Computer Fraud and Abuse Act (18 U.S.C. § 1030, et. seq.), and California's Unfair Competition Law (Cal. Business and Profession Code § 17200, et seq.).[8] The case is currently pending in a federal court in San Francisco, California.

Another case illustrating the problems of integration, is the Power.com lawsuit.[9] Launched in August 2009, Power.com is a site that endeavors to act as a hub for all of a user's social networking activity.[10] To do so, Power.com uses a combination of "scraping" and APIs to import a user's data into their site.[11] When users registered with Power.com, they would provide their Facebook log-in information Power.com would then "scrape" proprietary data from the Facebook web site and redisplay it on Power.com's site.[12] Power.com neither obtained permission from Facebook to do this, nor did Power.com disclose to its users that such actions violated Facebook's terms of services.[13]

Facebook promptly sued the site for scraping user data and for the storage of user credentials, alleging that these activities violated Facebook's terms of service.[14] Facebook's claims relied on the Controlling the Assault of Non-Solicited Pornography and Marketing Act (15 U.S.C. § 7701, et seq.), the Computer Fraud and Abuse Act (18 U.S.C. § 1030, et seq.) and California Penal Code § 502.[15] Facebook also alleged that Power.com was committing direct and indirect copyright infringement as a result of Power.com's action of making copies of the Facebook's web site when it imported user's data to their own site.[16] Additionally, Facebook asserted certain state and federal trademark violations.[17]

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[6] Compl., supra Note 3, at 5-6.

[7] Compl., supra Note 3, at_5.

[8] Compl., supra Note 3, at_13-20.

[9] Complaint, Facebook, Inc. v. Power Ventures, Inc., No 08 Civ 05780 (N.D. Cal. filed December 30 2008).

[10] Compl., supra Note 9, at 2-3.

[11] Compl., supra Note 9, at 9-10.

[12] Compl., supra Note 11.

[13] Compl., supra Note 9, at_10.

[14] Compl., supra Note 9.

[15] Compl., supra Note 9, at 14-19.

[16] Compl., supra Note 9, at_19-21.

[17] Compl., supra Note 9, at_21-22.

Power.com countersued Facebook alleging that Facebook violated federal and state antitrust and unfair competition laws by restricting end users' ability to move their data, either by exporting it or allowing third party sites to host it for them.[18]   The underlying question posed in the counterclaim was whether Facebook improperly stifled competition through its terms of service.   On October 22, 2009, the court dismissed Power.com countersuit as being too vague.[19] However, the underlying suit by Facebook is still ongoing.

While the Tagged and Power.com lawsuits deal with data rights issues in the online context, the case provides guidance on the fundamental data ownership issues that have arisen and will continue to arise in the mobile industry as the quest for enhanced functionality through tight, seamless integration continues.

Lessons Learned from the Digital Music Industry.

The current state of the mobile space is reminiscent of the problems faced by the digital music industry.   Since the early days of digital music, countless companies innovated interesting methods to take advantage of technology to advance the distribution of music to consumers. The desire of these companies was ultimately to create compelling and useful consumer services. Unfortunately many of the services were created in a vacuum, without agreements among the various rights holders of the creative content and without proper knowledge of, or respect for, the underlying copyright law.   The net result was that many companies were sued by the recorded music industry even though these services, such as Napster, Kazaa and MP3.com, enjoyed great consumer success and adoption.   While technology was able to create new and interesting ways to discover music, the lack of understanding of the industry and the underlying legal framework led to a retardation of compelling services and, in the case of music, a proliferation of the theft of music by consumers who didn't have much interest in the details of the fight between content companies and technologists.[20]

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[18] Counterclaim, Facebook, Inc. v. Power Ventures, Inc., No 08 Civ 05780 (N.D. Cal. filed December 30 2008).

[19] Order, Facebook, Inc. v. Power Ventures, Inc., No 08 Civ 05780 (N.D. Cal. filed December 30 2008).

[20] The authors recognize that this position is not without its detractors. Content providers and the Recording Industry Association of America have not always been eager to enter into contractual arrangements with technology providers, especially where the technology in question would allow widespread consumer access to music. As such, many "rogue" technologists forged ahead in the absence of contractual arrangements or a clear understanding of the legal landscape, which then prompted the courts and Congress to craft exceptions to copyright holders' rights to better balance technology with copyright interests. Thus, while it may be advisable for the players in the mobile ecosystem to attempt to negotiate contractual

While copyright is specific to creative works, as shown in the music industry, the question of who owns user created content in a world of frictionless distribution is no less relevant. In fact, one could argue that the underlying ownership of content and data is even more fundamental in the mobile space. Fundamentally, the winners in managing the mobile-Internet interface stand to gain on a scale not unlike the Internet success of such players as AOL, Yahoo and Google.

Conclusion.

The mobile world is evolving quickly. Understanding the context of the rise of enhanced address books and the use of external third party data is key to understanding the issues facing the various parties in the mobile ecosystem. Consumers will increasingly come to expect that their phones will be more than devices to call their friends. To succeed in this new era, mobile operators, handset manufacturers, and social networking web sites must learn to integrate in a meaningful way, which will require careful navigation of a sea of competing interests and an ever changing legal landscape.

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arrangements, such arrangements are not always possible, and, as with the digital music industry, the courts and Congress will undoubtedly play an important role in the mobile evolution.