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Business Models for the

Social Mobile Cloud

Transform your business using social media, mobile internet, and cloud computing

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CHAPTER 1:
The Technology of the Social Mobile Cloud

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PART

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CHAPTER 1

A Remote Control for the World

Everything around us is about to be reinvented and reading this book is going to help you play an active role in that reinvention. The first step to becoming a reinventor is acquiring an educated, discriminating eye about technology and how it has impacted society and changed our lives over time. Knowing the players and what has happened historically is key to understanding what to look for now and to gaining access and advantage in the *social mobile cloud*.

The Three Technologies

Digital transformation—the merging of physical and digital into a new reality—is happening now, and changing how we work, play, and even how we think. Your first task is to understand the three technologies responsible for this transformation, the social mobile cloud.

Social is the people we work with, sell to, buy from, and live with—all gathered in various cooperative and collaborative groups. Social is not just online parties for teenagers. Social is also the business communities in every industry and the mechanisms that we use to work with one another. Social impacts your supply chain, your employees, your customers, and your competitors. It is also impacting your neighborhoods, your government, and the society at large. Social is also the word we use to describe a fundamental shift from hierarchical organizations and command and control business processes to peer networks and collaborative business processes.

The technology that we call social networking is simply a set of tools that make it easier to communicate and coordinate with these

groups of people. Ease of communication and coordination is one of the most powerful capabilities of information technology. I am often asked by companies, "Should we block social networking sites?" But taking social networks away from your employees is a bit like taking the telephone away from them. Will people make personal calls? Yes. But using communication and coordination more effectively in everything we do is key to working more efficiently and more intelligently. And as we see in the next two technologies, making cheap communication and coordination available everywhere and all of the time has huge implications for business.

Mobile is how we get to work (or how the work gets to us), which is to say everywhere and on the move—at home, in the car, walking down the street, riding the lawn mower, at a kid's soccer game, on an airplane, and yes, occasionally in an office. Mobile means connected access to everyone and all of our businesses via key tools such as the smartphone. No business leader today can function properly without a smartphone. Increasingly, governments around the world are creating a compelling reason for us to have smartphones as citizens as well. Smartphones will move beyond communication and will even replace the other two things we have long carried in our pockets: our keys and our wallets. This smart digital device will soon unlock doors and pay the bill at a store or a restaurant. They will also become ubiquitous scanners, sensing every aspect of the physical and digital environments around us—informing our purchase decisions, helping us to make friends, and warning us of danger.

The *cloud* is where the office is, the new place we work. It is computing as a utility—infrastructure "somewhere" that enables us to do everything. It is the connective tissue that makes communication and coordination possible. We don't have to carry all knowledge around with us or even know where it is stored—we just need to have access to a search engine. We don't need cash in our pockets, we just need a connection to our bank accounts. And the cloud makes it ridiculously easy for any business or individual to create new digital extensions to existing products and services, or to create new ways for customers or vendors to interact. From the perspective of the individual, the cloud is unlimited computing power that is on tap anytime, from anywhere, ready to answer our questions, to store information, to connect us to colleagues or friends, or to help us through any process. However, companies need to understand the subtleties among the private, public, and hybrid clouds about which we will

talk later. Specific business reasons may compel your business to operate a private cloud—but the greatest advantages come when you are able to embrace computing as a utility.

Digital transformation occurs when the physical and the digital worlds join forces, when the *social mobile cloud*—our contemporary state of being—allows us to rethink how we do everything. We walk through life with our smartphones as a kind of remote control. With a smartphone in your hand, you are carrying a device that works on everything. Everything. Knowledge, communication, access, payment, and increasingly the control of mechanical and electronic devices around us are all being aggregated into your smartphone. Everything you do, or want to do, you do by clicking on an app on this remote control. That is the social mobile cloud. That is already business today, and it will impact our whole society tomorrow. And that remote control is also your game controller, adding a sense of fun, a way to measure accomplishment, and a means to compare, compete, and cooperate with friends or colleagues.

As successful as some new Internet generation companies have been, traditional companies are often still in denial that the social mobile cloud has transformed their industries. While some have accepted the new reality (and have task forces studying how their businesses must change), few companies have gone on to radically reimagine their businesses. The biggest changes challenging existing companies and their old ways are still to come as we learn to develop and transform and as we understand the full implications of the social mobile cloud.

Lessons from the History of the Internet

The most important thing to remember as you read this brief history and current marketplace assessment is that the strategies of the successful technology companies are cumulative. In Chapter 5, I will explain the process called ADAPT that can help you navigate the changes ahead. Grounding your own ADAPT strategy in an understanding of the past will help you benefit from the cumulative, experimental approach that companies have gone through over the last few decades. It is a process that depends on a certain degree of scientific method—hypothesize, experiment, learn, and improve. But in order to experiment in the most efficient, cost effective, and productive manner, it is imperative to know which technologies to embrace.

The timing for understanding the marketplace couldn't be more urgent. The last cycle was all about what was going to happen, a collective scramble to envision what the world might look like once there were hundreds of millions of people online. This time around there is no need to predict. There are not only hundreds of millions of people online but they also have mobile access to the Internet. Now it is about what has already happened and understanding the implications. Embracing these technologies to reinvent your business is not about taking avant-garde risk, it is about surviving as a business. Governments are being transformed; new ways to run our society are being developed. Competitiveness as individuals and organizations depends on not just the ability to grasp these changes but also the speed with which you do so.

One example that crystallizes the business environment today and serves as a wake-up call for all businesses in all industries is what has happened to newspapers. A critical part of the business of newspapers depended on classified advertising. The very name of these sections calls to mind the difference between predigital and digital marketplaces. Classification systems are necessary when information is presented in a linear format, such as print. Classified advertising provided newspapers with an enormously important part of their revenue models—anyone in a community who wanted to sell something, buy something, hire someone, rent an apartment, and so on, could list the item (for a fee) in the correct section of a printed publication, reaching interested members of a community.

But the Internet challenged this model by allowing people to find and connect with one another around these transactions more efficiently. When a variety of companies emerged in the marketplace to offer job listings, apartment listings, and everything else that had been in the classifieds section, every major newspaper should have seen the writing on the wall for this core source of revenue.

Every major newspaper saw it happening, every major newspaper had deeper pockets than the set of upstart companies entering their markets, yet the incumbents failed to create a competitor. Instead, most publishers sat back and watched a small group of start-up Internet companies destroy the core section of their product that had traditionally paid the overhead for the entire newspaper.

Ask yourself why they allowed that to happen. Ask yourself how important it is for you to be able to spot the next threat to your industry. Ask yourself how important it is now to have a team in place,

at any company, in any industry, whose stated goal is to find a way to destroy their own company (or at least the existing way of doing business). Ask yourself if that team, with that mission, isn't the key to reinvention versus obsolescence.

While you are answering this question, be aware that most organizations are bad at innovation. That team whose mission is to destroy your company will likely need some external assistance. Consider how innovation is occurring now in the smartphone industry. The makers of smartphone operating systems have enabled others to invent the apps, to create the path of innovation. A lot of money is wasted experimenting on new ideas for apps, but not the money of the companies who make the phones or the operating systems. These companies have developed *co-creation ecosystems* and they are marshaling external innovation to reinvent their products and company. As part of the design of these ecosystems, the smartphone manufacturers benefit from successful innovation while being sheltered from the risk of failed experiments. Billions of dollars of other people's money is now rapidly improving the smartphone customer experience and increasing the desirability of these products.

You might be saying that the concept of creating an ecosystem lends itself to technology companies more readily than to other organizations. How do you design for external innovation if you are selling clothing? Can external innovation help a police department? However, if you focus too hard on the specific goods being manufactured, the means of production, or the services being provided, you are missing a key point about how markets are evolving and what you will have to do to remain competitive.

Every organization in our society is being transformed by technology in the sense that technology is changing the way we connect to markets; the way products are developed, marketed, purchased, and supported; and the way that we work and live together. Every connection point between you and the people and systems that you use is being transformed by technology.

For example, consider how your customers interact with your brand, and the say you allow them to have in design. Are you closed to customer input about the next version of your product? Or do you survey your customers or run focus groups? How connected to customers can your product development process become? Openness is the main operating system for the social mobile cloud. External innovation in this case might mean using social networking specialists

to invite your customers to contribute their ideas directly into your product development process, inviting them all the way into a core part of your business.

Or imagine that police department I just mentioned. What could we achieve by encouraging citizens to record and report on police conduct rather than prosecuting them for doing so (as many states now do)? Can we make our cities safer by improving the accountability of our public servants? Can we restore trust in public institutions and reward the best police by calling out those few individuals that give the service a bad name through graft, abusive behavior, or negligence?

The History Lesson: Big Picture Thinkers Survive the Game

From 1994 to 2000, the early pioneers of the World Wide Web were like contestants on a reality TV show in which individuals are eliminated as the show progresses. The people who survived, successfully cooperated and collaborated, and created harmony with the elements were people who could take on any game challenge with confidence, but at the same time be discriminating about what was important for survival and what was not. Greed on the Web didn't help, just like power mongering and cockiness when marooned on an island doesn't help.

During the early to mid-1990s, pundits declared that the Internet would be an enormously disruptive force in the broader economy. Companies and entire industries would be transformed, consumer behavior would shift, and entirely new business opportunities would emerge.

Then something went horribly wrong. A long period of tech industry expansion (1980–2000), quickly became the dot-com bubble. Overhyped companies promising to become empires just because they could manage to deliver pet food or gift baskets collapsed or radically refocused into much more modest businesses.

In the midst of frenzied investment into this future, two small facts were overlooked:

First, it takes time for technologies to be broadly adopted and for consumers to shift their basic patterns of consumption. The expectations of financial markets that these businesses would create avatar-dependent consumers (or any number of radical ideas) in a matter of fiscal quarters were simply unrealistic. Just building the fiber optic

infrastructure required for high-speed Internet access to become ubiquitous took longer than that, even though jackhammers were digging up sidewalks and city streets all over the country as fast as possible.

Second, the mechanisms needed to operate these new markets with all of their new interrelationships were still being invented and would take time to mature.

These two factors were juxtaposed against the short attention span of the financial markets. The result: Excitement over the potential long-term impact of these technologies encouraged an investment cycle that had nowhere to go but crash. The immediate gratification expectation simply far exceeded the tangible impact of the technologies. Capital was also inefficiently allocated into too many firms. Because capital was too readily available, firms were merely mimicking one another, creating far too much supply for slower growing demand.

Early on in the development of a new technology, there is always excitement about its potential. Companies engaged in this new business area are able to attract press coverage beyond their relative merit because innovation is perceived to be more newsworthy than established technologies and businesses. Unfortunately, publicity can sometimes outpace the development of markets for the new technology. The resulting crash sends the media and weaker business off to look for new opportunities.

But for technologies that are destined to prove themselves and eventually have a real impact, there is a steady rise into a mature and sustainable marketplace. These companies are likely to become successful and highly valued corporations.

Applying this to the Internet sector as a whole, we see the cycle from 1994 to 2000 as a period of steep, hyped-up rise, collapsing with the dot-com bubble into a deep trough of disillusionment. Now that we are collectively disillusioned about retail investing in the tech sector, it may be hard to imagine that not so long ago we overlooked a hype cycle, a term many today consider obvious.

But remember that technological innovation and adoption are a steady, cumulative phenomenon. So the important message to take away from the hype cycle of the 1990s is to focus on what happened to the best companies, the ones that survived the plateau of productivity: Many of them have gone on to become world-leading businesses. Knowing which companies survived the financial market storms in the

1990s is your first step to having a trained eye for worthy technology players. Several companies were created in the Internet boom cycle starting in 1994 that are today highly valued and productive companies, despite the overvaluation and subsequent crash of the dot-com era.

Just as the market had overvalued and overinvested in the Internet sector in the 1990s, a period of undervaluation and underinvestment followed, even though the underlying fundamentals driving the value of many of these companies continued to develop at a steady pace. This is also typical of the financial markets, which tend to follow a collapsed greed cycle with a fear cycle.

Many of these new companies succeeded because they recognized the critical factor that technology had come to play in their industries where traditional companies denied or ignored the new role that technology was playing in redefining how markets functioned, product and service definition, customer expectations, and even how the companies were organized internally or operated in conjunction with partners.

It is especially hard for companies in nontechnology industries to grasp the importance of embracing technology in transforming businesses. Many companies have entirely outsourced technical expertise, thinking that it is unimportant since they are a manufacturer or a retailer or shipping company and not a software company. But it would be a mistake to underestimate the strategic importance of the social mobile cloud. These technologies have a tendency to change everything about how a market and an industry function.

The other characteristic to look out for is in your own behavior and that of your colleagues. I mentioned earlier that this is 80 percent about people, not technology. One of the most detrimental side effects for thought leaders in business is to throw out the whole concept of a technological evolution, or even revolution, during that stock market fear cycle I mentioned, the one that follows the greedy hype cycle. But it is about how you shift behaviors, develop skills, and put new processes in place that will determine whether you and your colleagues will successfully navigate your business to adapt to the social mobile cloud.

Don't fall into naysaying (which later I'll call the Denial stage of the ADAPT process) and believe you can return to pre-Internet business models. It will be the attitude that renders your business

obsolete. When you evaluate companies that have been successful and all the indicators of a true industry re-inventor are there, recognize that people and their behaviors and adaptability have made the difference. As a businessperson you already know this in the following corollary: If you want to be somewhere solid in five years, you better start now.

If you need reminding that the Internet business model is here to stay, consider just how many examples there are. It's no longer the exception, but rather the rule: Think about how the encyclopedia industry has been reinvented. What else is silently becoming less important or disappearing? How often do you still use those yellow-paged books the phone companies drop by our doors? How frequently do you walk into a bank versus even five years ago? How many of your bills does the mail carrier still deliver? When was the last time you spoke to a travel agent? Have you bought any record albums or watched any videotapes recently? Have you mailed any letters? Which brand of film is best is another question we hardly ask now—because many of us don't use film anymore. Digital transformation has forever changed all of these things.

And this is just the beginning, because now it is not just digital formats replacing analog and the Internet connecting us to one another. Now it is about using an expanding array of portable digital devices to access the Internet from anywhere, anytime, for both personal and business use and an integration of digital into everything else. The social mobile cloud is the way we are all starting to live and play, and it is the way we will all do business.

Build for the Social Mobile Cloud

Think about how to build your business for the social mobile cloud. You don't want to add social mobile cloud functionality later. If you do, you'll be significantly behind competitors, and catching up might be impossible. Your digital engagement capabilities—whether with employees, trading partners, or customers—will always be piecemeal, you will be in constant need of upgrading, which translates to far greater expense than it would cost to do the whole job at the outset. Wait and you will spend more and still come away with a less functional result. For your industry, ask yourself if there is a way your competitors could create a barrier to entry by leveraging the social mobile cloud. Can you get there first?

Our remote control smartphone will have an app for absolutely every function in our personal and professional lives. The word *phone* itself is quickly becoming some linguistic evolution curiosity—like "dial a number" or "tape record." We'll continue to use the word *phone* despite the declining use of such devices to make calls although you can expect our children and grandchildren to have no idea why we call it a phone. Most of the time we won't use these pocket computers to make calls, we'll be using them to interact with information systems.

We are in the midst of an enormous transformation in the human-machine interface, precipitated by these new remote control smart-phones. The revolution of windows, menus, and mice that defined the second generation of computing (graphical user interfaces instead of command line instructions) and made it broadly accessible is rapidly being replaced by a third generation. Touch interfaces, virtual "physics" on the screens, and immersive computing environments where computation, sensors, and voice communications are embed-ded in everything around us will make the computer disappear, blending with everything with which we interact. In 10 years, the computer mouse will seem just as quaint as the punch card that was once used to program computers. We'll simply talk to the computers all around us, and they will organize themselves to best meet our requests.

The Time Is *Now*

The process of setting up a business to be functional for a social mobile cloud workforce, with mobile business partners and mobile customers—which is an imperative, not an option—requires starting now. Remember, all technology deployment, companywide policy setting, and learning curves take time. In fact, *every* part of your business will have to change to make your company ready for the social mobile cloud way of doing business in your industry. If you wait, someone other than you will invent the app that will destroy your business.

In part, the social mobile cloud revolution snuck up on us because we were distracted by the housing bubble, sovereign debt crises, and other political and economic problems. But much more pertinent is that our new way of functioning is coming on fast and furiously because the underlying technology is moving so much faster than we have experienced in past booms. And the key is that because it

involved so many more people, the phenomenon of hitting critical mass naturally occurred quickly.

To fully understand the implications of the social mobile cloud for all businesses, you need to understand how that critical mass point occurred and how the social mobile cloud boom came to involve so many more people. And to understand that, I will need to go a bit deeper into the technological trends of social networks and cloud computing.

Social Networking Is the Fastest Growing Technology Ever

Mobile may be growing like wildfire, but social networks are growing even faster, and in fact are the catalysts for mobile (hence, my insistence on using social mobile cloud instead of mobile Internet). Social networks are the watercoolers of the virtual mobile workforce. Peers in a workplace do not collaborate well, or form successful teams, until they can know one another in a somewhat personal way. Social networks humanize the mobile workforce.

And the virtual watercooler point is merely stressing the importance of social networks for internal corporate functionality. The social network technology, these communities, also supply all businesses with a mechanism for marketing, advertising, public relations, purchasing, sales, potential partnering, and even funding!

In short, because of social networking, we are all developing online social peripheral vision, which is the impressionistic understanding of what is going on in the social networks—what is going on with the people in every aspect of our lives—even at times when we are not directly engaged. That awareness, which ultimately means the intent to engage with people at some point, is now an integral part of the lives of your employees, your business partners, and your customers. It means that you are more connected to people than you have ever been. That connectedness leads to openness—sharing ideas instead of hoarding, responding to a group's articulated needs and desires. *Share everything* is the hallmark quality of the social mobile cloud, a quality you absolutely need to embrace in your business culture to survive.

In the book publishing business, social networking can prove viability for a book deal through an author building a following. If the number of connections surpasses the average number of books traditionally sold, that author may have leverage in negotiations. In the same breath, the e-book is becoming front and center in terms of

how people will read and share books. The trend of e-books, the tablets for which are now sold by many book retailers, proves the relationship between the social, transferrable quality of commodities today and our ingrained mobility. Who will travel on subways or airplanes carrying heavy books when they can pack 10 novels on an e-book reader?

A related trend is happening in the television industry. Television networks now gauge a show's success using social media. The number of social network followers for any given show vies with the traditional rating system in terms of providing a tangible indicator of a show's viability and success. In every business we can evaluate the social engagement with our product and brand and learn how things are going. Was the new product release received well by the market? Why wait until the quarterly financial results come out when your customers are talking about it now?

The Cloud: The Connective Tissue

All technologies in the social mobile cloud work together, so the infrastructure and applications must be built together. You must fund your ADAPT process for social and mobile and cloud technologies together.

Think of the cloud as infrastructural, like the electricity grid. When you turn on a light, you don't need to know how it works, where the power is coming from, or need special lightbulbs, switches, or knowledge of operations. You don't have the grid in your office building, you don't pay for the infrastructure except indirectly through your usage. If this were an economy and power structure of 100 years ago, the government might have even appropriated cloud technology, and it wouldn't be private technology companies owning that infrastructure but public utility companies.

There are four technologies that are rapidly standardizing which create the new reality of cloud computing. Servers, networks, storage, and software are converging on a set of industry accepted practices such that companies are all building data centers that pretty much look like one another. And the best part is that as a business user you don't need to understand any of this—it is all just out there somewhere and you can connect.

The cloud allows us to shift how we think about the IT department and the role of the CIO. IT operations are declining in importance in

what you need to worry about in your business—but don't confuse this with needing to understand IT. There is still an enormous role for technology understanding in your business—but the need is for a different skill set. Instead of managing the systems of IT—data centers, networks, and equipment—the CIO's job is increasingly that of a business solutions broker. How can the goals of business continuity, data security, and increased business functionality be best served through orchestrating solutions in the social mobile cloud? How can IT be the enabler for business transformation? Can IT change the way every functional department works across the enterprise making us more efficient, more capable, and even happier?

Using the cloud to run any size business is an easy habit to form because it cuts technology costs as you adopt, innovate, and transform your business. (Perhaps I should have started this entire book with that sentence!)

In simplest terms, cloud computing means you no longer have to own expensive technology that serves, archives, and communicates. You pay a metered rental fee, and are hosted, precisely like utilities. You use mobile devices (sometimes called "edge" devices) to access this data, with very little persistence in the computer we hold in our hands, and everything remaining in the cloud. In Chapter 4, I'll go into detail about the technological benefits of the cloud, such as instant access to cross referenced databases on the Internet, analytics-driven data mining, synchronizing data across any device regardless of retrieval location, and literally having your entire marketplace and supply chain just a few taps away on your smartphone.

Digital transformation is the end of the tyranny of brick and mortar and the rise of the social mobile cloud. People have talked and talked about how brick-and-mortar retail will fall to the Internet, but people have also been talking about the death of radio for 20 years now. Now that the Internet is in everyone's hands what is actually happening is that mobile devices are transforming the experience of brick-and-mortar businesses through information on demand and social engagement. There is a fallacy in thinking that it is possible to live all of life on the Internet, that we are capable of being online beings that use the globe as a village. This is an extremist point of view held by some technologists. You need to remember that people live locally, not globally, and the businesses that do best are ones that find a way to engage people in both the physical and online worlds, and

have both of those worlds tailored to local underpinnings. It is much like the old saying "think globally, act locally."

In the same breath, the challenge is to understand that every business can span the globe instantly but must be expressed in locally relevant ways. When we get to the cloud technology chapter, you'll understand why the Internet search has become so pervasive. When you think cloud, think search. Key in what you want and you access it, whether it is the nearest cafe, the lyrics to an old song, a map of a remote African village, or the ability to share an editable PDF document with a simple link on a social network. Now take it one step further in your thinking: Yes, you can have customers across the globe, but tailoring your offering to their local existence will be key. Naturally, there will be certain needs, like searching for the nearest cafe, which lend themselves to being local, while other needs, such as lyrics to an old song, are global, without the need for a location. Understanding how both needs go together will enable you to fully engage in the social mobile cloud.

By "fall to the Internet," it's important to note, again, that I mean to emphasize wholesale reinvention, not just retail: everything we do in a physical world—school, work, and play. Front end and back end. There is no longer so much of a separation. The expression *plork*, which is play + work = plork, was coined to describe a very real feeling that people are having about their lives. As we move from sustaining ourselves to thriving the next step is self-actualization and a natural state is to actually enjoy the work we are doing.

In part, the social mobile cloud will have a more profound effect on society than the rise of the Internet because it brings the Internet into more people's hands, in more places, and for more time (try all the time). There are all sorts of implications of what a place is, which I'll get to in the individual discussions of social networks and the cloud. These are all multipliers on impact.

Buy a Smartphone Now

Ultimately, the most important concept of social networks and cloud computing technology to integrate into your thinking, as a consumer as well as a businessperson, is that the smartphone is the remote control for your personal life, as well as for every interaction with human and machine in the workplace.

In Chapter 5, I will detail the ADAPT process, but here I'll provide a little bit of foreshadowing—acceptance is the first step if you don't want to fall behind in the game. Accepting the reality of being mobile and therefore constantly accessible and accountable, engaged in social networking, and operating via an offsite cloud infrastructure, isn't something that will happen without some work. In order to fully grasp the implications and how to properly ADAPT the social mobile cloud into your business and industry, start from the consumer point of view.

If you don't have one already, purchase a smartphone and start using it. In the future no one is going to leave home without this remote control for their life. Especially because the smartphone will become our wallets and our keys in addition to being a ubiquitous lifeline to information and people.

In terms of other immediate technological acquisitions, also purchase a tablet if you can. You need to see how the cloud, and lightweight mobile tools, with enticing tactile and visual elements, and of course connected to the Internet, are changing the way we function. And when you use the cloud to access the same data across your computer, smartphone, and tablet, the endless possibilities of the social mobile cloud become instantly clear. People say they're addicted to their smartphones for good reason. People are addicted to their traditional television remote controls, after all, which have a fraction of the functionality of a smartphone, in a universe infinitesimally smaller than the global Internet.

There is no turning back. These trends are here to stay, and are the foundation of your thinking as I move on to the discussion of individual technologies in social, mobile, and cloud, both in terms of existing and future applications. By the time you get to the second section of this book, the implications for businesses and society, you will be able to start creating a special team, one inside your company whose stated goal is to figure out how to destroy (reinvent!) your company and industry.

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