



Mobile Entertainment Analyst

In-depth coverage of the wireless entertainment business

China's Mobile Market Potential

By Norbert Chang

Several years ago, the idea of entering the Chinese market seemed too risky for some. But the time is rapidly approaching when it will be irrational not to enter this enormous market, and those who hesitate will be seen as the real risk takers. With the serious potential revenue that can only be generated in a country with roughly 1.3 billion consumers, and an economy that enjoys an 8% annual growth rate (2002), China offers a growing number of compelling reasons why outside companies should seek entrance. For wireless developers, China is currently the marketplace

to see and be seen. The enormous numbers, key user habits, encouraging business models and potential for profit create a sound case for having a strategic presence in this market.

Market definition

It was well publicized when China surpassed the US as the world's largest wireless market, but the news came as no surprise to those on the inside who have been working to shape and form this rapidly evolving environment. The ever-growing statistics continue to

demand attention and repeatedly confirm what many already know to be true: Wireless in China is big business, and it will only get larger. There are currently more than 220 million subscribers, and, on average, operators are adding more than 4 million new subscribers every month. During Chinese New Year celebrations (2003), China Unicom and China Mobile users combined to send a total of 7 billion SMS messages. Compared with other key markets, China has maintained steady growth, and the potential for further advances

Continued on page 4 ►

Endorsed by the



Contents

1 China's Mobile Market Potential

Norbert Chang shows us how to scale the Great Wall

2 What's a Mobile Community?

Greg Clayman makes the introductions.

2 Coin-Op Model

Dan Scherlis suggests mobile could learn from the arcade

6 Technology Explained

Bluetooth
Multiplayer: This year's killer app?
Cashman Andrus takes a bite out of Bluetooth

9 Handset Highlights

Samsung SPH-A600
TTPCOM B'ngo
Sony Ericsson Z1010
Sanyo SCP-8100

What's a Mobile Community?

By Greg Clayman

Emily sits outside school waiting for her mother to pick her up from soccer practice. Mom called her on her cell about 10 minutes ago to tell her she'd be a little late, and now Emily is bored. She composes an SMS message on her phone, which beeps instantly with the message she's written:

To: chatroom36
From: Ruben4Evah
NE1 want to chat? I'm stuck
waiting 4 my ride. :-)

Thousands of mobile devices around the country come to life instantly as the message reaches the members of the "chatroom36" group.

The replies begin to stream in:

To: Ruben4Evah
From: KissyDog
W'sup girlfrnd where U @?

To: Ruben4Evah

From: ClayFan23

A/S/L? ;-)

To: Ruben4Evah

From: Pants

Hi! Wutz goin on? Is ur ride flaking?

And so it goes. Within seconds, Emily receives and sends a flurry of text messages. She chats with old friends, makes new ones, argues the merits of each American Idol finalist with strangers, and so on. By the time her mother arrives Emily has forgotten to be mad at her.

Meanwhile, Chris is sitting on a New York City subway car when a woman who must be a model gets on at Prince Street. Chris slowly moves toward her end of the car as he surreptitiously removes his Nokia 3650 from his coat pocket. Pretending to type a message he

Continued on page 8 ►

Learning from Coin-op Games

By Dan Scherlis

Report from the ASI Show

Mobile games are constantly compared to retail (PC and console) videogames. We draw parallels - or focus on differences - between business models, hardware and game experiences. Meanwhile, mobile game developers follow the videogame developers' lead and ignore coin-op games, even though in many ways, coin-op is a better model for the new mobile-game industry, and it has faced some similar challenges.

In contrast to retail games, both mobile and coin-op games must be designed for a series of dramatically short, three- to five-minute experiences, often strung into a 20- to 30-minute session. Developers of both have limited ability to reach the consumer, with a mere handful of games found atop a mobile operator's "deck", or at the average coin-op location. Both are sold by operators who take jealous ownership of the customer and survive only by careful management of many small revenue streams. There were other parallels: a hunger for original product, loyalty mixed with resentment for the dominant players, shifts driven by advancing technology in key success factors, and a wild-card factor introduced by the Internet and online gameplay.

...coin-op is a better model for the new mobile-game industry.

I recently attended a coin-op show in Las Vegas and have spoken with various coin-op executives. As a retail-game developer familiar with E3 and GDC, I was pleased to find a familiar industry culture and a surprising openness for such a mature industry. The show was held in tandem with the Nightclub & Bar Expo, which offered predictably wild parties, show-floor liquor samples that were excessive even by Las Vegas standards, and - from the few game vendors on that huge show floor - some valuable insights into the "street location" subsegment, which is subject to economic and creative forces unique within coin-op games.

Coin-op games are big business, even now

In 2002, the 200,000-plus North American coin-op locations drew in excess of \$3.5 billion, more than twice the revenue of PC games but short of the \$6.9 billion total for retail games. With no growth, and an "old tech" image, coin-op is little loved, and much neglected, by Wall Street analysts. (My figures are from Play Meter magazine. Vending Times reports different numbers, often by a factor of two.)

Coin-op game revenues have decreased or stayed flat in recent years. Classic arcades' sharp decline is almost balanced by growth at "street locations" (bars, nightclubs and restaurants). Giant family entertainment centers ("FECs") draw as much weekly money per machine, but 20% of FEC locations closed in 2002, perhaps reflecting an over-investment inspired by the mid-1990's "location-based entertainment" fad.

Of the 750,000 coin-op machines in service, industry insiders distinguish between dedicated consoles and countertops. The latter are almost always found in bars and nightclubs and are dominated by Merit Industries' touchscreen boxes.

The search for recurring revenue

The average coin-op game draws \$90 weekly. The "coin box" (which increasingly contains more bills than coins) is split between the location and the operator, who buys the game outright from a distributor, rarely from the game's manufacturer. Thus, a hit game's creator is rewarded by selling many games, but does not see the incremental revenues of even a \$300 per week monster. The manufacturers respond by limiting the depth of play per machine, holding back for the sequels. A manufacturer might release new versions of a hit game annually, each one earning an average \$4,300/machine for the operator. A mega-hit, such as Golden Tee from Incredible Technologies or Konami's Dance Dance Revolution, means that the manufacturer can pressure the operator by dating the game (for example, Golden Tee 2002 is already looking stale) or by highlighting those locations wise enough to host, say, DDR 8th Mix on Web sites. The top titles earn their upgrades; Golden Tee alone earned operators \$350 million worldwide last year.

The average coin-op game draws \$90 weekly.

Content-creators will adapt to the irregularities within any business model. In mobile games, a game's publisher can expect to share in download charges and SMS fees but not in data-usage or per-minute charges. This structure - and the resulting scarcity of free demos - drives risk onto the subscriber, who is gambling on most new-game purchases. Therefore, mobile games, like coin-ops, offer predictable play experiences, supported by recognizable brands.

Many coin-op games have an online component, typically accessed via a nightly dial-up, so that operators can monitor receipts and adjust pricing, difficulty, and even volume. This feature is increasingly harnessed for

cash-prize tournaments. It also enables some industry restructuring, through online delivery of content, and allows manufacturers to share in the coin drop. For example, Ecast is a startup focused on broadband delivery of jukebox music, integrated with games, with a share of the coin-box revenues going direct to Ecast. This bold strategy is being closely watched. As one major operator observed, such revenue sharing "is clearly our future. All I can do is hinder it as long as I can."

Golden Tee alone earned operators \$350 million worldwide last year.

Where's the original content?

Most operators agreed that countertop games are saviors for their businesses. Yet last year, the average countertop's gross dropped 20%. This is likely due to the machine's software — an assortment of basic parlor and puzzle games — and should serve as a warning to the mobile game business. Basic commodity games might have novelty value, and be great fun, but they do not tend to deliver depth or command loyalty and repeat play.

In retail games, the industry leaders have focused on premium, "AAA" product. The "B-publishers," by contrast, have been all but eradicated. Internet games share a similar history; although dot-com madness spurred a brief obsession with huge free-gaming Web sites, the executives of those free game-sites tend to agree — in private, of course — that "only the premium (or massively multiplayer) online games make money."

The premium coin-op games are the dedicated uprights and simulators. Although their averages are holding steady, there is widespread dissatisfaction with the lack of original content. Rick Kirby, president of industry-leading distributor Betson, notes that today's arcade games are the same types, and feature the same themes, as those of the 1980s. Game operators also complain about derivative, unimaginative and violent games. Similarly, the frequent refrain at mobile-game gatherings is "Where are the premium games?"

Hardware goes away

As PC hardware advanced rapidly, making dramatic progress in 3D videocard technology, opportunities arose for developers to compete based on their ability to exploit and showcase new technologies. Arcade games in the 1980s could compete with in-home

games by offering a technical standard that could not be met by that era's PCs or game consoles. Since then, technology has declined as a competitive factor; PC, console, and arcade games alike have leveled off at an impressively high level of video quality. In the case of retail games, this has led to wide complaints that games now look alike, and that developers have lost focus on innovation. For arcades, the leveling of technology has removed an important technological advantage over in-home entertainment, at least for the traditional upright console. Established leaders Sega and Namco continue to thrive. They use standard X-Box and PlayStation technology, and lead by emphasizing game design and building branded franchises. Other leaders, such as Konami and SNK, have failed or backed away from coin-op, while content-focused specialists such as IT and GlobalVR have thrived.

The arcade cabinet has become standardized; basic connectors allow operators to change games with a \$1,600 kit. That kit also is seldom a proprietary board. Most manufacturers are moving to standard PC architecture, running Windows or Linux.

This pricing structure is familiar, of course — coin-operated videogames are still a multibillion-dollar business in the US.

Mobile technologies have been slow to standardize, but today's breadth of interfaces and device-specific details will eventually narrow to a few, stronger standards. As with coin-op, standardization will transform the competitive landscape for mobile content. WordStar and WordPerfect led as PC applications in their day, largely on the strength of handling a wide variety of printer interfaces. Windows eliminated that need at a stroke. For mobile games as well, we can look forward to a competition driven not by mastery of annoying detail, but by creative excellence and market sensitivity.

Lessons to be learned

Coin-op games, like mobile games, are designed for first impressions and for brief bursts of game play. Most games in both media are simple, with limited replay

Continued on page 10 ►

China's Mobile

Continued from page 1

remains unflagging. Still relatively low at 15%, the market penetration rate indicates that an enormous portion of the market potential has yet to be realized and is still waiting to be capitalized upon.

The market potential in China is beyond question. One common marketing challenge, however, is defining the number of markets that exist within China and then addressing the issue of how to penetrate them most effectively. Anyone unfamiliar with the wireless landscape might be lulled into thinking, mistakenly, that all users are the same, and the market is unified. At the corporate level, there are two primary operators, China Mobile and China Unicom. However, some provinces are larger than most European countries, and within these provinces, cultures can vary drastically. By some estimates, there might be as many as 31 Chinese markets. What is wildly popular in Beijing might be thought too simple or old-fashioned for a Shanghai audience. A wireless dating service may be acceptable in Guangdong but lie beyond the interpretation of legal boundaries in a more traditional market like Fuzhou.

China Mobile and China Unicom delegate significant independent decision-making authority and autonomy to the provincial operators. In doing so, both have acknowledged the nation's cultural, political and socioeconomic diversity. Different regions have different standards, platforms, market segments, and hence require individual relationships. And while not all markets are of equal financial or strategic importance, it is key to realize these divisions can act as barriers to a comprehensive

market presence. Top-level connections with China Mobile or China Unicom are vital to establishing a long-term position, but for actual revenue and income, provincial operators are paramount, rendering the need for complex and resource-consuming relationships at both levels.

Just as there are distinctions among the provincial operators, so too do differences exist among the individual users and their habits. Due to the sheer size of the customer base, it is impractical to expect a high degree of uniformity of user patterns and characteristics. While the wireless divisions of large Internet portals that frequently report revenue of more than \$5 million each quarter continue to dominate the current SMS market, the shift to new technologies is unmistakable. There are numerous trends that point to an increasing demand for services beyond SMS, such as the number of early adopters and the rapid uptake of new technologies within a few important demographic user groups.

With the introduction of GPRS coverage to key markets, the entire wireless value chain has seen an increase in activity. From the independent vendors who sell the latest Java phones, all the way to the operators who are migrating their customer base to a new technology, revenue is steadily increasing. In less than a year, demand for services has driven up the numbers of revenue-making GPRS applications from nothing to 280. Much of what is happening in China today is reminiscent of the early wireless boom in Japan. Like early Japanese growth, games, ring tones and icons account for 53% of China's GPRS services. User lifestyles also demonstrate many parallels, including a long daily commute and low home PC/Internet penetration rate. China's operators are doing their part to help create a similar environment: The chosen business model has mimicked Japan's, with

China Mobile and Unicom charging content and application providers approximately 15% of each exchange. This policy is spurring developers to produce compelling content, in turn creating more ARPUs, hence facilitating more migration.

...operators are adding more than 4 million new subscribers every month..

For wireless developers, China is currently the marketplace to see and be seen.

For most wireless companies, the answer to whether or not to enter the Chinese market is probably obvious. The factors are in place, the technology is being used, and money is being made. With the issue of necessary presence established, the question then changes to market entry strategy. How does an outside company move into the heart of a vibrant and growing market?

When and how to enter

Often, when people think of China, they define the country and the people in terms of barriers. The most famous landmark, the Great Wall, was built for the sole purpose of keeping outsiders in their place, outside. People from countries with Latin-based languages often find the written and spoken forms of Chinese incomprehensible. For those not from China, the country and its markets can be a real mystery. However, lessons can be learned from earlier attempts at entering.

Looking to history, and returning to the Great Wall metaphor, small and independent raiders who managed to scale or climb over the barrier by brute force were often disappointed to find that they were unable to carry their

loot back over the wall again when it was time to leave. This example of a haphazard market entry strategy illustrates that forced entry into the market may be possible, but it can make for problems later on when dealing with the necessary government regulations. On the other hand, large-scale armies were unable to climb the wall clandestinely, but a few of them were successful anyway. Of course, no large army ever conquered the Great Wall through direct battle or by laying siege, but often such tactics were not required. Conquering armies generally convinced the guards at the gate to permit free travel by developing a mutually beneficial partnership, an early example of a successful market entry strategy. This lesson is important for organizations today that are trying to get around China's physical and cultural barricades.

By some estimates, there might be as many as 31 Chinese markets.

When speaking of entering and existing within the Chinese market, few outside companies can claim to have an actual, revenue-earning presence, much less a first-movers advantage. Not many companies have survived from the very beginning, but those who have learned some very important lessons and can enhance a later market-entry strategy through key partnerships.

First movers achieve immediate market presence, secure the operator relationship, and capitalize on the initial opportunity to gather user loyalty; those entering the market later benefit from a smoother road. By the second round, problematic technology is no longer a difficulty. Product launches become routine. Gone are the unexpected interruptions to serv-

ice, missing data, and quirks within the system. Marketing becomes easier as the end users are better educated, and past marketing campaigns can be analyzed and improved. With billing platforms in place, the revenue streams flow without undue loss. Experience diminishes the multiple crises and establishes a profitable pattern.

The easiest way to take advantage of a strategically timed market entrance is to separate the content production from the distribution. Inserting a product into an already mature value chain maximizes the market benefits while minimizing the resource expenditures needed to develop the process. If you can find a company with keys to the gate, you can confidently send your product into the market without trying to climb or knock over the ever-present wall.

The differences between the corporate-level operators and the provincial operators demonstrate the inherent value of this strategy. In the absence of a mature operator/distributor relationship, companies are faced with the daunting task of not only establishing rapport on the corporate level but creating synergies with the individual provincial operators as well. Big strategy meetings, policy conferences, and other corporate decisions are handed down from the central offices, but content providers ultimately want to get into the hands of the users. Reaching users requires the provincial operators, where marketing and trends are applied, billing takes place, and the real relationships bear fruit. Issues such as these make a proper market presence a far greater investment in resources than most companies are willing to make.

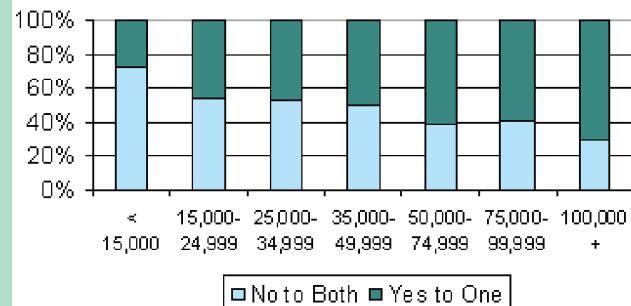
Conclusion

While many markets have promised great things, China has quietly, and without much fanfare, delivered on those anticipated wireless opportunities. The migration has been relatively smooth, growth

plentiful, and revenue consistent. All factors are positive and encouraging for wireless developers looking to jump into the largest market in the world. The technology is here, the users are multiplying, and the time to enter has arrived. What is your company waiting for? ■

Stat!

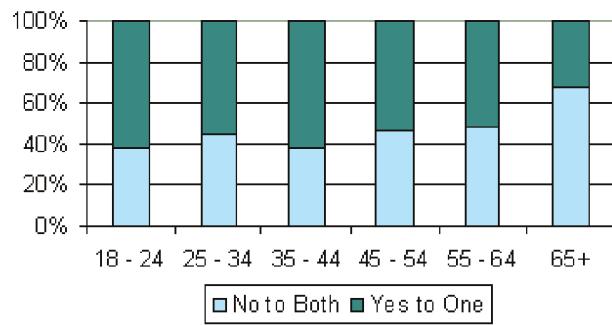
Unwillingness to Churn by Household Income (\$)



"No to Both" means respondents unwilling to switch to either mobile wireless plan at the prices they were offered; "Yes to One" means respondents willing to switch to at least one of the mobile wireless plans at the prices they were offered.

Willingness to churn (drop the primary fixed line connection to the home in favor of mobile wireless plans) rises with household income but declines with the age of the head-of-household. Households with annual income between \$50,000 and \$74,999 and with heads that are age 35 to 44 years may be a "sweet spot" for targeting a mobile wireless substitution campaign.

Unwillingness to Churn by Head-of-Household Age



Source: Primetrica

Technology Explained

Bluetooth Multiplayer: This year's killer app?

by Cashman Andrus

Bluetooth multiplayer is poised to become the feature that convinces serious gamers to regard mobile devices as worthy of their time (and money). Games that garnered a rather tepid response in single-player mode really started to shine in two-player mode, and the ability to play with other people so easily - no wires, no costs, and almost no configuration - seems miraculous to players accustomed to hauling their desktops and monitors to LAN parties.

Bluetooth multiplayer was one of the biggest stories in mobile gaming at E3 this year, with a wide variety of new devices emphasizing it, ranging from Nokia's N-Gage and TTPCom's B'ngo (on the phone front) to Tapwave's Helix entertainment PDA and even FreeON's low-cost game console.

It has taken a while to reach this point, but the 2003 holiday season promises to be the first big, mass-market test of Bluetooth games. Hundreds of thousands, or even

millions, of capable devices will be in users' hands by year end, offering a wide variety of games. Whether gamers will buy in is the big question, but Bluetooth's appeal is clear the first time you try it, and that should carry it a long way.

broadcasting licenses, but they must adhere to certain rules on maximum power and usage. Given Bluetooth's goals, that's not a problem, and the low-power operation means the chips can be small and cheap to manufacture, as well as make good use of limited battery power. Typically, maximum Bluetooth range is roughly 10 meters, plenty for a game with a few friends.

It's all in the profile

Bluetooth was designed for use in a wide variety of networking and cable-replacement applications. The technology is broken down into a "stack" of complementary protocols, such as radio specifications, packet layout and encryption. The upper layers of the stack are then formalized as "profiles," which makes it easier to identify dependencies between them and ensure compatibility across devices. Each profile describes a particular system for handling certain kinds of data. Some of them are very general, like the serial port profile, while others are quite specific, like the fax profile or the synchronization profile.

**...no wires, no costs,
and almost no
configuration...**

Stat!**I-mode Content Usage**

ring tones/wallpaper	73.10%
weather updates	29.00%
games	26.00%
maps/train tables	22.90%
search/links	22.40%
TV/Radio programs	18.30%
dining information	17.80%
online shopping	12.00%
banking/trading	5.10%
other	24.30%

36,666 users polled 2/2003 – 3/2003
68% women, 32% men
49% of respondents aged 25 to 34,
27% aged 15 to 24.

Source: Info-Plant (<http://www.info-plant.com/>)

Ten centuries of development

Engineers at Ericsson first sketched the outlines of the Bluetooth design in the mid 1990s. They had three goals: small size, minimal power consumption, and low price - a departure from the usual process of starting with high capability and letting Moore's Law take care of size, power and cost later. The technology was designed to be simple and open, in the hopes of establishing an industry standard for short-range wireless connectivity. Appropriately and cleverly, they named the spec that emerged for Harald Blåtand (translated as Bluetooth in English), the 10th century king who united Denmark and Norway under his rule.

Bluetooth operates in the unlicensed 2.4 GHz ISM (industrial, scientific and medical) band, which means no one needs to pay for

**Bluetooth allows
two ways of
networking multiple
users: piconets
and scatternets.**

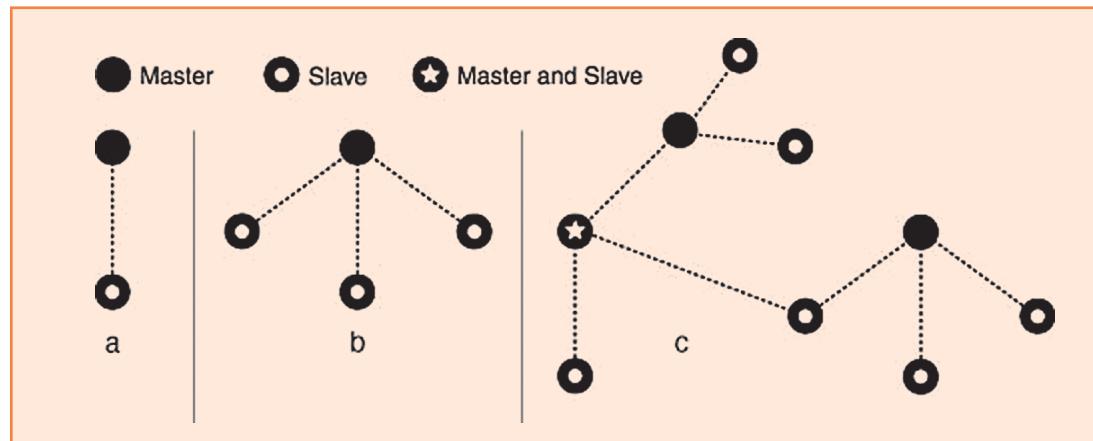
For games, two key capabilities need profile support: first, simple discovery and configuration procedures, and second, reliable connections with fast ping times. The configuration step is covered by the two lowest level profiles, the

Generic Access Profile and the Service Discovery Application Profile. Game developers use these profiles (suitably wrapped inside APIs from their platform provider) underneath simple lobby features in their games. Usually, "host game" and "join game" are the only options required of the user; the Bluetooth devices can do the heavy lifting of setting up connections, negotiating security keys, and establishing the link.

Bluetooth allows two ways of networking multiple users: piconets and scatternets. A piconet is the smallest grouping of Bluetooth devices, connecting between two and eight members. One member acts as the "master," controlling certain aspects of the radio codes used in the piconet, while the others are "slaves." (But watch out, because if the master shirks its duties, provisions permit one of the slaves to take over for the good of all.) A scatternet is a group of connected

J2ME is adding a Bluetooth API with JSR 82... and BREW 2.0 will also include Bluetooth support

piconets, where some devices are members of two different piconets and can pass data between them. At this point, many Bluetooth devices support only minimal piconets with just two members and offer no support for scatternets at all. Expect full eight-member piconets to quickly become the norm (e.g., Nokia's N-Gage will launch with support for four players, then support eight after a



Bluetooth connections: (a) minimal piconet, (b) larger piconet, (c) scatternet.

firmware upgrade), while scatternets remain primarily a research topic.

Once established, the connection will usually exchange data between the players via the serial port profile. This is a very bare-bones protocol, which means developers are free to treat it like any other standard networking connection (such as LAN or Internet) and do whatever fancy stuff they like on top of it, in their own code. Here, Bluetooth excels – latency is in the tens of milliseconds, like a fast DSL or T1 Internet connection – enabling fast action games that could never be played over GPRS's or CDMA's half-to-millisecond delays.

Optional standards

Until now, Bluetooth support has been found in native code, if at all. PDA and smartphone operating systems only added support for it in the past two years, once devices became commonly available. Symbian and Palm ship large quantities of devices with Bluetooth, and Windows CE devices are adding it as well. Solid API support means a fair amount of native software has been written to use Bluetooth, including more than a handful of games. J2ME and BREW are definitely lagging in that respect, although their upcoming versions will start to

catch up. J2ME is adding a Bluetooth API with JSR 82, which should be included in many manufacturers' MIDP 2.0 devices later in 2003. BREW 2.0 will also include Bluetooth support, which should help drive adoption significantly in the Americas.

With those standards in place, the remaining barriers to widespread Bluetooth multiplayer gaming are commercial – marketing, pricing and distribution – and creative – building great games that use the technology to its best ends. We'll certainly see, as we have before, the recapitulation of tried-and-true multiplayer game styles to the mobile Bluetooth platform: first-person shooters, kung-fu fighting, racing and the like. That's good, but so much more can be done. Creative game developers manage to come up with surprises every time a new technology emerges. We can't wait to see what Bluetooth inspires. ■

What's a Mobile

Continued from page 1

snares a picture of the woman and sends it to a picture-messaging group called "Hot or Not." The picture leaves the phone as Chris exits the subway station, and a hundred other members of that group are instantly alerted to the new picture message. Some see the image on their phones; others hop online to see the image there. Seconds later, the group has other messages in it:

To: HotOrNot
From: CheekyMonkey
Uh, I think that's Heidi Klum!

To: HotOrNot
From: Zooky
On a subway? No way.

And then the messages start going one-to-one:

To: Zooky
From: CheekyMonkey
How do u know that's a subway?

To: CheekyMonkey
From: Zooky
I can tell by the ads on the wall behind her.

Hot Or Not and Chatroom36 are real mobile groups on Upoc.com. The above scenarios, and many like them, unfold every single day as millions of messages pass to and from the 700,000 members of this mobile community.

Meeting other people

When we developed our mobile community application three and a

half years ago we weren't sure what to expect. We imagined people would use wireless group messaging to do things like keep in touch with their friends on the weekends. Or maybe schoolteachers would use it to send homework reminders to students before class. We set up our own groups to do things like tease coworkers (a wireless killer app if there ever was one) and schedule board meetings. As we integrated our application into the top North American mobile operators (as a private label application for some, an exclusive link with others), our community began to grow exponentially, and we noticed a startling trend: people were using Upoc to meet new people.

Almost as soon as people started forming groups they started organizing fan clubs for their favorite music and movie stars.

That's not to say that our users don't start their own small mobile groups for family and friends. Many of them do. Especially after the failure of mobile voice networks and the success of SMS messaging on September 11, we've seen more and more people start "emergency" SMS groups for friends and family. But what has really moved the needle in terms of data traffic is people making new friends via their mobile phones. There are now tens of thousands of chat groups. And tens of thousands of dating groups. And flirting groups. And regional groups. And groups defined by age, gender, race, favorite singer, favorite baseball team - you name it and there's a group for it somewhere and someone with a cell phone in

Stat!

Total Games Software Cumulative Sales Projections 2002-2006

Region		2002	2003	2004	2005	2006
UK	m	209.08	257.21	305.46	352.38	412.84
change	%	26.80%	23.00%	18.80%	15.40%	17.20%
Total Western Europe	m	808.39	977.04	1,147.33	1,314.06	1,503.80
change	%	24.30%	20.90%	17.40%	14.50%	14.50%
Total PAL countries	m	922.05	1,122.21	1,313.43	1,500.14	1,688.57
change	%	25.50%	21.70%	17.00%	14.20%	14.30%
USA	m	1,224.18	1,473.96	1,716.24	1,940.50	2,181.75
change	%	23.30%	20.40%	16.40%	13.10%	12.40%
Japan	m	441.38	504.5	569.36	637.18	706.75
change	%	13.70%	14.30%	12.90%	11.90%	10.90%
WORLD	m	2,576.13	3,077.57	3,575.93	4,054.72	4,577.07
change	%	21.70%	19.50%	16.20%	13.40%	12.90%

In millions of US dollars

Source: Screen Digest

their pocket ready to chat with you via SMS.

A mobile community offers all the benefits of anonymity (Upoc users choose a "handle," or nickname, to develop their mobile identities around; their phone number, location, and so on are all hidden from other community members) coupled with the always-with-you, always-on experience that only

Madonna sends text messages to her fans, as does Destiny's Child.

mobile provides. Mobile phones are still, first and foremost, communications devices. While the uptake of mobile games, ring tones, and other wireless content continues to grow, the main reason most people buy mobile phones is to communicate with other people. That desire to communicate (especially strong among the Gen Wireless youth market) is also the driving force behind mobile community. People, it seems, are inherently social creatures. Even when they're in places where their only companion is their mobile phone.

And the proof is in the data traffic. At last count, Upoc is responsible for more than 4% of all SMS traffic in the US. But the data only tell half the story. Members have met in communities and moved in together or gotten married. Creative members hold "virtual parties," with members texting each other details like what song is playing, what drinks are being served, even who is hooking up with whom in the coat room. One intrepid user recently set out on a tour of the United States, driving across the country and texting his various groups along the way in a bid to meet up with as many "mobile friends" as he could.

Branded communities

Almost as soon as people started forming groups they started organizing fan clubs for their favorite music and movie stars. Fan clubs are a natural fit for the mobile space, as hardcore fans have a tendency to want their news and gossip as soon as they can get it. If Lil Bow Wow is going to be on "Late Night with David Letterman," fans want a message alerting them to that fact the evening of the show. Additionally, the ability for artists and sports stars to leave voice messages for fans (as NASCAR driver Ryan Newman recently did after safely walking away from a nasty crash) has led to a very virile and active community of wireless fans.

Many media and entertainment marketers have taken advantage of this trend by creating branded mobile fan clubs for their artists. Madonna sends text messages to her fans, as does Destiny's Child. The Red Hot Chili Peppers sent out exclusive song clips before the release of their most recent album, and the Charlie's Angels mobile community recently launched on Sony and Cingular's Web sites. Many companies are beginning to take advantage of the ability for fans to

The strongest communities operate independent of access point.

sign up for mobile communities by sending an SMS to a cross-carrier shortcode. For example, this summer Upoc will be launching dozens of "in-venue" programs that use this technology. At baseball stadiums and concert halls around the country, fans will be able to join a wireless program instantly by sending a message to codes promoted on Jumbotron, via PA announcements, and via other on-the-ground promotions.

Continued on page 10 ►

Handset Highlights

Samsung SPH-A600

Modes: CDMA 1xRTT 800/1900, AMPS

Target Market: mid-range

Screen: 128 x 160 pixels, 16 bit color, TFT

Apps: Java MIDP

Available: summer 2003 from Sprint PCS

Samsung and Sprint work together to emphasize gaming with this new folder. The top section flips around and down to expose the screen, and then the whole phone slides into the GamePad accessory. Result: a gaming device with the keys in the right places, and no danger of accidentally killing your game by pressing the End key.



TTPCom B'ngo

Modes: GSM 900/1800/1900

Target Market: free with contract

Screen: 220 x 176 pixels, 65k colors

Apps: WGE, Java MIDP

Available: Q4 2003



B'ngo is one of the most impressive and interesting mobile gaming device plays we've seen, and the story keeps getting better. TTPCom designs a lot of the boring parts of phones, besides their WGE game engine. B'ngo brings these together, with a complete "ecosystem" so carriers, developers and manufacturers can all cash in on mobile gaming. Could be N-Gage's most serious competition when it launches in Europe this Fall.

Sony Ericsson Z1010

Modes: WCDMA and GSM 900/1800

Target Market: high-end

Screen: 176 x 220 pixels, 65k colors,

TFT main; 101 x 80 pixel, greyscale external;

Apps: Java MIDP

Available: second half of 2003



Sony Ericsson's first WCDMA phone, the Z1010 offers high-end features in a classy package. Both the design and the spec are heavily Japanese inspired: dual cameras, MemoryStick Duo removable flash card, colorful clamshell case. Entertainment should be a focus, but the price and expected volume have not yet been announced.

Sanyo SCP-8100

Modes: CDMA 1xRTT 800/1900

Target Market: low- to mid-range

Screen: 120 x 144 pixels, 65k colors main; small 4k color external

Apps: Java MIDP

Available: now from Sprint PCS



Sprint pushes picture messaging and Java games further into the mass market with this new Sanyo phone, now selling (and selling out) for a bargain price of \$100 with contract. In an especially clever move towards getting the consumer press to pay attention, Sprint gave a free 8100 to each of the journalists who attended their E3 press event.

Coin-Op Model

Continued from page 3

value. This aspect pressures coin-op and mobile operators to constantly update their offerings. A few "killer" coin-op games dominate, offering carefully tuned gameplay and high replay value. Mobile operators and publishers generally undervalue the subtle differences that define such top games.

There have been dramatic changes in coin-op industry leadership, as technological advances changed the nature of competition. Further changes are likely, as online connectivity spreads. Mobile game leadership is less defined, but major changes have already occurred as the focus shifted from WAP browsers to downloadable games. As premium mobile games emerge, taking fuller advantage of the network and showing higher production values, we should expect another wave of changes.

Mobile games are new, high-tech and the subject of much analysis. But amidst the excitement of mobile commerce and of wireless delivery, it pays to be mindful of what mobile gaming can learn from games deployed with cash commerce and delivered in big trucks. ■

What's a Mobile Community?

Continued from page 9

One of the best features of branded mobile communities is that they can live on well after the promotional window has closed. Verizon Wireless' Lord of the Rings community is a perfect example of this. One of the groups developed for this promotion was "Elvin Chat," for people who speak Elvish (the language created by J.R.R. Tolkien, and yes it's a "real language" – think Klingon...). Turns out there aren't many people who can speak Elvish, and those who can tend to want to find others who can. Once they do, they want to speak it all the time. Thus, an always-on Elvish SMS chat group became another killer app in the space, and, long after the movie's release, there are still hundreds of people in the group chatting away in Elvish today.

What's next?

Expect to see an explosion of MMS groups as picture phones begin to permeate the market. A large picture-phone issue is that, unless you know someone else with a picture phone, you don't have anyone to send your pictures to once you've taken them. Cross-carrier MMS communities address that problem, allowing one to send picture messages to many phones at once, which also creates tremendous revenue opportunities for carriers. Already phone snaps of celebrities have been sent to our "NYC Celeb Sightings" group. And yes, our users are already exchanging more "explicit" pictures as well.

Also look for marketers making more creative use of this trend. We continue to roll out mobile communities for producers of music, film, and television product, as well as for handset manufacturers and other marketers of consumer goods. As other functionality like polls, quizzes, contests and games comes online, more and more companies that are not traditionally in the wireless space express interest in using this technology for CRM, promotions and other marketing projects.

Mobile operators have seen the power of mobile community to drive tremendous traffic into their networks and are in the process of making it easier for their customers to sign up for them. The strongest communities operate independent of access point. That is, it doesn't matter whether you're online or using WAP, or SMS, or MMS, or calling our IVR. They're all ways to access the same community. As carriers work to further upgrade and integrate their technologies we'll see developments like better WAP placement and stronger promotion in traditional media lead to more and more billable SMS and MMS traffic. ■

Stat!

Wireless Java Services Deployed or in Trial

Europe and Africa

Hutchison Telecoms
mmO2
Orange
Vodafone (9 markets)
T-Mobile
(Germany, Austria)
Telefonica
Sonera-Telia
Sonofon
Wind

Asia and Pacific

Cellcom
China Unicorn
China Mobile
CSL Hong Kong
DTAC
J-Phone
LG Telecom
NTT DoCoMo
M1
KDDI Japan
Singtel
SmarTone
Starhub

Americas

AT&T Wireless
Bell Mobility
Cingular Wireless
Sprint PCS
Nextel
T-Mobile USA
Telus

Source: Yankee Group, Gartner, Sun Microsystems, corporate press releases. Compiled by the GSA.

Contributors:

Norbert Chang is the founder of Enorbus Technologies. Before co-founding Enorbus, Norbert worked for UBS Warburg in their worldwide R&D division as a software developer. He played an integral role in the system architecture for Warburg's web based equity research offering. Norbert also led multiple research projects focusing primarily on wireless technology and applications. Norbert has worked as a Systems Analyst for Colonial Consulting Corporation designing and implementing financial systems. Norbert holds a BS in Finance and Information Systems from New York University. He has also studied at Beijing Normal University and Central University for Nationalities in Beijing.

Greg Clayman is a founder and Vice President of Marketing and Business Development of Upoc, a leading developer of cross-platform, carrier-agnostic mobile community and media technologies. Before Upoc, Greg served as Vice President of Strategy at the Sterling Group in New York, where he led brand strategy projects for companies including MTV Networks, Liberty Digital, and Levi's. Greg graduated cum laude from Harvard College.

Dan Scherlis (Dan@Scherlis.com) is the CEO of Etherplay, developer of mobile-games. Dan acts as advisor to game developers Floodgate, Realm, Frogshop and Cognitoy, and he is an associate of venture advisors MTGP. He directed content strategy for Comverse Mobile Entertainment and was CEO of Turbine Entertainment, developers of massively multiplayer games (Microsoft's Asheron's Call.) For Papyrus (now a Vivendi studio), Dan established and led game-publishing operations. Dan created online publications for Ziff-Davis Interactive/AT&T and led market analysis at HBO. A contributing editor for Mobile Entertainment Analyst, Dan holds AB, AM, and MBA degrees from Harvard.

Cashman Andrus (cashman@wirelessgamingreview.com) left a career of slinging code and herding cats to co-found Wireless Gaming Review. Before WGR, Cashman was Director of Development at Yesmail and an award-winning application developer for the Palm platform. He earned a Bachelor of Science degree in Brain and Cognitive Science, with a concentration in Computer Science and Linguistics, from the Massachusetts Institute of Technology.

Anne McLellan (annemclellan@attbi.com) has varied experience in graphic design and production, with a specialty in publications. Anne has worked as a consultant in corporate training and development, and in marketing, for education and arts clients. She has a BA in Fine Art from Brandeis University, a Graphic Design Certificate from Mass College of Art and studied design and illustration at the Art Institute of Boston and Rhode Island School of Design.

Amy Monaghan (amy@wirelessgamingreview.com) Before joining WGR, Amy was an editor with Forrester Research Inc. (NASDAQ: FORR). She has also edited publications for Harvard Business School Publishing, Boston Common Press, Rockefeller University Press, and Cell Press. Amy holds an MA in English literature from the University of Chicago and a BA in English literature from Wellesley College. She is not as boring as her résumé might suggest, and she rides a black Schwinn Classic cruiser.

Order Form

Subscribe to the Mobile Entertainment Analyst

On the web go to: <http://www.wirelessgamingreview.com/MEA>

Or mail this form to the address below.

Individual Readers

Monthly PDF delivered via email
and online archive access \$695

Corporate Subscribers

If your company is interested in distributing MEA across the organization, please contact sales@mobenta.com for volume pricing and delivery information.

Payment

- Check (to WGR Media Inc.) enclosed
- American Express
- Visa
- MasterCard

Card number

Expiration date

Signature

Name

Title

Email

Organization

Address

Address

City / State

Postal Code

Country

Phone

Fax

For Subscriber Services contact:

mea@mobenta.com

Mail To:

MEA Subscriptions
WGR Media Inc.
PO Box 390764
Cambridge, MA 02139 USA
Attn. Rosie Webb