WGR Presents:

Mobile Entertainment analyst

In-depth coverage of the wireless entertainment business

Are Smart Mobs the Next Social Revolution?

By Elizabeth Biddlecombe

Howard Rheingold coined the phrase "smart mobs" a year ago in his book "Smart Mobs: The Next Social Revolution." In it, Rheingold advanced the idea that the mobile communications and pervasive computing encased in our mobile phones are fundamentally changing human activity and interaction.

For instance, in both the 1999 Seattle World Trade Organization protests and the 2001 protests against Filipino President Joseph Estrada, text messaging played an invaluable part in in-situ organizing.

A more recent example is the worldwide phenomenon of flash mobs over the past five months or so, in which people convene at a prespecified place to enact to some predefined, generally silly, activity for a few minutes before dispersing. Unlike a group of friends larking around, flash mobs involve people who don't necessarily know each other but are connected to a central organizer via email or text message.

These mobile communities are underpinned by short message service (SMS), by mobile chat, or by mobile instant messaging. Some communities do no more than chat. Many are enabled by providers like UPOC and SMS.ac, which between them have more than 100,000 different clubs on their servers. Many clubs never attract any members beyond their founder. Others attract thousands. For instance, SMS.ac's largest club – entitled "Fun Lovers" – has around 17,000 members.

Clubs are user-generated and touch on every topic imaginable. Arnold Schwarzenegger's candidacy for California governor, UK football club Manchester United, GSM services and celebrity sightings are just some examples. A group of nannies in the US Midwest use UPOC's service to coordinate their shifts, while

VZW Analyst Day: Data Revenues On The Rise

By Dylan Brooks

Verizon Wireless recently gathered two dozen of the top wireless industry analysts at its headquarters to announce plans for the next year and review the company's progress in 2003. Highlights included adding more subscribers than any other two carriers put together and doubling their data revenue over the past year. One other important footnote to the data statistics was that game downloads are now at parity with ringtone downloads.

Game Downloads Likely To Eclipse Ringtones Soon

Although only a small segment of the wireless population would qualify itself as gamers, VZW now racks up about 2 million game titles per month, or about half of the 4 million GetItNow downloads available. While ringtone downloads are among the most reliable hits in every global market, they tend to appeal mostly to a narrow market. An especially avid group of 5% to 10% of wireless users account for more than half of all downloads. There are two reasons why games will likely slip back to second place at VZW for a while. First, a raft of new ringtone providers has just launched, and holiday jingles will be popular as always in the fourth quarter. Second, Verizon has had an unofficial policy in the third quarter to require free demos for all apps, which helped to drive the number of downloads. However, many of the subscribers who tried out games for free may not return because more games are now debuting without demos (see MEA September 2003).

US Data Revenue In Perspective to Rest of World

US mobile operators are finally showing some evidence of data revenue growth. Verizon now garners 2% of its revenue from data services, and 10 million (nearly one third) of its subscribers use a data service like text messaging, WAP, GetItNow, or legacy CDPD. Sprint PCS is at nearly 3% and just under $100 million per quarter, while Nextel has reported to me in private

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By Zigurd Mednieks

The Arc of Mobile Multiplayer Game Development

Unsolved

There are fundamental unsolved problems in mobile multiplayer game development:

- How much time will the typical mobile-game player be willing to devote to a game?

- Can long-playing games be chopped up into turns that players take when they can, and can such games be prevented from unraveling due to players losing interest?

- Can quick-playing games be social and interactive enough to make compelling use of the connectedness of mobile handsets?

- Can the unique capabilities of the mobile gameplay environment be harnessed and used in novel genres – and will anyone find these new games appealing?

None of these unsolved problems has anything to do with screen size, network latency or poor controls. The key problems are game design problems. None of these problems could be solved even if every existing mobile handset were magically transformed into a platform as capable as the Game Boy Advance. It is also impossible to sit down and simply think up solutions. The solutions will have to be learned.

> The key problems are game design problems.

Fast, Social and Compelling

The first successful mobile multiplayer games will be fast-paced, head-to-head games. Quick to play, easy to learn, but with enough depth to be interesting over many plays. On networks that charge by the bit, they will use bits sparingly. On networks that charge by the minute, fast play will keep customers from using up all their minutes.

The key design problem is player matching. Games that succeed will be viral. Customers will call their friends and encourage them to buy a game just so they can play with that specific person. In contrast, some early attempts at multiplayer offer only anonymous encounters and no opportunity to play against specific opponents. Anonymity has its place, but games that fail to take even the first steps in supporting social aspects of multiplayer game play are design failures.

Games that overreach in technology, games that make too heavy demands on players' time and level of involvement, and games that can't be played without running up $400 monthly service bills will fail. Targets that seem obvious, like classic board games with near-universal familiarity, will be surprise failures. The first multiplayer role-playing games for mobile handsets are certain to fail. The task of reshaping the design language of RPGs into the mobile game environment is just too big.

Deeper and More Involving

After the first-stage problems – finding people to play against and managing groups of those people – is solved and enhanced in one or two generations, deeper games with longer play will succeed. In these games, the key design issue is to make a deep, long-playing game compatible with mobile gamers' use patterns: quick play to fill time that would be wasted waiting. Only part of the answer is in multimodal play: real-time play combined with mobile messaging-enabled correspondence play. The games themselves must be designed to be playable in that mode.

Very few existing turn-based games will survive being chopped up into moves played at whatever pace four or six players set on their own. New games will have to be designed, and a currently unknown

Stat!

**EMEA imaging phone market
Market shares Q3 2003, Q2 2003**

Vendor	Q3 2003 shipments	% share	Q2 2003 shipments	% share	Growth Q3'03/Q2'03
Total	4,870,480	100.0%	3,843,940	100.0%	27%
Nokia	1,918,880	39.4%	1,636,430	42.6%	17%
Sony Ericsson	1,252,180	25.7%	848,160	22.1%	48%
Samsung	541,730	11.1%	404,630	10.5%	34%
Sharp	414,830	8.5%	374,500	9.7%	11%
Others	742,860	15.3%	580,220	15.1%	28%

Source: Canalys estimates
Imaging phones: mobile phones with integrated (non-removable) digital cameras
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Games We Like

By Matthew Bellows

"Just Go For It"
WGR Plays Capcom's Viewtiful Joe

Before your time with Vice City makes you tear up game proposals that aren't open ended or filled with side missions, play Viewtiful Joe on the Game Cube. You play as Joe, a backwards-baseball-cap wearing movie fan, whose girlfriend gets kidnapped. Surprise. You must rescue her.

Viewtiful Joe is a classic side-scrolling fighter that's been marinated in steroids, acid, and comic book graphics. When Ideaworks 3D brought Pandemonium to the N-Gage, it was widely criticized for its "fake" 3D, even though those game graphics were true to the original and effective on the device. Now, Capcom has taken "fake" 3D to its most glorious extreme with Viewtiful Joe. In doing so, the developers have demonstrated one way to take the most clichéd videogame environment and make it new.

Their recipe? From a proven foundation (side scrolling, fighting, bosses) add style. Add humor, three special powers, killer combat combos and killer attitude. This is something that can be done in any medium. Even cellphones. Hint hint.

As you move Joe through the game, he learns new combat moves from his newly dead, slightly paunchy mentor Captain Blue. The first one is a Slow move. Like the Bullet time effect in Max Payne, Slow makes targeting enemies easier and raining punches and kicks more dam-

aging. And cooler. In Slow mode, there's enough time to string together combos worthy of Yuen Woo-ping in a graphical style worthy of Frank Miller on a good day.

Mach Speed is the next power Joe acquires, and it's true to its name. Then there's Zoom, which is as effective cinematically as it is tactically. The special moves are not just for fighting. You'll use these powers to solve simple, engaging puzzles between stages in game levels. The game's side-scrolling design thankfully removes the "fetch this from there" puzzle option from the designer's palate. They respond by creating short puzzles that act as both tutorials for the special power and breaks from the combat mode. This is just one example of how accepting game constraints encourages innovation in other areas.

> Viewtiful Joe is a classic side-scrolling fighter that's been marinated in steroids, acid, and comic book graphics.

Viewtiful Joe is not an easy game. The first "level," really a series of puzzles and rooms full of enemies,

is really long, and there's no saving point until you finish. The bosses in Viewtiful are tough, each packed with special attacks and backed up with dozens of minions. But because the Slow ability makes every battle a showcase for your emerging Viewtiful style, starting again after failing a level gets more interesting, not less. At each save point you can buy powerups, spending Viewtiful points that you earned through your gorgeous combos to buy more abilities. So, while there's always the desire to finish the next level, there's increasing incentive to do it with style.

The music is great, the graphics run smoothly no matter how many opponents are on the screen. The resources behind this game are far beyond what's available to mobile game developers... so why even
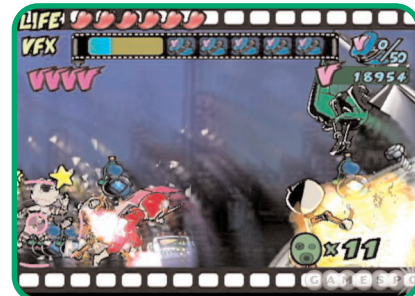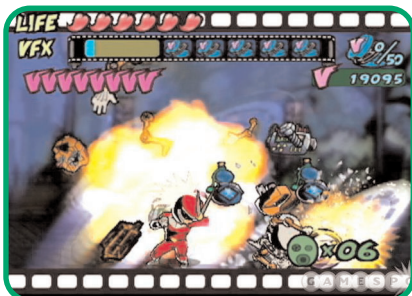
VZW Analyst

briefings that data revenues now account from nearly 5% of its total revenue.

How far should data revenues climb in the US? Relative to most foreign markets, 2% to3% is still an extremely small percentage. Under normal circumstances, data make up at least 15% of total revenue in most of the rest of the world. However, the US continues to enjoy some of the highest average (voice) revenue per user worldwide, so even 3% can be a significant figure. The data ARPU for Sprint PCS, at nearly $2 per month, or for Nextel, at roughly $3, stack up well in comparison to worldwide data leaders like Korea's KTF, which ran last year at $3 to $4 per month in data ARPU. Comparing data revenues in dollar terms is more appropriate for US mobile operators because they intend to keep voice ARPU high mwhile growing their base with data revenue. Arguably, data revenues should never command as high a share of total US revenue due to our chatty culture. The US is averaging more than double Europe's monthly use minutes, now

> An especially avid group of 5% to 10% of wireless users account for more than half of all downloads.

more than 500 here versus 200 in Europe. Text messaging will most likely never be a significant cost saver for a wireless consumer in the US as it is for consumers in Europe or Asia

> VZW now racks up about 2 million game titles per month, or about half of the 4 million GetItNow downloads available.

Not all Data Users Are Equal: the Sprint PCS Experience

Sprint and Verizon both have large data user bases, 5 and 10 million, respectively, but a small number of users actually generates most of that revenue. Sprint PCS counts 5.1 million of its total as data users, but only 2.7 million are PCS Vision subscribers. Vision subscribers, however, generated about $80 million of Sprint PCS's $100 million in data revenue in Q3. Sprint attributes its success with Vision chiefly to mobile entertainment – Java downloads and picture messaging in particular – just as Verizon sees its highest value customers in those with color handsets and GetItNow-capable phones.

Data Usage Not Correlated to Churn but Will Benefit from It

The wireless industry entered one of its most volatile periods in November due to the implementation of wireless number portability (WNP). Keeping churn down will be a nearly impossible task, and data services may actually hinder this effort rather than help it. There is no clear correlation between carriers that have high usage rates of

data services and low churn. Sprint PCS has among the highest in the industry, and Nextel has the lowest, although both do well on data. Universally, however, mobile operators will be using the latest data services as additional enticements to win the WNP battle this winter. As a result, application and device providers should benefit from some of the highest handset replacement rates seen in years.∎

Games We Like

talk about Viewtiful Joe? For one, because this game makes buying a Game Cube imperative for people in our industry. There's more style per play-session than anything else out there now. But Joe is also a great example of how limitations in game design can be a force for good in the world. Having settled on a side-scrolling environment and a kidnapped-girlfriend plot, Capcom's developers could innovate on everything else. The mobile game platform is full of such limitations. But here's a clear example of developers pouring imagination into everything not nailed down by design choices.

> ..this game makes buying a Game Cube imperative for people in our industry

Given that mobile game developers have got to make blackjack games and football games and side scrolling fighters, they should be encouraged to innovate within the constraints of each game type. Viewtiful Joe is a masterfully fun example of how to do just that. ∎

Stat!

The Wages of Sin: Mobile Revenue Projections for 2006

Mobile Adult Content	
Text	$118m
Images	$253m
Video	$420m
Total	**$791m**

Mobile Gambling Services	
Casino	$0.9bn
Lotteries/Competitions	$2.8bn
Betting	$2.0bn
Total Gambling Services	**$5.7bn**

Source: Juniper Research

Short Messages

– and unknowable, except by experimentation – combination of bots, agents and scheduling tools will assist mobile players' enjoyment of these games.

Successful mobile games will incorporate elements of the design language of successful online games in pulling players into the game world and getting the players to identify with a persona they will be reluctant to part with. But these design elements will fit in a unique framework that is designed for the mobile environment.

A successful multiplayer mobile subscription product should be able to add tens of thousands of subscribers per month

A Richer Visual and Audio Experience

Next, the problems of rich game content will be solved by following the lead of other types of mobile content: Mobile images and music use differential charging to achieve acceptable pricing levels and intelligent traffic shaping to prevent them from overloading 2.5G networks.

Using these methods, games will be able to deliver an endless series of new levels. Just as digital photography evolves in unforeseen ways, so will RPGs, strategy games, and other game genres that were previously limited by the Game Boy Advance memory limitations. A mobile equivalent of Final Fantasy Tactics will far exceed the original's

extraordinarily rich world and provide endless gameplay.

The fundamental economic basis of rich content in mobile games is the ability to trade communication for storage. This is the basis on which mobile wireless photography will exceed other forms of digital photography. If the device is always connected, and if you can store things elsewhere, you can keep that device small, inexpensive and power-efficient.

Mobile Games Are Different and Will Be More So

Mobile game design will evolve as designers learn. This learning is a requirement of where mobile game design is today – with numerous unsolved problems and unknowable solutions. If mobile games were not distinct from other types of games, mobile game designers could, and would, simply plunder the wisdom of other areas of game design. But the unique problems of mobile games will have unique solutions. Mobile games will not converge on the current state-of-the-art of Game Boy Advance. Mobile games will become even more distinct from existing game markets and genres.

This is not to say mobile game developers are excused from meeting the standards that GBA developers established for games that fit in your pocket. Mobile games will have to be as good visually and aurally, and as well-designed, but they will evolve on a different path.

Business Models and Mobile Games

Getting mobile multiplayer games and communities right is essential to making mobile games economically successful. The top online subscription games have about 400,000 subscribers and gross more than $40 million annually. The top mobile single-player games sell more than 100,000 units per month. A successful multiplayer

Handset Highlights

Motorola V500

Modes: GSM 850/900/1800/1900
Target Market: high-end
Screen: 176 x 220 pixels, 65k colors;
Apps: Java MIDP 2.0
Available: any day now

The V500 is a member of Motorola's new family of quad-band GSM camera phones. Judging by the number of comments posted in WGR's Device Directory for it, Motorola has a potential hit on its hands if it can overcome component shortages and get phones into stores. http://wgamer.com/device-168

Nokia 7700

Modes: GSM 900/1800/1900
Target Market: high-end
Screen: 640 x 320 pixels, 65k color
Apps: Sybian native, Java MIDP 2.0
Available: Q2 2004

One of the stranger devices to come out of the major handset manufacturers, the Nokia 7700 "media device" offers a powerful set of specs, including a huge touch screen and support for streaming audio and video. Its not the most pocket-friendly device, and to use it as a phone involves "sidetalking", but this spec will be the basis of Nokia's new Series 90 UI, which replaces the venerable Communicator.
http://wgamer.com/device-204

Samsung SCH-A790

Modes: CDMA 800/1900 and GSM 900/1800
Target Market: high-end
Screen: 128 x 160 pixels, color
Apps: BREW
Available: early 2004

The first phone to be announced with support for both European GSM networks and US CDMA networks, the A790 should initially find a home in the pockets of Verizon customers who frequently roam to Vodaphone. Many of the advanced features only work on CDMA networks, so don't expect many European residents to pick these up.
http://wgamer.com/device-239

Sanyo SCP-5400 / RL 2500

Modes: CDMA 800/1900, AMPS
Target Market: mid-range
Screen: 128 x 160 pixels, 16 bit color, TFT
Apps: Java MIDP
Available: now on Sprint PCS (USA)

Push-to-talk has long been a special feature found only on business-focused iDEN carriers like Nextel in the US or on TETRA public safety systems in Europe. PTT for consumers is getting some serious attention lately, with Verizon and Sprint launching services in the US and Nokia committing to make it a standard feature of most phones in 2004.
http://wgamer.com/device-213

Smart Mobs

a school in Ireland uses SMS.ac's service to provide parents with daily SMS notifications of their children's attendance.

In a less serious vein, a group of UPOC users held a virtual party via their phones. One person was the DJ and sent text messages every so often announcing which song they had put down on the decks. Others texted in their various shenanigans. One can just imagine it: "going in2 cupboard w. dashing yg man. may b sum time".

UPOC also lays on content "channels" for its punters. These are provided on a commercial basis by UPOC for content providers as diverse as Beyoncé, US presidential candidate Howard Dean and TV channel WB36. Occasional messages are sent to subscribers, including audio messages that are accessed via interactive voice response. "In and of itself [the channels provide] little community," says Andrew Pimentel, market-ing director at UPOC, "but…the content is a nucleus around which the community can thrive."

Such commercial content gets users going with their own initiatives. For instance, there are 97 groups devoted to teenage rapper Bow Wow (belying the fact that the average age of a UPOC user is 27). Such affinity groups are, says Pimentel, the most popular along with regular chat groups.

> ...the content is a nucleus around which the community can thrive

UPOC's services can run on SMS, WAP, voice messaging, and soon, Java and Brew. It provides services for several North American operators on a private-label basis.

Virgin Mobile USA is putting a similar strategy into play with its 'Txt2Member' group chat service, part of the company's MTV tie-in. "We encourage customers to get close to and engage with MTV content [as well as] interact with other members – not just the Virgin community but MTV junkies as well," explains Michael Fisher, director of consumer marketing.

Others are deliberately trying to grow communities around their services or products. One obvious example is Nokia's N-Gage Arena. "Arena is a market-making initiative, not a money-making one," said a spokesperson for the company.

Scott Orr, Chief Creative Officer and President of Studios, at games publisher Sorrent says that early indications suggest more social gaming inherently appeals to customers; they are buying multiplayer versions of games they already own. He puts this down to the "challenge [of] playing someone you don't know. It gives you bragging rights." Sorrent plans to build in the capability to send taunts and messages from within its games, most likely predefined messages that can be sent with a single press of the button. "We know that is very important from Internet gaming," he adds.

Sorrent also provides some virtual community for its multiplayer games when there are no real humans online waiting to compete, in the shape of artificial intelligence bots. At the other extreme, the company is also entertaining the idea of holding some physical community-building events in the first quarter of 2004.

Which brings us back to marrying mobile communities with real-world activities. While some are content to just chat, others want some action. Picture blogs are a good example. UPOC and non-commercial sites provide a forum for MMS galleries. Users of Danger's Hiptop integrated communications device that frequent the Hiptop Nation (www.hiptopnation.com) Web site took this one step further with their second annual Hiptop Halloween Hunt on October 31, when participants snapped pictures of specified objects with their camera-enabled Hiptops.

Ken Hyers, senior analyst at Instat-MDR's Wireless Data Service, says that location and presence technology are bringing a whole new dimension to these interactions. One example is Japan's 'Lovegetties' application: the mobile phones of people with compatible profiles go off when they pass each other on the street. Hyers forecasts that in a year a lovestruck teenager will be able to program her phone to play 'Strangers in the Night' when the boy she has a crush on is near.

But we shouldn't just focus on mobile phones. With the instant networking software from Colligo

Stat!

Top UK Game Downloads on Telecom One

1. Fruit Machine
2. EA SPORTS FIFA Football 2003 Mobile International Edition
3. Rack em up
4. Tiger Woods PGA TOUR (r) Golf
5. Prince of Persia
6. Skate and Slam
7. New Skool Skater
8. Undercover Babes
9. Cruize Control NEW ENTRY
10. Siberian Strike

Source: Telecom One, November 2003

Stat!

Registration Fees

.COM Domain Name	$ 35/year
Vanity License Plate (Massachusetts)	$ 73/year
Random US Common Short Code	$ 6000/year
Selected US Common Short Code	$ 12000/year

Source: Register.com, Mass.gov/rmv, USshortcodes.com

Networks, laptop users can discover other Colligo-enabled users in their immediate area and set up a peer-to-peer network. According to Ted Theo Cheung, VP of marketing, a user in a Wifi-enabled railway station could hold a head-to-head gaming session with others in the station while waiting for a train. In the future, a user could host a multiplayer session, although this would require some negotiation in terms of the licensing situation. US teenagers are already using Colligo's software to game against each other.

"I used to chat and do groups, but I stopped it. People talk about nothing, about stupid stuff most of the time."

It is here where sophisticated availability information will come into its own, as users will not always want to be "discovered." Nor does everyone have the time or patience to receive tens of messages a day from one club alone. As one user put it, "I used to chat and do groups, but I stopped it. People talk about nothing, about stupid stuff most of the time. Your phone is going off 24/7, eating up your minutes and using your battery."

Clearly, others disagree. UPOC's Pimentel reports that the service is popular with truck drivers and security guards: "People who spend a lot of time on their own and have advanced phones [for work]. They spread UPOC via word of mouth."

All this chitchat is money in the bank for mobile operators and players like SMS.ac, which charge for transmission of messages, even though none of these community applications reap more than standard transmission charges.

Some content-oriented applications might eventually yield opportunities for advertising, charges for premium content or subscriptions, says Ken Hyers. But, he adds, "It doesn't have to be lucrative in the sense that someone is willing to pay $10 a month for it. It can be more along the lines of SMS – cheap per message, but it draws you in and then you are constantly sending messages."

Mobile communications are not just enabling links between dispersed groups of strangers. They are prompting people to find a reason to talk to each other where previously there was none. ∎

Short Messages

mobile subscription product should be able to add tens of thousands of subscribers per month and reach top-tier subscriber numbers in 12 months. Pricing would be about half that of top-tier online games, but costs would be lower and net margins would be higher. Based only on today's mobile game market, some mobile game will become the next Everquest and create comparable value. That is a strong incentive to climb the mobile multiplayer learning curve quickly. ∎

Stat!

N-Gage Mobile Raditude Leaderboard: Round One

Rank	Username	Time	Score
1	dstang24	39.438	518
2	exit	40.284	418
3	strongbad	40.791	405
4	z_sta2k4	41.627	398
5	cantor	42.242	371
6	bknnspctr	41.307	369
7	sega	43.659	341
8	torque	42.542	334
9	n0k1a	43.252	315
10	scrumpy	42.58	312

Source: http://arena.n-gage.com/raditude as of 17 Dec 2003

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Matthew Bellows' first job in the videogame industry was as a tester at Infocom, where he spent the bloom of his youth playing Leather Goddesses of Phobos. Matthew co-founded WGR Media, Inc. with Cashman in August of 2001. Before that, he received his MBA with high honors from the Olin School of Management at Babson College.

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Anne McLellan (annemclellan@attbi.com) has varied experience in graphic design, speciallizing 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 from Brandeis University, and has studied graphic design and illustration at Mass College of Art, the Art Institute of Boston and Rhode Island School of Design.

Zigurd Mednieks Chief Technology Officer, leads development of Chasma's multi-player servers. Zigurd joined Chasma in March 2003 from Ericsson Juniper Networks. Zigurd has 20 years experience in telecom infrastructure, CPE, unified messaging, speech processing, and broadband voice/data. He is an author of books and chapters on telecom and programming.

Amy Monaghan 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.