

FEATURE | UIEVOLUTION

Wireless, as we know it, is undergoing a significant change. It is becoming a living space, as much as the traditional office, dining room, or coffeehouse. Most of all, it is becoming a gamer's dream, a competitive environment that travels with them and surrounds them.

By Chris Ruff, President of UIEvolution

Wireless games: the new breed

Games, as software applications, are leading the transformation of mobile phones from simple telephones to complex multimedia devices, allowing multi-user interaction across geographic boundaries and even leaping across time zones. This transformation is seen in the devices and in how they are used.

With the current trend toward a tighter relationship between client and server, the two entities have blurred. A new breed of developer is emerging, combining front end and server side, application and data, development and distribution. The new market calls for a simple, easy, and rapid methodology for creating interactive wireless applications. The goal is usability, device and platform compatibility, and standards compliance, all aimed at providing users with rich, immersive, and enjoyable experiences. In the new wireless world, technology is just a tool to link consumers to interactive entertainment.

In traditional applications, three aspects—content, presentation, and code—are all present in their entirety when a game or application is initially loaded. The new technology must make everything dynamic, allowing new content, new presentation rules, and new code to be sent to and from the device instantly.

In this fluid new world, much deeper experiences can be created for the end user. However, this presents new problems and the challenge of maintaining separation between page content, presentation rules, and the code that provides for user interaction.



Developers need to be proactive about how users interact with wireless devices. The devices themselves run the range of interactive “spaces”—from playing games on cell phones to the latest programmable set-top boxes. To meet these challenges, sophisticated programming requires advanced, even unconventional, techniques ranging from memory optimization to assigning player roles.

As new mobile devices are brought to market, product diversity and continual evolution of device technology complicate the process of game development. The game creator's primary dilemma lies with a balancing act—targeting the newest devices while also maintaining the broadest possible user base where no pervasive standard exists. A lot of older handsets remain in use and since they are often subsidized at initial purchase the carriers want to be able to monetize these handsets with new experiences to maximize their return on investment.

This is especially noticeable in the United States, where more than 20 device platforms compete for market space on more than 200 handsets. Even the leading platforms aren't individually broad enough to secure significant market share for the game creation community.

Yet the drive to create new technology is a market characteristic in the wireless world. There is a steady stream of new applications—all kinds of products from portable game consoles to remotely administered household appliances—as well as new handsets, new ways to use them, and new network approaches.

As new consumer devices and networks are introduced to the market, the problem deepens. Consumers expect an always-connected, richer experience where the boundaries of technology are continually stretched.

Game developers and content providers desperately want a way to reach their audience in a true device-independent manner. If developers were offered a truly cost-effective, cross-platform solution, tapping into a company's multimedia content could easily be turned into a profitable service. Content could be delivered to users whether they surf the Internet from their PC or their mobile phone.

It is possible for developers in the wireless game space to save resource costs by reducing the need for expertise in application development platforms. Now development can be done by technical producers and web developers working in less complex scripting languages, including UIEvolution's standards-based development technology UJML, a combination of XML and JavaScript.

When the development environment takes into account the variations between

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devices and handsets, porting from one device to another becomes easy. The development team merely “skins” a player for each specific device and platform. The development environment abstracts the native application code, then the player handles the lower-level work.

This improves time-to-market and allows for economy of scale since there is no need to redevelop an application for each platform. For minor differences between devices, like navigational elements, this is the perfect solution to quick deployment.

This improves the “maintainability” of an application as well. If the publisher chooses to upgrade its appearance, add new features, or incorporate device/handset patches, the changes are done at the layer above the operating platform. Using an efficient client/server architecture and development tools, a smaller staff can easily make application changes, then update the players in the build environment.

This application approach allows developers to focus on creating graphic- and content-rich experiences for consumers. Developers can deploy fundamental application changes in days rather than months, harnessing the power of an evolving mobile lifestyle.

When developers do not need to concern themselves with porting and device-specific

limitations, they can instead focus on staying current with the interests of their intended audiences and the global market. Developers working on game titles can focus on the creative process and providing a pervasive experience for gamers.

In today’s mobile world, time to market can be one of the biggest factors in achieving profitability. However, if application players can be created quickly and just as rapidly deployed across multiple networks, the lifespan of the content becomes less of a motivating factor for success.

Building community among wireless device users is unlike the mature personal computing market, where millions of computers run Windows, Macintosh OS, or even Unix/Linux. For any given wireless platform or device, there is no common user interface, and therefore no common experience among the millions of device users.

Among the heterogeneous carriers, networks, devices, device types—cell phones, PDAs, portable game consoles—some counting only in the thousands, the potential for community is diminished.

Device manufacturers and network providers are looking to create differentiated services that are optimized for specific market niches and sometimes narrow vertical segments. Unlike the PC market, users can choose whatever device or network works best for them.

Using a one-application/many devices ap-

proach, a game can be spread across the entire social network, with no artificial limitations or barriers. As new devices enter the market, games can quickly be created using simple, easily editable scripts.

There is a huge opportunity for games that connect users across multiple platforms and games that reach beyond the core “gamer” audience. New innovations in wireless devices, as well as new media, and a proliferation of new content provides publishers with gaming audiences they could never reach before. Content publishers have a huge market potential if they can address this new audience in ways that have not yet been fully realized.

The ideal game should be able to use the brief time periods mobile consumers may have to play between classes, meetings, or waiting in line. Getting the user into the action should be the goal. By developing a game quickly and deploying it widely, the publisher and the gamer benefit.

Consumers come out winners when game developers are able to match the pace of human thought. The pace of releasing and marketing new games, indeed any type of content, can keep up with the immediacy of blogs and mass media. ‘That next new thing,’ the game that everyone wants, can be rapidly developed and deployed in real-time with many fewer steps using a small team of people.



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