

# DATABASE

## TRENDS AND APPLICATIONS

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## APPLICATIONS INSIGHT



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### Google Gears, the iPhone, and the Future of Mobile Applications

I've always been a gadget enthusiast. I owned a first-generation Palm, a first-generation iPod and have gone through more MP3 players, PDAs, and smart phones than I care to count. So I should be a sucker for the Apple iPhone, since it combines features of all my current gadgets. However, I find myself unable to contemplate getting an iPhone because of its application support. I use a handful of Windows Mobile applications to organize my time and activities. While the iPhone has alternatives, they currently fall far short of the functionality I depend on.

There's very little chance that these applications will become available on the iPhone, since Steve Jobs has decreed that no third-party applications will be supported other than those that can run within the embedded Safari Web browser. In essence, the iPhone will only run Web apps.

A few years ago, Web applications were too limited to meet many users' expectations. Today, new technologies such as AJAX are allowing Web applications to come much closer to the user experience of traditional rich clients and

for many applications a Web 2.0 implementation is clearly "good enough." But rich client applications still have the advantage of working when there is no network connection. The fact is that Web applications running on a phone will suffer from decreased performance due to network latency (especially non-G3 phones like the iPhone) and will incur higher operation costs (due to data transfer fees). And we all experience interruptions to connectivity from time to time. There have been a few notable attempts to allow Web 2.0 to operate in an offline mode, but it's the Google Gears API - an open source framework for building online/offline Web applications - that looks most likely to result in a standard way of creating offline-capable Web 2.0 applications. Google Gears contains a local Web server with cached copies of application Javascript and HTML, an embedded RDBMS (SQLite) that holds offline data (RSS feeds, emails, documents, etc.) and a synchronization mechanism to resolve the online and offline worlds. Applications will have to be re-engineered to work with Gears, but once that is done many will operate success-

fully in the absence of a network connection.

Today, applications for mobile devices are typically written either for a Java mobile JVM, the Windows Mobile/.NET platform or written to a proprietary API. It's not hard to imagine that in the future, applications for mobile devices will be written primarily for something very similar to the AJAX/Gears platform. After all, all mobile devices will increasingly support Web 2.0 compatible browsers and some - like the iPhone - will only support applications of this type.

My guess is that the future of smart phone applications is AJAX coupled with Gears or something very much like it. When that happens, the lock-in that I'm currently experiencing with my mobile applications will be a thing of the past.

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