WiFi.Bedouin

by Julian Bleecker

Overview

WiFi.Bedouin is a wearable, mobile 802.11b node purposely disconnected from the global Internet. It is designed to be functional as well as provocative, expanding the possible meaning and metaphors about access, proximity, wireless and WiFi. This access point is not the web without wires. Instead, it is its own web, an apparatus that challenges conceptions of how proximity and community can be fostered with WiFi technology. It is a deliberate attempt to meaningfully stitch together what are often considered two entirely separate realms - virtual and physical worlds - into a more cohesive, deliberate, less disjunctive hybrid.

WiFi.Bedouin is not a product, although it produces some ways to investigate designed assumptions about how mobile and wireless networks operate.

Background: The Production of WiFi Space - Virtual Places in Physical Spaces

Space does not reflect society, it expresses it {Castells #2 p.83}.

The proliferation of devices with WiFi capabilities in the hands of an increasing number of users introduces a new register of possibility for the creation of zones in which one occupies the physical built environment, while also being engaged in activities in virtual space. Designing space that is both virtual and physical through the use of WiFi networks is one possible way that hybrid "WiFi space" can be produced. This project is meant to investigate this possibility, speculating that place and context are the crucial design ingredients for crafting compelling hybrid space.

Without place and context, simply providing access to the Internet via a WiFi node is not particularly innovative at this point in the evolution of access technology. Sitting in a park so that one can check email seems positively dull when one considers that the possibility exists for creating highly particular virtual-physical hybrid micro-communities. Imagine sitting in The Great Meadow in Central Park and mustering strangers for a game of ultimate Frisbee simply by posting a notice on a free-floating WiFi network? Or imagine announcing that a dog minus its owner was found? Or streaming a video of a short you just shot on your DV camera twenty minutes ago?

We consider the WiFi access point as another piece of construction material that allows for these sorts of networks to be contextualized by location. It has a certain physical geometry, the way a building or street does. It occupies physical space by virtue of its

physical location and the constrained range of its radio. The WiFi access point becomes another architectural component of built space. If we include WiFi nodes in our kit of construction supplies, new possibilities arise when we move beyond thinking of it as a way to access "the web without wires."

Design Inspiration

This project started as a response to the barrage of announcements about this or that fast food restaurant or public park establishing WiFi services. These announcements were greeted with what seemed to me far too much enthusiasm for an entirely mundane bit of news. While I can appreciate the utility and even necessity of access to email or the web while out and about or eating a burger, the current proliferation of WiFi seems a bit cheap. It seems merely an awkward way to increase foot traffic and sales and not much more. It is an ill-conceived use of a technology that has possibilities beyond access to the web without using wires.

My first prototype of WiFi.Bedouin was tested at a NYC Wireless Lab Day event at City Hall Park, in downtown New York City.[1] City Hall Park was chosen because there exists at this location an open, public WiFi Hot Spot.

At these "Lab Days" public awareness is generated about WiFi access and related policy issues, and WiFi related projects are presented. At this event, WiFi.Bedouin was configured as a WiFi node called "Downtown City Hall." On this "island Internet," everything appeared normal until users attempted to surf to a web site. Regardless of what URL they enter, they were immediately taken to a web site containing historical images and anecdotes about downtown New York City.

The goal of this prototype was to give some overt, deliberate context to the virtual place - what appears in a web browser - with the physical place the user is occupying. This prototype did a fairly simple thing - it simply refashioned a participant's efforts to "leave" the physical place and "enter" a virtual place.

The general expectation that most users have when they surf the web is to enter a virtual place - say, google.com - whose relationship to the space they are occupying is tenuous if it exists at all. Through the development of this prototype, the notion of creating a hybrid zone that is partially connected between both physical and virtual space became the undergirding theme of the project. Through WiFi.Bedouin, my design goal was to give place-specific context to virtual spaces.

Given the enthusiasm received for the prototype, a more sophisticated design was built. This new version creates a virtual-physical hybrid place in which can be established

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[1] This event was held September 20, 2003. http://www.nycwireless.net

digital communication such as web services, chat, gaming, file sharing, and so on.

For this new version, my design hypothesis is that the advantage afforded by WiFi technology is not to provide access to the same old web, but to create an independent web of activity where location, proximity and occupancy are primary factors informing the connected experience.

For the physical, "wearable" design of the project, I was inspired by the proliferation of functional-fashionables - designed objects that have utility while they are also suitable for wearing about. I also draw inspiration from a play on the expression "mobile internet," often used in marketing evangelicals promoting new portable, mobile devices. My twist on this design is to make what appears to be a local, constrained internet (in that it relies upon the conventional means of access to web-based services - the web browser) - and make that internet mobile.

Design Challenges, Part 1

The design challenge of this project is to create a functioning apparatus that meaningfully explores notions of physical proximity, locality, and community in such a way as to broaden the range of possible ways wireless networks can construct meaningful and enthralling hybrid physical-virtual spaces.

The "technology aesthetic" of this multimedia project is designed to provide a mode of operation though which it becomes possible to re-imagine the common technical architectures, conceptual idioms, and marketing/advertising representations of WiFi. The project does this most notably with one provocative twist - it is an active WiFi "Hot Spot," but it is not connected to the Internet. In this way, it is very much like a "network island," severed from the active and inhabited virtual place we call the Internet.

In his book **Smart Mobs**, Howard Rheingold describes "grassroot wireless network" movements that have the very particular goal of creating - guerilla style - shared WiFi connections to the public Internet.[2] {Rheingold #4 pp.133-56} WiFi.Bedouin might count as part of this movement, only creating a parallel network of connectivity, using license free radio spectrum as its conduit, rather than the private network linkages of commercial enterprises.

Although WiFi.Bedouin is not on the public Internet, it is on another, rapidly growing and somewhat oppositional network that uses the same technical protocols and operational idioms as the public Internet. I am referring to the proliferation of WiFi "clouds" of connectivity that are increasing in their coverage of public and private space. Precisely because it lies off the public Internet, and because the experience it

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[2] {Rheingold, 2003 #4@133-156}

delivers to those who visit is quite different from what they expect, WiFi.Bedouin promises to affect the way people come to understand the possibilities for public places with WiFi activity. Hopefully it will do so in a way that makes those places more welcoming and adaptable to mobile devices.

WiFi.Bedouin is designed to be functional as well as provocative, expanding the metaphors by which we understand what WiFi is. This access point is not the web without wires. Instead, it is its own web, one that refashions what it means to be engaged in virtual tasks while in a physical place. It is a deliberate attempt to meaningfully stitch together what are often considered two entirely separate realms - virtual and physical worlds - into a more cohesive, less disjunctive hybrid.

The stakes for considering how we might design functional as well as enthralling hybrid spaces are consequential and quite practical. I will offer two that posed design challenges for this project.

Design Challenges, Part 2

First, with the proliferation of technologies that loosen and make ethereal the tether between the Internet and our naturally motile bodies, there arises a clash between what I loosely call the virtual world and the physical world. This abutment is as material as it is metaphorical - it shapes our expectations about work, play and home life; it creates consequences for building and maintaining community; and it informs our ability to imagine how public and physical space is consumed and occupied, particularly in an urban context.

One thorough-going goal of WiFi.Bedouin is to broaden the range of meanings invested in what we call "WiFi." I hope to craft a slightly new perspective on what WiFi is so as to modestly reframe the range of devices, usage scenarios, services and applications that fall within the WiFi idiom. In "Framing Mobile Collaborations and Mobile Technologies" Churchill and Wakeford remind us that it is a substantial and often costly misconception to think that "representation is only tenuously related to actual practice." In fact, they argue convincingly that "representation plays an important role in the production as well as the consumption of devices." {Churchill #5 p.155}

While we may have believed the representation of the mobile device as "liberating," that belief is almost always short lived.[3] Just try to hot-sync your PDA with your Macintosh at home and your Windows PC at work. Has anyone really convinced their boss that they can now work at the beach because they bought a mobile phone?

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[3] ibid.

What is assumed in this notion of becoming liberated by virtue of one's mobile device? The precise nature of the techno-evangelists' trope of mobile liberation can be parsed thusly: as the virtual world of the Internet dispenses with the material burden of distance, time, travel and physical space, one's various communities (work, family, friends, etc.) will come to exist in that virtual world, while one's physical body can exist anywhere access to that virtual world is available.

Of course the relationship between the physical and virtual worlds is much more hybrid, leaky, and intermingled than the technology evangelists would have us believe. Nearly everyone has an anecdote about how a mobile phone proved useful, but there are as many stories of it proving humiliating and annoying. There is at least one recent case where a cell phone was the unambiguous cause of an excruciating death.[4] Although the mobile phone affords us the ability to be "in touch" with our work colleagues from very many places, I have yet to meet someone who conducts their daily work tasks from the beach by virtue of having a mobile phone.[5]

Our cafes have gone wireless, whether they like it or not, when neighborhood free WiFi access points leak into the shops. In this case one may be introducing a decided benefit to spending productive time in a café. On the other hand, one is more likely than not to suffer the ire of café owners who will be damned if they are going to pay the electricity premium for half a dozen power-hungry laptops.

What is needed is a more sober perspective on mobile liberation, one that considers that there is a hybrid coexistence between physical and virtual space as access to virtual worlds increases. A public park is not what it once was prior to the introduction of a free WiFi Hot Spot. What kind of place is it? And what kind of place could it be with a more considered deployment of touch points for local as well as global networked services?

With such a perspective, we might reasonably ask how to approach the problem of creating physical "built" space that takes into consideration the proliferation of devices and technologies that are making virtual space much more "present" and more obviously commingled with our everyday lives.

In other words, as mobile phones, PDAs, WiFi and all these instruments that tap into virtual space (to varying degrees, with varying consequences) become more prevalent, what will it take to design, architect and construct sensible, meaningful, and appropriate built environments? By their construction and through the way we engage these hybrid virtual-physical places, one might reasonably expect that the experience is equally hybrid. Surfing the web from a park because one can is a vastly different

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[4] {, 2004 #6}

[5] Which isn't to say that there are none, but I would posit that those who are able to do so represent a statistically insignificant percentage of those exposed to the various advertisements suggesting that a mobile phone will make this a tractable proposition.

experience than surfing a local web node that enlivens the experience of being in the park.

The second motivating factor for this project is much more direct and plain, and is in the form of a question that I hope to answer through this and other wireless projects: Why is it unquestioningly assumed that the Internet should be accessible from everywhere at anytime?

DIY Guide

Package Contents

WiFi.Bedouin consists of a Geode-based single board computer from Advantech, the PCM-5823. This computer was chosen for its balance of computational performance, small-size, relatively modest power consumption, its ability to run the Linux operating system, and its two network interfaces.
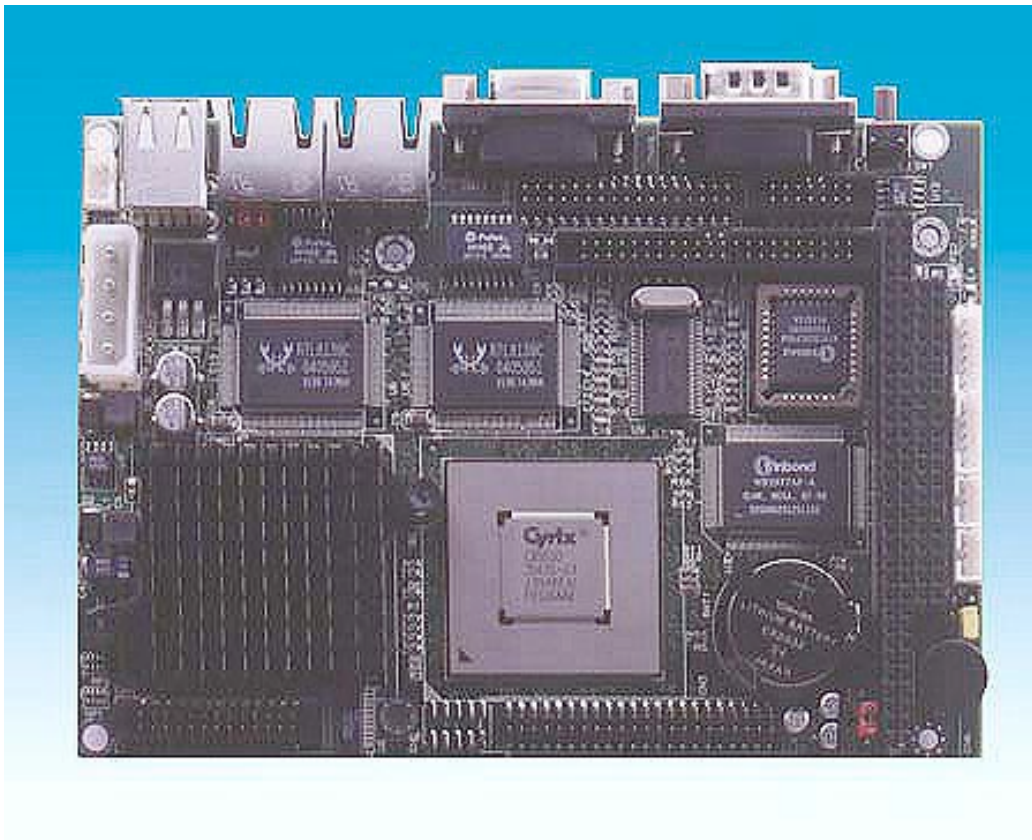
The Advantech PCM-5823 Geode-based single board computer.

Memory: 128MB SO-DIMM
Mass Storage: 4GB Hitachi Microdrive
WiFi Access Point: D-Link DWL-G730AP
Power: Standard Sony camcorder mount battery
Operating System: Red Hat Linux v. 9

Power-Up

Be sure the camcorder battery is completely charged. It is possible to power-up and boot the system by simply attaching the battery to the battery charger mount and plugging the battery charger to the power cable connected to the PCM-5823.

Optionally, you can connect a keyboard and monitor to the PCM-5823 using the standard connectors on the enclosure. Without at least a monitor, it isn't possible to observe the boot sequence. Nominally, it will take the system about 90 seconds to boot, after which time the network will be active and it will be possible to connect to the system over the configured WiFi access point, initially named "WiFiBedouin."

Network Access

Once the system has booted, it is possible to gain access to the WiFi Bedouin network either through the WiFi access point, or through the use of a wired connection. In the case of the wired connection, you will need to use an RJ-45 **crossover** cable wired directly from your computer's Ethernet jack to the unused RJ-45 network jack on the PCM-5823.

In most cases, you and other users will access the WiFi.Bedouin using the WiFi node. Most access will be over HTTP through a web browser. For other modes of access, such as shell and command prompt, access either through the WiFi node or the direct connection via the crossover RJ-45 cable.

The login username is **root** and the password is **bedouin**. Note that you will only be able to connect to the unit using an **ssh** client.

Server Gear

WiFi.Bedouin runs some of the same applications that you would find on a server that lives on the non-mobile Internet, including:

SSHD Connectivity
username: root
password: Bedouin

Apache HTTPD Server
http://httpd.apache.org/
[file path: /etc/httpd]
[file path: /etc/httpd/conf/httpd.conf]
[file path: /etc/rc.d/init.d/httpd] (startup and shutdown script; note that Apache automatically starts when the WiFi.Bedouin boots up)

MySQL Database
http://www.mysql.com
[file path: /usr/local/bin] (base directory for mysql utilities)
[file path: /etc/rc.d/init.d/safe_mysqld] (startup and shutdown script; note that MySQL automatically starts when the WiFi.Bedouin boots up)
mysql username: root; mysql password: Bedouin

Tomcat Java Servlet Container
http://jakarta.apache.org/tomcat/tomcat-5.0-doc/index.html
[file path: /usr/local/jakarta/tomcat] (base directory in which Tomcat lives)
[file path: /usr/local/jakarta/tomcat/bin/] (file path to startup and shutdown scripts)

These three applications make it possible to design and develop a range of experiences, from simple static web pages to dynamic, data-enabled networking applications.

Configuring the Bedouin's WiFi

The WiFi.Bedouin uses a D-Link DWL=G730AP miniature WiFi Access Point for its WiFi signal. This unit is small, light-weight, and can operate in three modes: Access Point, Router and Client. This unit was chosen because it can operate both as an Access Point and as a Client, and because it can perform the functions of a router by distributing IP addresses to connected hosts using DHCP.

The DWL-G730AP comes preconfigured to handle the necessary routing functionality of the WiFi.Bedouin, but you can connect to it to modify or investigate its configurations.

The D-Link DWL-G730AP miniature WiFi Access Point.

1) First, make sure you are connected to the WiFi.Bedouin's network, either via WiFi or by connecting to the free Ethernet jack using the supplied crossover cable.

2) Connect to the DWL-G730AP at http://192.168.0.30

You will find a series of configuration screens that allow you to modify the operation of the DWL-G730AP, including changing the name of the node and other features.

Motivation

Overview

We take it on face value that mobile networks are not, in fact, mobile. The networks are fixed in place, it is the terminal device - the handheld phone, for instance - that is mobile. Big steel and concrete cellular telephone towers, antenna arrays bolted to the sides of buildings, towers disguised as Evergreen trees and the bulky power and service access rooms that accompany them are all reminders about how the mobile network is somewhat more fixed in location than we might assume.

So, too, are we reminded about the immobility of mobile networks when our decisions as to which cellular service provider to subscribe to is based on the physical geography their fixed cellular transceiver towers actually cover.

Of course, the mobile network works because it allows one to tap into the fixed "land line" network. The appeal of the mobile phone would diminish if it were not possible to

call a normal, fixed land line phone, even as the people we connect to increasingly rely on their mobile phones as a primary means of communication.

Mobile Networks Becoming Mobile

If more and more people rely upon their mobile phones for communication, and as fewer and fewer "fixed" phones are installed, is it possible to anticipate the emergence of a trend in which it is the network that is mobile? Is it possible to imagine a world in which the network itself is mobile? Can a fixed network be replaced by an entirely mobile network, built upon meshes of wireless transceivers built into the very mobile terminal devices that make use of the mobile network? Will dialing into a "fixed" network from a mobile terminal device seem as quaint or nostalgic as dialing into the Internet using an acoustic modem is today?

Already, the previously fixed, uber-indexical telephone number has become detached from the fixed network in two ways. First, with telephone number portability and, second, with the capabilities introduced with VoIP (Voice over IP) telephony. For a relatively long period of time your home or office telephone number has been mobile, or "portable," in the sense that it could move with you so long as you stayed within a certain proximity to your Telco's local Central Office building. In some situations, it's appealing to have that indexical number anchored to you, even if you move to a new home or office within the same town. Nowadays, with VoIP (Voice over IP) telephony - where a conventional desk phone can be plugged into the Internet for use of normal voice services - it is possible to maintain your old number even if you move to the other side of the world.

Analogous to this misnomer for "mobile network" is the misnomer "mobile Internet." It is certainly not the Internet that's mobile - the Internet is the fixed network par excellence. The assumption built into the Internet is that it is fixed in the sense that it is the same everywhere. Wherever I am in the world, at the moment I access a specific data nugget, that data retrieved is identical to that retrieved by someone else, perhaps elsewhere in the world, when they access it at that same moment.

What is mobile about the "mobile Internet" is, like mobile phone networks, the terminal - the handheld PDA, laptop computer, cell phone or other kind of terminal device that is mobile precisely because its size is such that it can travel easily with its human. Like the telephony world's version of mobility, the mobile Internet is designed to allow human mobility, so that mobile humans can tap into the fixed, non-mobile Internet.

There seems to be a very good reason for what I am referring to as fixed networks. Mobile phones beat out other possible mobile communications precisely because they allow one to tap into the fixed telephone network from just about anywhere one has adequate network coverage. But aren't there other network topologies to be explored

for mobile communication? For instance, a network scheme that would be the mobile world's equivalent of peer-to-peer, where communication happens between two nodes, or only happens when two nodes are in proximity?

WiFi.Bedouin was designed as a research tool to help investigate just these kinds of questions. It is an object with which to help think about the possible ways of communicating, relating, sharing, networking, socializing in a world when it is the network that is mobile.

Applications

WiJacker - An Experiment In Mobilizing URLs

When we operate on the fixed internet, there is an assumption that the URL for a particular web site, or other "uniform resource" is a canonical index, or "locator" for a unique nugget of data. So, in the simple case where I enter a web address into my network browser - say, google.com - I expect to go to The Google web site. I'd be taken aback if my browser revealed content indicating that I was not at Google.

This is one particular way in which the Internet is a "fixed network." It is built into the core protocols of the Internet, and specified as a "rule" that everyone must follow. The rule is enforced through something called the Domain Name Service (DNS), which is the embodiment in Code of a protocol called RFC 819.

[cf. RFC 819 - ftp://ftp.is.co.za/rfc/rfc819.txt]

DNS is what translates a (more-or-less) human readable name for an Internet resource (e.g. google.com) into a numbered address that can be efficiently parsed and handled by a machine. This numbered address points to a unique device that can provide the desired service.

Challenge

How would a Mobile Internet perform similar kinds of name-to-address translations? Would it need to? How could it know about all of the possible services someone may want to access when, almost by design, it may not contain all unique services? What are ways that URLs can become "mobile?" What would the experience be like if name-to-address translations were dependent on your geographic location? What does google.com "mean" when you're attempting to access it while standing at the corner of 34th Street and 7th Avenue in New York City? How can URLs be geospatially relevant?

How does this challenge inform the design assumptions of a Mobile Internet?

Experiment

Contained within the WiFi.Bedouin is a small bit of Perl code (ports are available for Java, as well) that substitutes for the DNS capabilities of the fixed Internet. This code is called WiJacker and is found here:

[file path: /root/WiJacker.pl]

WiJacker.pl is a small application that "listens" for requests for name-to-address translations and simply returns the address of the WiFi.Bedouin.

If the WiFi.Bedouin isn't connected to the fixed Internet, why would it need to do name-to-address translations?

Remember, when someone connects to the WiFi.Bedouin's wireless network, they become part of a closed loop of connected devices. There are at most two devices in this network - the actual WiFi.Bedouin and the user's computer. If they connect to the WiFi.Bedouin and do the instinctive thing - open a web browser and attempt to connect to a named resource like google.com - we would want a somewhat consistent experience to unfold. Of course it would be extremely difficult to provide the same experience as would occur on the fixed Internet. But, it would be nice if their browser didn't report an error.

Effectively, we want to emulate the name-to-address protocols that exist on the fixed Internet. This way, when someone types in a named resource, something useful will happen. We may even want to present the user with content that is somehow based upon what named resource they have typed in.

This experiment makes the Mobile Internet created by the WiFi.Bedouin seem broad and expansive. We can present content for any named address a user enters, and even present content that somehow reflects or is informed by the address a user enters.

WiFi.Bedouin has two separate HTTP services. HTTP services are programs that obey the Hyper Text Transfer Protocol. (They are also known more colloquially as web servers. But, we're not really working in the conventional kind of web, so HTTP services seems to be a more appropriate description.) One is Apache, the crown jewel of the fixed Internet's open source "movement." [http://httpd.apache.org/docs-2.0/]. The other is called Tomcat, another stellar exemplar of what collaborative open source development can produce. [http://jakarta.apache.org/tomcat].

[file path for Apache: /etc/httpd]
[file path for Tomcat: /usr/local/jakarta/tomcat]

As initially configured, the small WiJacker application will always provide the IP address of the WiFi.Bedouin for all name-to-address requests. (You can see a log of these requests in the WiJacker.log file)

[file path: /root/WiJacker.log]

A user typing in a conventional URL (e.g. http://www.google.com) into their web browser causes a name-to-address query to the WiJacker application, and the browser makes a HTTP request to the IP address of the WiFi.Bedouin. Although both Apache and Tomcat are prepared to handle HTTP requests, Apache is "listening" on port 80 (the canonical service port used for HTTP requests), while Tomcat is "listening" on port 8080. Since the user's browser will attempt to contact the service listening on the canonical HTTP port, Apache handles the request and the appropriate web page is returned.

Suggested modifications for this experiment:

Modify httpd.conf so that different pages are returned based on the URL the user requests.

Use features of the wonderful mod_rewrite Apache module (included in the httpd binary already) and alter httpd.conf to cause Apache to send requests to Tomcat on port 8080.

Write a PHP page that presents different content based on the URL the user requests.

[file path: The httpd.conf configuration file can be found here: /etc/httpd/conf/httpd.conf]
[file path: The document root for Apache is specified in the httpd.conf file. See the Apache documentation (http://httpd.apache.org/docs-2.0/configuring.html) on this topic.]

Ephemera Cache

The Ephemera Cache is a portable network database containing anonymous contributions of various kinds of digital media, such as sounds, images, movies, animations, writings, scribblings - just about any sort of media that can exist and be visualized in digital form can be left and then found in the Ephemera Cache.

Challenge

This experiment explores how a common use of the fixed Internet - as a repository of so-called "rich" digital media such as music, movies, digitized television programs - would

operate when that media is part of a mobile Internet. Because the Ephemera Cache is part of the WiFi.Bedouin's mobile Internet it may be that the Cache's rich media content is available only sometimes and when accessed only from some places.

The Ephemera Cache adds an additional variable into the digital media equation: media on the Cache can be given a sense of "tangibility" and "preciousness" by marking them as limited in their availability. That is, it is possible to specify how many of the digital media are available for download. Each time one of the items of media is downloaded, the number available decrements until none are available.

What Ephemera Cache presents as practice-based research is a use of this generalized location-specific WiFi networking platform. It is meant to indicate that there are possible aesthetic, culture-making practices for localized WiFi networks. In an aesthetic sense, these networks are meant to re-invest locations with a sense of "place."

In the case of this particular experiment, the precise location of the WiFi.Bedouin is the only "place" in the geographic or networked world where you can access the content available here. This disruption of conventional assumptions about ubiquitous access and the infinite reproducibility of digital objects is the challenge the Ephemera Cache is designed to explore.

Experiment

Ephemera Cache is a JSP application [http://java.sun.com/products/jsp/] that runs in the Tomcat Servlet Container [http://jakarta.apache.org/tomcat/tomcat-5.0-doc/index.html].

[file path to the Ephemera Cache JSP application: /usr/local/jakarta/tomcat/webapps/ROOT]

The application also makes use of the MySQL [http://www.mysql.org] Structured Query Language database.

To run the Ephemera Cache experiment, you'll need to make sure that Tomcat is running. To check this, attempt to connect to it through a browser. The Tomcat Servlet Container listens for HTTP requests on port 8080. In order to access to the Ephemera Cache application it will be necessary to either connect directly to any URL on port 8080 (e.g. http://www.google.com:8080), or configure the Apache httpd.conf file to perform a rewrite that will redirect requests from the canonical port 80 to port 8080.

If it appears that Tomcat isn't running, attempt to start it by running the start-up script **startup.sh**. You'll need to be connected to WiFi.Bedouin through an ssh connection to run the script. You can also look at the log files for Tomcat to see its status.

[file path to the Tomcat Servlet Container start and stop scripts:
/usr/local/jakarta/tomcat/bin]
[file path to the Tomcat log files: /usr/local/jakarta/tomcat/logs]

Chat Maker

Because the WiFi.Bedouin contains a wireless access point, it is possible to set it up to enable "Rendezvous"-based chat. Rendezvous (now called "Bonjour") is a technology that has been encouraged by Apple to enabled ad-hoc networking - that is, a kind of networking in which intervention in setting up the network is reduced nearly to zero effort. With Rendezvous, the network just sort of "happens." While Rendezvous has been made available to other operating systems, it is mostly found in Mac OS X applications.

The most prominent Mac OS X applications to use Rendezvous are iChat, iTunes and iPhoto. When your Mac OS X computer is on a network, either wireless or wired, and you have enabled Rendezvous for these applications, you will be able to chat with other people using iChat, even if you're not connected to the fixed Internet. The unique aspect of Rendezvous is that other people who are running these applications magically appear, without you having to manually enter them in your Buddy List or iTunes playlist.
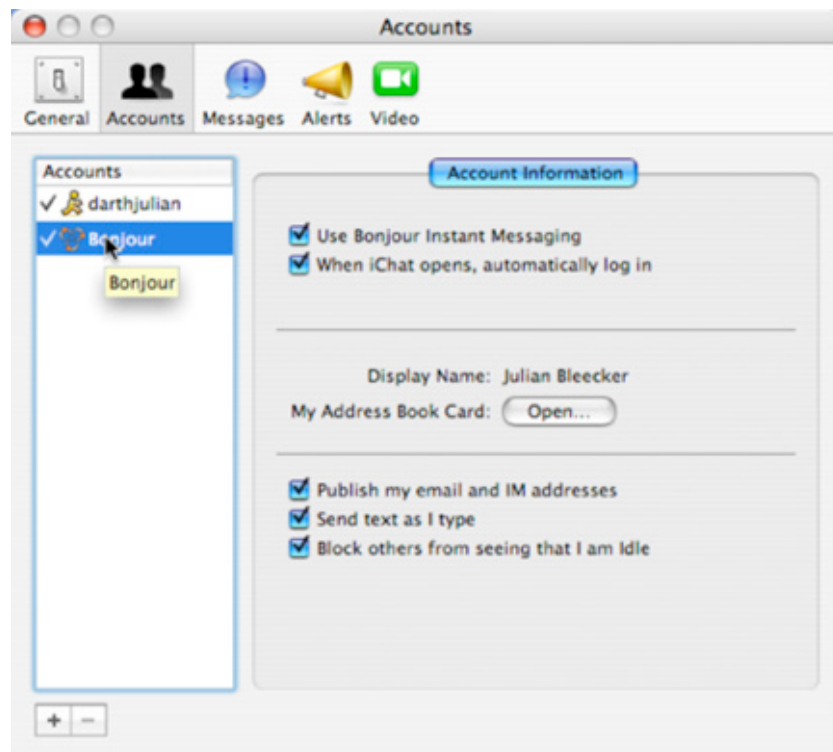
iChat's Rendezvous buddy list.

This makes it possible to create a proximity area network for semi-anonymous instant messaging, music sharing or photo sharing.

Experiment

Take the WiFi.Bedouin someplace where there are likely to be lots of people using WiFi, such as a popular cafe, park, or a conference with lots of alpha geeks. Set up a simple page on the WiFi.Beoduin's Apache web server that tells users to turn on their iChat system and configure it to run over the Rendezvous (in Tiger, it's called Bonjour) protocol.

Fieldwork

What Would You Do With A Mobile Internet?

(The following is the text from the open call that was distributed soliciting proposals for use of the WiFi.Bedouin.)

Vectors: Journal of Culture and Technology in a Dynamic Vernacular (www.vectorsjournal.net) is seeking proposals for creative or scholarly uses of a mobile server/transmitter unit known as the WiFi.Bedouin. Designed by Julian Bleecker, the WiFi.Bedouin uses a portable 500mW 802.11b transmitter and Mac OSX-based web server that is ready to receive your portable web content. The system includes basic software for web pages, group chat, an open blog and iTunes music streaming, but users are free to add custom software as desired.

We are particularly interested in projects that use the WiFi.Bedouin to investigate issues related to the intersection of physical and virtual spaces and questions of locality, proximity, materiality, community, etc. Once your project or event has been completed, we will ask you to submit documentation of the project outcomes for inclusion in the Mobility issue of Vectors. Please submit your WiFi.Bedouin fieldwork proposals to: vectors@annenberg.edu

Proposals should include the following information:

Name of applicant(s) and contact information
Project title
One sentence description
Brief explanation of project goals and interests
Approximate timeline for completing the project
Previous work or experience in related areas

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[4] Lueck, T.J., Subway Train Kills Queens Woman Picking Up Cellphone, in The New York Times. 2004: New York. p. 1.