#2 Document. "ShoutFi"
This document is 2nd of the 3 separate inventions being registered by Michael Chung in the same provisional filing.

Title: Method for using Wi-Fi Access Point(s) to infer a geo-fence for a place based digital bulletin board. (April 6, 2015)

Abstract

This method infers from a smartphone's ability to see the access point of a Wi-Fi to infer that a user of the app is near or inside the perimeter of a location and thus to give access to a digital bulletin board associated to the Wi-Fi's SSID and the location. GPS of the user when the app sees the subject Wi-Fi and IP address of the network, and validating that the user has logged on to the Wi-Fi are additional ways to provide access to the bulletin board or to limit access to it by others who do not see or are able to log on or credential to the Wi-Fi. Users are able to post, chat and message each other on the bulletin board, and it is sort of like a "Facebook for places" type of feed.

Problem to be Solved

Current location based communication apps uses two main ways to provide a radius and a limit for their "bulletin board" or chats or communication.

One is a fixed radius. The popular Yikyak app has a "fixed" 1.5 mile radius. Currently it is popular college campuses. (But probably uses additional means to account for varying campus sizes.) Users are able to have their chat postings broadcasted to 1.5 mile radius and to pull in and see postings inside of 1.5 mile radius of where they are. Their location is determined by GPS. The other is user determined (e.g. by drawing on a touch sensitive map). Third is by using GPS and associated addresses.

The invention by using the Wi-Fi is able to provide a dynamic and "organic" way to approximate the places where the individual user is and the expected "most" of other users who are within or near the perimeter of that location. A Starbucks generally may have one or two wifi access points (AP) and is perhaps some 1000 square feet in area; whereas a college campus maybe several miles area and with dozens of wifi APs. Thus, the geo-fence for this invention's app can be dynamically inferred.
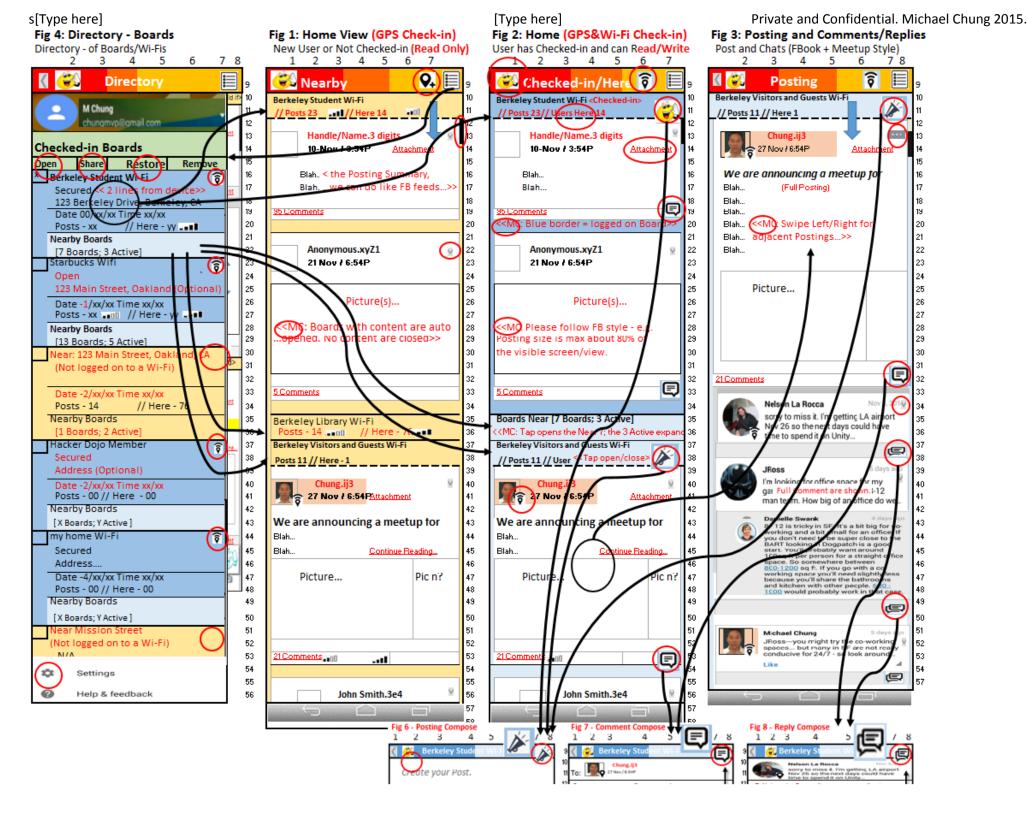
Also, the college often have multiple Wi-Fis – visitors, students, faculty, even some labs, or even a store inside the campus. Thus, a bulletin board can be provided for each group separate from the others.
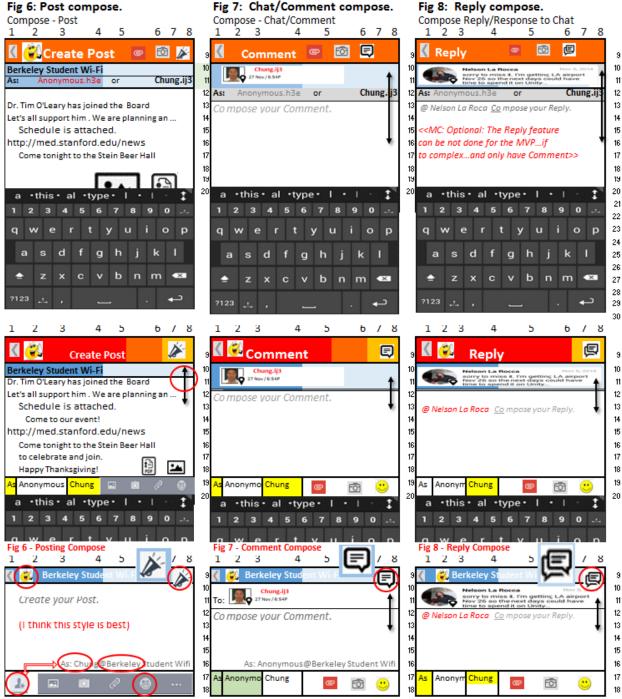
Many places do not have Wi-Fi. However, the app is intended for the more digitally active and social people. And as such, most are often in places with Wi-Fi.

The app will connect via internet to the app and the bulletin boards service provider. The data are stored at the service provider servers. The server will connect to various other services to get additional information and data as needed to tie the Wi-Fi's SSDI, its network IP address (often is different location to the actual location of the Wi-Fi); the GPS coordinates of the Wi-Fi. Also it will get the GPS coordinates from the user's device.

Also, since Wi-Fi and GPS is often not available, the US military is starting to use combination of new motion monitors in the device, even television or other signals visible to the device, accelerometers, etc. These can be considered for use in the future

The following are descriptions and one embodiment of the invention. It shows the mobile app user interface. (Excuse: It was written in an informal language for self and close readers.)

Fig 4: Directory - Boards
Directory - of Boards/Wi-Fis

Directory

2 3 4 5 6 7 8

M Chung
chungmvp@gmail.com

Checked-in Boards

Open	Share	Restore	Remove

X Berkeley Student Wi-Fi
Secured <<2 lines from device>>
123 Berkeley Drive, Berkeley, CA
Date 00/xx/xx Time xx/xx
Posts - xx   // Here - yy
Nearby Boards
[7 Boards; 3 Active]

Starbucks Wifi
Open
123 Main Street, Oakland (Optional)
Date -1/xx/xx Time xx/xx
Posts - xx   // Here - yy
Nearby Boards
[13 Boards; 5 Active]

Near: 123 Main Street, Oakland, CA
(Not logged on to a Wi-Fi)

Date -2/xx/xx Time xx/xx
Posts - 14   // Here - 76
Nearby Boards
[1 Boards; 2 Active]

Hacker Dojo Member
Secured
Address (Optional)
Date -2/xx/xx Time xx/xx
Posts - 00 // Here - 00
Nearby Boards
[X Boards; Y Active]

my home Wi-Fi
Secured
Address....
Date -4/xx/xx Time xx/xx
Posts - 00 // Here - 00
Nearby Boards
[X Boards; Y Active]

Near Mission Street
(Not logged on to a Wi-Fi)
N/A

⚙ Settings

? Help & feedback

Fig 1: Home View (GPS Check-in)
New User or Not Checked-in (Read Only)

1 2 3 4 5 6 7

Nearby

Berkeley Student Wi-Fi
// Posts 23   // Here 14

Handle/Name.3 digits
10-Nov / 3:54P   Attachment

Blah.. < the Posting Summary,
Blah. ...we can do like FB feeds...>>

95 Comments

Anonymous.xyZ1
21 Nov / 6:54P

Picture(s)...

<<MC: Boards with content are auto
...opened. No content are closed>>

5 Comments

Berkeley Library Wi-Fi
Posts - 14   // Here - 76
Berkeley Visitors and Guests Wi-Fi
Posts 11 // Here - 1

Chung.ij3
27 Nov / 6:54P Attachment

We are announcing a meetup for
Blah...
Blah...   Continue Reading...

Picture...   Pic n?

21 Comments

John Smith.3e4

Fig 2: Home (GPS&Wi-Fi Check-in)
User has Checked-in and can Read/Write

1 2 3 4 5 6 7

Checked-in/Here

Berkeley Student Wi-Fi <Checked-in>
// Posts 23// Users Here 14

Handle/Name.3 digits
10-Nov / 3:54P   Attachment

Blah...
Blah...

95 Comments

<<MC: Blue border = logged on Board>>

Anonymous.xyZ1
21 Nov / 6:54P

Picture(s)...

<<MC: Please follow FB style - e.g.
Posting size is max about 80% of
the visible screen/view.

5 Comments

Boards Near [7 Boards; 3 Active]
<<MC: Tap opens the Near 7; the 3 Active expand
Berkeley Visitors and Guests Wi-Fi
// Posts 11 // User <<Tap open/close>>

Chung.ij3
27 Nov / 6:54P   Attachment

We are announcing a meetup for
Blah...
Blah...   Continue Reading...

Picture...   Pic n?

21 Comments

John Smith.3e4

Fig 3: Posting and Comments/Replies
Post and Chats (FBook + Meetup Style)

2 3 4 5 6 7 8

Posting

Berkeley Visitors and Guests Wi-Fi
// Posts 11 // Here 1

Chung.ij3
27 Nov / 6:54P   Attachment

We are announcing a meetup for
Blah...   (Full Posting)
Blah...
Blah...
Blah...   <<MC: Swipe Left/Right for
Blah...   adjacent Postings...>>
Blah...

Picture...

21 Comments

Nelson La Rocca   Nov 5, 201
sorry to miss it. I'm getting LA airport
Nov 26 so the next days could have
time to spend it on Unity...

JRoss   5 days ago
I'm looking for office space for my
gar Full Comment are shown. i-12
man team. How big of an office do we...

Danielle Swank   4 days ago
8 - 12 is tricky in SF. It's a bit big for co-
working and a bit small for an office. If
you don't need to be super close to the
BART looking in Dogpatch is a good
start. You'll probably want around
100sq ft per person for a straight office
space. So somewhere between
800-1200 sq ft. If you go with a co-
working space you'll need slightly less
because you'll share the bathrooms
and kitchen with other people. 600 -
1000 would probably work in that case.

Michael Chung   5 days ago
JRoss---you might try the co-working
spaces... but many in SF are not really
conducive for 24/7 - so look around...
Like

Fig 4: Directory - Boards
Directory - of Boards/Wi-Fis

2 3 4 5 6 7 8

Directory

M Chung
chungmvp@gmail.com

Checked-in Boards

Open Share Restore Remove

Berkeley Student Wi-Fi
Secured << 2 lines from device>>
123 Berkeley Drive, Berkeley, CA
Date 00/xx/xx Time xx/xx
Posts - xx   // Here - yy

Nearby Boards
[7 Boards; 3 Active]

Starbucks Wifi
Open
123 Main Street, Oakland (Optional)
Date -1/xx/xx Time xx/xx
Posts - xx   // Here - yy

Nearby Boards
[13 Boards; 5 Active]
Near: 123 Main Street, Oakland, CA
(Not logged on to a Wi-Fi)

Date -2/xx/xx Time xx/xx
Posts - 14   // Here - 76

Nearby Boards
[1 Boards; 2 Active]

Hacker Dojo Member
Secured
Address (Optional)
Date -2/xx/xx Time xx/xx
Posts - 00 // Here - 00

Nearby Boards
[X Boards; Y Active]

my home Wi-Fi
Secured
Address....
Date -4/xx/xx Time xx/xx
Posts - 00 // Here - 00

Nearby Boards
[X Boards; Y Active]

Near Mission Street
(Not logged on to a Wi-Fi)
N/A

Settings
Help & feedback

Fig 1: Home View (GPS Check-in)
New User or Not Checked-in (Read Only)

1 2 3 4 5 6 7

Nearby

Berkeley Student Wi-Fi
// Posts 23   // Here 14

Handle/Name.3 digits
10-Nov / 3:54P   Attachment

Blah.. < the Posting Summary,
Blah.. we can do like FB feeds...>>

95 Comments

Anonymous.xyZ1
21 Nov / 6:54P

Picture(s)...

<<MC: Boards with content are auto
...opened. No content are closed>>

5 Comments

Berkeley Library Wi-Fi
Posts - 14   // Here - 76
Berkeley Visitors and Guests Wi-Fi
Posts 11 // Here - 1

Chung.ij3
27 Nov / 6:54P   Attachment

We are announcing a meetup for
Blah...
Blah...   Continue Reading...

Picture...   Pic n'?

21 Comments

John Smith.3e4

Fig 2: Home (GPS&Wi-Fi Check-in)
User has Checked-in and can Read/Write

1 2 3 4 5 6 7

Checked-in/Here

Berkeley Student Wi-Fi <Checked-in>
// Posts 23// Users Here 14

Handle/Name.3 digits
10-Nov / 3:54P   Attachment

Blah...
Blah...

95 Comments

<<MC: Blue border = logged on Board>>

Anonymous.xyZ1
21 Nov / 6:54P

Picture(s)...

<<MC: Please follow FB style - e.g.
Posting size is max about 80% of
the visible screen/view.

5 Comments

Boards Near [7 Boards; 3 Active]
<<MC: Tap opens the Near 7; the 3 Active expand
Berkeley Visitors and Guests Wi-Fi
// Posts 11 // User << Tap open/close>>

Chung.ij3
27 Nov / 6:54P   Attachment

We are announcing a meetup for
Blah...
Blah...   Continue Reading...

Picture...   Pic n'?

21 Comments

John Smith.3e4

Fig 3: Posting and Comments/Replies
Post and Chats (FBook + Meetup Style)

2 3 4 5 6 7 8

Posting

Berkeley Visitors and Guests Wi-Fi
// Posts 11 // Here 1

Chung.ij3
27 Nov / 6:54P   Attachment

We are announcing a meetup for
(Full Posting)
Blah...
Blah...
Blah...
Blah...   <<MC: Swipe Left/Right for
Blah...   adjacent Postings...>>
Blah...

Picture...

21 Comments

Nelson La Rocca   Nov 2014
sorry to miss it. I'm getting LA airport
Nov 26 so the next days could have
time to spend it on Unity...

JRoss   5 days ago
I'm looking for office space for my
gar Full comment are shown. 1-12
man team. How big of an office do we

Danielle Swank   4 days ago
8Co 12 is tricky in SF it's a bit big for co-
working and a bit small for an office if
you don't need to be super close to the
BART looking. Dogpatch is a good
start. You'll probably want around
1Coo, per person for a straight office
space. So somewhere between
8Co-1200 sq ft. If you go with a co-
working space you'll need slightly less
because you'll share the bathrooms
and kitchen with other people. 600 -
1C00 would probably work in that case.

Michael Chung   5 days ago
JRoss---you might try the co-working
spaces... but many in SF are not really
conducive for 24/7 - so look around...
Like

Fig 6 - Posting Compose
1 2 3 4 5

Berkeley Student Wi-Fi

Create your Post.

Fig 7 - Comment Compose
1 2 3 4 5

Berkeley Student Wi-Fi

Chung.ij3
27 Nov / 6:54P
To:

Fig 8 - Reply Compose
1 2 3 4 5

Berkeley Student Wi-Fi

Nelson La Rocca   Nov
sorry to miss it. I'm getting LA airport
Nov 26 so the next days could have
time to spend it on Unity

Fig 6: Post compose.
Compose - Post

Fig 7: Chat/Comment compose.
Compose - Chat/Comment

Fig 8: Reply compose.
Compose Reply/Response to Chat

<<MC: Optional: The Reply feature can be not done for the MVP...if to complex...and only have Comment>>

Fig 6 - Posting Compose

(I think this style is best)

Fig 7 - Comment Compose

Fig 8 - Reply Compose

The three differing styles. Bottom is best, imo. It is closer to the social apps.

<< ShoutFi is Facebook for places. Is UI styling follows the FB, Twitter, Meetup, Instagram, etc. apps; also someone said that it's like the Slack app rooms.>>

1) There are 3 basic options for the Home page View:
   a) The last local boards group the user was at before closing the app.
   b) The current place local boards group – but read only.
   c) The current place local boards group – but with read and write privilege.
2) **User Action 1 – Opens App, to see their last loaded boards. (If first time to open app, must go to Action 2).**
   a) The default Home Page View is the last local boards group from the last time the app was used. This can be where the user is now or an away place.
      i) As of above, we don't know where the user is or if they are not a Wi-Fi for not.
   b) At the same time, the app will check both the device's GPS and Wi-Fi status – and will send as available, the GPS and Wi-Fi information to server.
      i) Perhaps, we can do this – every time the app is opened; maybe during a refresh (of board view); and when they close the app.
         (1) Optionally, maybe every "X minutes" if the app is open for long duration. I.e. more frequent in "urban" area, and less so in rural.
      ii) Also, we will get the device ID, and other tracking information as available… (at Install we ask for the basic: GPS, Wi-Fi permissions)
   c) The Default Home Page View will be either Fig. 1 or Fig. 2 style – depending on what they did at that location.
3) **User Action 2* – Check-in (via GPS), to see boards for their current location:** The user is **asking for the local boards group (defined below) for their current location**. (*They will press the 📍 (or such) in the Navi bar, or swipe the default Home Page View to left.)
   a) If their GPS is on, then Fig 1 will load automatically. If not, ShoutFi will ask them to turn on their GPS. (Please see the Google and Yikyak wordings in their dialogue box).
      i) Nice to Do (?): Load the "first top screen view" of local boards group for that location (as teaser and also to show how much activity is there), but it is greyed (somewhat legible) and frozen (not scrollable) and the GPS request dialogue is over that.
   b) Once their GPS is on, the local boards group View is loaded in full. This is the Fig. 1. Fig. 1 is same as Fig. 2, but has no write privileges and the Post, Comment and Reply icons are not displayed.
   c) The 📍 in the Navigation changes to such as 📶.
   d) Other icon ideas (Diego): 📍✗ or 📍+….
      i) If so, when they are checked in to the location, but not to Wi-Fi. 📍✗ changes to 📍+ and is yellow? Or, use 📶, but it is colored yellow, and then green – when they have full write privilege? Etc.
4) In the above Action 2:
   a) **If the GPS is previously on and IF the user is logged on to any Wi-Fi** (whether recognized or new to the ShoutFi server), then the Fig. 2 View will load automatically (instead of Fig. 1) and thus user will get the total read and write* privileges. (*Post, Comment and Reply).
   b) **If the user's Wi-Fi is on, but the GPS is off. We will still ask for the GPS to be turned on – and then Fig. 2 will load instead of Fig. 1**. The GPS is needed to be an extra authentication step, and also in case of duplicate SSIDs and such as "Xfinity Wi-Fi." (In San Francisco, Xfinity is a city wide Wi-Fi available for the home subscribers of Xfinity services (it still requires them to log on with their home account ID/password. Also, Starbucks has the same SSID, thus we need GPS to distinguish one from another)).
5) <<MC: User can turn off GPS and Wi-Fi – after, they have been checked-in or authenticated* to the Wi-Fi – and from that moment on, will have full read/write access to that local boards group. (*Authenticate = the user has logged on to the Wi-Fi at least once, and their GPS was also captured.)

a) That local boards group is now saved in their Fig 4 Directory. The Fig. 4 Directory is **a history of their checked-in local boards group activities – regardless if they logged on to the Wi-Fi or not**. I.e. each place where they open the app and gave us their GPS, and thus got a local boards group is shown in the Fig. 4 Directory.>>

6) **User Action 3 (only after above Action 2/GPS step is done) – Log on/Authenticate to a Wi-Fi, to gain write privileges. (The user will press 📶)**

a) And if the Wi-Fi is not on (the user could have turn it on at any time between Action 2 and Action 3), ShoutFi will ask them to log on. (The reason we require them to log on is that I think: iPhone will only allow us to see the Wi-Fi the user is actually on.)

b) **Once a Wi-Fi logged on, that Wi-Fi board is loaded to the top and is framed in a different color. Or, it can stay in the same position as it was in Fig. 1 (relative to the other boards), but framed in different color. (Diego?)**

c) In either Action 2 (if Fig. is loaded) or Action 3, the board for the Wi-Fi the user is on is loaded to the top of the page view and that board also framed in a different color from the rest of the local boards group.

   i) Caution: In Action 2, if the Fig 1 is loaded, the order of boards are (IMO) from "nearest" to the user's GPS and fanning out. But, it is possible that the Wi-Fi that the user will log on to is not the nearest in GPS. Thus, when the user "converts" from Fig. 1 to Fig. 2 view, the Wi-Fi that he logs on to will/should move to the top of the Fig. 2 view. (I think this is best0.

7) **Local board group definition:**

a) A group of boards (based on their respective Wi-Fis) – which:

   i) Share the same footprint as other Wi-Fis for the given place. E.g.:

      (1) There are 3 to 5 Wi-Fis (and differing SSIDs) available for Hacker Dojo members and guests; and a college campus may have student and faculty, and even a smaller library or labs (within the campus).

      (2) Also, a temporary Wi-Fi may be set up within the Hacker Dojo – for a weekend hackathon.

   ii) Is "nearby" or their APs' signal is being picked up by an Android user's device.

      (1) My apartment neighbors; adjoining offices (including above and below floors); multiple signals on an urban street (mixture of "Starbucks" and offices).

   iii) Even, a hotspot created by an individual for his laptop.

   iv) The common thing they share is that **their GPS coordinates is "approximately" same, and that is what we will depend on**. (The multiple storied building will be bit harder to work out…; but we can try our best; and to use their last known GPS).

8) **Local boards group "radius":** So now we have to figure out the best way of what the radius size is to be (emanating from the user's checked in GPS spot). So that, we know how far of the Wi-Fis to include.

b) What are some major places profile?

   i) Starbucks – probably one or two access points (AP) for their Wi-Fi, and usually is 10 to 30 meters in dimensions.

      (1) Same SSID used for entire chain.

   ii) Hacker Dojo – 4 to 5 APs, and several SSID, and is about 50 to 100 meters in length and width.

   iii) College Campus – many APs, several SSID, and can be 1 to 2+ miles in length and width.

   iv) Urban Office…

   v) Xfinity – is city wide.

c) So from the above, i.e. based on the various GPS coordinates that the users log on to a particular Wi-Fi --- we can also get the approximate "borders" of the place and thus can plot that to infer a zone for that Wi-Fi/Board…

   i) (And we ought to error on the generous side – to fill in gaps in APs, and to allow someone on the outside of the place's physical border to see the board as the Wi-Fi often is seen from 10s of meters outside a place…but in urban areas, to tighten it as there can be too many?)

      ii) **However: The Xfinity can make us confused:** It is often available on busy street corridors; even in my apartment building; and the ISP is adding more and more spots. (What happens is that when a household gets an Xfinity account (cable TV and Internet), a portion of that bandwidth is carved out for "any Xfinity subscribers" who are in that household's Wi-Fi signal range.).

        (1) **Solution!**: A Starbucks or Xfinity SSID* range is always to be INSIDE the range of the "unique SSID" (1 or more representative Wi-Fis) of that local boards group. (*This is for SSIDs that show up in more than "2" GPS locations. Well, 2 might be bit too restrictive…but)

          (a) E.G.:

            (i) **A Starbucks or Xfinity is only included into a local boards group, if the GPS where they were logged on from is within the GPS coordinates of the representative "unique SSIDs" for that location.**

          (b) **Not sure, but I think this will help us to determine the 3D or multi-story problem as well.**

          (c) **<<MC: I may not have solved all the logic, but I think this is the direction.>>**

        (2) **THUS!:**

          (a) **In keeping with the ShoutFi philosophy, we let the crowd and Wi-Fi signal determine the local boards group, and not a hard fixed radius "in meters. This allows us to "organically" know the, a) the size of the local boards group, and b) what are the appropriate Wi-Fis to include in that group.**

9) **Other – Wi-Fi Related: What to do if a regular user (who previously gave us both GPS and Wi-Fi log on) – returns to a regular place?**

    a) If their GPS is on, and that GPS in with-in range of the GPS for a local boards group AND, they previously had authenticated to one of the Wi-Fis of that group, then give them Fig. 2 without asking for Wi-Fi log on?

      i) Yes?!

    b) If their Wi-Fi is logged on (but not GPS), and that Wi-Fi is part of a local boards group, do we need their GPS?

      i) If Starbucks?

      ii) If Xfinity?

      iii) If StanfordStudentWifi?

      iv) Answer: If there is some "secure way" of knowing that the user's current logged on Wi-Fi is unique (maybe ID of router, and the IP of that Wi-Fi's network) – then, maybe we don't need to ask for GPS. And thus load Fig. 2.

10) Other – Wi-Fi Related:

    a) If: User (device) is on one of the "recognized" Wi-Fis of that local group, and ShoutFi can know that (caution, a local group might have Wi-Fis from A to L, the user has previously logged on to C, but this time on E – then, treat them as same, except that with E at the center, the Wi-Fis for the current local group could be D to N): Then load, Fig 2 (with Boards for D to N). (If depending on this Wi-Fi status information, then we don't need to check the user's current GPS location?)

      i) Check to see what Wi-Fi the user is on now, compare to Wi-Fis on ShoutFi database, if matching load that previous (or adjusted) local group.

      ii) Perhaps, add this condition as well: Only show boards (in the local group), if they have content?

        (1) **Yes: Because in 3D (multiple story buildings or apartment), there can be many nearby Wi-Fis and it can be bothersome to have that in the board view.**

        (2) No: Because, the user may want to write to board of a nearby board. (College student who is on the student Wi-Fi may want to write on the Faculty Wi-Fi board…) **Let's let talkative people talk on their neighbor's boards!?**

    b) So… EACH Wi-Fi is the center of its own local boards group. HOWEVER, different Wi-Fis/SSIDs can have the same local boards group, e.g. the Wi-Fis at Hacker Dojo.

      i) So, even if a user logs on to a Wi-Fi at the end of its edge (of a campus), his local boards group is same as another user who logged on to the same board even if from the 2 miles away at the other end of the campus.

      (1) Then, we need to show the boards in alphabetical order, not the nearest to the user. The top of Fig. 1 and Fig. 2 will be the board the user is logged on to, and then the rest is by alphabetical. (This is not intuitive. And we will have to add a distance later…)

      (2) Unless, the users at opposite ends of the 2 mile campus – is allowed to see different boards and they are ordered by nearest to him (with the campus board at the top).

11) Other things of note:

    d) We want to "highlight" that the posters are "members" of at nearby place, by the fact of their access to their Wi-Fi log ons. Thus, their handle will follow the following convention, where the suffix after @ is the full title of the SSID where they have logged on to (i.e. authenticated)

      i) The prefix and be like the following, I am partial to fier. And the "em3" is 3 or 4 letters we will randomly add.

        (1) Anonymous.em3@ATT-234

        (2) User.em3@Starbucks

        (3) Fier.em3@HD-Member

    e) Later, we will allow the Poster to curate the Comments and Replies posted under his posting.

    f) **Bold the SSID name** in the Fig 1, Fig 2 and Fig. 4 – if there are new Posting (let's not go as granular for Comment and Replies) – since the user opened that Board.

    g) **Bold the Posting name** in Fig. 1, Fig. 2, and Fig. 3 – if there are new Comments (let not go as far as to Replies) – since the user opened that Posting, and Bold (?) that Comment (even though new Comments enter at the bottom)

    h) For both Fig 1 and Fig 2 – when the user swipes the screen from left to right, it will load their previous Board views…. So, they can see all the Boards that they experienced in history: Here, the boards at the last place; and the place before that, etc.

==================

Fyi….

	User turns on app for the first time.	New user logs on at his location.	User has used the app at other locations.	User is returning to Logged on location.
GPS is on				
GPS is off				
Wi-Fi logged on				
Wi-Fi is not logged on				
Wi-Fi SSID has changed				
Wi-Fi SSID is new for a previously "mapped" Local Group.				
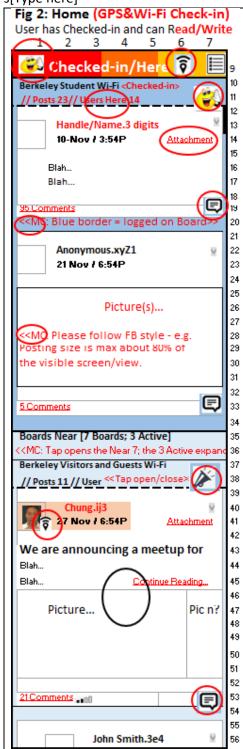
Thank you for hanging in here with me.

Let's ACHIEVE this vision!

===

Fig 1: Home View (GPS Check-in)
New User or Not Checked-in (Read Only)

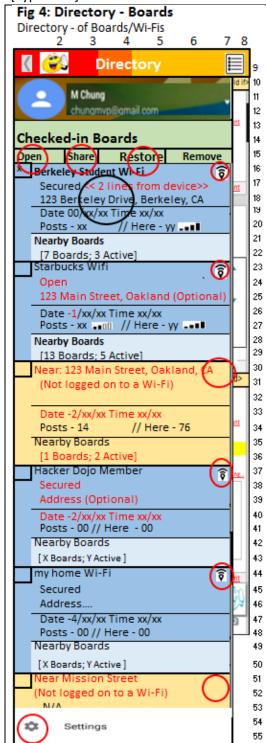The look and feel, and style is 2b patterned on FB, Twitter, Meetup, Instagram, etc. Apps. "ShoutFi is FB for places".

A. If the user is opening the App (Action 1) for the first time, the app will first check to see if their GPS is on; and if on; it will also check to see if and what Wi-Fi they are on.
 a. If GPS is not on (regardless of Wi-Fi.), ask for GPS. Then display local boards group in Fig. 1.
 b. If GPS is on and also Wi-Fi is on. Then, display local boards group in Fig. 2.

B. When an "old" user re-opens (Action 1) the App, they will see the local boards group that was up when they last closed the App. The View will be either Fig. 1 or Fig. 2 – depending on what it was. Then, if the user takes Action 2 (which is asking for local boards group for their current location). The following logic to happen:
 a. If GPS is not on (regardless of Wi-Fi.), ask for GPS. Then display local boards group in Fig. 1.
 b. If GPS is on and also Wi-Fi is on. Then, display local boards group in Fig. 2.

C. (For above 1 and 2, we need to get their GPS, Wi-Fi information (SSID, MAC, network information like iPhone, etc.) and the device ID; any others? We need to get this when they load, when they refresh; and if not intrusive – periodically during use and when they turn off.)

D. (Later for Android users, when we have Wi-Fi fingerprints (e.g. from our Android users) and the Android user takes Action 2 (either a new or old user), we will scan his nearby Wi-Fis and IF THAT FINGERPRINT matches (say "66%") of the fingerprint for "a given local boards group", then we don't have to ask for their GPS, **and load the Fig. 2**)

1) Left exhibit is the View after the user has given us their GPS. And represents the current local boards group loaded.

2) Three boards are in this exhibit view. The board frame color is different to the Fig. 2. And so is this.). Or instead of the "+", maybe a Check mark. When the local boards group loads, either: open/expand the nearest board and below this nearest board, collapse all the others; OR – expand only all boards with Postings. (We determine the nearest by GPS. <<MC: I hope this works with the above "D" process.>>

3) Also, user could swipe to right to load a prior local boards group; and again to one prior; and to left to load any that are "Previous". (E.g., if he loaded one of the local boards group from the Fig. 4 Directory)

4) The maximum Posting size in the Fig. 1 or Fig. 2 View is to be about 80%~90% of the screen – this seems to be FB's (Facebook) style.

5) Tugging will refresh.

6) Tapping the Board Title bar - [Berkeley Library Wi-Fi Posts - 14 // Here - 7f] - will collapse or expand. N2H (Nice to have)

7) [/ Posts 23 // Here 14] = # of Postings. The bars are visual indicators if done tastefully (N2H)

8) And # of users whose GPS indicates that they were there at the time their app was loaded. <<MC: Ugh… tracking if they are there NOW is complex. We can do this later…. But, it's nice to show how many users are there now and also to allow private messaging…)

9) Tap a posting to view it in Fig. 3 with all Comments and Replies.

10) (A small down arrow) This is what FB has. It offers various options to report, delete, block. (BTW, later we will give the Posting creator the right to curate (remove/block) Comments (but not replies?)

11) [Chung.ij3 27 Nov / 6:54P] The Poster's image is framed in square. Commenter/Repliers are round.

12) Question: Does new Postings enter at the top or bottom? I think top.

Fig 2: Home (GPS&Wi-Fi Check-in)
User has Checked-in and can Read/Write

Checked-in/Here

Berkeley Student Wi-Fi <Checked-in>
// Posts 23 // Users Here 14

Handle/Name.3 digits
10-Nov / 3:54P   Attachment

Blah...
Blah...

95 Comments
<<MC: Blue border = logged on Board>>

Anonymous.xyZ1
21 Nov / 6:54P

Picture(s)...

<<MC Please follow FB style - e.g.
Posting size is max about 80% of
the visible screen/view.

5 Comments

Boards Near [7 Boards; 3 Active]
<<MC: Tap opens the Near 7; the 3 Active expand
Berkeley Visitors and Guests Wi-Fi
// Posts 11 // User << Tap open/close>>

Chung.ij3
27 Nov / 6:54P   Attachment

We are announcing a meetup for
Blah...
Blah...   Continue Reading...

Picture...   Pic n?

21 Comments

John Smith.3e4

13) This is Fig. 2 and user has full write privilege.

14) 📶 is changed from the 📍.

15) Please note that the board borders have changed in color, from the "beige" in Fig. 1. (I think a good thing? Or, this maybe too much. Then keep as same. But, the icons have been changed and added as per below 15) and 16).

16) In Fig. 2 the Posting and Comment icons are shown.

17) 😀 Or 📢 to indicate Posting Compose. I prefer the bottom of the icon to extend a little below the board Title bar and to be round.

18) 💬 Comment icon.

19) Users Here 14 😀 Users Here might be too difficult to track for beta. But, it is very nice to have. It is users that are at that "GPS" location.

20) The board/Wi-Fi that the user is logged on to is stronger color and the others in the local boards group is bit more faded. (Ugh. Maybe not necessary – as after few uses, the user will know that the board they are logged on to is at the top.)

21) Handle/Name.3 digits , Anonymous.xyZ1 == Actually, I want to use the convention of adding "@wifiSSID" to their handle. This is IMPORTANT. The reason is that posters/commenters – can post on any of the local boards group, thus we need/ought to show what Wi-Fi they are "authenticated" on and also, to foster a sense of "community". The ideal way is to add the "@wifiSSID" only if the user is posting on another board, so that, users can see quickly that that user is from a different board/Wi-Fi. "Fier" instead of Anon. or User.? Fier.2j4F@HD-Members

22) (BTW, we don't have a map – but a map showing the boards location is a very nice thing to have. The user is the Pin and the autos are the boards.
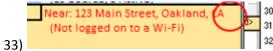
23) (Since we are not showing the individual users, but the boards, this is good.)

24) (Nice to have*) Attachment -- see Fig.3 Also: We have to decide if to allow the attachment to be callable in Fig. 1 and Fig 2 or only in Fig. 3. (But we should show the "Attachment" if any. If no attachment(s), then don't show this.)

25) Again, swiping this View left or right will load the respective history of local boards group (and in the Fig. 1 and Fig. 2 as appropriate, the Navi icon will have to change as well "in a slow" lagging way --very nice to have....!

Fig 4: Directory - Boards

Directory - of Boards/Wi-Fis

This slides out from the side, or…?

26) Fig. 4 shows both the Fig. 1 and Fig. 2 local boards group that the user has accessed. It is like his History. The recent most at top.

27) User can Open more than one group…. Ugh: What if he selects from both Fig. 2 (Blue) and Fig. 1 (Beige)? Either, we don't allow that and force like kind; or only one local boards group at a time; or display the selected ones anyway since the Posting/Comment icons are mounted to the board Title bar (but then which icon do we display in the Navi bar? 🔵 or 🔵 ;P

28) For the beta – only allow one to be selected.

29) Share – this allows the user to share a local boards group to someone who has never been to the GPS associated to that group. Also do they get both read and write? Or just read? (Not for beta)

30) Restore means that once deleted (i.e. Removed) from this "history" list - the local boards group can be restored. We can show them in Fig. 4. Or maybe another View.

31) Remove – user can select 1 or more and Remove from Fig. 4.

32) The Blue and this icon indicates that the user has full access. Fig. 2.

33) . User only has read access. Fig. 1. Later, when we are also hooked into "Google" GPS/Street/Map APIs, we can show the street or address (best guess) of where the user's then given GPS is.

34) Download . User can create handles, etc. BTW: A user could have different handles – "fratbrat.2m3R@Berkeley-Student-Wifi; and "SWM.2m3R@Starbucks"; and Anon. or Fier as well. They can choose which to use at any time.
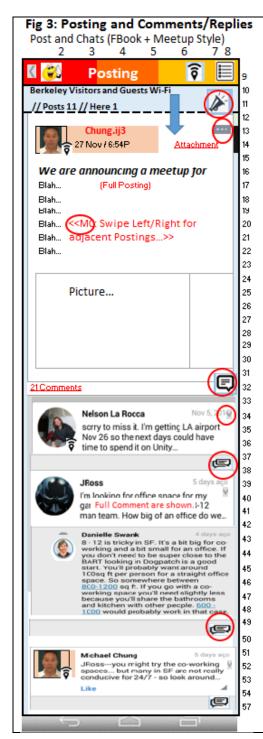
35) Reminder to Designer: . Is either fixed or can scroll with the rest of the Fig. 4 view.

Or, not show at all and have it accessible from the . But, I think having it there is good. Also – very nice to have – is a board for ShoutFi users to feedback to ShoutFi and among themselves about ShoutFi. And if so, to feature an icon for that somewhat prominently.

36) (Also… Designer, instead of the … you can do the slide of each group to left or right to reveal these options. But, then you have to consider if to have this Fig. 4 screen to slide out from the left side or be a view of its own…or keep it to slide out from left, but to have only one Left swipe of the group to reveal the options. Then, the Fig. 4 View don't have to close while they do that.)

Fig 3: Posting and Comments/Replies
Post and Chats (FBook + Meetup Style)

37) Swiping the screen – left or right - will load the adjoining Posting…
38) Refresh – the blue arrow.
39) Or the Smiley opens Posting Compose.
40) = Comment Compose.
41) = Reply Compose
42) New comments enter at the bottom.
43) (Nice to have*) iPhone DOES NOT allow docs, pdfs to be downloaded. They only allow iTunes, pics and images. MY idea for the Attachments features is to allow users to post flyers, documents, and images to be shared and downloaded by other users – partially as productivity tool (e.g. students can exchange HW assignments). BUT! On mobile, it is very hard to edit documents. Android users could download to the mobile, and then forward via email to themselves (to edit on their desktop or tablet). Thus, a temporary fix is for users to put links to the files in their cloud storage like Dropbox. IPhone users will copy and paste that link and email to themselves. Or, we can offer: 1) Long press the Attachment and 2) get a "copy the link and email it" feature. A tap will open a dialogue box with "an image and title" of the Attachments. (*This feature is bit complex to do --- but I guarantee that our users will really appreciate it! Its bit like https://**slack**.com/ – which is going heavily viral among office workers and geeks.)
44) BTW: The attachments can be flyers related to the posting, etc.
45) Poster to be able to curate the Comments and Replies at his own posting?
46) and : Report this posting, block, etc.

Later…. FYI:
- *We can do stuff like, having individual users to broadcast their own "personal board"*
- *Maybe even create their own boards, and by invitation only, etc.*
- *And of course – to have Private Boards, visible only fo Wi-Fi authenticated/logged on users.*
- *Etc.*

Also, need to add things like user account, ability to block a user; even a time out for a user.
- *We can do things like: If "33%" of users delete a Posting, or a Board; we delete it "permenantly" from our servers too…*

Fig 6: Post compose.
Compose - Post

Fig 7: Chat/Comment compose.
Compose - Chat/Comment

Fig 8: Reply compose.
Compose Reply/Response to Chat

Fig 6 - Posting Compose

Fig 7 - Comment Compose

Fig 8 - Reply Compose

I think the bottom row is best… again styled on FB, Twitter, etc.
BTW: Twitter has Open Sourced all their 900 Emoji… we don't need all of them… but let use them…