Fig 4: Directory - Boards

Directory - of Boards/Wi-Fis

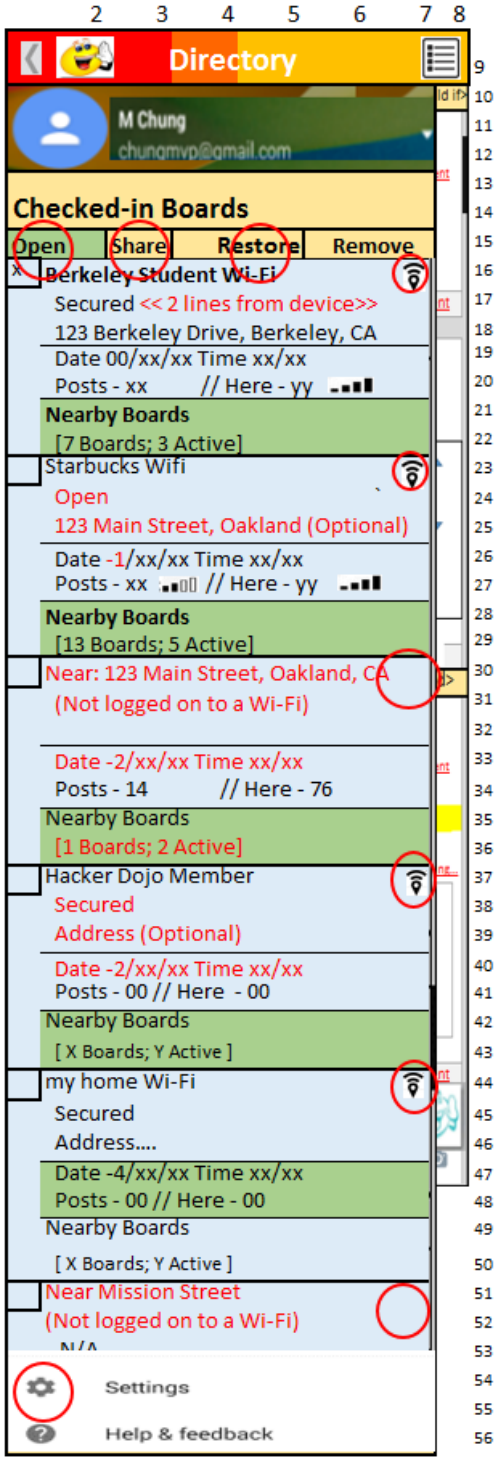


Fig 1: Home View (GPS Check-in)

New User or Not Checked-in (Read Only)

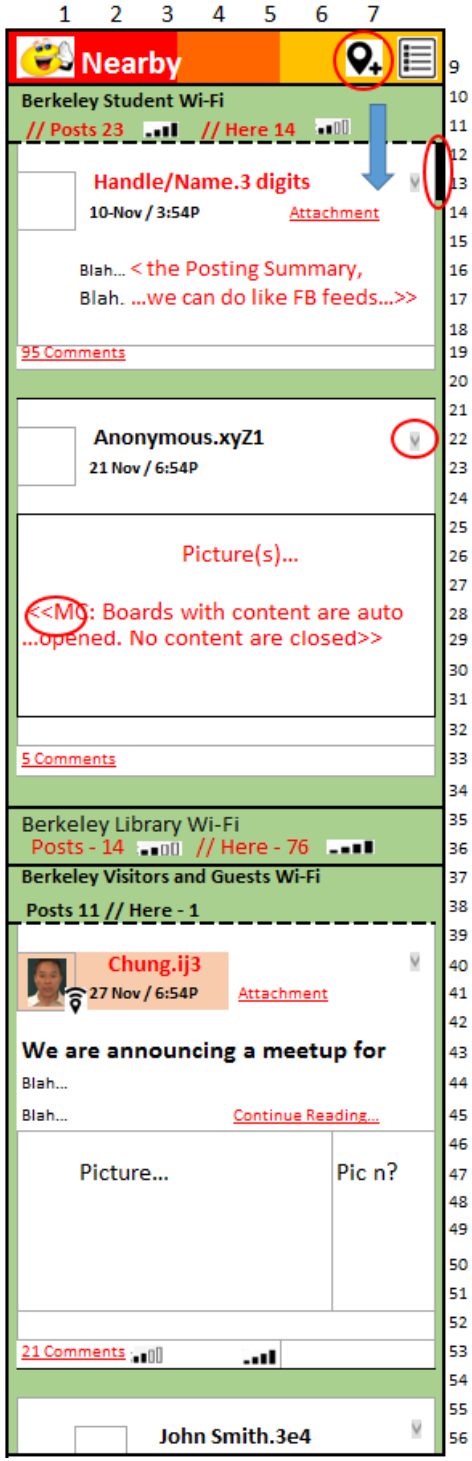


Fig 2: Home (GPS&Wi-Fi Check-in)

User has Checked-in and can Read/Write

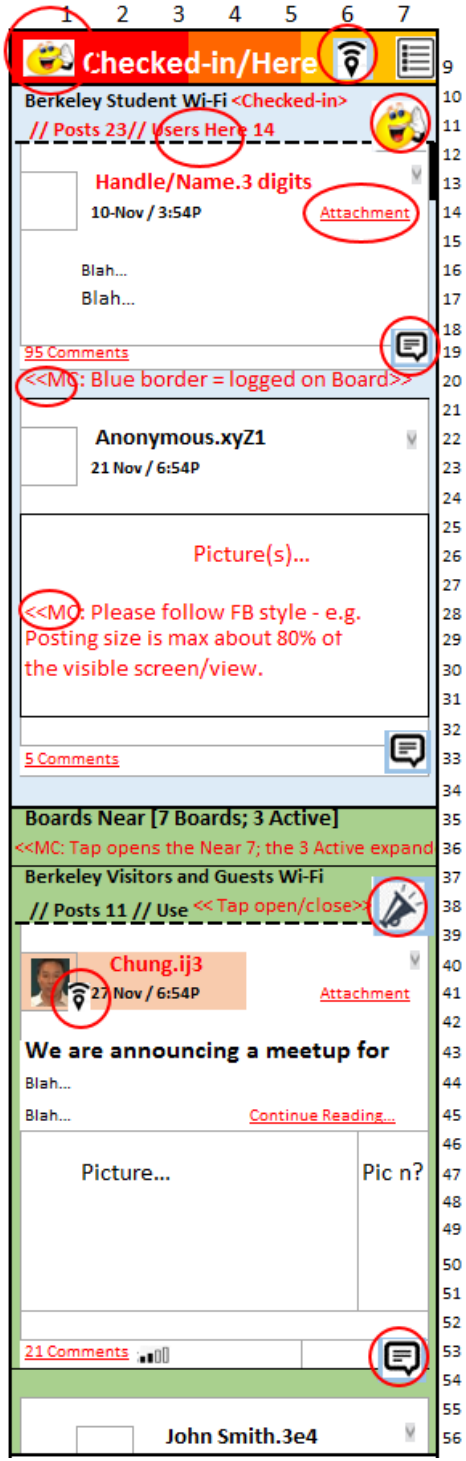
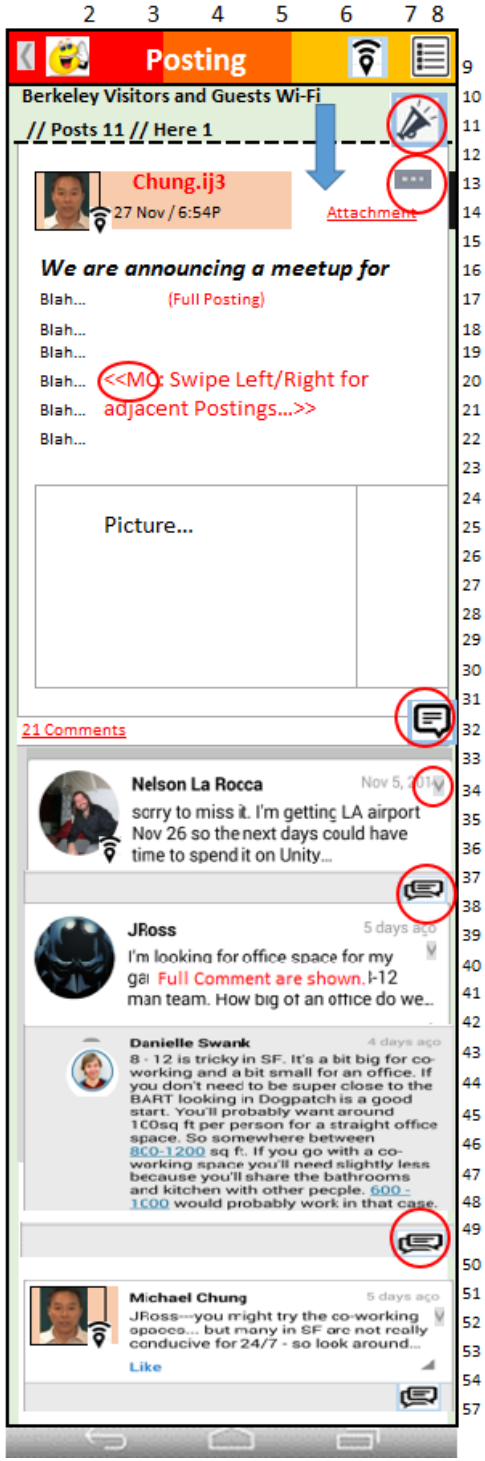


Fig 3: Posting and Comments/Replies

Post and Chats (FBook + Meetup Style)



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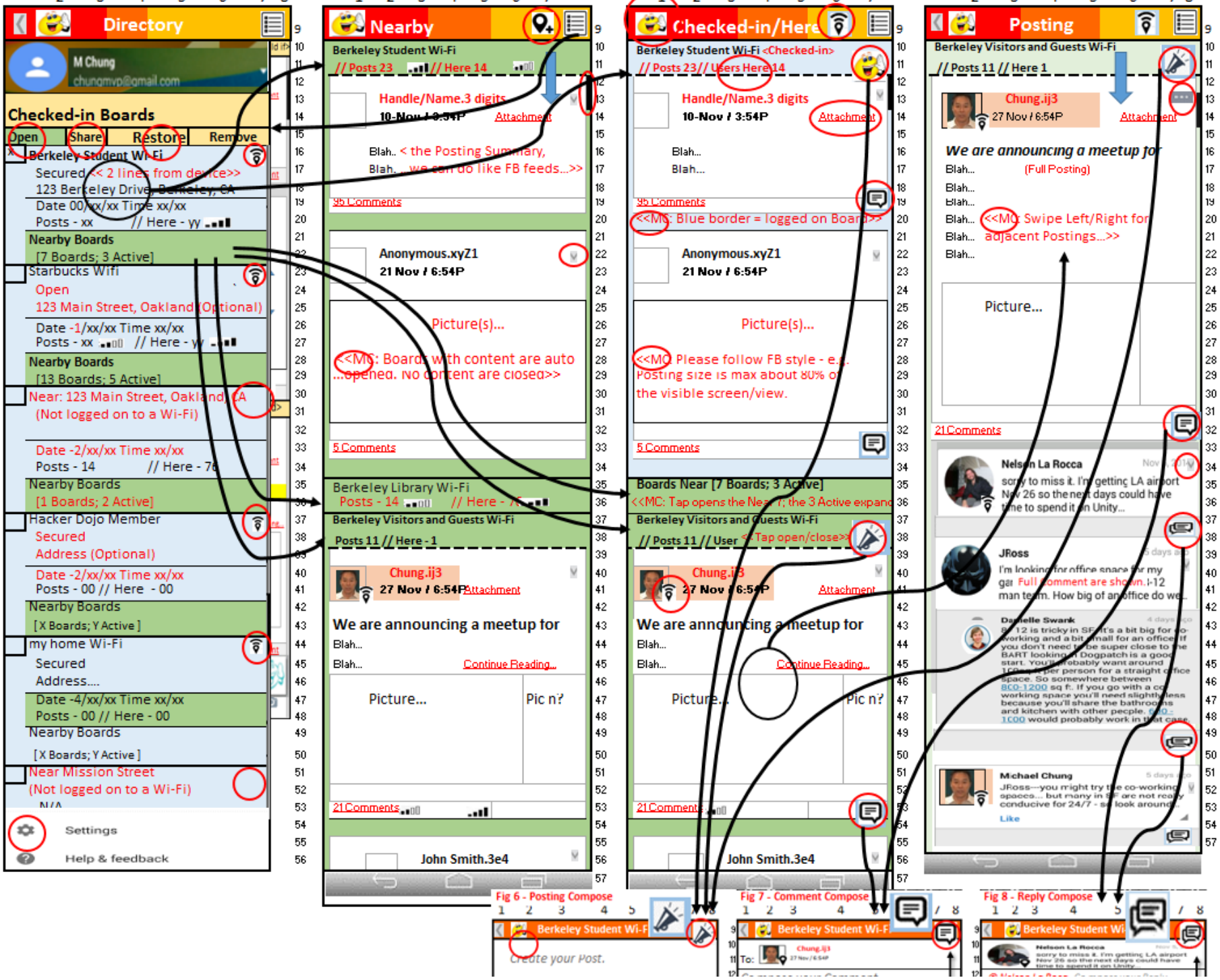


Fig 6: Post compose.

Compose - Post

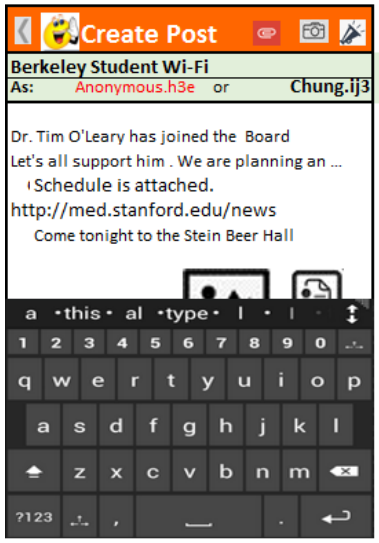


Fig 7: Chat/Comment compose.

Compose - Chat/Comment

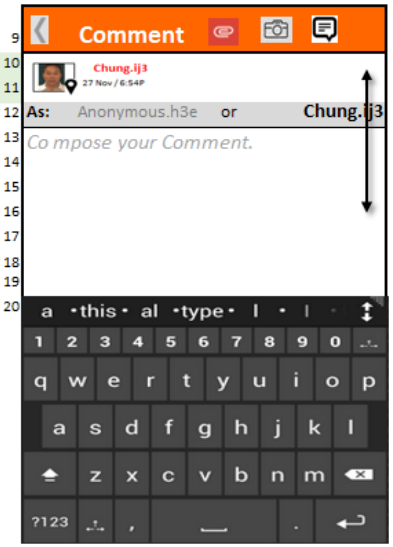
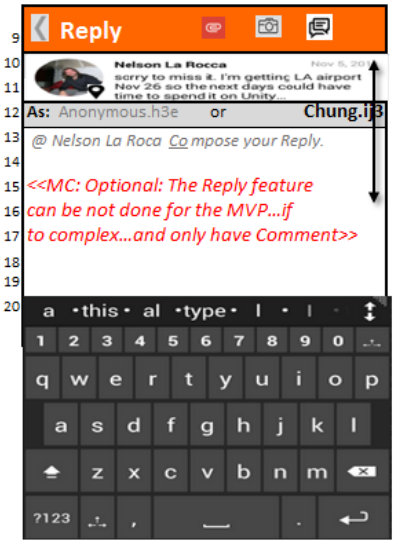
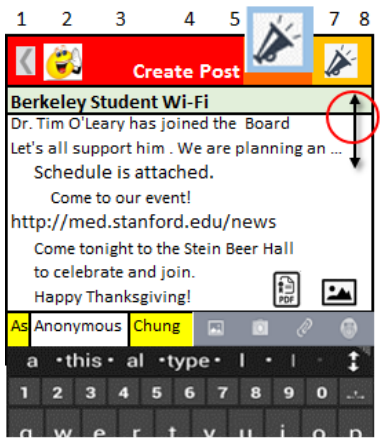
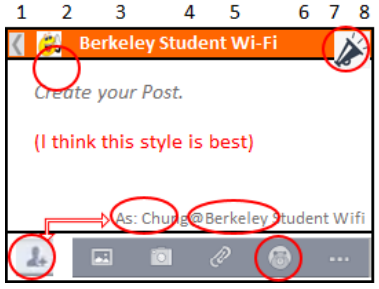


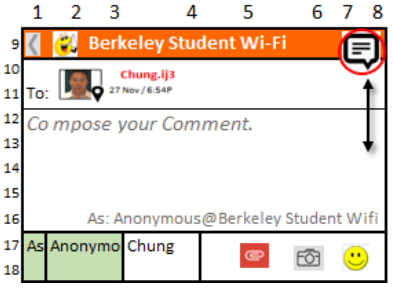
Fig 8: Reply compose.

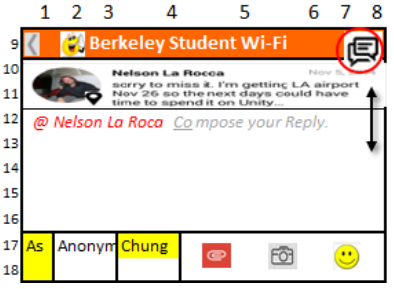
Compose Reply/Response to Chat











(The bottom row seems best. Again, modeled on Facebook, Instagram, Twitter, Meetup apps…)

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 no 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 – everytime 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 tinformation 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: Ted, Stefano – I may not have solved all the logic, but I think this is the direction – perhaps, you can help validate or add.>>**
(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.

==========

	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.				

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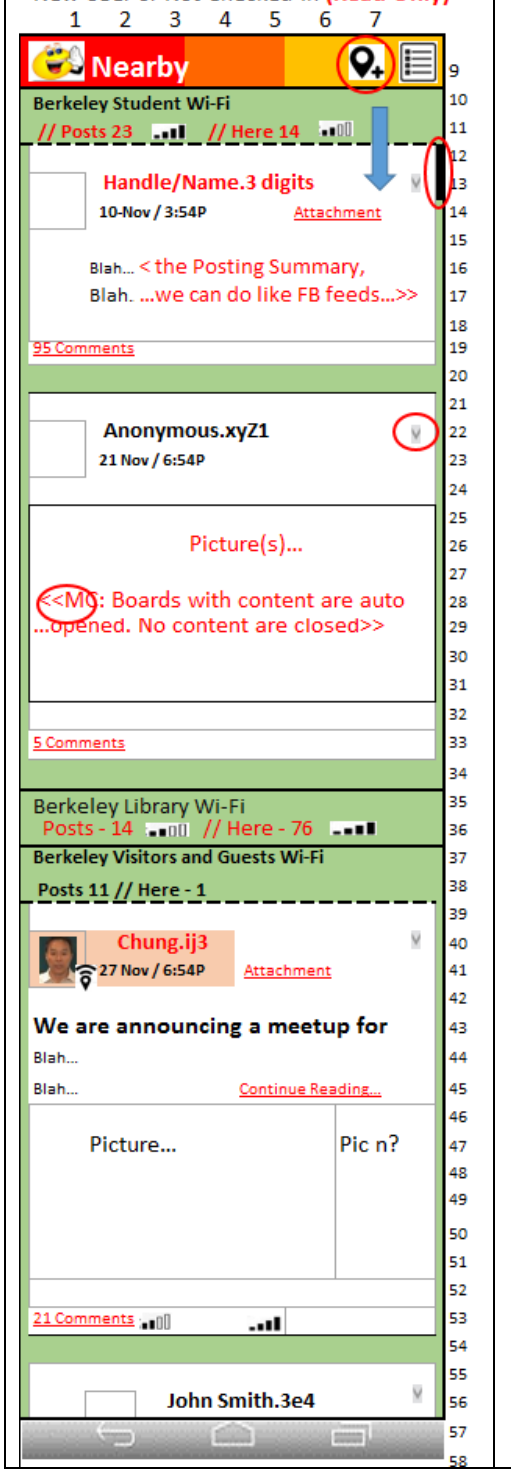
Fig 1: Home View (GPS Check-in)

New User or Not Checked-in **(Read Only)**



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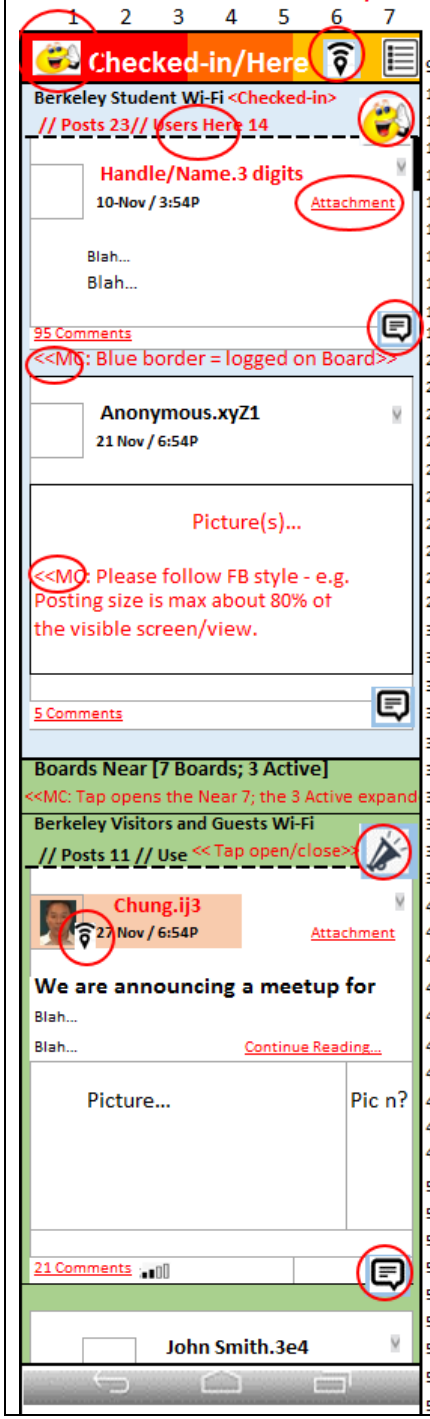

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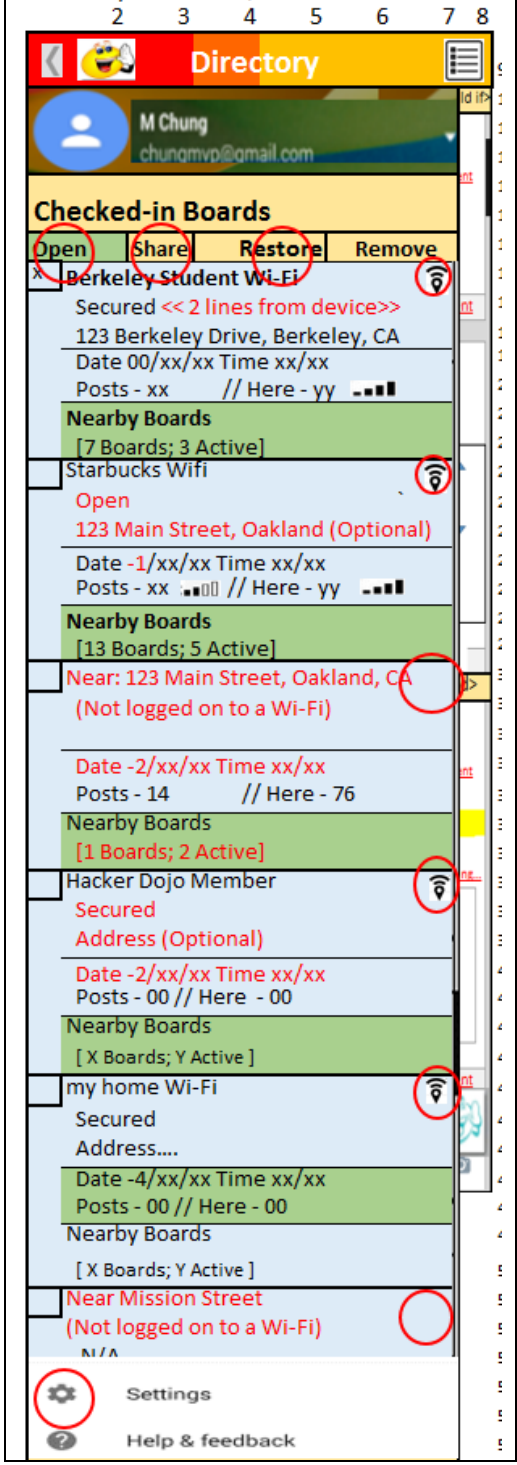

This slides out from the side.

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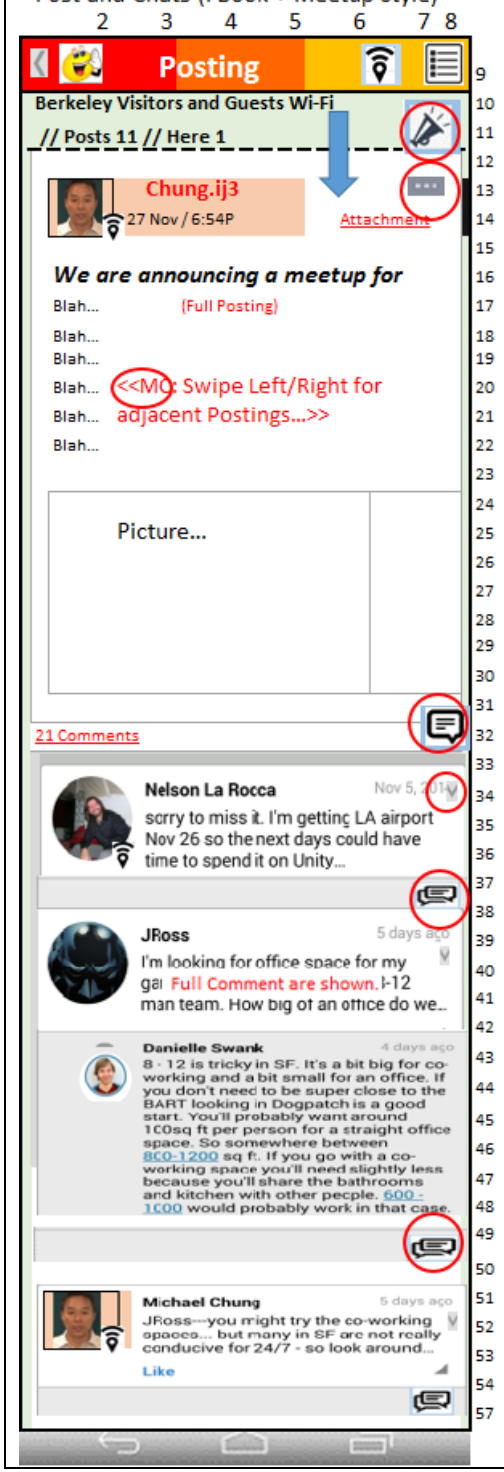
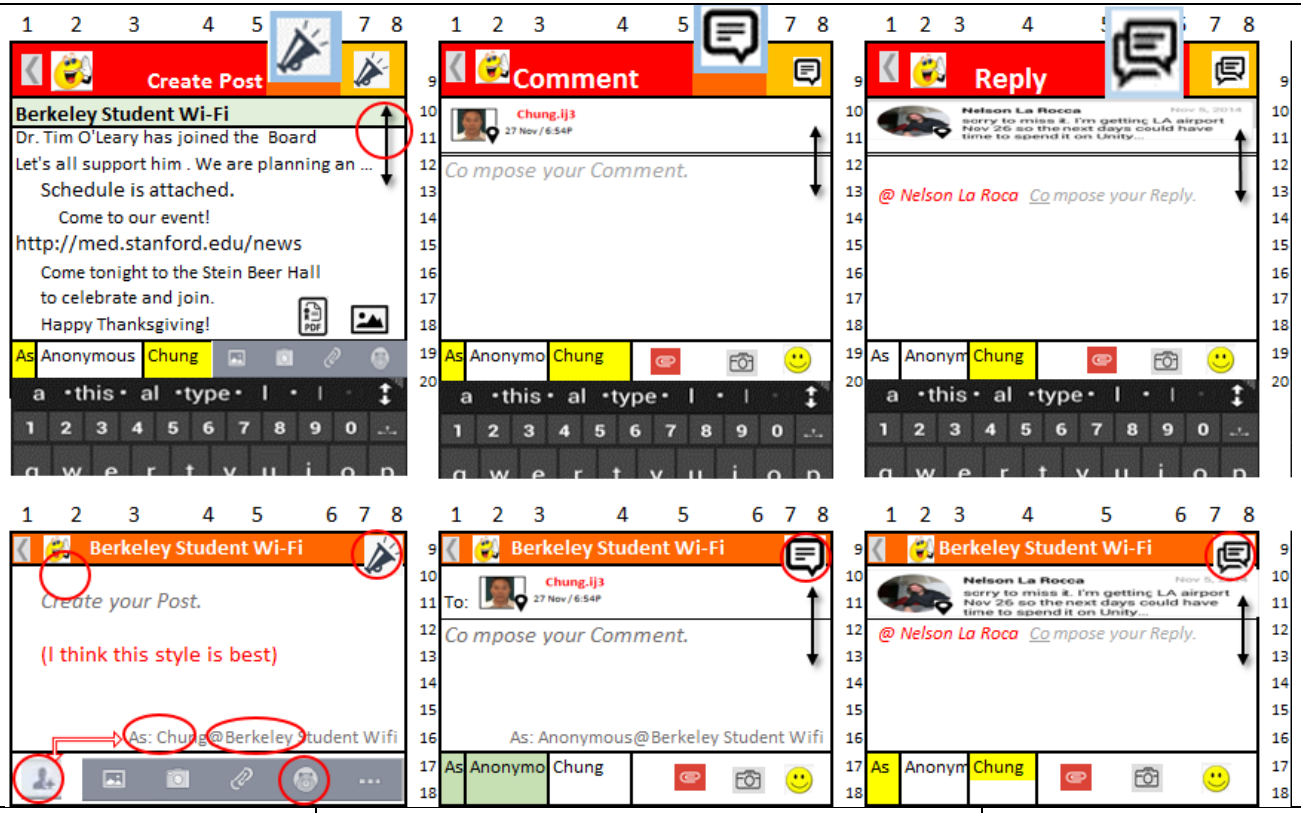
Post and Chats (FBook + Meetup Style)



Swiping the screen will load the adjoining Posting…

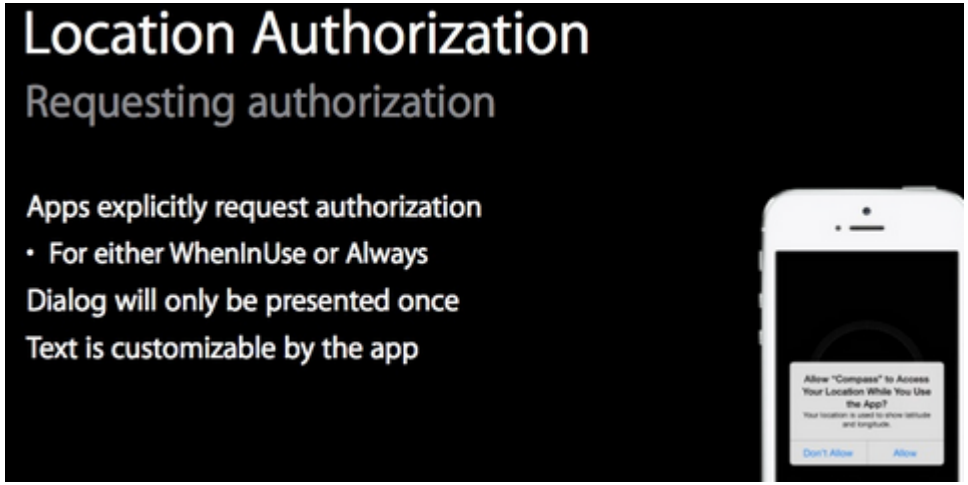


I think the bottom row is best… again styled on FB, Twitter, etc.		

Apple with iOS 8 is advancing the CoreLocation API with new features designed to provide users with even more reliable, faster and precise indoor positioning in supported venues. Currently, iOS determines your location using a combination of GPS, a crowd-sourced location database of nearby Wi-Fi hotspots and the cellular triangulation technique that determines your rough location based on cell tower signal strength.

Developers don't need to do anything on their part: as long **as they are using Apple's CoreLocation API to retrieve a user's location, the API will return a user's precise indoor location wherever possible.**

Requesting your indoor position comes with a brand new 'When In Use' iOS 8 prompt which essentially asks for permission to only use your location when an app is in use.



http://www.idownloadblog.com/2014/06/05/ios-8-indoor-positioning-m7/