

Umbrella

1. Umbrella: Open source map, distributed social media/organization application
   1. The secret club for secret clubs
   2. Crude approximation—pokemon go, but for organizing protests
   3. Really closer to snapchat maps + pokemon go + google calendar
      1. Raids == protests that team organizers pop up a certain period of time before it is supposed to start
      2. Team organizers form anonymously (think throwaway team names like mystic, valor, instinct, but instead limitless teams
      3. Anyone can make a team, anyone with the right certifications can find a team and join it
      4. You have control over who can join your organization—additions to organization can require dual factor, in-person (must be within radius of event) authentication to join
      5. In order to make a friend (aka add to a group) in PoGo, you only need their encrypted trainer code. You don’t need to know this person’s name at all, and that name, if not for google/facebook/nintendo linking, would never be known at all. And that encrypted code can only be obtained by that anonymous user giving it to you. Despite this high-cost (compared to a friend request on other apps) transaction, PoGo still has wildly successful friend lists, because of person-person interaction. I want to emphasize that.
2. Key Features:
   1. data security
      1. Completely anonymous accounts
         1. even if encrypted some data about your events and organization is leaked or hacked, it doesn’t matter. At the core, your identity is never linked
      2. end to end encryption
      3. no one wants their private data leaked
      4. There’s a certain modularity of privacy here. Once you can guarantee encapsulated privacy for one user, you can then ensure that modularity for privacy across entire organizations.
   2. distributed, map based social media and organizing
      1. you and your friend group/organization are spread out across the city. planning meetups in which everyone knows where to go, when to get there, and what they’re doing beforehand is hard. Now, all you need to do is open a map, select a location, and wait for organization members to respond if they’re going.
      2. You know if there’s a time conflict with another planned event within the organization or with another organization you’re part of. These events can be prescheduled from years to minutes in advance, and if you wanted to, could be published to the general public.
      3. You can archive your events, you can not. You can let people easily follow your organization, or you can have draconian password, real life verification measures. Your data, your choice.
   3. Can be used in multiple use cases—a normal social media app for you and your friends or for large scale operations/organizations. For sure it could be used for like large corporations, but that would be kinda against the spirit
3. The technical challenge (Annie1)
   1. Here’s something I think we could achieve over 36 hours:
      1. An interactable map of columbia or yales campus for a <1 mile radius
      2. The ability to make 1 group (don’t need to be part of multiple) and have privacy options
      3. The ability to click it and fill out a survey-type thing to create an event
      4. Backend of: encrypted user profile db, server data, map generation
      5. Frontend: compatibility on either web or android (java), whichever is easier
   2. Demo: Pull up a map of college campus, make a group, get your friend codes, make an event
      1. Then show that data is private
   3. I feel that is appropriately ambitious for 4 people
      1. The vast majority of backend and frontend I think, could be done in Python (flask and whatever style framework for front end, endless support for front end), Java if we do android, but even then there are python wrappers for app development.
      2. It won’t be efficient or necessarily pretty, but that doesn’t really matter
   4. Hard parts:
      1. Data Encryption: this is a figure it out once—get it implemented from there kind of thing
         1. It makes reading and writing data a pain so maybe figure out how to do it early on before (i can do this) but don’t actually implement until we have to
      2. Interactable map: this shits gonna be hard idk but it’s like the whole premise of the app
4. Here’s this message I typed out a week ago
   1. “ok guys here's our pitch (eric and me) we’re going all in : distributed social media/organization app predicated upon open source mapping, community driven checkpoints/event points, and guaranteed anonymity for event organizers
   2. a crude approximation would be like pokemon go, but for organizing protests with a private, protected core group of planners unable to be infiltrated by other agents
   3. to further the analogy, here are some examples:
      1. Raids == protests that team organizers pop up a certain period of time before it is supposed to start
      2. Team organizers form anonymously and additions to organization require dual factor, in-person (must be within radius of event) authentication to join
   4. so a big problem with current "private" messaging apps is that at some link they are connected to your phone number or location/identity compromising data
   5. so having completely anonymous accounts and "teams" which are password, geographic location protected is one cornerstone of the application
   6. so it's very much an authority-subversing app. here's one use case:
      1. - a team of 10 or so authorized (among each other, at least) planners form a team that organize protests across a city. a few weeks ahead of time, they organize a series of protests across the city and at certain times on a certain day. this information is private (guaranteed by the application), and on the day of the protests, the team of organizers publish the raids across the local geographic area some x-time away from the start time.
      2. this is subversive in that popping up events across the city just a short while before it starts spreads the authorities/police force thin but also allows the public en masse to quickly coalesce to a meeting/protest point. putting knowledge of all the protests ahead of time while authorities only see them one at a time keeps the people one step ahead of the authorities at every juncture.
   7. furthermore, we can establish a hierarchy of organization wherein by going to a protest (hopefully not a undercover cop) in person and authenticating with a trusted team organizer (of the 10 or so initial planner) can then follow the team and get a head's up on information of the planned protests. the "heads up information" they get to have is up to the team organizers. so it's all about building distributed groups that are verified by in-person interactions and building that linked list of trusted actors that can't be pinned down.
   8. the hope is the app can be used to make as many groups as possible--which groups become used and popular is entirely up to the organization's planned events, appeal of motive, and effort put into expanding the organization. all we'd do is provide an interface with a map and an organizational/planning interface that is protected from data hacking
5. Preliminary Feedback
   1. Enora:
      1. E: I don’t know if anyone really wants pop up protests though. I don’t even know what that would entail.
      2. W: Only “pop up” to the really big public/those not in the know. As you gain traction, you can build a huge base of those that are in the loop.
      3. E: What does the platform offer though? How is information organized?
      4. W: The data protection and identity privacy is one cornerstone of the app. The other cornerstone, in essence, is a customized map for you and your group.
      5. E: I feel like this app would be of most use in countries with a lot of censorship but if it got any traction just having it on your phone would be indicting. Having an app specifically for insurrection limits its utility for insurrection
      6. W: It’s a social media app.
      7. E: If you frame it like that. But if you at all frame it as a protest app. It’s out
      8. W: im going to start downplaying the protest thing cuz everybody is harping on it. like hong kong was clearly the idea behind this all. but i think the idea holds mettle with or without that context
   2. David:
      1. D: 1. can you elaborate on what kind of identification the app would use both internally for the app to verify users and externally for users to interact
      2. D: 2. what do you envision the process for getting added to a raid will look like
      3. how would real life authentication work, do you need to be next to each other?
      4. W: 2. the current raid system allows both public lobbies and a coded entry for a private group--this system translates well for public users just hitting up whatever events they can see and it allows organizers to control public/private facing degrees
      5. W: 1. The additional privacy afforded is the sort of 'gamification', like apps like telegram, where you can link your phone # or email or whatever, but then interface with a chosen username. The key here, unlike telegram is that no phone number or identity-linking info is required
      6. W: On the client side and in order to verify identities for establishing the core group of organizers you can store numbers or ids. But that data stays client side. We as an app would never query that data, would have no way of getting that data, except for internet traffic. So that's the "distributed" aspect of the social media
      7. E: Generally yeah, but I would say after a certain number of authentications, you can become an approved user or something like that. Like a verified tag on twitter, so you don't have to go through the fuss every time
      8. W: So I don't want to hierarchize it and gate it too much
      9. W: Yeah I think that's right. Depending on the security of the event. You have to enter a code just to participate. And to join the organization/become approved there’s another check to make you approved. Probably face to face. So in terms of verification it goes within radius -> face to face
      10. W: And from there there's a final? step into the event organizer group, but I don’t think it should be so bureaucratized. Need to hash through it. Like Eric said, it's like Twitter but a million different Twitter's, in an idealized form
   3. Annie:
      1. A: 1) how technically challenging do you think this project will be, and do you think it will be feasible for us to complete within the duration of the hackathon? more specifically, do any of us have experience with cybersecurity because it seems like the verification component will be critical to how successful our app is
      2. A: 2) why is anonymity so critical to protest organization? we need to define the problem in clearer terms before tackling it
      3. A: 3) Will the app be safe for users/would they feel comfortable using it? personally I'm not sure if I'd feel comfortable going to a protest without getting a sense of what the community at the protest will be like, so I think there should be some sort of transparency involved (altho I do agree that user info should be kept private. maybe they could upload a brief 1-2 sentence description explaining their motivations for going to the protest, so that people can feel secure about who they'll encounter at the protest and not feel like this is some shady event)
      4. D: 2. anonymity is important to protest organization because protestors or organizers can face retaliation if their identity gets revealed.because cell phone data can be intercepted via cell phone towers, governments can use cell phone numbers or other identifying information to track you and potentially punish you
      5. W: 3. I’m honestly unsure if the app will be safe. We have to figure out the parameters of public publishing. I don’t think we can actively endorse violent/dangerous activities, and I don’t want to promote anyone getting hurt. A lot of it boils down to user discretion, but this is definitely something to hash through, how much power do we give to organizers vis a vis public participation
   4. Harry:
      1. H: IDK, I don’t buy it as a protest app and as a social media app I’m not sure what it offers beyond the current services.
      2. W: Every social media app has to fill a niche. Snapchat fills the localized, temporary message and funny pictures for my close-ish all the way to acquaintances (up to personal choice). Instagram fills the nice pictures, album of my life to show everyone niche. Facebook is the catch-all, and by virtue of having everybody is the niche for reaching out to everyone, REALLY everyone (old people and the like), linkedin is for professional use. This app is used for geographic organization—planning ventures, spatially and temporally organizing yourself all in one visual
      3. W: Regarding the protest thing, I mostly got the inspiration from reading this article about the most popular app used for hong kong: <https://www.reuters.com/article/us-hongkong-telegram-exclusive/exclusive-messaging-app-telegram-moves-to-protect-identity-of-hong-kong-protesters-idUSKCN1VK2NI>
         1. Basically, the most secure social media app is still extremely vulnerable because authorities could simply upload phonebooks en masse and link telegram usernames (supposedly providing anonymity) with the user’s phone numbers. From there they could query the telecom provider for the user’s identity. I want to cut off that functionality entirely, but still allow for huge organizations to form via word of mouth.

