HighFive

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Every day, millions of people flock to websites to engage with strangers across the Internet, sharing comments, viewing pictures, following status updates, and more. The most popular websites are no longer collections of static information for consumption only, but dynamic spaces co-created by users. However, the connections created between people still exist primarily online. With the growing ubiquity of smartphones and public wireless networks, there is a new opportunity to move the social graph offline, utilizing mobile technology to create meaningful connections between people and the spaces they inhabit.

Leveraging the capabilities of online social networking "in real life" has yet to be properly addressed. A few businesses have entered this broad space, but most social networking exists virtually and without regard to users' location or activities. Furthermore, the most mature social networking services primarily focus on connections between people you know instead of people with whom a valuable connection might be made. A mobile service addressing the latter could support these new connections in a convenient way, and even create value for the space in which these connections are born.

To fill this gap, our group set out to develop a service which encourages people in shared physical spaces to engage in meaningful experiences with each other through interacting with their mobile devices.

Research Phase 1

The first phase of user research was purposefully broad, investigating the focus of "understanding why people talk with people they don't know" while finding out what makes those interactions meaningful. For this purpose, we conducted five interviews: four with current students and one with a current professional working in the information technology field. We employed a method of retrospective story elicitation where interviewees were asked to recount recent experiences that were relevant to the focus of our investigation. Subjects were asked questions such as, "When was the last time you had a conversation with someone you didn't know?" and "what was the motivation for interacting with that person." We also asked about subjects' online conversation habits to see if they were having these kinds of experiences in the virtual world. Further probing delved into what kinds of spontaneous interactions might turn into meaningful social experiences where participants would consider contacting the other party for further communication.

Through these interviews, several key insights emerged and helped to shape the next research phase.

Insight #1: People in stereotypically social situations had more luck in having meaningful interactions with strangers, but the occurrence was still rare.

Insight #2: Most spontaneous interactions with strangers were based on simple requests for information to accomplish a goal.

Insight #3: Many people are averse to meeting complete strangers in most social settings and have little desire to interact with these people.

Insight #4: People are more likely to talk to strangers online than offline.

Insight #1: People in stereotypically social situations had more luck in having meaningful interactions with strangers, but the occurrence was still rare.

Some of our research subjects could recall recent specific events where they had interesting conversations with strangers. Most of these events occurred at private gatherings and parties where people are expected to engage socially and alcohol consumption was involved. However, this experience was rare outside of this specific context.

"I recently met this guy at a party. I had been talking to his girlfriend, and I think he took offense, but when we started talking, we realized that we had a lot in common. It turned out that we have common business interests and so we talked about possibly going into business together." -Brian

Insight #2: Most spontaneous interactions with strangers were based on simple requests for information to accomplish a goal.

Our interviewees unanimously responded that their most common social interaction with people they don't know consisted of simple requests for information or assistance. Some common examples included asking for a lighter, finding directions, or help in reaching or borrowing things such as shopping carts, etc. Interestingly, these interactions were able to be easily recalled by memory, but had very little significance to the subject and none of these events turned into meaningful conversations.

Insight #3: Many people are averse to meeting complete strangers in most social settings and have little desire to interact with these people.

Our interviewees often expressed a lack of any desire to have broad social interaction with people they didn't know when not in situations where such activities usually take place. Often, they reported that interacting with strangers in a grocery store or on a bus would make them feel uncomfortable and hinder their ability to accomplish such errands during their free time.

Insight #4: People are more likely to talk to strangers online than offline.

While some of our subjects online behavior mirrored their offline tendencies to often avoid engaging in conversation with strangers, we found that, when online, people are generally more amenable to having interactions with people they don't know. Our interviewees reported that in the online space, conversations can be semi or fully anonymous, and can be brief comments or entire conversations. These interactions often take place in the forum of the users' choosing, usually focused on a specific interest or subject, whether it be on a blog, social network, or web bulletin board.

Research Phase 2

The fourth insight was particularly exciting, as it implies that how people define "stranger" depends on context. In the real world, strangers are usually mysteries about which we know nothing, and this lack of knowledge causes interactions to be uncomfortable and brief. On the internet, we have a wealth of knowledge about the other people we see, including musical taste, friends, political leanings, or hobbies. Just being on the same website implies two users share some general interest.

With this in mind, we set out to narrow our focus based on the information gleaned from our initial interviews. Our insights suggested finding a common group and/or venue where strangers are prone to have meaningful interactions. We then identified professional conferences and meetings as an appropriate venue to target a possible service, as attendees would necessarily share a pool of common interests and goals. Moreover, it was hypothesized that these events would necessarily those specifically searching for networking opportunities with others that they haven't previously met.

The second phase of user research was focused on "understanding how people meet and engage interesting contacts at conferences." To this end, we conducted eight retrospective interviews with conference attendees in professions ranging from IT to law, and two event organizers with experience organizing campus events for students. In the latter case, our questions were specifically targeted at experiences occurring at these events, both in how conferences are organized and facilitated, and personal experiences stemming from positive (and negative) social interactions with potential network contacts.

From these interviews in a new research space, many new insights emerged.

Insight #1: People attend conferences specifically to network.

Confirming our hypothesis was the revelation that our interviewees attended conferences with the primary intention of making new network contacts. They were interested in meeting new people for a variety of reasons including, exchanging stories of how similar problems were solved, gaining information about potential job prospects at representative companies, and obtaining expert knowledge from respected peers.

"I recently attended a conference to find other lawyers that would be interested in partnering in a new business opportunity that I had been developing... I actually met someone who was a great fit while just riding the escalator at the conference. She will start working with me next week." -Phyllis

Insight #2: Participants were more willing to talk to strangers at small events and tended to gravitate toward known faces.

Our subjects suggested that at smaller scale events, they felt more inclined to interact with people they did not know while larger events made it difficult to engage new contacts. Unsurprisingly, many subjects reported that they tended to seek out people they had previously met, or that have reputations that have made subjects aware of them in advance.

"I'd like to say I talk to anyone, but I usually try to target people I may recognize." -Jon

Insight #3: Known faces are more difficult to find at big events.

While they were attracted to people they may have researched or previously met at other venues, our subjects reported that tracking down these people at large conferences was exceedingly difficult due to venue size and large numbers of attendees.

"You had the papers they wrote relevant to the session, and that was it. You could also talk to the speaker if you saw them around, though, well, the actual location of where CHI was hosted was big." -Mark

Insight #4: Though conferences are common ground for attendees, people with similar interests are hard to find at big events.

Our research subjects reported that they were often willing to talk to other conference attendees, but often these conversations wouldn't evolve past discussion of the conference itself. This process was often exhausting and less meaningful than speaking with people who had identified skills or associations with interesting organizations and companies.

Insight #5: People engage online social networks for quick vetting and contact exchange.

Even while attending the event, participants reported that they engage online social networks via mobile devices to learn more about people that they meet and to encourage others to contact them in the future.

"I have a small Moo card that I give out with name, title, URL, logo. Sometimes we just look each other up on Linked In." -Rebecca

"We usually just share business cards, Facebook pages, that sort of thing. If I want more info, I can just go to Facebook." -Zac

Insight #6: Unfiltered communication channels at conference events creates confusion.

Our interviewees explained that Twitter was a popular medium at many technology-oriented conferences for sharing opinions and ideas. However, they said that useful information is far too difficult to parse from the Twitter stream and meaningful communication at conferences via Twitter was rare. Information was often too rapid or too general to be helpful to participants.

Insight #7: Attendees want to carry their new contacts into the future, and need ways to follow up on referrals.

Subjects often reported exchanging contact information with new-found networking contacts during conferences. However, many found this task to be difficult due to the analog nature of this information. Often, attendees would find themselves with stacks of business cards or pages of notes, which would later need to be digitally transcribed before further action could take place.

Insight #8: Participants found it difficult to discover what happened in other sessions.

When conference participants were involved in panels and workshops, it was often at the expense of other activities. Our subjects reported that they often had very little idea of what went on at these activities when they were involved in their own sessions.

Insight #9: Attendees choose sessions based on topic, but also based on the speaker.

One clear and obvious point that came across through the interviews was that conference attendees were inclined to attend talks and workshops that were about topics that were relevant to their interests. Interviewees also expressed stronger desires to attend sessions where they were already familiar with the speaker at the session because they were familiar with their prior work.

Event Organizers

Insight #1: Experience is the only way to avoid common pitfalls

From the interviews with the event planners we learned that prior planning experience is very important in order to avoid small mistakes. For example, putting breaks in the schedule is an easy oversight, but could be disastrous if attendees of your 6-hour conference are falling asleep or running to the bathroom rather than being attentive in sessions. Most of these small considerations are learned through experience because they usually seem so trivial when they plan an event. Staying updated on happenings around the event would allow organizers to quickly react to problems, and to carry lessons learned forward to future events.

There is, however, still no specific tool for tracking and quantifying the success of the event, especially small events. On Carnegie Mellon University campus, a student event is planned using shared document like Google Docs or emails, which can become disjointed and difficult to manage. During and after events, these tools become increasingly unwieldy as organizers return to using them for other work.

Insight #2: Casual environments can ease comfort levels

Some events are also designed to have attendees interact with each other. In our research, we spoke with an event planner who had just organized a corporate mixer for students looking for jobs or internships to network with representatives from hiring companies. Unlike a normal job fair, this event was made to be more intimate and informal, so interaction between participants was crucial to the success of the event. Though the organizer did not receive any complaints, he wondered if the event could have been even more successful if attendees had been able to focus their time on the best-matched companies.

Insight #3: Picking the right target group is crucial when creating and advertising an event

Information about attendees is also needed to advertise an event to the target group. Before planning an event, the event organizer will identify the target group by deciding who needs or could benefit the most from the event. Deeper information on people already signed up for the event could help organizers more effectively reach their target group.

The Stakeholders

Besides the direct user of the attendees of a conference, there are a number of other stakeholders that we identified during our research. Event organizers are a group targeted by similar solutions as a client who frequently has the resources and desire to purchase a package that they perceive as either helping them in organizing their work or in adding value to the conference for attendees themselves. Employers also have a stake in networking, because they stand to gain when their employees learn from other attendees or make connections that will help in other areas, such as finding the right people to hire. Similarly to event organizers, employers also already invest monetarily in this area when they provide the funds for their employees to go to these events.

Other stakeholders include those who stand to profit incidentally from the conference; local businesses and other industry sponsors may have particular interests in advertising to people with a focused interest or who they know will be nearby. By focusing on interest and location, which are relatively known factors when considering the attendees of an event, sponsors can advertise to a highly specific demographic.

Meet Jim Ellis

Jim Ellis, an avid snowboarder, is a senior developer at a large corporation. His team has recently been assigned to rewrite their existing COBOL-based application in Java. He was able to quickly pick up on the basics, but many of the different ways of thinking required by the paradigm switch have been more difficult for him to learn from a book. Eager to learn more about the ins-and-outs of Java, Jim attended JavaOne to learn from people who have actual experience with the platform.

Life Goal
Secure a comfortable retirement

Experience Goal
To be welcomed despite his relative lack of relevant knowledge

End Goals
Learn the practicalities of Java development
Both jump-start and go beyond book-learning

Meet Suzanne Miller

Suzanne Miller recently graduated with a degree in English from the University of Virginia, but has been having a difficult time finding jobs. To reach out and network with professionals in her field, she attended the American Copy Editors Society's national conference. While there she hoped to meet and connect with people employed at firms she'd like to work for, and also to reach out to other professionals who might be interested in forming a novel distributed copy-editing service for which she has an idea.

Life Goal
Gain employment before savings runs out

Experience Goal
Not feel left out of the social interactions at the conference

End Goals
Network with people who can give her a job
Network with people who are interested in her business venture

Co-construction of Value

Users of the mobile application gain value from having the ability to easily find collaborators and knowledge sharers. At typical large scale events, it is difficult to discover people who share similar interests or backgrounds. Connecting to such users becomes achievable through location aware technology. Once users share their interests, goals, and background at an event, others are able to make informed decisions about who to connect with. This could be illustrated by a scenario at the interaction design conference held by IxDA. A budding industrial designer could potentially find and meet up with another person at the event who shares the same passion for materials science. By giving this user the power to seek out others in the same venue who are passionate about materials science, he or she gains value in potentially enhancing her knowledge about industrial design or even forming a collaboration.

By creating a platform for event attendees to seek out others with similar interests, HighFive essentially creates value for not only attendees, but also advertisers and event planners. Consolidating people who share the same interests, go to the same events, and are located in the same venue creates an extremely targeted set of users. Knowing this, sponsors of an event can strategically target a specific demographic to advertise their products. For instance, the industrial design magazine Core77 could target advertisements toward all users who note themselves as passionate industrial designers. Users generate such value for advertisers by sharing their interests in an open arena.

Likewise, event planners gain value from the platform as they can also data mine from publicly shared interests to plan for future events. By knowing what information attendees are sharing about themselves, event planners and organizers may have an easier time creating an experience that caters more specifically to the interests of attendees.

Going Forward

Our findings boil down to three main insights. First, people need an easy way to **find interesting people** at conferences and large events. This requires identification of interests and goals of attendees beforehand, and real-time awareness of attendee location during the event. Second, **attendees** collaborating benefits not only the attendees themselves, but also their employers and the event organizers. Third, **event organizers** gain a wealth of value by being able to follow the successes and breakdowns of attendees as an event progresses.
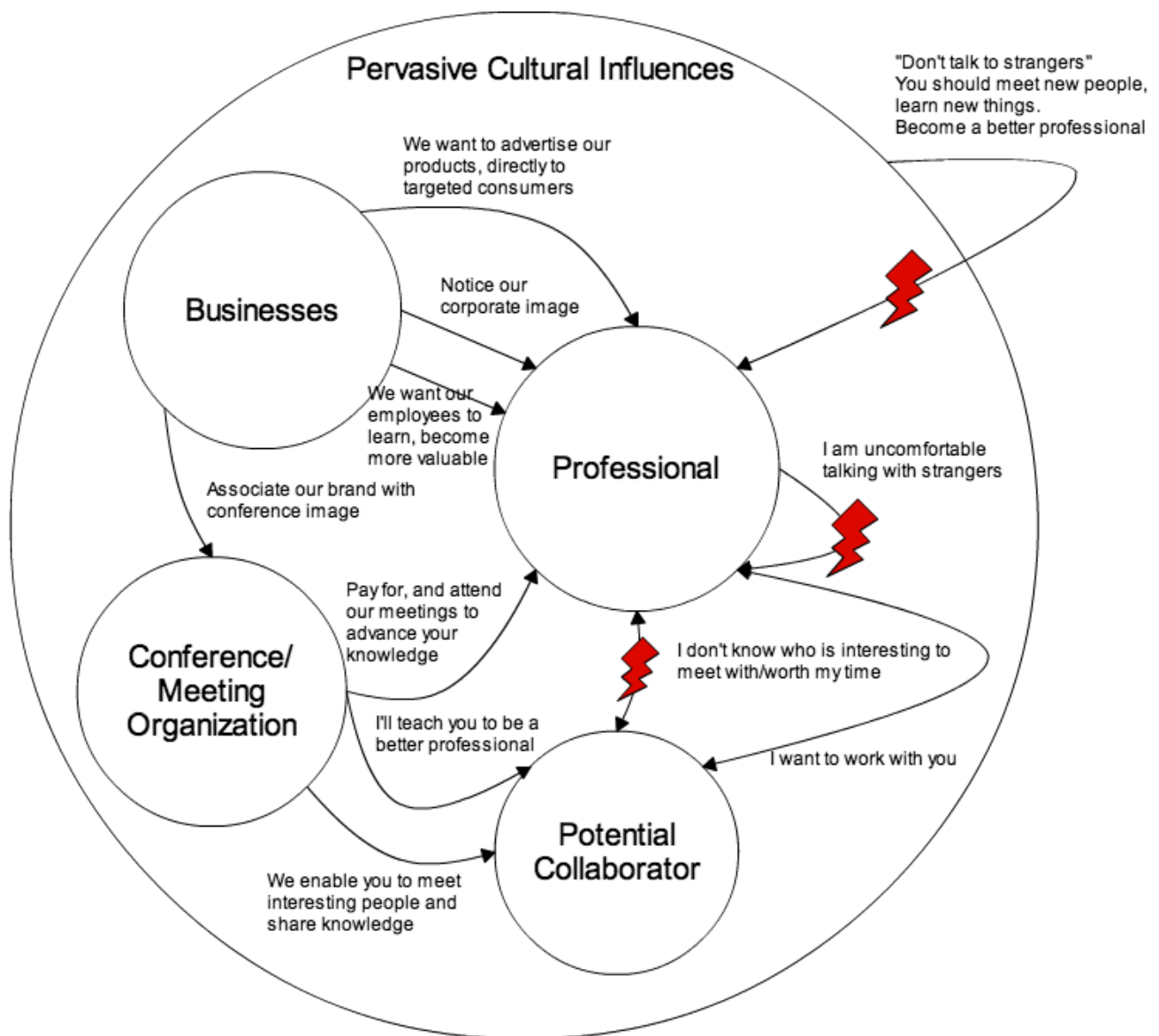
As our service is likely to involve interest mapping, deciding how users can input their interests and goals will be key. Much information can be gleaned from social networking websites, scraping keywords from personal portfolios, and analysing scheduled sessions, but will this be enough? In the next phase, we need to figure out what level of information is needed to best connect users, where to get this information from, and how to control access to this information between users or organizers. Privacy concerns may be surmountable with users, but providing the data to organizers as well could exacerbate the issue. This will be an important area to explore if our group decides on the organizers as a crucial client, as their main need identified thus far is the ability to track users before, during, and after an event.

Conclusion

The design space that we have framed and researched within this discovery phase fits within a striking opportunity gap left by the intersection of increased mobility and the failure of existing conference networking tools to exploit this mobility. This space also contains important flows of value between not only those directly involved in networking but also their employers and the event's sponsors and organizers, all of whom stand to gain from participating in a venue where successful networking happens. Based on the insights into this opportunity gap and flow of value that our research has provided, we have a solid foundation for building a solution to help networkers discover and learn from each other while also supporting the stakeholders who have economic interests in this networking.

Appendix A
Cultural Model

Pervasive Cultural Influences

"Don't talk to strangers"
You should meet new people,
learn new things.
Become a better professional

We want to advertise our
products, directly to
targeted consumers

Businesses

Notice our
corporate image

We want our
employees to
learn, become
more valuable

Professional

I am uncomfortable
talking with strangers

Associate our brand with
conference image

Pay for, and attend
our meetings to
advance your
knowledge

Conference/
Meeting
Organization

I don't know who is interesting to
meet with/worth my time

I'll teach you to be a
better professional

I want to work with you

We enable you to meet
interesting people and
share knowledge

Potential
Collaborator

Appendix B
Competitive Analysis

Lanyrd

Revenue Model

Currently, Lanyrd is funded entirely by donations and angel investments, and the site is entirely free to use. In the future, Lanyrd plans on having paid accounts with extra features (e.g., the ability to lock a conference page so only specific people can edit it).

Feature Set

Lanyrd hosts a user-created database of past, present, and future conferences and their associated information. For instance, speakers, attendees, schedules, and videos can be submitted by users, and conferences can be tracked or exported as calendar events to iCal or Google Calendar. Lanyrd has also created an API and Javascript widgets so site owners can show conference data on their own pages.

Eventually, Lanyrd will expand its feature set to fully cover conferences before, during, and after they occur.

Uniqueness in the marketplace

Sites like Plancast and Upcoming already exist to introduce users to events, but Lanyrd specifically focuses solely on conferences.

Target Users

Attendees of technology-focused conferences are Lanyrd's main targets. Business and entrepreneurship have a strong presence as well, followed by education, though many of these conferences still have a tech slant. The focus on conferences is firmly set, but it is unclear whether Lanyrd will ever seek to expand beyond the tech/startup world.

The Social Collective

Revenue Model

Conferences/events purchase to set up a network for their attendees.

"To that end, we offer one-year renewable hosting agreements for a small per-user fee. There are no setup fees, support fees or any other hidden costs. Exactly how small that fee is depends on how large your conference is. For conferences relevant to our industry, we're also open to in-kind exchanges, e.g. sponsorship opportunities, PR, etc."

Feature Set

Mobility via devices' webbrowsers, or to a limited degree via iPhone and Android apps#. App currently only allows you to view schedule, build your own, and read relevant news. Also supports interest sharing via user profiles, which can generally be created and viewed by all attendees. Location sharing in the form of viewing others' registration for subevents is avaliable.

The platform also has various real-time discussion capabilities, through "chatter" and twitter integration, and it support connecting with like-minded individuals through "powerful and flexible Groups and Product interest pages." The platform is also potentially capable of hosting event-wide social games (where users might earn points for friending people, checking in at sessions, or other activities).

Uniqueness in the marketplace

The Social Collective provides a comprehensive and highly customizable platform for event planners.

Target Users

Organizers of events, potentially of any size.

SXsocial

SXSocial is the social networking platform, possibly built on The Social Collective, for the large media conference SXSW. It provides a portal for users to upload their badge photo, create a profile, find other registrants, access promotions, and book hotels. It isn't explicitly a revenue generating vector, but it is tightly integrated with SXSwag, a way for business to provide special deals to conference attendees.

The portal is entirely web-based and not location-specific. Users upload their photo and add personal information, including descriptive tags. Other users can then search on this data, including the tags, to find other attendees and "star" them. You can then see who has starred you. It is similar to a poking paradigm.

It is not integrated with other social networks, but it does have a messaging system for users to leave email for other users. The site boasts that future features will include personal conference schedules.

Meetup
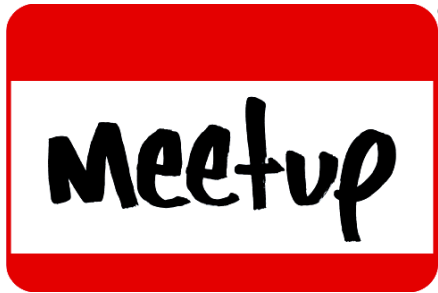
Revenue Model

Organizers of Meetup Groups pay a fee on a recurring basis for the privilage of organizing events. A system for connecting sponsors with relevant groups also provides Meetup with revenue. Although they once used Google Ads as an additional revenue source, they have since removed all ads from their site. They prefer a sponsorship-style model which encourages actual ties between sponsors and the communities they are interested in.

Feature Set

Mobility through a mobile application. Interest sharing implicitly through the common interests implied by mutual interest in a particular meetup. Open accessibility of meetups with pictures, location, and other information. Meetups are inherently location-based but not in any real-time capacity. Connections are made through engaging in real life with others who were drawn to the topic of the meetup.

Uniqueness in the marketplace

They have not just a single community, but many communities of people who have varying interests. You could have a number of different interests and be able to use meetup to meet up with different types of people depending on what you're looking for. Meetup is first an interest and location based application; you can search for interests in a specific location, but not people who share the same interests. Finding people is secondary.

Target Users

Organizers of events, potentially of any size.

Facebook

Revenue Model

Main revenue model is advertisements, which are heavily integrated through things like the ability for users to like advertisements. Sponsorship deals with things such as Bing and credit card companies also provide revenue. Money is also made off of purchases users make in games integrated with Facebook.

Feature Set

Facebook makes it easier for people to see what their friends are up to without going out of their ways to find out. It makes sharing information like photos/links/status updates simple. Companies can create an event and send invitation to people who can RSVP in a convenient manner, reminders of the events will also be displayed in the homepage every time a user logs in. When user RSVPs to an event, this activity will be published and the user's friends can see and may be enticed to RSVP as well. If users become friends after an event, it will be published that users are now friends after both attending "name of an event".

Uniqueness in the marketplace

Facebook is already ubiquitous, it already has a large network with so many different professionals. It also has a casual vibe that is not too business-like which makes users feel comfortable using.

Target Users
Anyone with Internet access.