

# Villagers

"It takes one to know one!"

Brent Ferreira and Julie Patterson

IS 282: Principles of System Analysis and Design

June 11, 2013

"Technology celebrates connectedness, but encourages retreat....The problem with accepting diminished substitutes [for face-to-face communication] is that over time, we, too, become diminished substitutes.

- Jonathan Safran Foer,  
"How Not To Be Alone,"  
NYT, June 8, 2013





[http://nebula.globalchangemultimedia.net/article\\_images/lonliness-stress-isolation-and-lack-of-human-compassion-in-urban-life-coming-back-to-nature.jpg](http://nebula.globalchangemultimedia.net/article_images/lonliness-stress-isolation-and-lack-of-human-compassion-in-urban-life-coming-back-to-nature.jpg)



<http://www.thedigeratilife.com/images/financial-trouble-hard-times-depression.jpg>



# VILLGERS

It takes one to know one!



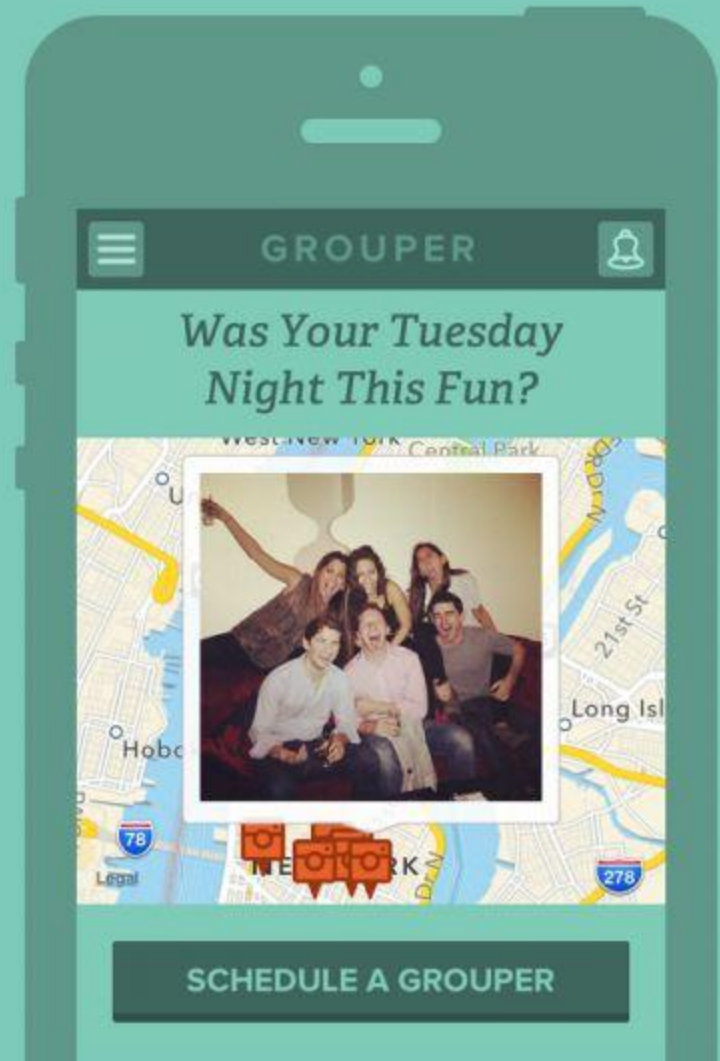
Brainstorming /  
Methodology

Grouper Social Club

Emphasis on  
Grouping /  
Small Networks

Groups Identified by  
Location

We set up drinks  
between 2 groups of  
friends. 3 on 3.



blendr



Social Network tethered to physical locations. Potential matches are presented according to user's locale.

# The Internet of Things





# How neighbors are sharing today



<http://www.sonomahealthaction.org/images/home5.jpg>

# Craigslist

CL > los angeles > westside-southbay > for sale / wanted > appliances - all

[ help ] [ post ]

[all los angeles](#) [westside-southbay](#) [SF valley](#) [central LA](#) [san gabriel valley](#) [long beach / 562](#) [antelope valley](#)

appliances: [by-owner](#) | [by-dealer](#) | [both](#)

search for:  in: [appliances](#)   title  entire post

price:    has image

[list view](#)

[pic view](#)

[grid view](#)

[map view](#)

[ [recall items](#) ] [ [prohibited items](#) ] [ [EFF](#) ] [ [avoiding scams](#) ]  
[ [personal safety](#) ] [ [CL {tv}](#) ] [ [blog](#) ]

Sat Jun 08

★ [PROCTOR --SILEX COFFEEMAKER](#) - \$19 (SM--90405) [pic](#) [map](#) [appliances - by owner](#)

★ [Magic Chef Mini Fridge](#) - \$80 (hermosa beach) [pic](#) [appliances - by owner](#)

★ [Frigidaire dishwasher portable or not](#) - \$50 (San Pedro) [pic](#) [appliances - by owner](#)

★ [Antique white washer](#) - \$99 [pic](#) [img](#) [map](#) [appliances - by owner](#)

★ [Whirlpool gold dryer](#) - \$80 (San Pedro) [pic](#) [appliances - by owner](#)

★ [Collapsible Magnetic Drying Shelf](#) - \$12 (West Hollywood) [pic](#) [appliances - by owner](#)

★ [HealthMaster Blender](#) - \$99 (LAX) [appliances - by owner](#)

★ [NORELCO HAIR SHAVER, TRIMMER AND NOSE TRIMMER](#) - \$15 (WLA, 90064, RANCHO PARK) [pic](#) [appliances - by owner](#)

# NextDoor

## ✓ Useful

The easiest way to keep up with everything in your neighborhood.

## 🔒 Private

A private environment designed just for you and your neighbors.

## 👥 Proven

Over 13,000 neighborhoods across the U.S. rely on Nextdoor.

When neighbors start talking, good things happen.



### Build a stronger neighborhood

Connect with your neighbors to stay informed and share useful local information.



### Keep the neighborhood safe

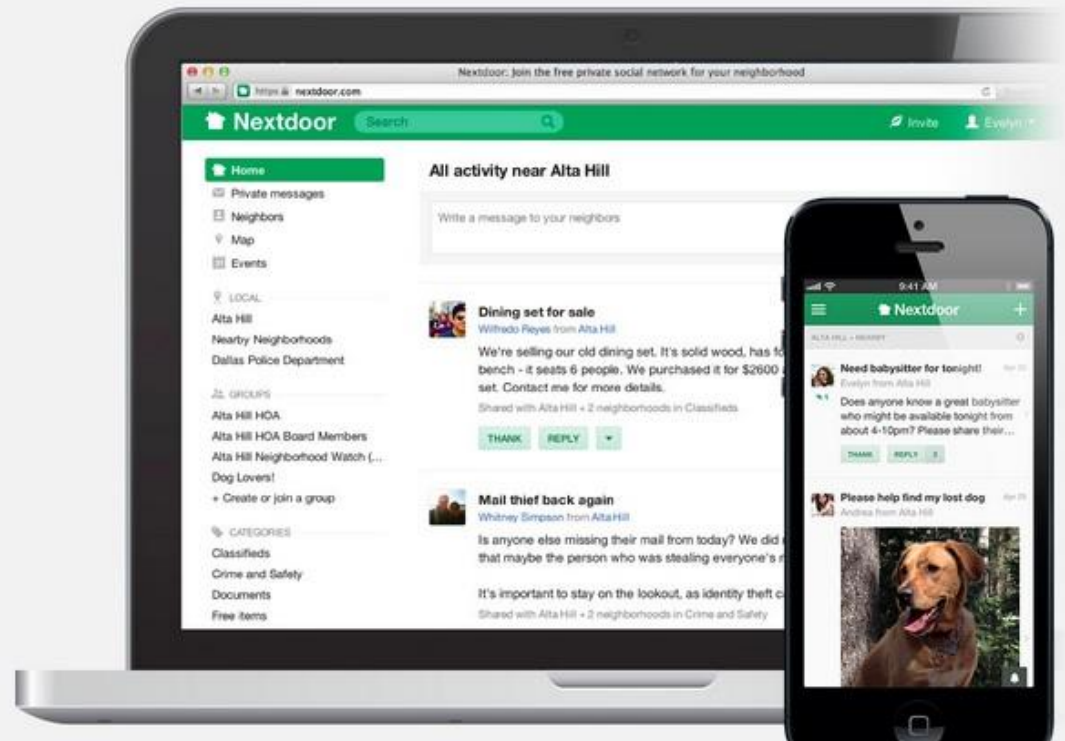
Look out for each other and send updates to keep the neighborhood safe.



### Share goods and recommendations

Find a great babysitter or trustworthy dentist. Borrow a ladder or sell that old bookcase.

SEE A NEIGHBORHOOD IN ACTION





# NeighborGoods



Sign up or Login



Search



Save money and resources by sharing stuff with your friends [Sign Up Now!](#)

Wendy is sharing her ladder with Jason



Jason is borrowing Wendy's ladder



Feedback

**3509 people** are sharing **2484 items** near Los Angeles, CA.



# BrightNeighbor



Maximize Your Neighbors

[Home](#)

[About](#)

[Contact Us](#)

## The Original Neighbor Resource Network.

Bright Neighbor pioneered the peer-to-peer sharing economy. We connect people at the hyper-local level for fast, trustworthy, and easy exchanges. With our new mobile app, Bright Neighbors can now rent, sell, lend, and barter, all in a single app.

Since no one likes having their stuff broken, you can rent or lend out your things while protecting them with a deposit from the borrower. You can also sell items and services, receiving electronic payments. Bartering items and services is free of charge. Member and item reviews help you make

**Request A Beta Invitation** your neighbors!



your e-mail



**SEND ME AN INVITATION**

**WHY RENT?**

Make money from things you own

**WHY SELL?**

See profiles of sellers / buyers

**WHY LEND?**

Be a helpful community member

**WHY BARTER?**

No money needed - free economy



# Villagers - Prototype

- desktop and mobile wireframes
- display functionality
- demonstrate user flow



# Desktop Prototype

- Profile
- Registration
- Search
- Messaging/Trading





**VILLAGERS**  
about us

the swap/meet

mailbox

my goods

my projects

What's in your neighborhood?

search

Your Account

Help | Contact

## goodneighbor18

1.3 miles away

- has shared 4 items
- has borrowed 8 items
- has worked on 3 projects
- has **3 open projects**



say hello!

My wife and I love to do DIY projects around the house, but we don't have the budget for all the tools we need. Looking to meet some nice people from the neighborhood and help them out with home improvement projects in exchange for lending us some speciality tools.

VILLAGERS

It takes one to know one!

# Profile

**VILLAGERS**

about us

the swap/meet

mailbox

my goods

my projects

Your Account

Help | Contact

What's in your neighborhood?

search

## Welcome, Villager!

Villagers is a social networking site and tool and appliance sharing platform that aims to reverse the belief that technology has destroyed the idea of community. Rather than connecting people across long distances, we hope to provide our users with a deeper sense of community and strong ties to their immediate neighborhood through sharing typical home appliances just like they did before any of this new-fangled highfalutin technology came along. Join us and meet your neighbors!

## Introduce yourself to the neighbors

What should we call you?

password:

confirm password:

Home Address:

Note: We will never share your address with another user. Read more in our [privacy policy](#).

Street

City

State

Zip Code:

What do you hope to get out of Villagers? This will be displayed on your public profile.

next &gt;



VILLAGER  
It takes one to know

# Registration: Step One

**VILLAGERS**[about us](#)[the swap/meet](#)[mailbox](#)[my goods](#)[my projects](#)[Your Account](#)[Help | Contact](#)

## Step Two: Payment

In order to guarantee the security of our customers and verify the commitment of new members, we require a one-time registration fee of **\$14.95** upon signing up for Villagers. We will not save your billing information, and you will only be charged this one-time fee before enjoying indefinite free use of Villagers.

### Billing Information

Credit Card Type:

Credit Card Number:

Expiration Date:

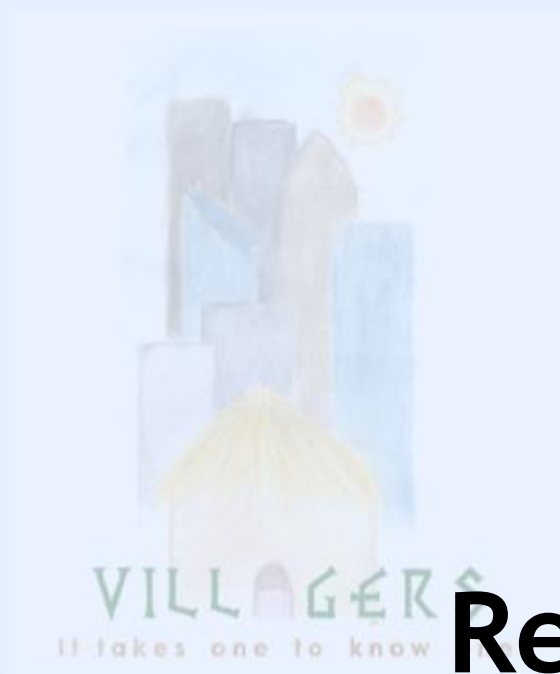
 

Verification Code:

[What's this?](#)

Billing Address:

Zip Code:



# Registration: Step Two

### Step Three: Inventory and Projects

This is where you let us know what you have that you're willing to share with your neighbors. It's also where you can list any DIY projects you'd like some help with, so that your friendly neighbors can return your favors with payment in kind. Don't worry if you can't think of much to start with - you can always come back and edit this page later.

#### Inventory: What I'll Share

##### Add Item

Lawn & Garden  
Electric Tools  
Lawnmower

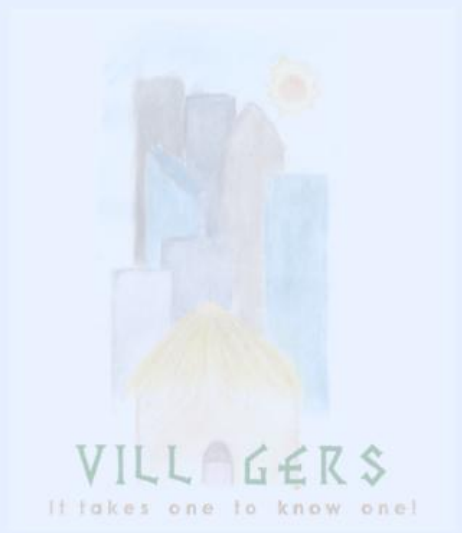
+ Add Another Item

#### My Projects

Space: Bathroom  
Anticipated hours of labor: 0-5  
Skill Level: No Special Skills Required  
Intensity of Work: Moderate

Describe the project:

+ Add Another Project



# Registration: Step Three



**VILLAGERS**[about us](#)[the swap/meet](#)[mailbox](#)[my goods](#)[my projects](#)

What's in your neighborhood?

search

[Your Account](#)[Help | Contact](#)

## Welcome to the neighborhood!

Congratulations on completing your account with Villagers! Here's a bit more information to help you get started:

### Probationary Period

For now, you are considered a probationary member. In order to gain full member status and enjoy full access to sharing in your neighborhood, we ask that you lend one item before you borrow. This helps to establish your credibility and indicate to your neighbors that you are committed to your Village. Once you've done so, we will remove the probationary badge from your member profile.

### Using the site

At Villagers, we strive to maintain both transparency in information and privacy for our users. This means having to strike a balance between providing enough information about our users to help others establish their trustworthiness without providing so much information that we violate the trust our users have placed in us by providing us with their information. So while we won't give out addresses or item inventories for our users, we do have a system in place for verifying credibility.

For any user you are considering borrowing from or lending to, you can view how many items they have borrowed and returned, as well as how many items they have loaned out. This data is tracked using the mobile app on your smartphone, which you link with the wireless network output of whatever item you're borrowing. We leverage the network power of the Internet of Things to help back up the security of the contract you enter into with your fellow Villagers when borrowing and loaning items. The device will be linked to your smartphone, which will update your profile as you borrow and return items. See our FAQ for more information on how we've integrated the Internet of Things into our site.

### Get Started!

If you haven't added any items to your inventory, do so [here](#).

Then check out the [swap/meet](#) to search for items you'd like to borrow and neighbors you'd like to meet! The Village awaits!

# Registration: Step Four



[about us](#)

[the swap/meet](#)

[mailbox](#)

[my goods](#)

[my projects](#)

What's in your neighborhood?

search

[Your Account](#)

[Help | Contact](#)

## Welcome to the swap/meet!

Use the search box to find a specific item you're looking for, or browse our categories to discover what you don't know you need!

### Search

What do you need today?

Go

### Browse by category:

#### Kitchen

[Appliances](#)

[Tools](#)

[Dishware & Cutlery](#)

[Food Goods](#)

#### Lawn & Garden

[Electric Tools](#)

[Manual Tools](#)

#### Garage

[Power Tools](#)

[Manual Tools](#)

[Multi-purpose](#)

#### Storage Space



# Search

## Good news, villager! 6 of your neighbors can lend a helping hand

or [search again](#) to meet more of your neighbors!



username1

.3 miles away



say hello!



username4

1.9 miles away



say hello!



username2

.7 miles away



say hello!



username5

2.6 miles away



say hello!



username3

1.3 miles away



say hello!



username6

3.2 miles away



say hello!

**VILLAGERS**[about us](#)[the swap/meet](#)[mailbox](#)[my goods](#)[my projects](#)

What's in your neighborhood?

search

[Your Account](#)[Help | Contact](#)

## My Mailbox

Messages (3)

Sent

Trash

Drafts

Viewing conversation between you and **dwight27**.**dwight27**  
said

Howdy, neighbor! I see you have a lawnmower. We just moved here from an apartment and don't have any tools yet. Mind if I borrow it?

**jibbajabba**  
said

Sure! I'm available today after 3 if you'd like to stop by.

**dwight27**  
said

Absolutely! Thank you! I'll be there at 3:30. What's your address?

reply:

Sounds good! We live at 325 Golden Gate Way. I'm attaching a contract so we're all squared away when you get here!

attach contract

send

# Messaging



[Messages](#) > New Contract

## New Contract

June 11, 2023

Contract between you and [dwight27](#).

I, [jibbajabba](#), agree to lend my  conditionally to my neighbor,

[dwight27](#). I understand that in completing this transaction I assume full liability for anything which might happen to this item or any other property of mine. I understand that Villagers is not responsible for any theft, damage, or injury that may occur as a result of using this service.

I hereby promise to carry out this transaction in good faith, lending items, storage space, my labor, or any other entity available for trading for the benefit of my neighbors, and will not abuse the Villagers site or any of its members.

Type your full name here to sign:

[sign and send](#)

# Contract

**VILLAGERS**[about us](#)[the swap/meet](#)[mailbox](#)[my goods](#)[my projects](#)

What's in your neighborhood?

search

[Your Account](#)[Help | Contact](#)[The Swap/Meet](#) > [My Swaps](#) > [My Loans](#)

## Items I've Loaned

This is a history of items you've loaned, including items currently out for loan.

Items will automatically be marked as returned when the borrower's mobile app unsyncs with the connected device they have borrowed upon returning it. If for some reason a device is not connected, you can close the transaction manually using the drop-down menu.

You can also ask the borrower to return the item if you need it back, or report an item as stolen.

	Item	User	Date Loaned	Status
<input checked="" type="checkbox"/>	Lawnmower	<a href="#">dwight27.</a>	June 11, 2023	Open
<input type="checkbox"/>	Kitchen Juicer	<a href="#">Naybur12</a>	June 2, 2023	Open
<input type="checkbox"/>	Step Ladder	<a href="#">Marathoner_32</a>	May 28, 2023	Returned
<input type="checkbox"/>	Power Saw	<a href="#">coffee_addict22</a>	April 20, 2023	Returned
<input type="checkbox"/>	Storage: Garage	<a href="#">meowmeowmeow.</a>	October 15, 2022	Open

Action for Selected Items

Request Return

Report

Close Transaction (Returned)

# Loans

# Mobile Prototype

- Probationary Period
- Home
- Maps/Location
- Inventory
- Borrowed Items
- Loaned Items



<http://www.smartphoneexperts.com/sites/smartphoneexperts.com/files/spemainphones.jpg>

Verizon

12:12 PM

So ... You Want to be a Villager? Yes!  
Welcome! There's just one thing you  
need to do first.

Something like 'Give and You Shall  
Recieve'. Before you ask to borrow  
something, we'd like you to share an  
item with a needy Villager.

What kind of items do you have? ▾

Tools

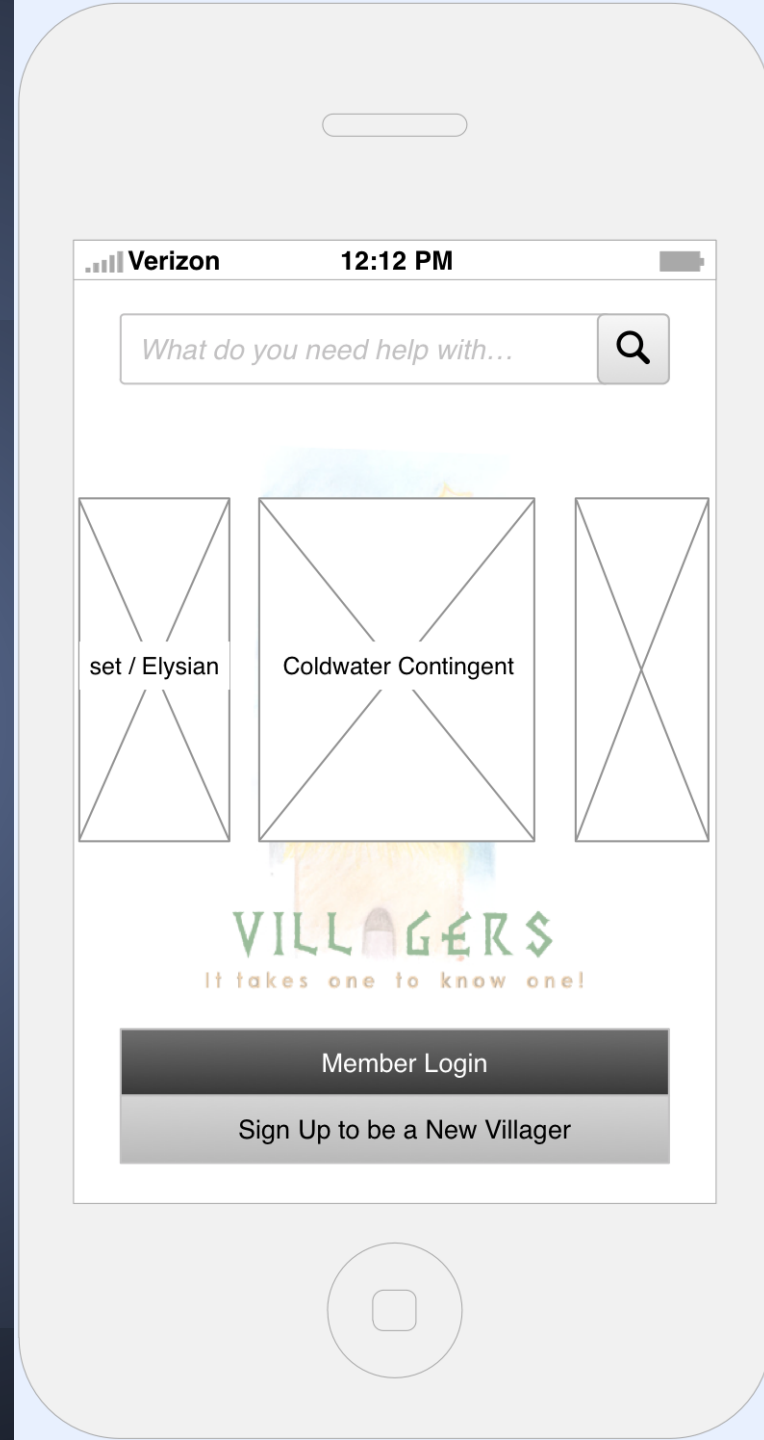
Kitchenware

Baking Ingredients

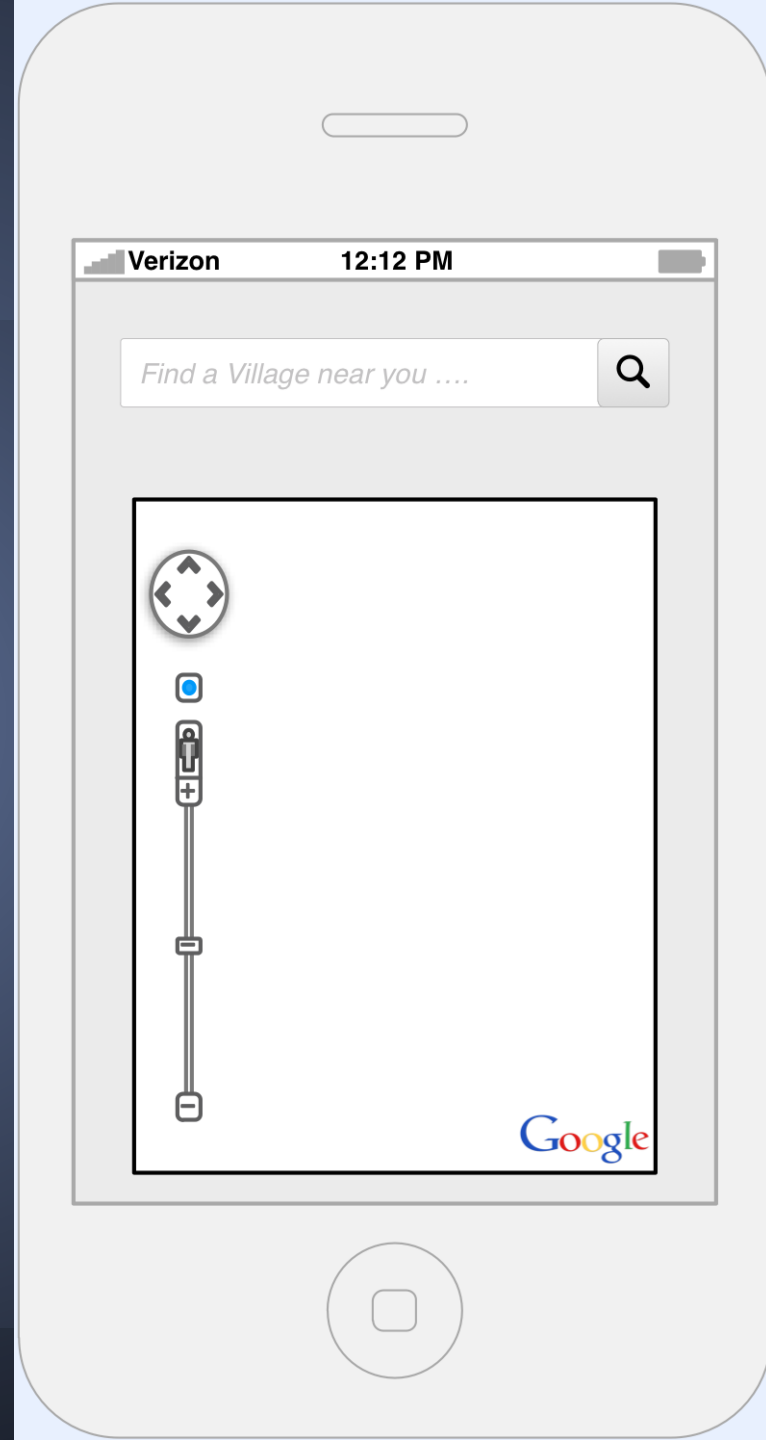
# Probationary Period



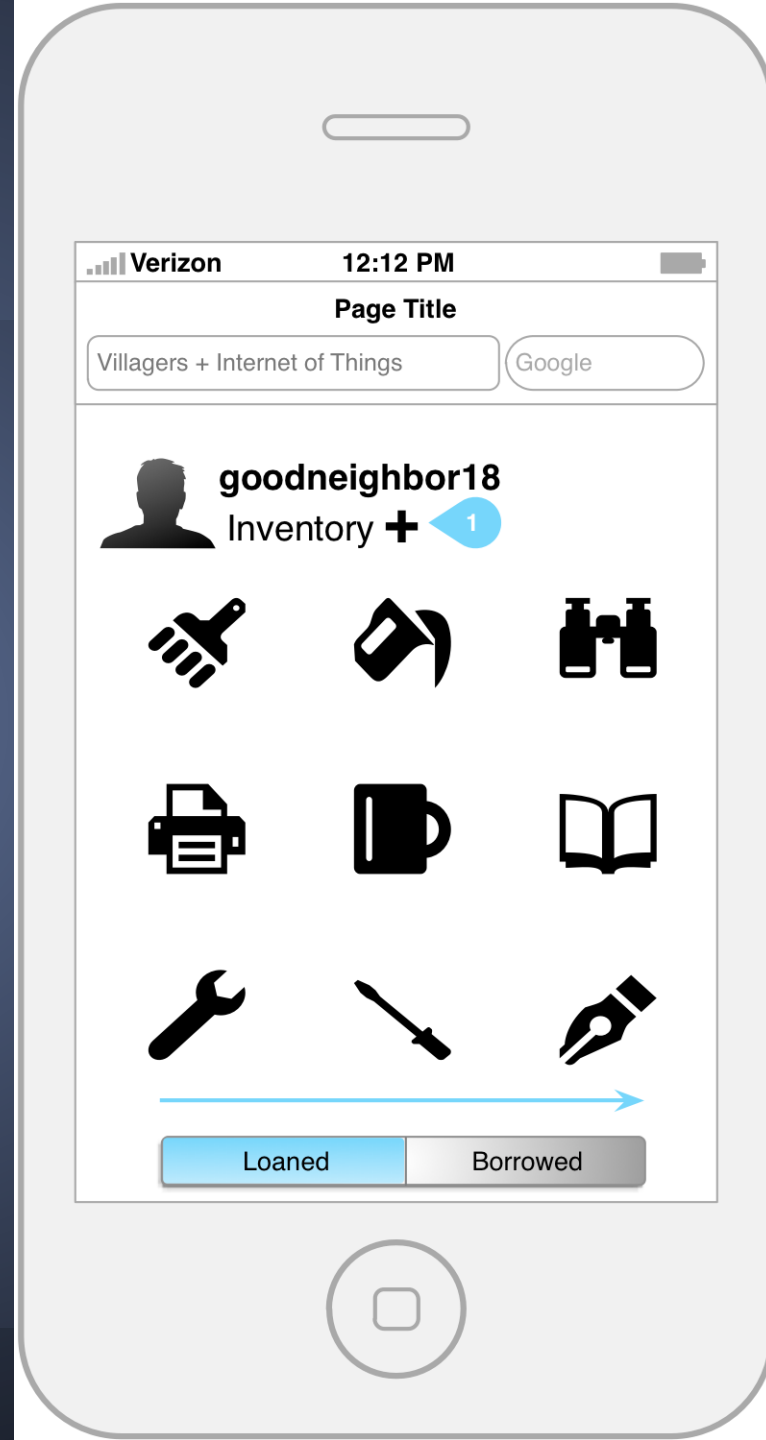
# Homescreen



# Maps / Location



# Inventory



Verizon

12:12 PM

Page Title

Villagers + Internet of Things

Google

### Add Items To Inventory



Loaned

Borrowed



Verizon

12:12 PM

Page Title

Villagers + Internet of Things

Google

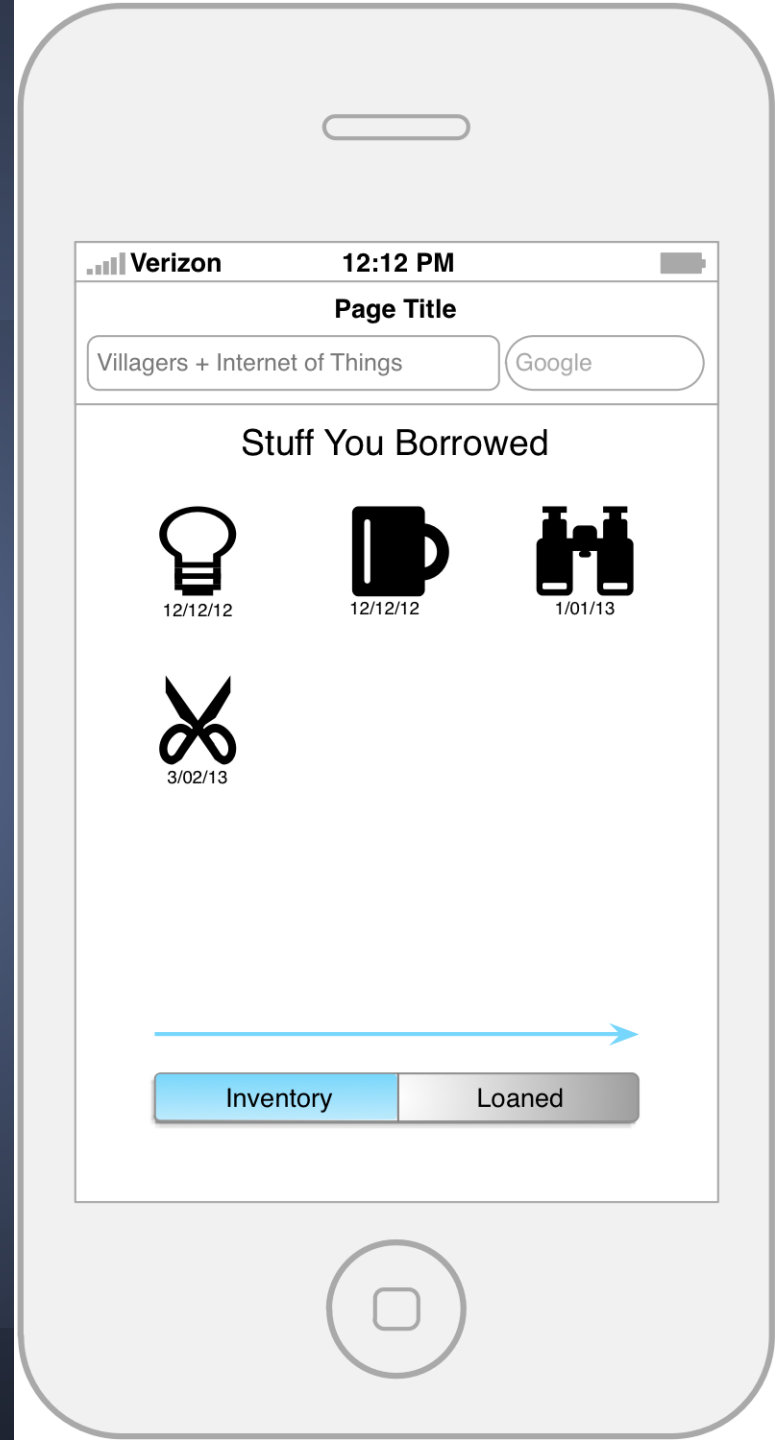
☀ Add Items To Inventory



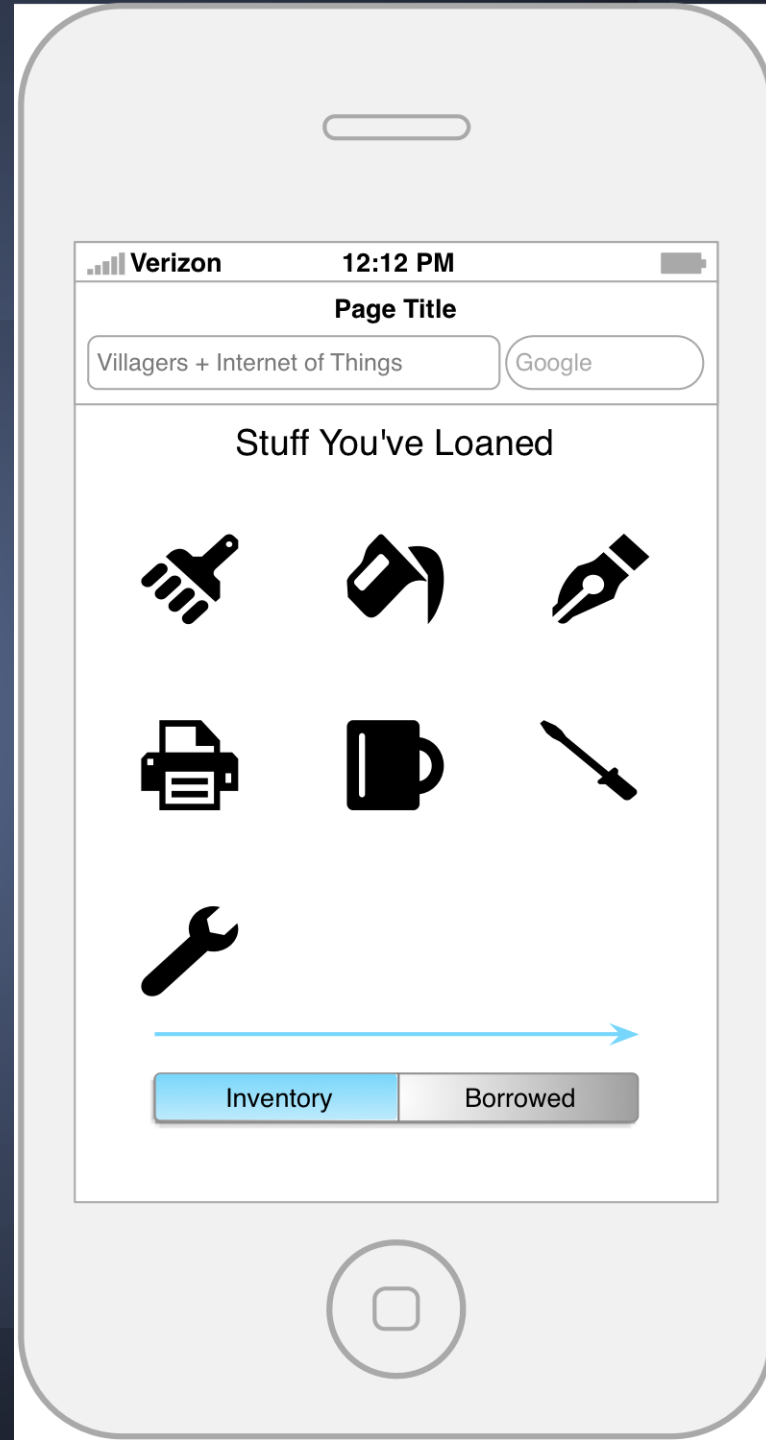
Loaned Borrowed



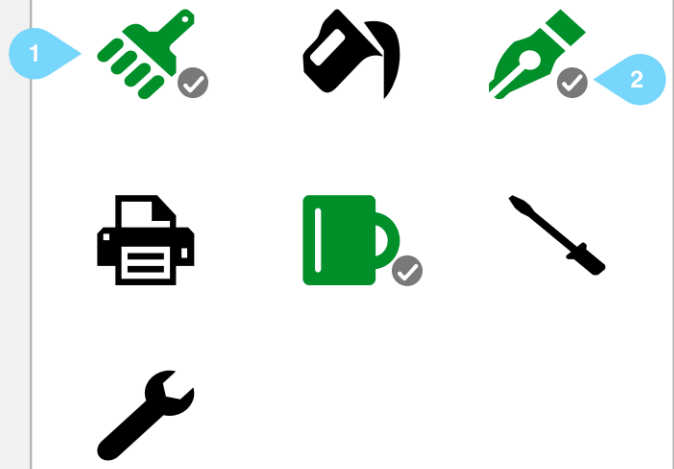
# Borrowed Items



# Loaned Items



### ☀ Stuff You've Loaned



Inventory Borrowed



# Deliverables

- {description of resources shared}
- White Paper: *Leveraging the Internet of Things and "dumb" devices as trust credentials in resource-sharing systems*
- {Trends analysis}
- Village.rs Privacy Policy

## Where Have All The Neighbors Gone

by Wendy Miller

Last week, Xbox One, the latest incarnation of Microsoft's gaming console, was unveiled to an excited audience of industry insiders and devoted gamers. But all I felt was fatigue. It seems every conference or presentation I attended hinges on the latest, greatest piece of technology that will help me connect with other people, the "social" aspect. But anytime I look around during a presentation or meeting, my colleagues and friends are exclusively interested in their screens. Even at lunch, most of us attempt to make conversation here and there but our primary focus is payed to our phones. Where is the monumental platform or device that we'll unite us? Because it seems to me that with every new update, we only seclude ourselves from others.

It isn't difficult to imagine a world where all our interactions are siphoned through some network. By network, I don't mean something that would have kept Orwell up at night. But between my Facebook page and every other application that seems so easily integrated, I feel less and less interested in face to face interactions. Why try and interact with someone in the real world? On Facebook, I can interact with everyone I know at the same time. Of course, this is an exaggeration. Certain interactions are predicated by having at least two human bodies in the same physical space at the same time. But with every new revolutionary IT breakthrough, the number of these physical interactions will continue to decrease.

What happens on Saturday night when my wife is baking a cake and realizes she doesn't have any sugar? The obvious answer is she goes to the store. But when it happened, I thought about what my mother would did in the face of similar cooking crises. She didn't go the store; And she didn't ask my father to pick some up on his way home. Instead, She'd coolly walk about ten yards across the street and ask our neighbor, Susie, if she could borrow some. It dawned on me then that these kind of interactions have become increasingly rare. My wife and I live in apartment bodies in the same physical space and aside from our roommate, we have no daily or semi-daily interaction with any other tenant. What's the point? All our friends are at our beckon call, twenty-four/seven.

If we aren't forced to get to know someone, a fellow colleague, your wife's friend, etc., why should we? Its true, never before have we've been able to reach so many people simultaneously at what seems to be an ever faster speed, seemingly rivaling real-time communication. But at the same time, as we rely on our digital networks more and more, what happens when we run out of soap or get a flat tire? Its human nature to rely on those around you in time of need. Hell, its human nature to want to have a beer with your neighbor on the weekend. But as we speed towards our supposedly hyper-connected future, I fear that few of these relationships will begin. Even as so many of us, Angelenos especially, identify ourselves by the neighborhoods we live in, how many of us know our neighbors or ,better yet, would befriend them?

Op/Ed: "Where Have All The Neighbors Gone? by Wendy Miller in the *Los Angeles Times*, April 3, 2012.

# White Paper: Leveraging the Internet of Things and "dumb" devices as trust credentials in resource-sharing systems

Sheryl Williams  
Chief Technology Officer  
Villagers, Inc.

## **Problem: Establishing Trust and Verifying Credibility in Resource-Sharing Systems (continued)**

To summarize, the likelihood that an individual will use a resource-sharing system is directly related to the degree to which they feel that they can trust both the sharing platform itself as well as the other users involved in the system. As the realm of privacy shrinks further with the introduction of new technology each passing year, users are increasingly reluctant to share personal information with websites and applications. Their hesitance is augmented with the addition of another level of potential abuse of that information: other users who may take advantage of that information and whose trustworthiness cannot be immediately known simply by glancing at their profile or engaging them in conversation. This fear discourages participation in the network and thereby inhibits the network effects which bring applications their success. Social networks have the potential to be larger and stronger if they can establish a means of trust between the user and the system and amongst users.

## **Solution: Leveraging the Connectivity of Dumb Devices to Establish and Build Credibility**

Thanks to the rise of the "dumb" computer, it is now possible to connect almost any object to the Internet of Things. It is called "dumb" because this small device merely collects and receives information, leaving the processing to be done in the cloud. Without the need for a processor in the device, it can be very small and made very cheaply, allowing it to be deployed across a whole host of new objects at a very low cost. In the past, this feature has typically been utilized to help individuals

locate objects if they have been lost, track objects if they have been stolen, and monitor the status of objects which require maintenance, such as the oil levels in a car or the battery life of a fire detector.

"Dumb" devices connected to the Internet of Things allow for open-ended design, because the network itself is open-ended. On one end is the dumb device, which transfers and receives data through the cloud, where processing occurs. But there is no protocol for where the data goes or what is done with it once it leaves the cloud. Software developers, therefore, can use the Internet of Things as a platform for experimentation and innovation.

One such example of a novel way of leveraging the Internet of Things is by using an application to exchange data with dumb devices, tethering the device to the application. The data transfer is not interrupted, so the typical operation of any Internet-of-Things-connected device is not impeded. The application, best suited for use in the mobile context, simply registers itself with the device. This is useful when the owner of the application is not the owner of the device, as the registration serves as a documentation of an exchange. Thus individuals who are not acquainted and would normally have no legitimate reason to trust one another can use the application as a sort of contract, guaranteeing that any goods exchanged will be returned, for if not, legal recourse is an extremely viable alternative because the object in question will be linked with the borrower's mobile phone thanks to its being connected to the Internet of Things.

## **Implementation: Protocols for Registration**

The next issue in establishing trust credentials is developing standards for use.

White Paper: Leveraging the Internet of Things and 'dumb' devices as trust credentials in resource-sharing systems

Preliminary Workshop / VILLAGER

SUMMARY / Meeting between directors Brent Ferreira and Julie Patterson regarding brainstorm and speculative design for VILLAGER platform. 10 Am - 11Am.

MINUTES /

- 10:03 | Attendance. Brent Ferreira / Julie Patterson.
- 10:05 | General discussion about social networks. Brent points out recent op-ed in the LA Times. Both discuss the failure of social networks to connect people in the real world.
- 10:10 | Brent talks about his college thesis about how online networks act in many the same ways as tribes.
- 10:16| Brent brainstorms the "VILLAGER" idea. Julie: "How can we use the web to get people to share / interact in the real world?"
- 10:19 | Both discuss taxonomy in relation to household items. Dividing locations in the house as areas that require different kinds of sharing.
- 10:24 | Trust is decided to be a vital issue for an application. How to build trust. Brent propose the idea of having new users share an item before they ask other "villagers" to borrow. Julie proposes a one-time fee.
- 10:30 | Neighborhoods. Both agree the platform should be used to connect people in close proximity to one another. They discuss imposing a limit to the number of a people in each village. A distance limit is also proposed.
- 10:40 | Julie sketches some speculative designs.
- 10:45 | Both brainstorm ideas about logo and branding.
- 10:50 | Wrap-up. Next meeting decided to commence at the same time, Thursday, March 18th. Decided deliverables for next meeting: desktop prototypes (Julie) / mobile wireframes (Brent) / Logo Sketches (Both) /. Both also agree to test some preliminary copy for homescreen / registration screen.
- 11:04 | Meeting adjourned.

# Minutes from Ferreira / Patterson Labs Preliminary Workshop



# Site Privacy Policy

## Privacy Policy

Villagers is founded on one core belief: that in a world increasingly connected by technology, where more and more information is available and accessible, and where traditional notions of privacy and trust are constantly being challenged, the tight-knit neighborhood community is not dead. We utilize current technology not to strengthen bonds with remote others, but to reawaken the long languishing connections between neighbors and community members. Technology does not have to be impersonal; and it affords us a means of establishing deep connections both online and in person. We understand how important your privacy is to you, and we are also aware that security and privacy are more important--and harder to guarantee-- than ever. As such, we have drafted a rigorous privacy policy that, through a policy of respect for privacy, verification of identity, and establishment of trust credentials, will provide our users with the security they want and need.

## Your Information

The information you share with Villagers is completely private. It is used only to improve your experience and help connect you to people in your community. We do not share any of your information with other users or third parties. In fact, we don't even look at it ourselves. Personal data such as username, address, and tool inventory is accessed exclusively by our system to help you search and share with others; no human may have access to your data.

## Identity Verification

Villagers is formed around real-life communities, so we believe in providing you and other Villagers with the security of being certain that other users are indeed part of the community to which they claim to belong. We can provide this guarantee through address verification. Once you provide us with your home address upon registering, we will mail you a code via US Postal Service containing a confirmation code, which you will use to verify your account and gain full access to the Villagers community. This form of verification allows you to be certain that anyone listed as being a part of your community is in fact a neighbor with whom you can safely share goods, services, and a laugh or two.

## Trust Credentials

"Trust credentials" are essentially a digital means of guaranteeing that the person with whom you are exchanging goods or services on Villagers is someone you can trust before you've even met them. We have provided a means of establishing these credentials by leveraging the connectivity of the internet of things. Most household devices can or will be able to be connected to the Internet of Things. When goods are exchanged between neighbors, the borrower simply uses their app to register their account with the object being borrowed. This is something like entering a contract, with your smart phone as the witness! The app tracks when the device was borrowed, how long it was in the borrower's possession, and when it was returned, leaving a digital trail of usage that is linked with the user's profile. This means that for every Villager, you can see how long whatever you lend is likely to be out for, and how certain you can be that it will be returned before you even agree to lend anything out. Eventually you should be able to verify the credibility of your neighbors by meeting and befriending them, but we at Villagers want to help grease the wheels a bit by establishing trust up-front, so you can meet your neighbors!







?