

# SokoSquare

## Barter Matchmaking

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### Abstract

A painter has a teenage daughter who needs braces, but he lacks the money to pay an orthodontist. He is looking for an art-loving orthodontist who would accept his paintings as an alternative form of payment.

A voice teacher has just moved to New York. She is looking for someone to help set up a website for her so she can attract new students. With all the costs involved with the move to the City, she cannot pay for a site now, but she would gladly offer up her voice lessons to a web designer who can help her out.

What if there were a tool to help connect these people with others who valued their services and shared their values of community exchange?

SokoSquare.com is an online platform that offers an innovative matching solution for people who want to barter personal and creative services. As “barter matchmakers,” we connect our users with others in a trusted community who have complementary skills and needs.

The ultimate goal for SokoSquare is to become more than just a tool for facilitating barter, but to use the tool as a way of forming and organizing a movement around barter as a peer-to-peer value system—an alternative and complementary economic and social practice.

SokoSquare is a group endeavor. I conceived of the initial idea and worked with fellow ITP students Catherine White and Elizabeth Fuller as well as NYU Stern MBAs Mayukh Mukherjee, Livia Cymrot, and Peter Leonard to further develop the concept. Together we wrote a business plan and created a pitch for the Stern Business Plan Competition and built a rough initial prototype of the application. I served as the team leader and chief strategist in that process. This paper serves as documentation of that process as well as a conceptual and theoretical framework for the further development of SokoSquare as an application and community.

### Keywords

barter, social networking, social movement, alternative economics, community exchange, P2P

## Introduction

Barter is an economic system in which goods or services are directly exchanged for other goods and/or services without a medium of exchange, such as money [1]. Barter is one of the oldest forms of human economic activity and predates monetary economies. While the idea of barter may appear quaint (like the illustration below) or even primitive to some today, it continues to serve an important economic and social function. SokoSquare aims to bring barter into the 21st century by using internet technologies to help barter economies scale, and in doing so, we seek to enable the creation of participatory peer-to-peer systems of value (both in the economic and ethical sense) among its members.



*A newspaper illustration depicting a man engaging in barter, paying his yearly newspaper subscription to the "Podunk Weekly Bugle" with various farm produce. (17 January 1874) [2]*

One of the main reasons money has largely replaced barter in modern industrial economies is the high degree of transaction costs involved in finding a potential barter partner with complementary wants and needs. Economists refer to this as the "coincidence of wants

problem” or often “double coincidence of wants.” William Stanley Jevons describes the problem:

*The first difficulty in barter is to find two persons whose disposable possessions mutually suit each other's wants. There may be many people wanting, and many possessing those things wanted; but to allow of an act of barter, there must be a double coincidence, which will rarely happen. A hunter having returned from a successful chase has plenty of game, and may want arms and ammunition to renew the chase. But those who have arms may happen to be well supplied with game, so that no direct exchange is possible. In civilized society the owner of a house may find it unsuitable, and may have his eye upon another house exactly fitted to his needs. But even if the owner of this second house wishes to part with it at all, it is exceedingly unlikely that he will exactly reciprocate the feelings of the first owner, and wish to barter houses. [3]*

Despite barter’s high transaction costs and scarcity of mutually complementary wants and needs, according to the December 2009/January 2010 issue of Monocle magazine, barter “accounts for 30 percent of the world’s total business” [4]. With the recent economic downturn and credit crisis, barter is on the rise and becoming more mainstream. The internet is also providing ways to optimize for the double coincidence of wants problem, making it easier to find potential barter partners. Craigslist, an important barter site for many communities, reports a more than 100 percent increase in barter postings between 2008 and 2009 [5]. The IRS reports that the “Internet has provided a medium for new growth in the bartering exchange industry” [6].

While Craigslist and other classified ad sites provide a way for users to publish their barter preferences, browsing and searching through hundreds of postings is often a time consuming process that does not guarantee satisfactory results. There is also the issue of trust when dealing anonymously with strangers over the internet. SokoSquare’s matching algorithm is designed to streamline the process of introducing people interested in barter with others having complementary interests. SokoSquare’s integration with existing social networking platforms adds an additional identity layer and provides social context for potential barter transactions.

Existing online barter exchanges like Dibspace usually rely on a “trade currency” systems pegged to the US dollar for assigning value to the goods and services being swapped, and are thus more like micro-currency systems than true barter. SokoSquare is a true peer-to-peer barter system where users are empowered to decide for themselves how to value their own offerings. Another barter site, BarterQuest, offers a matching system similar to SokoSquare’s but is hindered by a cluttered user interface and lacks social networking integration as a way of amplifying the reach of users barter posting and of providing a social context for transactions.

## A Bit of Background and History

The name of the project comes from “soko,” which means “market” in Swahili as well as “the place where you are” in Japanese. “Square” refers to a gathering place for people as well as the geometric shape that appears in the logo and branding.

The prehistory of SokoSquare began in 2008, when I met Elizabeth Fuller and Catherine White in our first semester at ITP. We came from varied previous career experiences that included education, international relations, chemistry, law, technology, and web design. We were in many of the same classes in the first semester and collaborated on a number of digital media and physical computing projects.

In the spring semester of 2009, Catherine and I were part of a four-person team that participated in the NYU/Microsoft Design Expo competition. Our project proposal, Punchcard, a concept for a local social networking and professional matching software for independent freelance professionals in co-working spaces, won second place in the competition. We developed the concept further over the summer, brought Elizabeth onboard to head the technology side of things, and transformed the Punchcard idea into the barter matching service that is SokoSquare.

In fall 2009, we decided to enter the Stern Business Plan Competition and attended a teammate hunt event through which we met Mayukh Mukherjee, who worked as a technologist prior to business school. An ITP alumnus then introduced the team to Peter Leonard, who brings extensive technology start-up experience to the project. Peter then brought in Livia Cymrot, whose experience in international marketing rounds out the SokoSquare team.

While working on SokoSquare for the Stern Business Plan competition, I also continued to develop the concept for my ITP thesis. We built a preliminary internal prototype in January, but based on feedback we decided to redesign the visual identity and add features to improve the user experience, as well as adding an incentive system in the form of badges or “squares” to encourage user participation in the site. As a group, we researched the existing barter sites out on the market to find where we might have a competitive advantage and went through many rounds of brainstorming to figure out the interactions of the application and the business model. We attended a feedback sessions and gave practice pitches throughout the school year. We reached the semi-final round of the competition in mid-April 2010, but ultimately did not progress to the final round. While we did not make it to the finals of the Business Plan Competition, we intend to continue on with the project over the summer and beyond. The process of going through the competition was certainly educational and provided additional avenues for user testing our pitch and designs and allowed us to get outside feedback. In many ways, being eliminated from the competition has helped to free us of some of the constraints of focusing on the revenue model for SokoSquare, and will allow us to focus on honing the user experience and developing the actual application as well as looking at alternative structures for funding, whether we go for a DIY bootstrapping model or exploring a not-for-profit community model.

While the goal is to eventually have a wide range of people using SokoSquare, we thought that the most likely early adopters of such an online tool would be people like us: young people, artists, creatives, independent workers/freelancers. Many people in these groups are well-educated with interesting skills to offer, but unemployed or underemployed; they have high social and cultural capital even if they are low on cash. In a survey of about 100 potential SokoSquare users, we found that the overwhelming majority (76%) of people said that they would primarily engage in barter as a way to save money. However, respondents could give more than one reason for why they would use SokoSquare to barter. Two of the most popular secondary reasons were “community engagement” (33%) and “social interaction” (24%). These reasons seem to indicate a motivation to barter beyond simple economic necessity, and point to a desire for rich interactions and connections with others in the community, interactions and connections that are sometimes lost in modern industrial monetary economies.

Let us briefly look at barter through a broader cultural context. United Nations Information Officer Ahmad Azadi commented that for many in the developing world, “barter is the default,” especially in places with troubled or failing economic systems [7]. Jannie Lasimbang of the Asia Indigenous Peoples Pact writes about the importance of barter in indigenous communities:

*To indigenous communities, barter trading is not only an economic necessity it is also a form of social interaction, particularly if the barter centres attract other communities. It is an opportunity to share stories and exchange experience. [8]*

Lasimbang continues by advocating for the recognition and respect of these indigenous economic systems and ways to allow the rich economic and social interactions of barter trading to interface with modern industrial technology and the globalized economy. I find the “opportunity to share stories and exchange experience” to be particularly compelling, as it points to some kind of inherent social good in the act of barter trading, not only as a way of distributing goods and services across communities, but also as a way of transmitting knowledge and engaging in culture. In this way, SokoSquare seeks to facilitate these kinds of rich social interactions by making barter easier and more widespread in our society.

## Inspiration

The idea of a future where technologically mediated barter plays a large and important role in the economic system has been predicted by a number of thinkers across different disciplines.

At a meeting of world economic leaders in 2000, Mervyn King, Governor of the Bank of England, hypothesized:

*There is no reason that products and services could not be swapped directly by consumers and producers through a system of direct exchange-essentially a massive barter economy. [9]*

In 2004, Nicholas Negroponte of the MIT Media Lab and One Laptop Per Child wrote:

*A parallel and more intriguing form of trade in the future will be barter...peer-to-peer, and peer-to-peer-to-peer transaction of goods and services. [10]*

Similarly, theorist and author Douglas Rushkoff proclaimed in 2009:

*The next big thing: a means of peer to peer exchange that does not involve cash...genuine peer to peer will lead to genuine value creation. [11]*

SokoSquare tries to take us one step closer to these predictions by leveraging the kinds of information sharing already happening in the social web and applying it to barter. Social networking and online dating sites have encouraged users to reveal and express their personal preferences into a technologically mediated space where it can be tracked and mined. If these social incentives could be applied to barter preferences, then once a critical mass of users is formed, then their data can be parsed and mined to match users with others in the community with complementary wants and needs.

Since SokoSquare applies the model of online social networking and dating to matching, the sites that most inspired us were in fact not other barter sites. Two of my primary inspirations were CouchSurfing.org and OkCupid.com. CouchSurfing is a “volunteer base worldwide network connecting travelers with members of local communities, who offer free accommodation and/or advice” [12]. CouchSurfing relies on members to review and vouch for each other in order to create a social trust system and organizes itself as a non-profit organization with the goal of “creating a better world, one couch at a time.” We have incorporated elements of CouchSurfing’s system of peer reviews to help foster a trusted network for SokoSquare. OkCupid.com is one of the largest dating sites online and bills itself as “fun matchmaking” [13]. It incorporates elements of game design to incentive users to complete their profiles, fill in questionnaires and interact with other members. We drew from these design elements to create the “squares” system for SokoSquare.

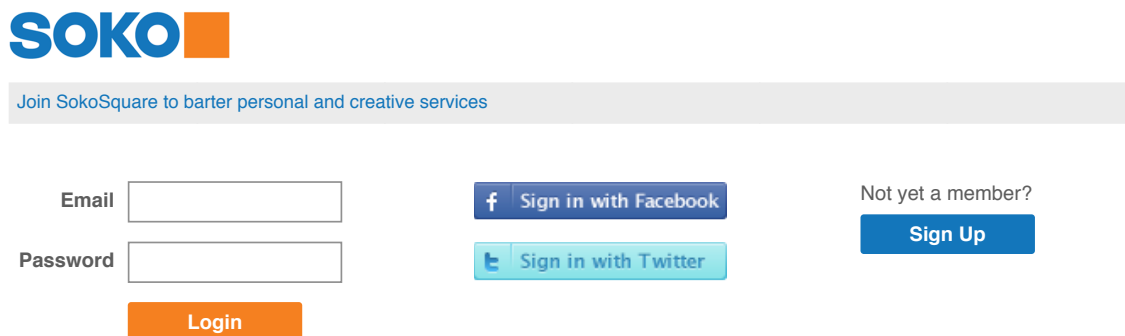
## Concept Description

SokoSquare will offer a simple web interface that allows users to enter a list of their barter wants and needs. The SokoSquare software algorithm then matches users with other members of the SokoSquare community with complementary wants and needs. We take the “matching” paradigm of online dating sites and apply it to barter. SokoSquare will also offer integration with existing social networking sites like Facebook and LinkedIn as ways of tapping into existing social connections to expand the user base of the site as well as to provide a simple way of offering an “identity layer” of social context to foster a sense of connection and trust among users.

SokoSquare taps into the potential of existing social networking accounts. Users will be able to easily import their own profile information from their existing social media accounts, minimizing the hassle of creating yet another online login. The SokoSquare algorithm ranks

complementary matches based on degree of social proximity, prioritizing friends and second and third degree social networking contacts, providing social context and an additional layer of trust in barter transactions.

Users begin by logging into the site, or using Facebook or Twitter to sign in (see below). Users have personal profiles, which are derived from the visual language of existing social networking and online dating sites. Users can view my profile information, which includes my bio, skills, and other data. They can also view my haves and wants pages, to see what services I need and what I have to offer in exchange. If there is a possible match, then the user can message me to continue the conversation and to work out some sort of offline arrangement. My profile also shows my contacts, much like other social sites, which allows others to see my social graph in context. While SokoSquare can certainly be used for interacting with complete strangers, part of the theory of user interactions is to help users tap into the strength of their weak ties, their second and third degree contacts that might have complementary barter interests. Users can also view my “squares,” which are similar to badges on other services. Squares are a way of incentivizing users by rewarding them for performing tasks that help the SokoSquare community. For example, the verified square denotes a paying member who’s identity has been checked via a credit card transaction. The peer review square is earned by getting three others in the community to write a review on your profile. The recruiter square is earned by users who recruit five or more members into SokoSquare. The non-profit squares can be earned by donating or volunteering for those organizations.



The image shows a user login interface. At the top left is the SOKO logo. Below it is a grey banner with the text "Join SokoSquare to barter personal and creative services". The login form consists of two input fields: "Email" and "Password". To the right of the "Email" field is a blue button with a Facebook icon and the text "Sign in with Facebook". Below that is a light blue button with a Twitter icon and the text "Sign in with Twitter". To the right of these buttons is the text "Not yet a member?" and a blue button with the text "Sign Up". Below the "Email" and "Password" fields is an orange button with the text "Login".

*Above: User login*

- Home
- My Profile
- Matches
- Inbox (2)
- Explore
- Blog



## Lee-Sean Huang

Designer/Entrepreneur/Musician  
Tribeca, New York City

Mocking up my thesis project late at night  
2 hours ago

View all 6 photos

Website | Facebook | Twitter | LinkedIn

Message

Add Contact

Review

- About
- Haves
- Wants
- Contacts
- Reviews
- Squares

### Bio

My work explores the intersection between art, technology, and society.

I'm also a co-founder and producer at [Heprnova Multimedia](#), strategist and designer at [Purpose](#), and masters candidate at NYU's Interactive Telecommunications Program (ITP).

I'm also the creator of [SokoSquare](#). Hope you like it.

### Skills

Music Composition & Production, Interaction Design, Web Design, Cooking

### Interests

Art, Open Source, Politics, Social Justice, Travel

**Mutual Contacts** 5

**Total Contacts** 50

**Last Online** Online Now!

**Member Since** March 2010

**Groups**

- Harvard Students & Alumni
- ITP Students & Alumni
- JET Alumni Association

**A bespoke musical composition**  
I'll compose custom music for you. I'd love to get my music on the soundtrack of an indie movie. Samples of my previous work here: <http://leesean.net/music/>  
**For barter or money**  
Music

**Basic Piano Lessons**  
I can teach you the fundamentals of the piano. I'd especially be interested in getting guitar or voice lessons in return. Or maybe some conversation practice in French.  
**For barter only**  
Music, Lessons, Education

**Wordpress Blog/Website**  
I'll set up a basic Wordpress blog for you and tweak the template to fit your needs. Check out my portfolio for examples.  
**For barter or money**  
Web Design, Wordpress, Blogging

**Eclectic Fusion Cooking**  
I'll cook you dinner or cater your next event with my own brand of global cooking.  
<http://leesean.net/recipes/>  
**For barter only**  
Food/Cooking

**Peter Leonard**

**Catherine White**

**Mayukh Mukherjee**

**Livia Cymrot**

**Elizabeth Fuller**

Top: User profile  
Bottom Left: Haves page  
Bottom Right: Contacts page  
Next page: Squares page

- Home
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View all 6 photos

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- Message
- Add Contact
- Review

- About
- Hasves
- Wants
- Contacts
- Reviews
- Squares



Verified



Peer Reviewed



Recruiter



Supporter



Volunteer

## Conclusion and Next Steps

The process of developing the concept for SokoSquare for my thesis and the business plan competition taught me the importance of constant iteration and feedback. While devising a business model and finding revenue streams forced us to make compromises about the user experience and diverted time and energy from developing the technical prototype, the process was enlightening in terms of immersing myself in the world of investors and venture capitalists, a world I had never experienced before. In any case, the continual practice of presenting and honing the SokoSquare pitch forced me into a discipline of intellectual rigor and sharpening of my communications skills. Even if we did not win the competition, the process of competing motivated us to write the business plan, which will serve as a valuable tool to work from, even if we change the business or revenue model. With the concept now well articulated, the next step is start developing the website in earnest. The SokoSquare team plans on regrouping once finals and theses are complete to reevaluate our game plan. In addition to diving into the development of the site, we will be exploring alternative funding models and recruiting additional collaborators, with the possibility of making SokoSquare an open source project and opening it up to the community. It is a definite goal to make barter preference data open and available in a way that will allow others to innovate with better ways of matching and visualizing users based on their barter preferences. In any case, SokoSquare, the saga continues this summer as we continue to build, beg and barter. Find us at [sokosquare.com](http://sokosquare.com) or [@sokosquare](https://twitter.com/sokosquare) on Twitter for updates.

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<http://twitter.com/sokosquare>