kindworks

Design Document

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1. Project Goals

The client for this project, The Linden Foundation of Quakertown, PA, challenged the team to create a game based on the pay-it-forward concept. This concept is defined by performing good deeds and encouraging the recipients of those deeds to respond not by returning the favor, but by passing the generosity on to a third-party individual. The idea is that more good will be done by aiming efforts outward, rather than back to the point of origin.

Regarding the product to be created, the client had four key goals, or measures of success:

1. The game must revolve around a real-world mechanic.
2. The game must be accessible to as wide an audience as possible.
3. The game must be a grassroots effort with the power to go viral.
4. The game must include a feature for elegantly visualizing the network of members involved.

The Linden Foundation had researched previous works in this space that utilized the mechanic of exchanging cards detailing missions for doing good deeds. The games *Akoha* and *Boom Boom Cards* served as starting points for the team's initial investigation of existing attempts at a pay-it-forward game. In the beginning research phase, several design challenges were clear:

1. Altruistic intentions are by definition at odds with the sort of rewards typically found in a game system.
2. The existing card mechanic causes members to feel guilt and can come off as preachy. There is a human psychological factor associated with this experience that must be understood.
3. To be accessible to a wide audience, there must be a low technological barrier of entry.
4. Being an experience occurring over a length of time, and not consumed in a single sitting, testing protocol for the product does not reflect that for traditional entertainment experiences and will require creative measures in order to obtain useful data.

The team's work this semester began with a four-week research and design period during which these challenges were examined and addressed through inspection of existing related works, consideration of the psychological issues involved, consultation with several game designers and humanitarian organization leaders, brainstorming, and prototyping.

Faculty feedback and regular client correspondence shaped the design direction throughout the process, and the team has spent the final twelve weeks of the semester developing, testing, and documenting the product that they, as well as the client and faculty, feel best accomplishes the goals set forth by the client at the outset of this project and addresses the main challenges inherent in the design.

2.Prototype Design Overview

A. High Concept

The *kindworks* project is a global kindness initiative inspired by the pay-it-forward concept, based around a digital community that serves as an expandable framework for celebrating good deeds and a real-world interaction to promote their stories.

This grassroots movement is intended to encourage others to be more generous in their communities. *kindworks* allows people to see that an impact is already being made, and enables them to measure their own personal contribution. By making this effort visible, the great task of improving the world becomes a little less daunting.

Members share stories about good deeds that they have performed, witnessed, or received. Stories are shared by adding Gears to a shared central Machine in an online experience. Each Gear details a specific story, and the Machine itself is a network of everyone's interconnected goodness.

Members can promote their good deeds in the real world by leaving Gear Tags for others to find. Gear Tags are tangible symbols of good deeds that can direct others to a particular story in the online Machine through a unique ID# and a URL.

B. How to Play

I. Register:

kindworks members have access to all of the features of the site, including adding their own e-

Gears and stories to commemorate good deeds.

To get started, visit **http://ninjasofniceness3.etc.cmu.edu**. Select **Create an account** link to navigate to the **Registration** page.

Fill in the forms to select a username and password for your *kindworks* account, and provide an email address. Select the Register button.
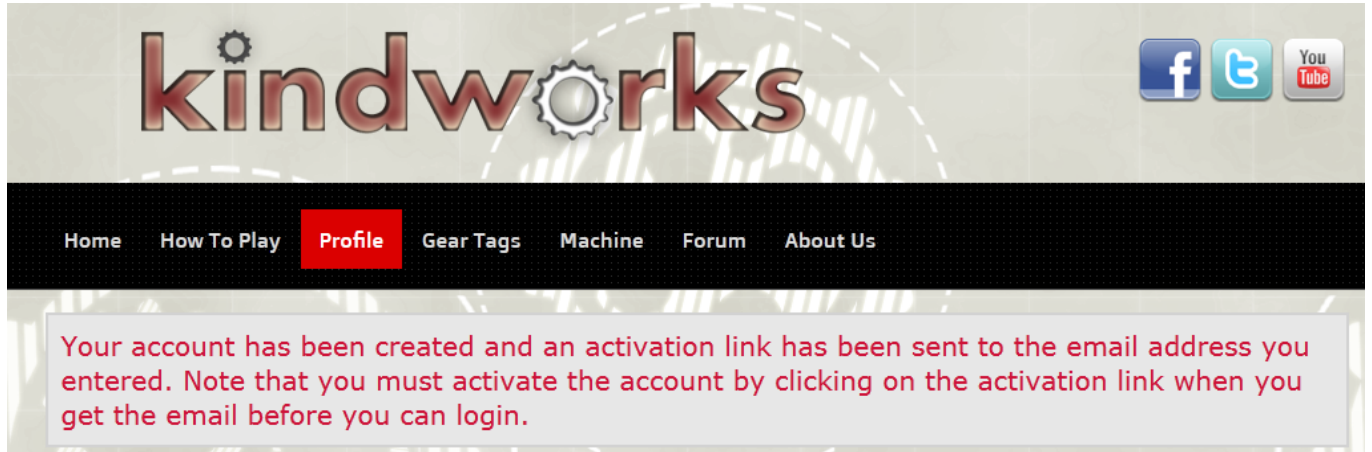
A new page will load and prompt you to check your email for a confirmation message. Follow the link provided in the message to confirm your account, and you will be navigated to the *kindworks* home page!
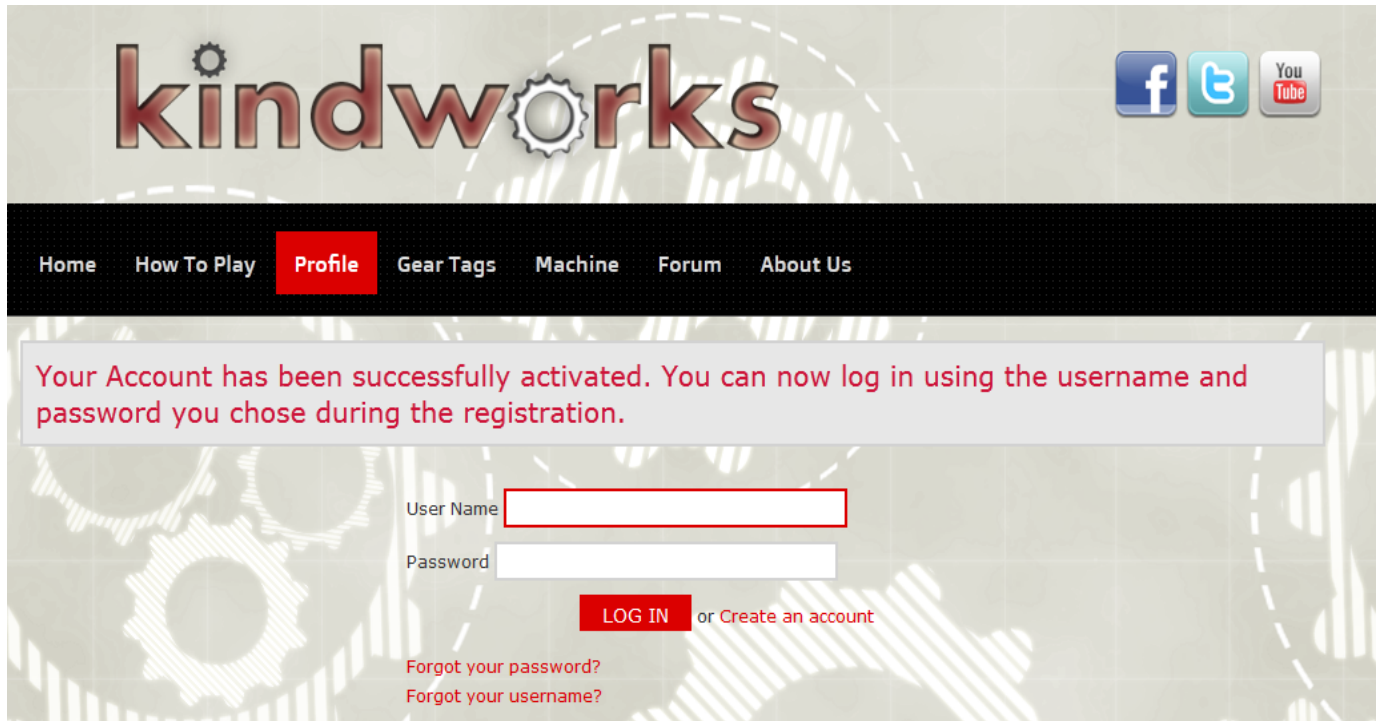
II. The Good Deed:

Now's your chance to bring *kindworks* into the world. Perform a good deed for someone, or keep an eye out for a good deed someone else happens to perform. You might even be the recipient of a kind act. Whatever the deed, *kindworks* is your opportunity to tell the world about it!

III. Add an e-Gear and Story to the online Machine:

Once you have a good deed in mind, log in to the *kindworks* site on your personal computer or mobile device. From the main menu bar, mouse over the **Machine** tab and select the **Add Gear** button.
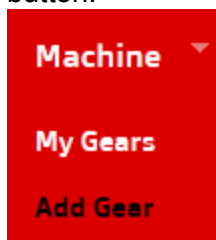
You will be navigated to the community **forum**, where you can write a description of the good deed. Enter a subject heading and select the submit button.

Next, select the visual design for your e-Gear, and then choose an existing e-Gear to connect yours to. Your e-Gear will be added to the Machine, and you will be able to view the story you submitted, as well as your e-Gear's ID#.

IV. Post a Gear Tag

Now that your good deed is documented in the Machine, the final step is to get the word out using **Gear Tags**. Gear Tags promote good deeds and serve as a symbol of the *kindworks* movement. They exist as paper, stickers, or buttons, and can be printed on **merchandise**, such as t-shirts and caps. They also can exist in electronic form, as images in a Facebook post.

Gear Tags direct those who discover them to your story in the Machine. Every Gear Tag features a URL and QR code to link people to the *kindworks* site. All you need to do is write your e-Gear's ID# on it and leave it for someone to find. You could also write your username or a short story about your good deed.

To print a Gear Tag, select the **Print Gear Tags** option from the Gear Tag dropdown menu. To order Gear Tag merchandise, visit the **Order Gear Tags** option from the dropdown menu.

V. Others Get Involved!

Anyone who finds your Gear Tag and is intrigued can visit the *kindworks* site and search for your username in the community forum by selecting the search option from the Forum dropdown menu.
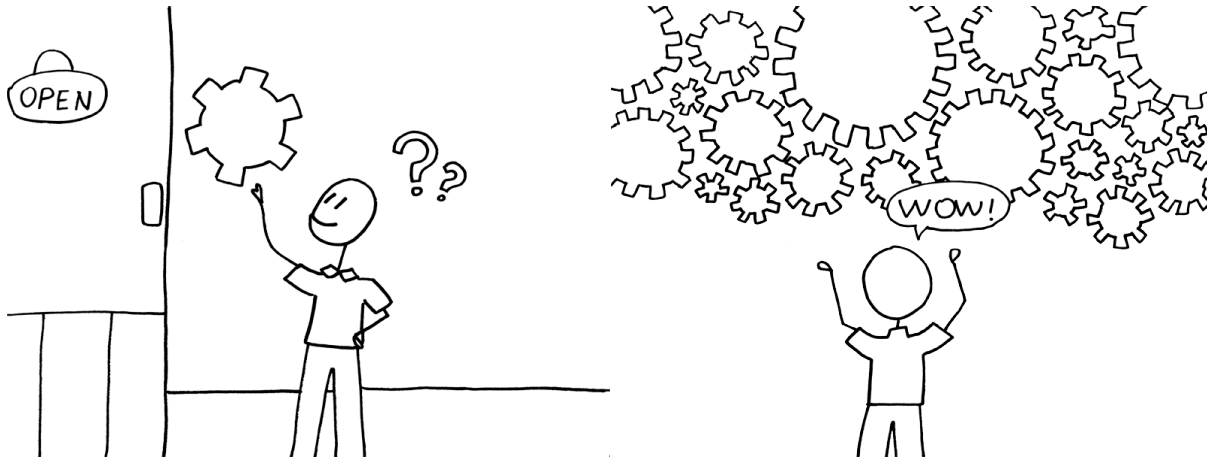
By doing this, others can find out about your goodness! In the future, the search function will be expanded to allow for connection to specific posts, and thus, specific deeds.

C. The Online Experience: Web Features

The *kindworks* online experience serves as a framework for members to celebrate the good deeds that occur in their daily lives through the community Machine building activity. The Machine, as a network of e-Gears representing good deeds, acts as an elegant visualization of the interconnected deeds, becoming a community of its own.

Members can partake in a reflective experience by examining the connections associated with their deeds, understanding how their actions fit into and help shape the community at large. There also is great potential for the member base to define its own customs and protocols for forming connections between e-Gears, and the development of the Machine may resemble the construction of a virtual neighborhood, containing discrete sectors defined by particular criteria. The visualization of connectivity allows for a powerful form of social networking.

Also key to the establishment of a community is the site Forum, where members' submitted e-Gear Stories are automatically posted, and where members can find and provide ideas and inspiration to others about how to positively affect the lives of those around them. Members can like, comment on, or share forum posts to foster an atmosphere of communication and cooperation. Connectivity with external social media represents an excellent future opportunity for cross-pollination of ideas.

The site also features a page for viewing one's individual e-Gears, resources for printing and ordering Gear Tags, and an ample support section including comprehensive FAQ and steps for

playing.

I. Entering the Site

Upon navigating to http://ninjasofniceness3.etc.cmu.edu/index.php/en/, the home page is displayed.

The home page features an example Story in the center of a gear image. Surrounding the story is an overview of the *kindworks* experience, step by step. Each step in the process is denoted by a brief line of text and a button, and clicking on a step navigates to the corresponding page of the site.

The 'BEGIN with a good geed' button and the 'SHARE the story' button each link to the Good Deeds page in the Forum.

The 'PRINT a gear tag' button and 'POST a gear tag' button each link to the Gear Tags page.

The 'FIND a gear' button links to the search page of the Forum.

The 'DISCOVER *kindworks*' button links to the registration page.

The 'EXPERIENCE the goodness' button links to the Machine page.

For a comprehensive guide of the process, clicking the "new to *kindworks*' button links to the How to Play page.

How To Play

About Kindworks

kindworks is a global kindness movement based around both real-world interaction and an online community. People share stories about good deeds that have happened by adding Gears to an online Machine. This community is a place to find inspiration and see what others are doing. By working together, we can make a real difference in this world.

How to Play

Step1: Register

Select "Create an account" link to navigate to the Registration page.

Select a username and password for your *kindworks* account, and provide an email address.

Select the Register button. A new page will load and prompt you to check your email for a confirmation message.

Follow the link provided in the message to confirm your account, and you will be navigated to the *kindworks* home page!

Step2: The Good Deed!

Perform a good deed for someone, or keep an eye out for a good deed someone else happens to perform.

You might even be the recipient of a kind act. Whatever the deed, *kindworks* is your opportunity to tell the world about it!

Step3: Add an e-Gear and Story to the online Machine

Log in to the *kindworks* site on your personal computer or mobile device. From the main menu bar, select the Add Gear button.

You will be navigated to the community forum, where you can write a description of the good deed.
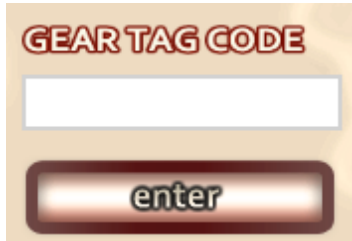
The home page also includes a search bar for locating an e-Gear by its ID#, as well as login fields for username and password entry, links to username and password recovery, and a link to create a new account.

As many visitors may be accessing the site through a mobile device, the site is optimized for mobile browsing, and currently has been shown to display successfully on smartphones and tablets.

Visitors can browse the Machine and view other e-Gears and stories, as well as visit the forum. Visitor access to viewing site content is not restricted in any way, and visitors also can view and print Gear Tags. However, in order to attain an active role on *kindworks*, users must register and create a personal profile. The system requires a member identity in order to record and refer to data related to actions such as adding an e-Gear to the Machine or posting on the forum. Without a member identity, these actions cannot be performed.

II. Navigation

The site features a menu bar for navigation with links to the Home, How to Play, Print Gear Tags, Machine, Forum, and About Us pages available from the main menu tabs. An Add Gear link is also available while logged in, which directs members to the Forum, where they can enter a story for their e-Gear. Drop-down bars from the main menu tabs provide access to the Order Gear Tags, My Gears (while logged-in), FAQ, and Contact pages. Various options for displaying information in the Forum are also available from the Forum tab drop-down menu.

III. The Central Community Machine

1. Visualization

Upon navigating to the Machine page via the Machine menu bar tab, the first e-Gear in the

database is displayed, along with all e-Gears connected to it. Currently, the system displays a maximum of five connected e-Gears around the selected e-Gear in the center.

[Current] Sue Brought Us Cookies!
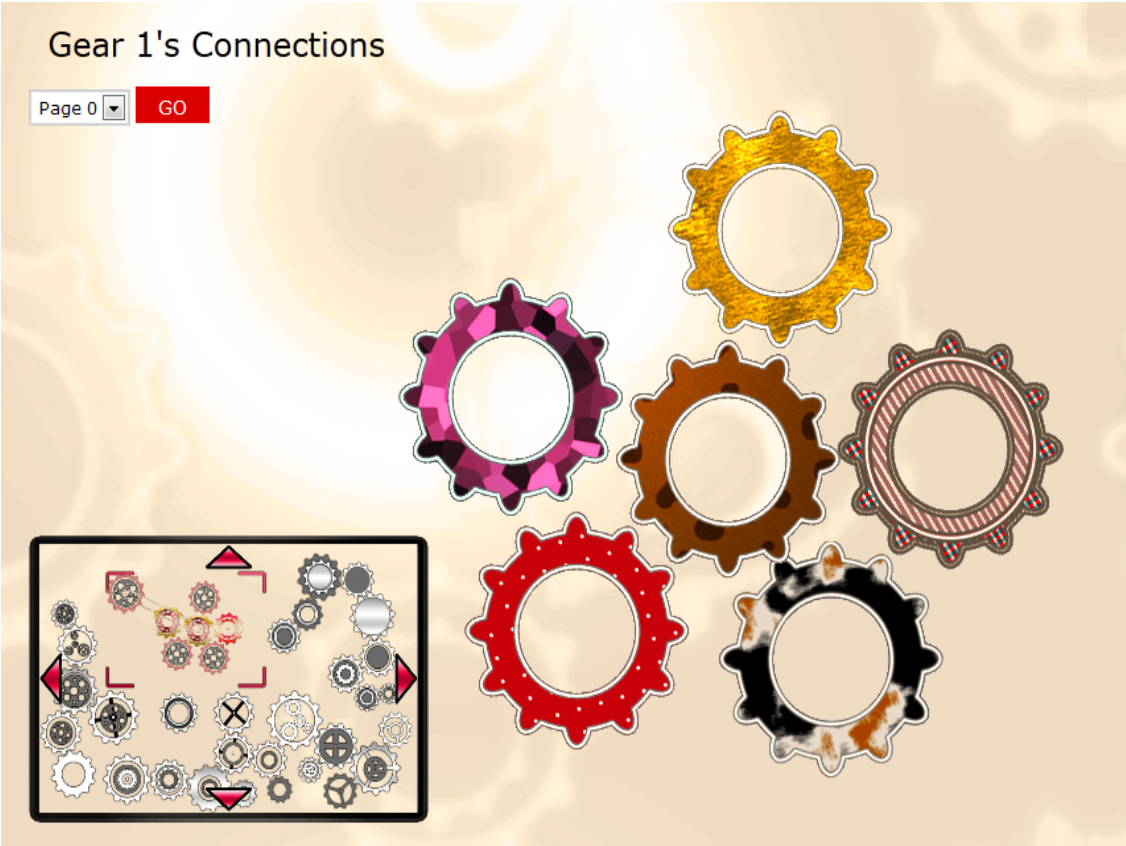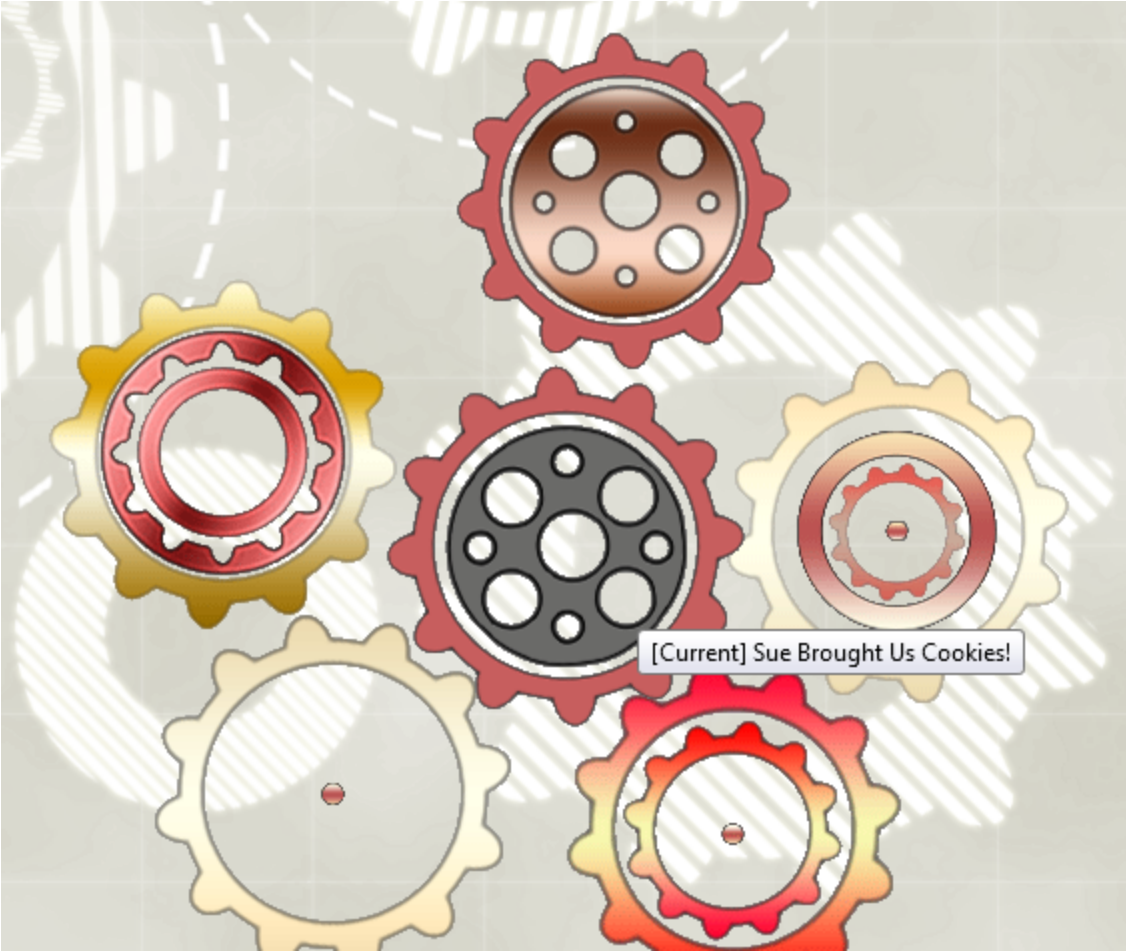
By mousing over an e-Gear, its story title is previewed in the mouse-over text.

Gear 1's Family

Page 0 ▾   GO
Page 0
Page 1
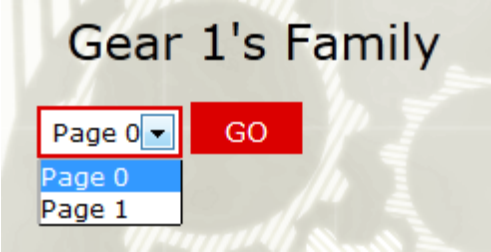
In order to view additional e-Gears connected to the central one, a drop-down menu is available.
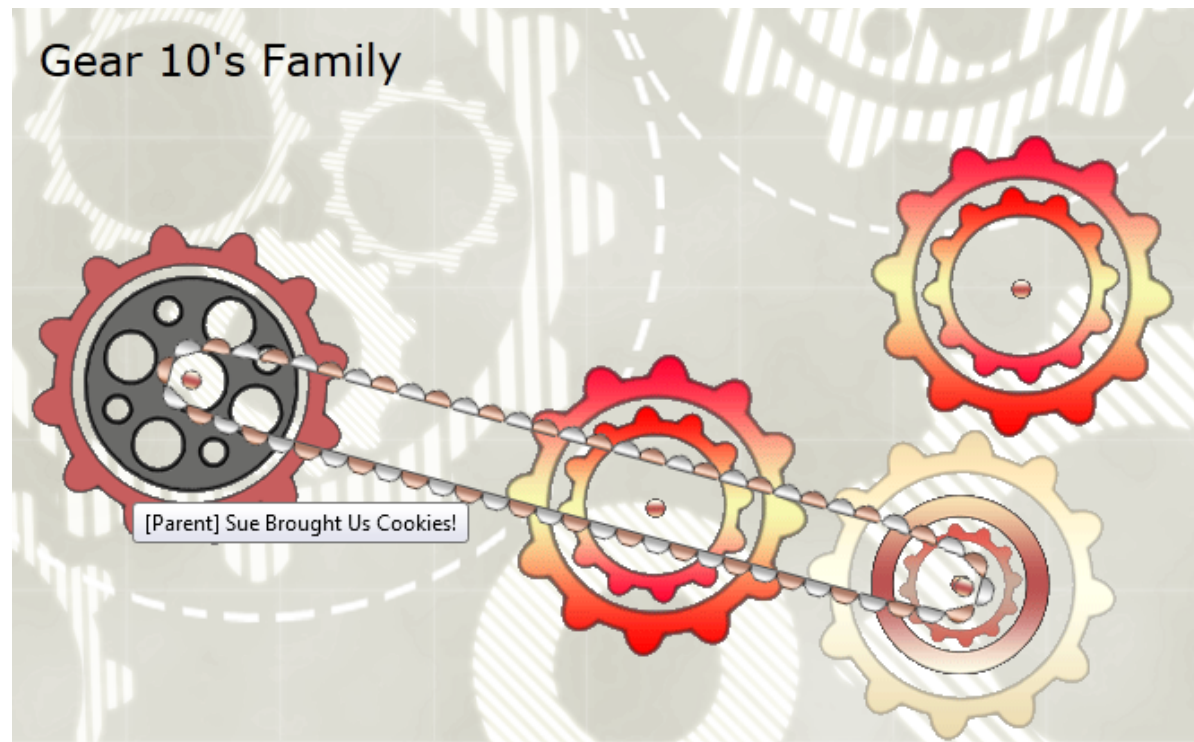
If one of the connected e-Gears is clicked, a new page is loaded displaying this e-Gear in the center, along with all e-Gears connected to it. The e-Gear it originally connected to is displayed as connected via a chain graphic.

Welcome, admin
Last Visit Date: Yesterday
Logout

→Private Messages

■ Kindworks Forum → Main Forum → Good Deeds
⋯ ➡ Generosity (1 viewing) admin

➡ | REPLY TOPIC   ⚑ | SUBSCRIBE   ★ | FAVORITE   ✚ | NEW TOPIC
✖ | DELETE TOPIC   ✔ | STICKY   🔒 | LOCK   🔍 | MODERATE TOPIC   Page: 1

TOPIC: Generosity

➡■ Generosity 5 days, 4 hours ago   #28

tsperrin

OFFLINE
Moderator

Posts: 22
Karma: 0

Eric offered to get me coffee this morning. Although I usually avoid coffee, I appreciate that he asked if I wanted any. 🙂

Report to moderator   IP: 128.2.238.150

♥ | THANK YOU   ➡ | QUICK REPLY   ➡ | REPLY   💬 | QUOTE   ✎ | EDIT   🔍 | MODERATE   ✖ | DELETE

➡ | REPLY TOPIC   ⚑ | SUBSCRIBE   ★ | FAVORITE   ✚ | NEW TOPIC
✖ | DELETE TOPIC   ✔ | STICKY   🔒 | LOCK   🔍 | MODERATE TOPIC   Page: 1

■ Kindworks Forum → Main Forum → Good Deeds

- - Good Deeds ▼   Go

Clicking on the central e-Gear will navigate to its story post in the forum. Here, the e-Gear's ID# is denoted on the top-right corner of the post.

2. Adding an e-Gear

To add a new e-Gear to the Machine, a member navigates to the Machine tab and selects Add Gear from the drop-down menu. An Add Gear link is also available from the main menu bar, which may be more convenient for navigating the site on a mobile device.

Machine ▼   **Add Gear**

My Gears
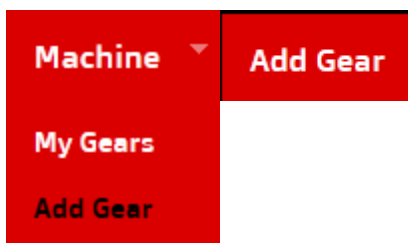
Add Gear

Upon navigating to the Add Gear page, the story entry form is displayed.

From the category drop-down menu, the member has the option of creating a story, request, or challenge post, but to create an e-Gear, the good deed option must be selected. This option is selected by default.

To post a story, the member enters a title in the subject field and the story in the message field. Emoticons and other text formatting options are available. Media attachments may also be uploaded and attached to the post, allowing members to include pictures to supplement their story.

Welcome, admin
Last Visit Date: Today
Logout

Kindworks Forum
(2 viewing) admin, gullibull

New Topic

Category	- - What's new ▼
	Main Forum
	- - What's new
	- - Good Deeds
	- - Request
	- - Challenge
	- - Suggestion

Subject	

Topic icon	

Boardcode	**B** *I* U S X₂ x² Tr
	bbCode Help - Tip: bbCode can be used on selected text!

Message	

When the story is complete, the member clicks the submit button at the bottom of the page.

Message	
Enlarge / Shrink	

Attachments	1. [ ] Add File
Subscribe	☑ Check this box to be notified of replies to this topic.

Submit   Cancel

Next, the customization page is loaded. The member must choose an existing e-Gear to connect to. This is done by entering the ID# of the desired e-Gear in the text field, or by clicking on an existing e-Gear.

The member is also prompted to select one of several style options for the e-Gear by selecting the corresponding bubble.

Select Gear Type:
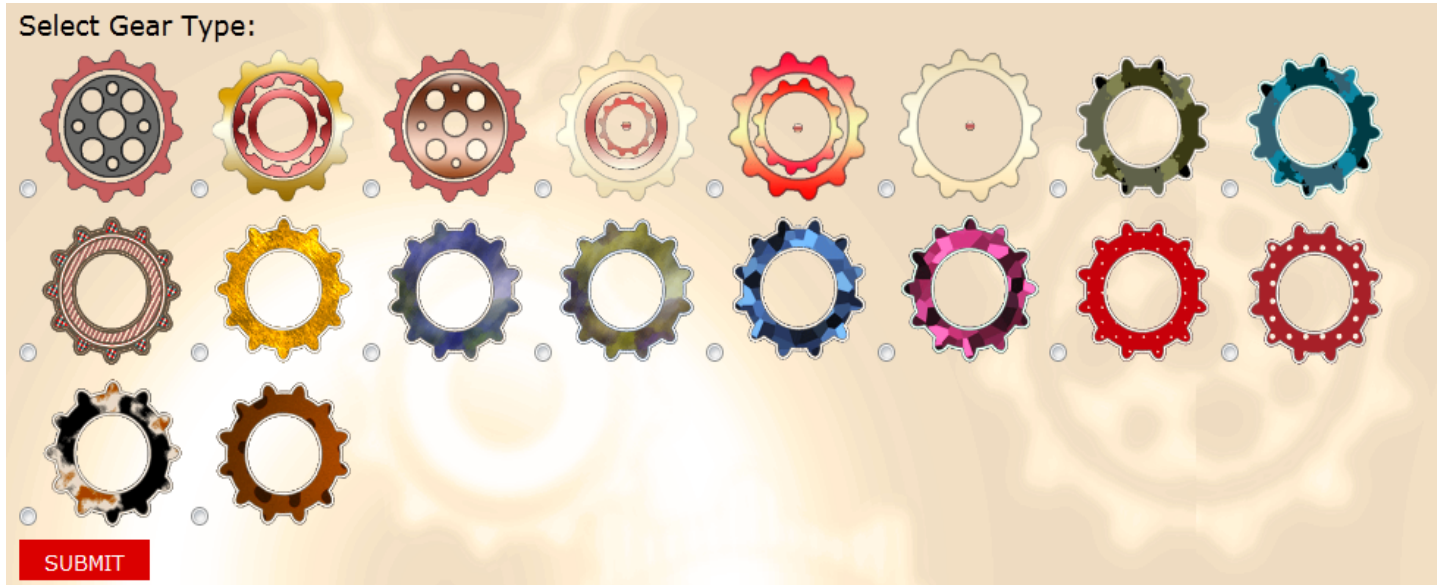
SUBMIT

When ready, clicking the Submit button will create the new e-Gear and direct the member to the My Gears page.

My Gears

IV. Gear Tags

After adding an e-Gear to the Machine, the next step is promoting it in the real world with a Gear Tag. Gear Tags can be obtained from the *kindworks* site in two ways: via download and print, or

through ordering merchandise with the image printed on it.

1. Printing Gear Tags

By selecting to the Gear Tags tab on the menu bar, the Print Gear Tags page will load, displaying a variety of Gear Tag styles.

Clicking on any of the thumbnail images will display the image in its full size, providing options to download and print.

2. Ordering Gear Tag Merchandise

To get creative with Gear Tag distribution, merchandise featuring Gear Tag images is available for order through zazzle.com, accessible from the Order Gear Tags page of the *kindworks* site.

V. Forum

The Forum contains all posts submitted, including stories attached to e-Gears, as well as additional post categories, such as requests and challenges. Posts are grouped by category and displayed within respective categories in chronological order of submission, beginning with most recent. Current viewers of the site and forum statistics, including total messages, total subjects, total members, and more are displayed as well.

Welcome, admin
Last Visit Date: Today
Logout

→Private Messages

■ Kindworks Forum
└ → (2 viewing) admin, (1) Guest

MARK ALL TOPICS READ

Board Categories ▼ Go

Main Forum
This is the main forum section. It serves as a container for categories for your topics.

What's new We encourage new members to introduce themselves here. Get to know one another and share your stories	3 Topics	1 Replies	Last Post: some good advice! by admin 39 minutes ago
Good Deeds Post about your good deeds!	35 Topics	1 Replies	Last Post: test2 by admin 38 minutes ago
Request Request for help.	1 Topics	0 Replies	Last Post: Let's Eat Together by tsperrin 1 week, 5 days ago
Challenge Challenge someone to do good deed.	2 Topics	0 Replies	Last Post: ORE Rentals is going to play i ... by ORE Rentals 40 minutes ago
Suggestion Have some feedback and input to share? Don't be shy and drop us a note. We want to hear from you and strive to make our site better and more user friendly for our guests and members a like.	0 Topics	0 Replies	No Posts

Who is online

In total there are **4** users Online :: **2** Members and **2** Guests

admin, ORE Rentals

Legend :: Site Administrator, Global Moderator, Moderator, User, Guest

Kindworks Forum Forum Statistics

Total Messages: **43** | Total Subjects: **41**
Total Sections: **1** | Total Categories: **5**
Today Open: **4** | Yesterday Open: **2**
Today Total Answer: **0** | Yesterday Total Answer: **0**

Total Users: **14** | Latest Member: dmatt

User List »

More Statistics »

		Topics in Category: Good Deeds			☐
0 Replies		**test2** Topic started 47 minutes ago by admin	**0** Views	Last Post by admin 47 minutes ago	☐
0 Replies		**Service without charge for fellow business** Topic started 56 minutes ago by ORE Rentals	**2** Views	Last Post by ORE Rentals 56 minutes ago	☐
0 Replies		**Waiting for dinner...** Topic started 20 hours, 21 minutes ago by ehamel79	**1** Views	Last Post by ehamel79 20 hours, 21 minutes ago	☐
0 Replies		**Sue Brought Donuts** Topic started 22 hours, 9 minutes ago by tsperrin	**2** Views	Last Post by tsperrin 22 hours, 9 minutes ago	☐
0 Replies		**Button Power!** Topic started 2 days ago by ehamel79	**1** Views	Last Post by ehamel79 2 days ago	☐
0 Replies		**Juice and Generosity** Topic started 2 days, 1 hour ago by ehamel79	**2** Views	Last Post by ehamel79 2 days, 1 hour ago	☐
0 Replies		**test** Topic started 2 days, 2 hours ago by ehamel79	**1** Views	Last Post by ehamel79 2 days, 2 hours ago	☐
0 Replies		**Traffic issues, nice guy** Topic started 2 days, 2 hours ago by ehamel79	**1** Views	Last Post by ehamel79 2 days, 2 hours ago	☐
0 Replies		**Mock Presentation** Topic started 2 days, 4 hours ago by ehamel79	**1** Views	Last Post by ehamel79 2 days, 4 hours ago	☐
0 Replies		**Voice over Yay** Topic started 2 days, 4 hours ago by ehamel79	**1** Views	Last Post by ehamel79 2 days, 4 hours ago	☐
0 Replies		**Bad weather, good deed** Topic started 2 days, 5 hours ago by ehamel79	**1** Views	Last Post by ehamel79 2 days, 5 hours ago	☐
0 Replies		**Warm Kindness** Topic started 2 days, 6 hours ago by ehamel79	**0** Views	Last Post by ehamel79 2 days, 6 hours ago	☐
0 Replies		**Washing Clothes** Topic started 2 days, 6 hours ago by Keke	**1** Views	Last Post by Keke 2 days, 6 hours ago	☐
0 Replies		**Warm Kindness at a Freezing Cold Day** Topic started 2 days, 6 hours ago by Keke	**1** Views	Last Post by Keke 2 days, 6 hours ago	☐
0 Replies		**Late night debugging** Topic started 2 days, 17 hours ago by admin	**5** Views	Last Post by admin 2 days, 17 hours ago	☐

1. Stories

Members can submit stories without an associated e-Gear by submitting to the What's New category and can attach stories to an e-Gear by submitting to the good deeds category. Both categories of stories are viewable by category in the forum.

2. Requests

Requests are a category of post intended for asking the community for help with a specific issue. Members can write about a particular need they are aware of, either for themselves or for someone they know. A request is a good way of focusing the community's goodwill where it is most needed.

3. Challenges

Challenges are another post category. A challenge is a way of sharing an interesting idea for a good deed. Sometimes a member may wish to recruit the help of the community as a whole, and a challenge is a good way to effect a cooperative effort. A member might also have an idea for a deed but be too shy to put into action, and so a challenge is a way to get the idea out for someone else to perform.

VI. Member Profile

By selecting the Profile option from the menu bar, members can view their personal bio information, including name, username, registration date, last visit to the site, and basic settings.

By selecting the Edit Profile link on this page, members can change their name, username, password, email address, and settings such as time zone, language, and templates.

VII. Support

The site includes several resources for members and visitors to acquaint them with the mechanics of the experience.

The About Us page presents the high concept of *kindworks*, and a How to Play page details the actions a member takes to celebrate a good deed through the system. An FAQ page is also available to answer any particular question not addressed in the How to Play.
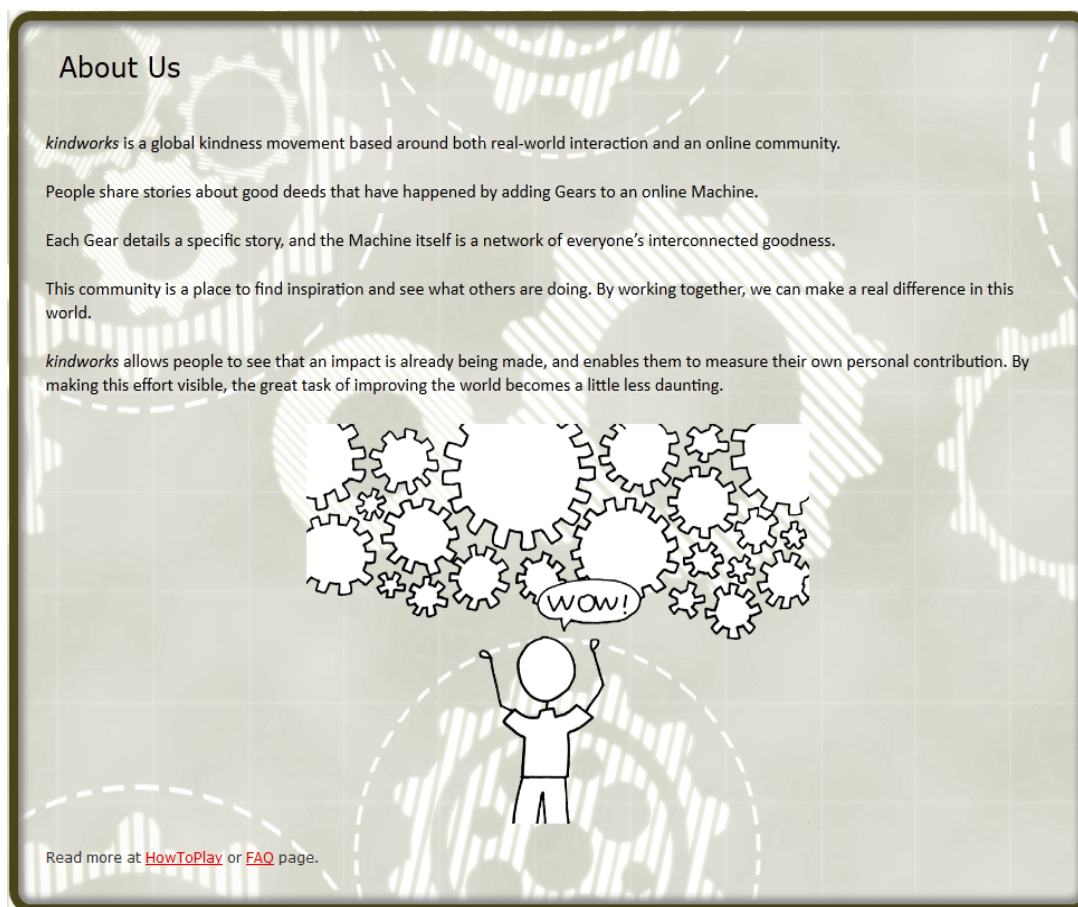
Additional links to the resource pages are available at the bottom of the About Us page for the convenience of mobile users.

VII. Current Limitations

The product developed in the span of this semester is a prototype intended to demonstrate the features and potential of the *kindworks* design, and is limited by the scope and resources

of this project term. The design and technical documentation provided is intended to serve as blueprints for a future development endeavor, should the client choose to pursue it.

There are several key areas of the product that should be expanded upon thoroughly in any future work. The Machine visualization is the primary focus for future improvements, and member profile content, forum features, and social media tie-ins are other significant areas that should be addressed through these efforts. The envisioned features for these areas are detailed in the following section.

3. Design Recommendations

This section expands upon the *kindworks* design as it exists in the prototype from this semester, explaining additions and revisions that could be made in the future to fully achieve the potential of this concept.

The site map for a future design would exist as follows:

A flowchart diagram with a Key legend.

Diagram nodes: Print Gear Tag, Order Gear Tags, Edit Gear Details, Machine, (Gear Details), Customize Gear, (Select Gear Skin), Home (signed out), Profile, Edit Profile, User X Profile, Bulletin Board, New Post, (View Post), (Notifications), Edit Post, About, Contact, Site Map

Key:
- = menubar item
- = dropdown menu item
- = page
- = dialogue box
- = editable
- = non-editable

A. Machine

Alterations to the Machine's functionality primarily relate to visualization methods and the mechanics of adding new e-Gears.

I. Visualization
1. Navigation and Scaling

In a future version of *kindworks*, the Machine should be capable of displaying e-Gears in more vast terms so as to convey a sense of inspiring scale, and navigation between reference points should flow smoothly enough to facilitate this.

Currently, the processing power of the system limits the display to five connected e-Gears at a time, and a dropdown menu with additional pages of connected e-Gears is provided to navigate. This current setup is sub-optimal, but sufficient for demonstrating the Machine concept with the

resources of this semester.

A future Machine could be navigated much like the Google Maps application, allowing for zooming between more general and more specific points of view, as well as lateral panning within the same level of magnitude.

Below is an illustration of what this concept might look like:
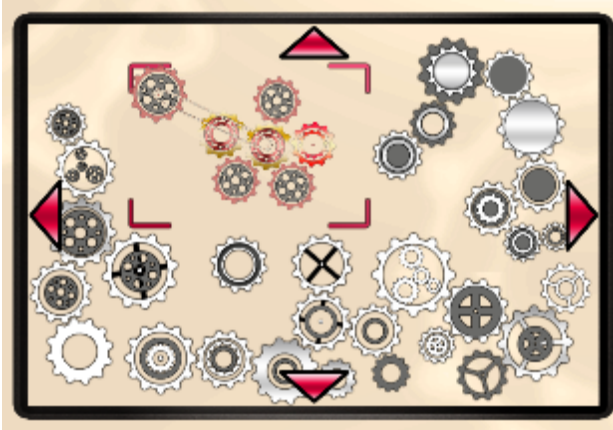
2. Information Access and Display

A future Machine also should display information about e-Gears in a much more elegant way, easily providing site viewers access to meaningful data.

e-Gear ID#s should be visible from any place in the Machine where the e-Gears are shown. Currently, the site displays mouseover text containing a preview of the e-Gear's story title, but there should be information displayed on the e-Gear itself as well.

Clicking on the e-Gear should open its attached story within the current window so as not to navigate away from the page. Currently, due to the limitations of the system, clicking on an e-Gear will navigate either to a page displaying that e-Gear and any e-Gears connected to it, or to the post within the forum associated with that e-Gear if it has no other e-Gears connected to it. Additionally, for e-Gears added by the member logged in, the details panel should offer a link to edit the details of the story, including the e-Gear's appearance, and any location info or media attachments.

3. Search Functions

To facilitate the easy access of useful information, the current search functions of the site should be expanded.

Currently, all searching is done through a series of dropdown menus in the forum, requiring those viewing the site to combine various parameters within an abstracted context to obtain results. These results are displayed not as e-Gears, but as forum posts. Ideally, the site should utilize an interface with easy access to methods for sorting e-Gears by most recently added, greatest proximity, keyword, or ID#, and should support the ability to display results as e-Gears through the Machine. Those viewing the site should be able to select a button from the Machine

page or main menu bar to instantly locate e-Gears in the Machine by those parameters.

II. Adding e-Gears

Currently, the system is built in such a way that e-Gears are added through the forum, rather than through the Machine. When selecting the Add Gear button, members are taken to a forum post page.

Ideally, members should first visualize a Gear being placed into the Machine, adding the story of the good deed within the same window as they view the Machine so as to maintain the thematic connection between gears and good deeds.

The first step in this process would be pressing the Add Gear button. This would generate a 'default' gear graphic. Visual effects should be used to illustrate that the new gear is tentatively a part of the Machine and not yet completed. The member would then select a skin or visual style for the gear, preferably through a pop-out box within the current window. Next, the click interface should more easily allow members to select an existing e-Gear to connect to. The new e-Gear would then appear as a part of the Machine, and the member would enter the story by selecting the link from a 'Gear Details' pop-out box. On the Gear Details panel of every e-Gear there could be included an option to 'Connect to this e-Gear.'

III. Customization

Members adding an e-Gear currently have a handful of visual styles to choose from for their e-Gear. In the future however, members should have a wide variety of styles to choose from, as well as the ability to design their own e-Gear skin and upload it to the site. The appearance of e-Gears has the potential to convey information about the attached good deed story as well. e-Gears could be outfitted with a baseball or zebra design to represent the interests of the member adding the e-Gear. e-Gears also could carry specific logos of schools or companies, which could be used in fun competitions to garner the greatest number of good deeds between groups. Distinct visuals bearing symbolic meaning would render the Machine browsing experience much more informative, creating a sense of identity for sections of the Machine.

B. Forum

I. Bulletin Board

The forum was envisioned as having a bulletin board theme so as to complement the public posting mechanic utilized in the real-world dispersal of Gear Tags. This would entail only visual alterations, such as a corkboard background, thumbtack graphics on posts, and paper backdrops for post content.

II. Daily Deed

An additional means of providing good deed inspiration through the forum was conceived in the form of a Daily Deed feature. When visiting the forum, viewers of the site could view a story

post selected by a staff of site moderators for being particularly noteworthy. This story would be presented as the feature for the day. To support this feature, additional human resources would be necessary.

III. Content Moderation

For optimal management and maintenance of the day-to-day affairs of the site, it would be prudent to utilize a staff of moderators. Moderators' jobs would involve scanning the site and reviewing the content generated by users, removing inappropriate posts and graphic images, ensuring that terms of conduct (which would need to be defined and presented on the site) are upheld. Additional benefits of the use of a moderation staff include the ability to include a daily deed feature, or other features requiring human intelligence.

General terms of conduct should follow these guidelines:

- No submission of graphic image content (i.e. nudity, excessive gore)
- No abusive or inflammatory language in the forums (a comment flagging feature would be useful)
- Good deed stories should actually be good deeds and not verbal attacks on certain groups or individuals

These terms would facilitate the use of this site as intended, as a platform for celebrating and perpetuating goodness. The incorporation of a flagging feature also would allow the member base to self-police the site.

C. Member Profile

I. Recent Activity Feed

A future version of kindworks should provide members with a feed of their recent activity on the profile page. Recent activity includes e-Gears added, posts made, and comments contributed in the forum. Currently, the prototype offers the ability to view one's added e-Gears, which should provide a solid jumping-off point for expansion.

II. Notifications

In order to create a complete community experience, personal notifications for various events would provide the necessary feedback for members on their social endeavors through *kindworks*. Notifications could be displayed visually through icons and numerals in the menu bar or one the profile page, and should consist of e-Gears connected to an e-Gear a member previously placed, comments or likes on a story post, or any forum post that references the member by username.

4. FAQ

A. Finding a Gear Tag (1-3)

1. **What does a Gear Tag mean?**
   a. Gear Tags are celebrations of good deeds that have occurred and contain an ID# of an electronic "e-Gear" in the online Machine. By entering the ID# into an online search bar, others can find the e-Gear and discover the story of the good deed. The connected e-Gears in the Machine demonstrate how one good deed can lead to another.
2. **I don't have a smartphone - can I still play?**
   a. Yes, you can still play. A smartphone is not required to play the game, though it does provide a convenient way to access the game while mobile. If you find a Gear Tag, jot down its ID# and the kindworks.com URL. You can access the web site from a personal computer and enter the ID# from there.
3. **What is a QR Code?**
   a. A QR Code stores information that can be accessed using a QR Scanner application that can be used via smartphone. QR Codes are used to store many forms of data - ours store the URL for our web site. By scanning the QR Code, you can immediately link to the site on your phone.

B. Posting a Gear Tag (4-15)

4. **How do I obtain Gear Tags?**
   a. You can print new Gear Tags on the *kindworks* web site by following the "Print Gear Tag" link found in the menu bar. Different styles are available to be viewed, downloaded, and printed. You can also order Gear Tag Merchandise online by following the "Order Gear Tag Merchandise" link. Stickers, buttons, t-shirts, mugs, bumper stickers, and more are available.
5. **Do I have to cut out the Gear Tag?**
   a. No, you do not. By cutting out a Gear Tag, you make it a more recognizable symbol, but it is not required. If you wish to post more attractive Gear Tags without the hassle of cutting them out repeatedly, Gear Tag stickers are available for order online.
6. **When do I post the Gear Tag?**
   a. Gear Tags are meant to be posted after a good deed has been performed. You can post it after you perform a good deed, but also if you happened to witness a good deed occur between others, or if you were the recipient of the good deed. Once the Gear Tag is posted, it is a good idea to log back onto the web site and edit the Gear details to add a story of the event that Gear Tag memorializes.
7. **Can I post a Gear Tag about a good deed even if I wasn't the one who performed it?**
   a. Yes, please feel free to post a Gear Tag if you witnessed a good deed occur, or if you were the recipient of a good deed as well.
8. **Where do I post the Gear Tag?**
   a. Gear Tags can be posted anywhere! A fun idea may be to post them in the location where the good deed occurred, but you may prefer to leave it in a place

you know many people will pass by, or someplace you spend a lot of time, such as your home, office, locker, classroom, bus stop, cubicle, or car. You may wish to bring your Gear Tag with you, by posting it on a notebook, on the back of your shirt, or backpack. Stickers, keychains, buttons, and t-shirts available for order online are also great ways to take *kindworks* with you. But most importantly, try to think outside the box, and come up with an idea for spreading Gear Tags that you find exciting!

9. **What should I do if a desired location is not suitable for posting a Gear Tag?**
   a. Not all locations lend themselves to posting Gear Tags. Before posting a Gear Tag, make sure you are on public property and not infringing on anyone's private property (This is especially important when using stickers, other adhesives, or thumbtacks to post Gear Tags!). In the case that your good deed occurred in a place where it is hard to post a Gear Tag, it is best simply to post it in the nearest place that is suitable, such as a telephone pole, or public bulletin area. By editing the Gear details online, you can specify the exact location anyway. An alternative posting method is using social media to share electronic versions of the Gear Tag, such as an image attachment to a facebook post, or a tweet containing the ID#.

10. **Can I move a Gear Tag I've found?**
    a. Sometimes, a member may choose to physically move a Gear Tag from one place to another. This is a good way of spreading the word around about *kindworks* and can also add some diversity to the location details within the Machine. However, some members may prefer their Gear Tags remain where they were posted, particularly if the location of the good deed is particularly meaningful. For this reason, it may be good practice to leave a comment on the corresponding Gear asking permission, or at least letting the poster know that the card has been moved. Of course, once a Gear Tag is out in public, it is at the public's mercy - which members are aware of when they post their cards. If a Gear Tag is moved, or simply removed, there are always others to post, and more good deeds to be done!

11. **Someone took down a Gear Tag I posted. What can I do?**
    a. Occasionally Gear Tags may disappear from their posted area. Public bulletin boards may be routinely cleaned, certain establishments may consider them litter, and another member might even have moved the Gear Tag to give it more exposure. But do not fear! You can simply print out another one. Remember, though, to be considerate - if the location in which the Gear Tag was posted is not an ideal place to leave behind paper, it may be best to find a more suitable location nearby.

12. **Can I print multiple Gear Tags with the same ID#?**
    a. In order to replace a lost Gear Tag, it may be necessary to print a duplicate containing an identical ID#. Additionally, printing multiple duplicates and posting them in different areas can be a great way of expanding your Gear Tag's reach, allowing more people to find out about the deed it represents.

13. **Can I directly hand a Gear Tag to someone?**

  a. You are certainly free to do so - it may be a good way to inform the person involved in the good deed about the game. Keep in mind however, that you don't want to burden that person with the responsibility of playing the game. The choice should be theirs! But Gear Tags are versatile to be spread however you like - do as you see fit!

14. **I just want to promote awareness of this game, but I don't have any deeds to report. Can I still post Gear Tags?**
  a. Certainly! The more Gear Tags people see, the more people have a chance to find out about the game and get involved, so posting Gear Tags is always a good thing to do. You can even write in the e-Gear details that you don't have a particular deed to mention, but you are just trying to promote awareness. And if you do end up having a deed to report, you can always edit the e-Gear details to add that deed's story.

15. **Can I post a Gear Tag about an event from the past?**
  a. You can actually post a Gear Tag to commemorate anything. This is a very creative expansion of the concept of witnessing a good deed, which is exactly the kind of innovation that is encouraged of members. Just try to make sure the event you commemorate is actually a positive thing - remember that what is positive to one person (such as a sports victory, or current events in politics or world news) may not be positive to another.

C. Building the Machine (16-21)

16. **How does the Machine grow?**
  a. Whenever someone wants to celebrate a good deed, they add an e-Gear to the Machine and submit a story explaining the details of the event. Every new e-Gear that is added must be connected to an existing e-Gear. members are encouraged to browse the Machine and choose an e-Gear with a story they like. If you have found someone's Gear Tag, entering the ID# on it and selecting that e-Gear to link to is a great way of letting that person know you discovered their Gear Tag and appreciate the good deed they are celebrating. Other good reasons to choose an e-Gear to connect to may be the e-Gear's design, the fact that the deed it celebrates took place in your own community, or that the story of the deed relates to a personal interest in some way. members are welcome to choose e-Gears based on whatever criteria they find meaningful!

17. **Can I see all the e-Gears I've played?**
  a. Yes, by visiting your member Profile, you can select 'Recent Activity' to view every e-Gear played, either in list form, or on a map. You can also enter keywords to view all e-Gears representing deeds of certain types, provided the deeds have been written about in the e-Gear details.

18. **How can I search the Machine?**
  a. You can search the Machine in several ways: by ID#, by most recent e-Gears, and by e-Gears nearest your current location. You may also search e-Gear stories by keywords. The default Machine view when first navigating to the page

displays the most recently added e-Gear in the center. If location services are enabled on the device viewing the web site, selecting the "Browse by Nearest" button will display the e-Gear containing a location in the event details that is nearest your current location.

b. You can also use the search bar to locate an e-Gear by its ID# or by keywords in its story. To view a ranked list of most recently added or nearest Gears, select the "View Recent" or "View Nearest" links from the Machine dropdown menu on the menu bar. Selecting any Gear from the list will open the Machine view page with that Gear in the center.

19. **Can I add e-Gears to my own e-Gears?**

a. Yes, you may, although it is encouraged that you also add e-Gears to those placed by others, so as to help the community grow.

20. **Can I customize the appearance of my e-Gears?**

a. Yes, after you add an e-Gear, you can select the "Customize" option from the "Edit e-Gear Details" tab to outfit it with a skin of your choosing. Skins are available for download in the 'Power Shop' portion of the web site, and you can also upload your own image files to use as skins for your e-Gears. Uploaded images must meet the criteria listed on the site in order to properly fit the e-Gear's shape and size.

21. **Can I track the previous locations of a Gear Tag that has been moved?**

a. Currently, the best way for keeping track of multiple locations for a Gear Tag is for the person who moved the Gear Tag to submit a comment on the corresponding e-Gear, letting the member who posted it originally know that the Gear Tag has been moved.

D. Community (22-25)

22. **I have an idea for a good deed, but I feel shy about actually doing it. How can I suggest it to others?**

a. The best place to share ideas for good deeds is in the Bulletin Board section of the *kindworks* web site. The Bulletin Board acts as the community forum, and in addition to posts containing stories submitted to e-Gears, members can post Challenges to the Bulletin Board. Challenge posts are simply a place for members to tell others in the *kindworks* community about their idea for a good deed.

23. **I or someone I know has an issue that would really benefit from some help. Can I ask for help through this game?**

a. Another great feature of the Bulletin Board is the ability to post Requests. In a Request, you can mention the need and the ways in which others can help. If the desired recipient is a *kindworks* member, you can link to their profile page (preferably with the person's permission). Requests appear on the Bulletin Board with their own visual style so as to stand out.

24. **Is there any way to notify the recipient of a deed about the Gear Tag I've posted?**

a. There is not a built-in function to accomplish this, but one way of letting the recipient know is to hand the Gear Tag directly to them. If you choose to do this,

make sure the person understands nothing is being requested in return.

25. **Can I spread the word on Facebook or Twitter?**
    a. Yes, you can! On Facebook, write a status update detailing a good deed you witnessed, performed, or received. Include a Gear Tag image in your post if you like. Most importantly, tag *kindworks* by adding "@kindworks" in the post - this will ensure your status is posted to the *kindworks* Facebook page timeline. If you are using Twitter, tweet about the good deed you want to commemorate and include #kindworks.

E. About the Project (26-28)

26. **Is this for-profit or a non-profit?**
    a. Non-profit.
27. **I'd love to help with the future direction of this project. Who should I contact?**
    a. payitforward.etc@gmail.com
28. **Why gears?**
    a. The mechanical motif conveys the message that kindness works - that by cooperating towards a common goal, real and tangible results can be achieved. The central Machine reinforces the notion that we are all part of a functioning system, each of us with an important role to play. Each good deed, each gear, makes the Machine run more smoothly.

5. Process Overview

The process for developing the *kindworks* prototype spanned seventeen weeks comprising one semester at Carnegie Mellon University. The team was comprised of five graduate students and one consultant, and regular meetings were held with two faculty advisors, as well as with the client.

Core work hours and a daily scrum time were established at the outset of the project, and student roles were designated. The students submitted daily reports on their accomplishments, objectives, and challenges, and a weekly newsletter released every Friday detailed the progress made for the week. The team also managed a project Web site that served as an informative resource for others to learn about the project. Weekly newsletters were uploaded to the site, while daily reports were privy only to the team and faculty advisors.

In order to facilitate communication, the Google Docs system was used to share files and collaborate on such things as daily reports, the design log, meeting agendas, contact information, scheduling, and tasks. Utilizing this infrastructure allowed for greater awareness of team members' tasks and activities, and provided an efficient means of sharing information.

The work itself can be categorized in terms of three discrete yet overlapping phases, during

which focus was placed on different aspects of production, such as research, development, and testing. Predetermined academic milestones associated with presentations also gave structure to the semester, within which smaller goals were set from week to week and day to day. Each phase of the project was associated with its own core objectives. Research was performed in order to determine the form of the project deliverables; development served as an iterative process for refining the concept, and testing allowed the team to narrow in on particular aspects of the design and refine them based on feedback.

A. Research and Design

The research and design phase of this project spanned the first five weeks, during which efforts consisted of researching existing related works and relevant conceptual paradigms, consulting with experts knowledgeable in the areas of game design, charity, and psychology, and producing illustrations, diagrams, and documents to communicate proposed concepts. During this time, regular team brainstorming and discussion sessions took place, frequent consultation with faculty served to guide the project's direction, and weekly client teleconferences provided a means for open dialogue about how best to overcome challenges, work within constraints, and design a product to optimally achieve the stated goals. Ideas were rapidly generated, evaluated, and documented with the purpose of later distilling them and selecting a direction for development.

To reiterate the goals for the project put forth at the start of this endeavor, the experience created was to revolve around a real world mechanic, so as not to form a disconnect between the member base and the ideals of pay-it-forward; it was also to be targeted at as wide an audience as possible in order to potentially grow into a viral grassroots movement. And the content was to involve an elegant visualization of the member base to foster a reflective sense of one's involvement in and impact on a community.

In order to design a product that achieved these goals, there were numerous conceptual obstacles that the design needed to overcome. During the initial design phase, the team discovered and confronted these challenges, examining existing works, consulting with experts, and brainstorming solutions.

The core design challenge faced this semester was reconciling the pay-it-forward concept with the basic definition of a game. The psychological workings of the target audience were also a key factor to consider during the research and early design. Other challenges were more logistical; the product needed to maintain a balance between accessibility and efficiency so as to possess sufficient technological power while also reaching as wide an audience as possible and not alienating certain demographics. The testing of the product also presented logistical hurdles, as measuring the performance of the system and the success of the design requires long-term windows of observation and data-gathering.

B. Development and Thematic Iteration

Quarter-semester faculty walkarounds, an academic milestone at week five, served as a guidepost for evaluating work done to that point and determining a direction in which to move forward. It was around this time in the process that work shifted away from research and the generation of ideas, and towards the development and refining of existing ideas in greater detail. A proposed experience design was in place, and efforts were focused on defining the details of mechanics and theme, as well as reconciling certain disconnects between the different components of the experience.

By this time, the design focused around a web portal acting as a framework for contextualizing participants' good deeds in a visual communal network. The extent of the rewards system was limited, offering participants only the "in-game" resources to further commemorate good deeds. This structure was first manifest with the skin of an organic plant-growth theme.

I. Seeds and Sprouts
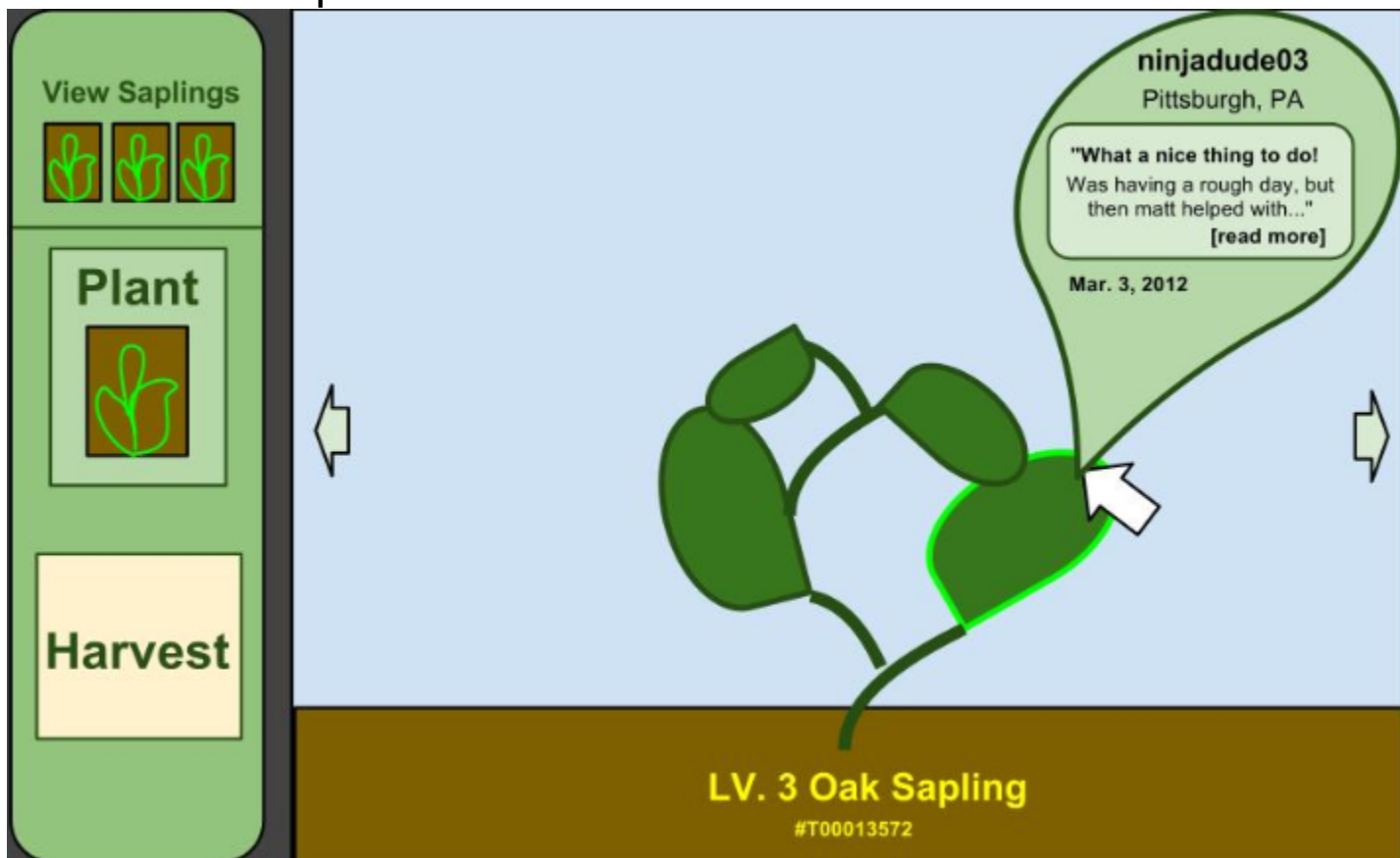
The initial thematic structure for the product involved a plant-growth activity as the crux of the online experience. Developing the metaphor was conducive to further expanding the mechanics and logic of the proposed system. Within this paradigm, members managed several of their own trees, which began as seeds, sprouted into saplings, and grew through a mechanism by which each good deed performed added a leaf to the tree. Leaves contained information pertaining to the deed's details - the story, the location, date, and member involved. Within this system, the recipient of the deed was required to submit the story so as to establish a link between two members. However, this provision was abandoned, as it represented less a pay-it-forward

action, but instead a pay-it-back.

Instead, the concept was reworked to streamline the reward system with the inherent values of altruistic behavior. By following the metaphor through to its fullest extent, the team devised mechanics for enriching the experience through intrinsic rewards. Trees could grow flowers or fruit, and bear additional seeds if certain actions occurred. More seeds obtained meant more chances to do good deeds, and in this way rewards were very much the same thing as the action prompting them, creating a cyclical effect.

Because the analogy worked so aptly, this theme was very appealing. However, there remained doubts that this theme would stand out to the target audience due to its fairly cliche nature. There have been many organic themes used in kindness projects, and this initiative could have gone overlooked and been categorized as another installment in this series of similar products. Feedback from quarter-semester walkarounds reinforced this perspective, and so the team worked to devise a theme that would be new and different enough to stand out and catch the eye of the target audience.

II. Ninjas of Niceness

While still entrenched in the organic theme, the team briefly considered incorporating a twist into it. When it was determined that the direct handoff mechanic of existing card games could be too guilt-ridden or preachy, efforts were made to develop a different mechanic for the real-world action. It was at this point that the anonymous posting idea was generated. Rather than handing a card to someone, a physical artifact could be left behind in a public place for others to find. In this way, anyone who comes across it and decides to get involved does so willingly, effectively eliminating the potential for guilt. Given the right thematic style, the preachy factor could also be reduced.

The team's solution to this thematic challenge was called the "Ninjas of Niceness." Cards placed anonymously in public places would bear the message that a Ninja left it behind after doing something nice. The intention was to produce a sense of intrigue and coolness that would make others want to do the same.

This adaptation, however, did not fit into the theme after the shift was made away from organic growth. The mechanic did remain, and was incorporated into the new theme without the ninja motif.

III. Kindworks

Attempts to replace the organic theme began with generating ideas for iconic imagery that people already see in their daily lives, and that could potentially become reminders of the initiative. Concurrently, the mechanics of the initial organic theme were broken down independently of theme so as to be applicable to whatever new direction was determined. The first idea was that of wheels - they are round, dynamic, and seen on vehicles everywhere. But they did not mesh well with the mechanic of connections in a network. However, a similar concept did fit this mechanic: gears.

A mechanical motif was certainly a far cry from the organic direction, different enough to be noticed. Still, there were some concerns over whether it was *too* much a move in a different direction. Machines are cold and rigid, whereas the emotional response to this initiative was to be warm and compassionate. These fears were allayed by considering the message a machine

can send: something hard and mechanical is reliable, communicating the idea that kindness *works*. And the concept of a machine representing a community, with each individual gear a personal contribution, provided a means for illustrating how individual efforts can positively impact the larger whole, and that people in a community are connected and must cooperate to achieve progress.

Still, there were several different directions that could be taken within the mechanical theme. Gritty realism would be most different, but least connected to the human side; steampunk is popular, but possibly not the right feel; toy gears would come across as fun, but not as serious. Furthermore, the aesthetic had to appeal to both male and female audience members. Early paper gear prototypes were simple cutouts with bright colors, and these proved to be popular among females, while not coming across as specifically feminine. Males and females alike found simple, colorful gear designs to be appealing, with an inherent fun factor, and thus simple, colorful, and fun, were the qualities the team decided to pursue for the aesthetics.

B. Testing Phase

The testing this semester has included five playtests, two surveys, and two focus group sessions, with a total of approximately 200 participants involved. Testing began prior to Halves Presentations and has continued throughout the process. However, because a working prototype was not operational until just before Soft Opening, the system itself could not be tested until near the end of the semester. Before the development of a working prototype, the experience framework was adapted to different media, and individual mechanics of the interaction were explored in small tests in order to obtain meaningful feedback.

Additional challenges for the testing process have been inherent to the product. Because there are two major components to the experience - networking e-Gears in the online Machine and posting Gear Tags in the world - each of these parts must be assessed individually, as there are different criteria to consider, and different methods for testing the components' effectiveness. Thus, tests have been performed focusing solely on one aspect of the experience or the other.

Furthermore, in order to assess the experience framework as a whole, particularly whether the network can grow and sustain itself, a long-term period of time is required to make observations. Some of the testing done this semester has been aimed at this criterion, but the most telling results require additional testing beyond this semester.

I. Focus Group 1 - Receptiveness to Performing Good Deeds

1. Purpose

During the latter portion of the research and design phase, a focus group session was held in order to determine the types of good deeds that individuals are receptive to performing, as well as whether individuals prefer specific direction or open-endedness when it comes to being prompted to perform a good deed.

2. Methods

Participants were 20 ETC students. Members of the team discussed one-on-one with participants about good deeds that would be more or less preferable to perform. For material, the Boom Boom Cards were shown to participants, who were asked to speak to their reaction to the prospect of performing the deed on the card. Feedback was recorded and reviewed to determine any trends.

3. Results

It was found that certain deeds were generally preferred or disliked by participants. Preferable deeds tended to be those that were simple and easy, while non-preferable deeds involved potentially awkward social interaction or a complicated process. Regarding the open-endedness vs. specific direction of prompting, no discernible trend was observed, as feedback from participants was roughly even.

4. Conclusions

From this focus group, the team was able to determine that there would be no benefit to adhering to a specific deed framework, although it might be helpful to include optional sources of inspiration on the Web site. Additionally, a number of participants commented on the distaste of being handed a card and prompted to do a good deed, which, while not being something tested for, reinforced the team's initial research that found the card mechanic to cause unpleasant reactions.

II. Playtest 1 - Gear Tag Prototype Distribution

1. Purpose

Shortly before Halves Presentations, the team wanted to obtain an initial assessment of the appeal of posted Gear Tags. The test was intended to answer questions such as: "Is the appearance appealing?" And "Is QR technology accessible?"

2. Methods

Eighty Gear Tags were printed on colorful construction paper and cut in the shape of a Gear. The Gear Tags featured the *kindworks* logo and a QR code that linked to the project Web site. The Gear Tags were then posted in high-traffic areas around the Entertainment Technology Center building and on Carnegie Mellon University's main campus. The QR codes were then monitored via the qube.ly site, which provides the number of scans of a specific code, as well as the geographic location of each individual scan.
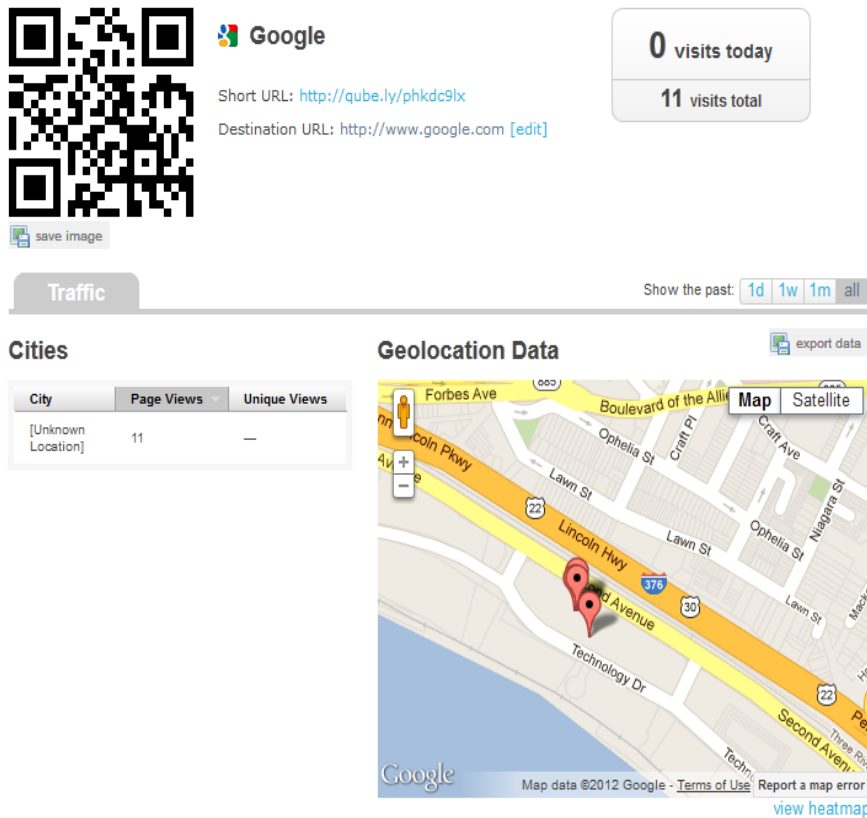
Confounding variables included individual personality factors, and the variance in traffic frequency of a particular area. Because the Gear Tags were posted on a university campus, the audience was predominantly of college age.

3. Results

After two weeks, thirty scans were detected, and the count reached fifty after four weeks. Some scans occurred in downtown Pittsburgh, indicating that Gear Tags had been physically moved from their initial location on CMU main campus.

4. Conclusions

The fact that Tags had been moved indicated an interest on the part of at least a few individuals. This development was highly encouraging, and provided the first case of emergent behavior. The team has since devoted thought to how the system can best nurture this potential for member-driven action and patterns.

III. Survey 1 - Gear Tag Visual Design

1. Purpose

Because the Gear Tag serves as a promotional tool to attract and engage others into the experience, it must be visually attractive, as well as informative.

2. Methods

Gear design 1   Gear design 2

* 1. Please see the shape example above, and click one you like more.

○ Gear design 1   ○ Gear design 2

* 2. Please choose as many slogans that you like. Multiple answers possible.

☐ "Stories can can change the world. What's your story?"

☐ "What kind of tomorrow will you build?"

☐ "Build a kinder tomorrow!"

☐ "Stories can change the world. What is your story?"

☐ "What is kindness to you?"

☐ "Kindness is cyclical. How big is your circle?"

☐ "Kindness is strength. How strong are you?"

☐ Other (suggest new slogan with your idea)

[   ]
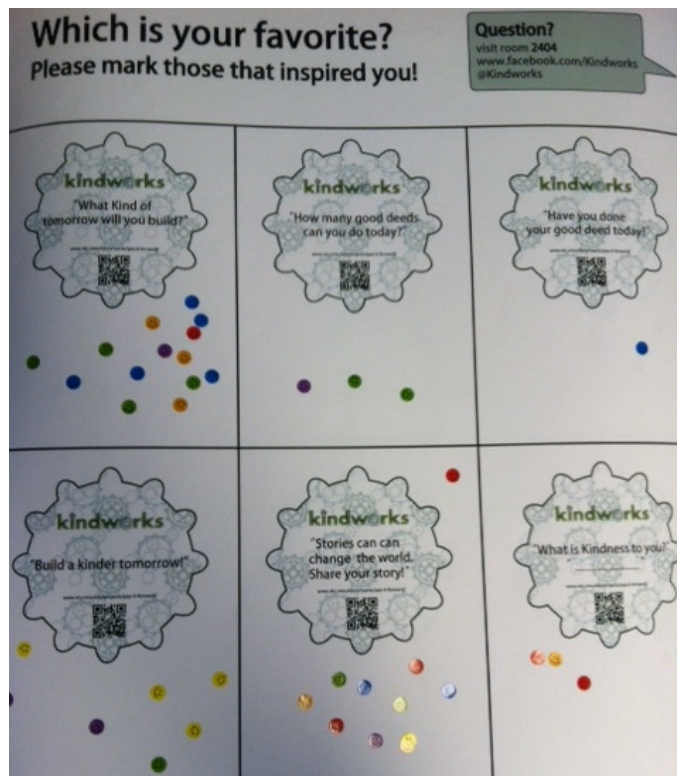
To determine the best design for the Gear Tag, surveying was performed. The team made use of both online and in-person surveys, asking participants to choose between different slogans, fonts, and shapes. Over eighty respondents filled out the online survey at http://www.surveymonkey.com/s/L9PWLTF, and the team asked classmates and visitors to place stickers on posterboard featuring different designs.

3. Results

Participants overwhelmingly favored the rigid gear shape of design #2, as well as the slogan "What kind of tomorrow will you build?"

IV. Playtest 2 - Facebook as an Electronic Platform

Shortly after the mid-point of the semester, a *kindworks* initiative on Facebook was launched. By this time in the process, the team was constructing various modifications of the experience to investigate its versatility. Facebook was chosen as a fairly convenient and ubiquitous platform upon which to explore a functional electronic version of the experience.

1. Purpose

The primary goal of this test was to determine the popularity and expansion potential of *kindworks* on an electronic platform. The endeavor also served the practical purpose of generating publicity for the movement.

2. Methods

A *kindworks* Facebook [page](#) was created on March 21. Team members Individually liked the page, invited friends to like it, and began posting statuses describing good deeds that occurred, tagging *kindworks* in the post. An image of the Gear Tag was also included in the post to establish a thematic connection between the Gear icon and the good deed. The About section of the page detailed the purpose of the initiative. This endeavor has been ongoing since its inception, and the Insights panel has been used to track the number of Facebook members posting about *kindworks*, as well as the total reach of those posts.

3. Results

On April 8, the page reached a high of 43 people talking about *kindworks* with a reach of 1,449. The initial weeks of the page's existence saw a steady incline in activity, with its largest spike occurring between April 3 - 8.

After ceasing to post from the page on April 8, activity stagnated and hit a decline, reaching a low of 745 people reached on April 14. Activity then began to rise again, to a total reach of 1,265 on April 16.

4. Conclusions

This study has demonstrated the power of Facebook as a promotional tool, as an active member base between 30 and 50 was shown to reach a community of nearly 1,500. The positive correlation between posts by the page and activity indicates that the community is somewhat responsive to engagement efforts, and the activity drop-off indicates that a perpetual engagement effort is needed to maintain community attention.

V. Playtest 3 - Feasibility Within a Contained Community

While the electronic initiative was ongoing, the experience had yet to be tested in a way involving a member base performing actions in a real-world setting utilizing a physical Gear Tag. The client's connection to a Boy Scouts of America troop provided an opportunity to deploy the experience within a community.

1. Purpose

The goals of this test were to demonstrate that the game can function around a real-world, "paper" interface, to determine whether school-age children are willing to play, and to determine the capacity of the Gear Tag to spur others to action within the contained context of a household.

2. Methods

Fifty Gear Tags were distributed to the Boy Scouts troop, additional printable Gear Tag resources were provided via the project Web site, and the Gear Tag was redesigned to allow for a handwritten message. The instructions given to participants encouraged the children to post Gear Tags on their refrigerators at home to celebrate good deeds they performed, witnessed, or received, which would hopefully inspire other family members to reciprocate. A feedback loop was set in place between the client and the parents of scouts so that qualitative responses could be relayed to the team regarding the families' reactions to the experience.

The following instructions were relayed by the client to the troop members and parents:

Instructions for Scouts:

What is this?
Kindworks is a game about spreading generosity among your community. To play kindworks, all you need is a Gear Tag and a little good cheer! A Gear Tag is something you can post up on your refrigerator as a symbol of a kind act you performed, witnessed, or were the recipient of. It's a nice way of letting others know that goodness happened, and that they can get involved too!

How does it work?
After performing/witnessing/receiving a good deed, write about the deed in the blank space provided on the Gear Tag. If you performed the deed, be proud! If you are writing about a deed you noticed someone else perform, express your gratitude! It may also be fun to color or draw on your Gear Tag. Then simply post the Gear Tag to your refrigerator so that your entire family can see!

What next?
Tell your family members about the game! They can get involved too. By visiting the [kindworks website](#) anyone can view, download, and print out new Gear Tags! You can print out more for yourself as well. If you do not have access to a printer, any blank sheet of paper will do. See how many Gear Tags end up on your refrigerator at the end of a week! It will show you how much goodness you've added to the world in just a short amount of time.

Instructions for Parents:

For Parents/Guardians:
Ideally, it would very much help the team's testing of this game if at the conclusion of the week, all completed Gear Cards could be returned to George Blobe. However, we completely understand that families may wish to keep the Gear Cards that have been played. If you would like to help us, it would be useful to email a few words of feedback about the game to George - how many Gear Cards did your family play? What kinds of good deeds were performed, and how did the family feel about playing? We very much appreciate the feedback, and we are extremely grateful to you for giving kindworks a try! We will be working hard to make this game the best it can be - so feel free to keep playing at home or in your community!

Sincerely,
The kindworks Team

3. Results

Feedback was received from four of ten families that participated in the experience, and anecdotal data was largely positive, though parents seemed to enjoy the experience more than did the children. In at least one case, it was reported that parents placed their own Gear Tags on the refrigerator in response to those placed by the scouts, and several scouts expressed pride in having their good deeds displayed publicly.
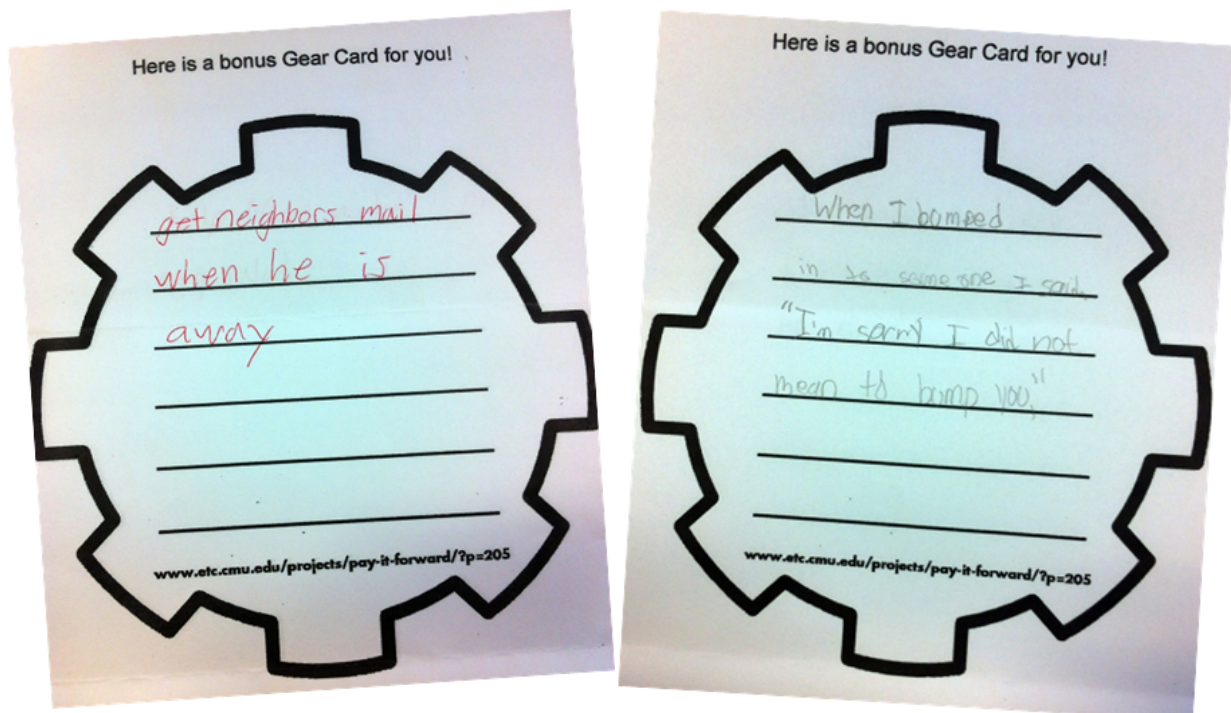
4. Conclusions

The test demonstrated that the experience is somewhat versatile in how it can be adapted to different situations. While school-age children may not be the prime audience for the experience

as originally proposed, by lowering the barrier of entry and localizing it to the household scale, it becomes more accessible.

VI. Focus Group 2 - Gear Tag Innovation

1. Purpose

Because the product is an expandable framework for a member base to innovate upon, the team wanted to demonstrate that individuals will creatively devise new ways to promote Gear Tags.

2. Methods

The project was presented to a youth group at Christ Church of Grove Farm, and Gear Tags were distributed in the form of paper, stickers (large and small), and buttons. Youth group members engaged in Q&A session and discussed further ideas in brainstorming sessions with group leaders.

3. Results

Several great ideas were suggested, such as geo-caching and creating gear-themed jewelry.

Youth group members also expressed enthusiasm about helping the project, with one member creating a YouTube channel template for the team. Following the focus group, many of the members liked *kindworks* on facebook.

4. Conclusions

The focus group session confirmed that others will creatively expand upon the *kindworks* framework in ways that cannot be predicted. Additionally, the team learned from the experience that event-driven outreach may be one of the better ways of spreading the movement.

VII. Playtest 4 - Gear Tag Influence on Altruistic Tendencies

1. Purpose

To determine whether the presence of Gear Tags increases the likelihood of individuals to respond altruistically to the needs of others.

2. Methods

Gear Tags were posted around the ETC building during the Community Day event, which is an opportunity for high school students and their families to tour the facility. The team presented the kindworks concept at the start of the day, and one of the team members served as a tour guide throughout the day, observing the behavior and response to Gear Tags exhibited by the groups.

3. Results

The team's tour guide observed individuals comment on the Gear Tags throughout the tour of the building, as well as an interesting occurrence: participants in the tour at one point held the door for each other in an extended series, one after the other, commenting on the behavior being an example of the pay-it-forward concept in action.

4. Conclusions

The tour group's behavior and comments indicate that individuals took the presentation to heart and became increasingly self-aware of their actions and the duty to behave kindly towards others, a very encouraging find.

VIII. Survey 2 - Web Site Aesthetics

1. Purpose

After Soft Opening, the team was considering a variety of changes to the Web site's aesthetics. An online survey was performed to determine whether the changes were preferred by viewers of the site.

2. Methods

Amazon's Mechanical Turk service was used to perform the survey. The following questions were asked about aesthetics:

- Please enter three things that you liked about the kindworks site:
- Please enter three things that you did NOT like about the kindworks site:
- What did you think of the machine concept? Was it clear what the gears represent?
- Were you able to find your gear in the machine or was it confusing? Did you understand how the machine was set up?
- What was your reaction to the layout and art on the site? Specifically what would you change?
- Was there something that you wanted to and couldn't? If so, what was it?
- Are there additional ways you'd like to customize your gears that were not available on the site? How would you customize your gear??

3. Results

Negative feedback about the site aesthetics drastically decreased after the changes were made.

IX. Playtest 5 - System Usability

1. Purpose

Once a functioning prototype had been developed, the team needed to assess how the system would respond to a high-volume of e-Gears being placed in the Machine, as well as how the

experience of adding an e-Gear feels to participants.

2. Methods

The Mechanical Turk service was also used for this test. Participants were asked simply to add a "test gear" to the Machine and comment on the process. The instructions are detailed below:

"Welcome!

This HIT is for kindworks, an expandable digital community inspired by the Pay It Forward model. Kindworks is a project created by students at Carnegie Mellon University and we need your honest opinions. The website is designed to celebrate good deeds and encourage people to be more generous. In kindworks participants work together to build a virtual, online machine by performing good deeds in the real world. For the purposes of this test, we will not concern ourselves with good deeds done in the real world. We are interested in your online experience at the website right now and entering a test gear will be adequate. For this HIT we will need you to do the following things:

1) Please **visit the website** at: http://ninjasofniceness3.etc.cmu.edu/index.php/en/
2) **Browse** the site to get a feel for it, and then **create an account**.
3) Then **add a gear to the machine and enter the story of that gear.** (Once again, don't worry about doing the good deeds, that's not the object of this exercise. If you do have something inspiring to add, terrific. Otherwise you may be creative, or write about something that you'd like to see.)
4) Enter the machine and **find your gear.**
5) Then **fill out the survey** below.
Thanks so much! :)

The Kindworks Survey

What is your gender?

| | Male |
| | Female |

What is your age?

- Please enter three things that you liked about the kindworks site:
- Please enter three things that you did NOT like about the kindworks site:
- What did you think of the machine concept? Was it clear what the gears represent?
- Were you able to find your gear in the machine or was it confusing? Did you understand how the machine was set up?
- What was your reaction to the layout and art on the site? Specifically what would you change?
- Was there something that you wanted to and couldn't? If so, what was it?
- Are there additional ways you'd like to customize your gears that were not available on the site? How would you customize your gear??

Would you be more or less likely to return to kindworks to celebrate good deeds?

	I would go back.
	I might go back.
	I won't go back.
	Not sure.

Please provide any comments you may have below, we appreciate your input!"

3. Results
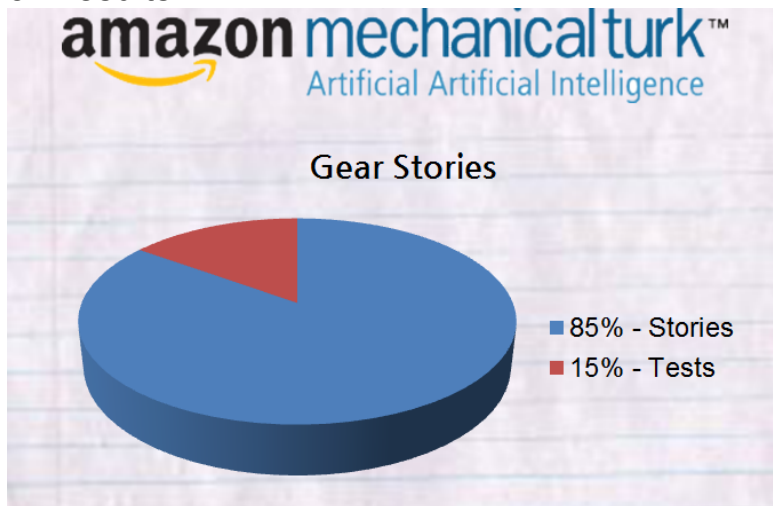
Interestingly enough, results revealed something that was not being tested: 85% of participants chose to enter an actual story of a good deed rather than merely the test gear required.

Data for the individual survey questions can be found in the "mechanical turk_result.xlss" document in the Mechanical Turk_Playtest folder of this archive.

4. Conclusions
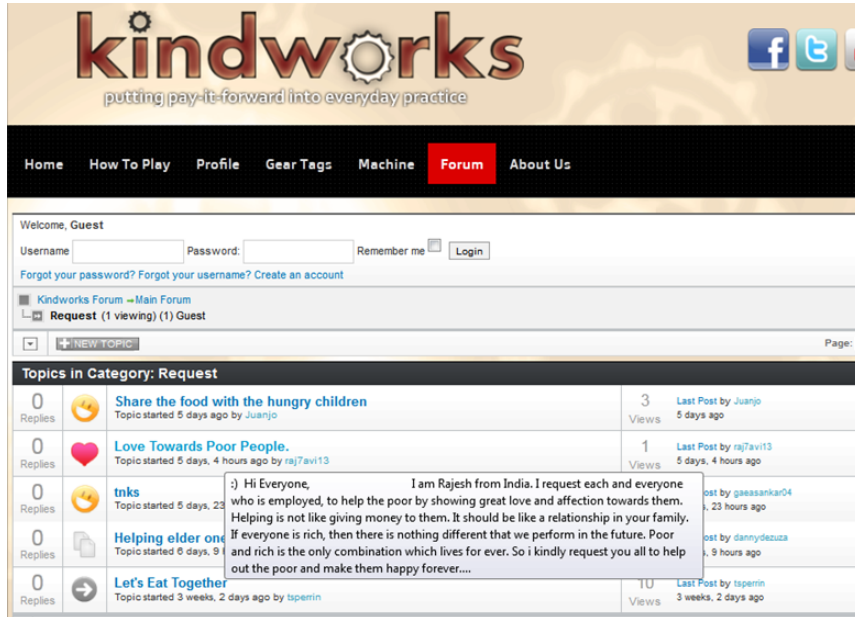
The overwhelmingly positive response to entering stories demonstrates that people do enjoy talking about goodness, and have plenty to report on. Participants even took the initiative to discover the requests and challenges features in the forum and posted there. Additionally, comments indicate that the simple act of browsing through the stories served as a mood-lifter.

6. Project Post-Mortem

A. Overview

The *kindworks* project is Team Glatitude's solution to a design challenge presented by the client, the Linden Foundation, at the outset of a sixteen-week semester: to create a global kindness initiative inspired by the pay-it-forward concept. Goals put forth included the focus on real-world interactions, accessibility to as wide an audience as possible so as to promote viral potential for the movement, and a visualization of the user base as a network.

The product prototyped in this semester is an expandable digital community in which people work together to build a shared central Machine in an online experience by performing good deeds in their everyday lives and promoting their stories. The specific deliverables are a demonstrable prototype and comprehensive design and technical documentation. The team is comprised of producer Eric Hamel, designers Matthew DiMatteo and Suejung Nam, artist Daniel Aum, and programmers Jing Li and Terence Sperringer. Faculty advisors are MK Haley and John Dessler.

B. What Went Well

The project was benefitted by the various soft skills and personalities of the team members. The group worked well together and did not produce much friction, and the creative backgrounds contributed to an efficient flow of ideas throughout the process. Consultation with experts in the fields of game design and philanthropy also proved exceedingly useful during the process of addressing the project's inherent design challenges. And faculty were very helpful in connecting the team to personal contacts who could provide advice, playtesting resources, and outreach opportunities.

C. Challenges

The project faced several inherent design challenges, as well as logistical issues posed by the team's composition of skill sets. The core design challenge faced this semester was reconciling the pay-it-forward concept with the basic definition of a game. The psychological workings of the target audience were also a key factor to consider during the research and early design. Other challenges were more logistical; the product needed to maintain a balance between accessibility and efficiency so as to possess sufficient technological power while also reaching as wide an audience as possible and not alienating certain demographics. The testing of the product also presented logistical hurdles, as measuring the performance of the system and the success of the design requires long-term windows of observation and data-gathering.

I. Games vs. Altruism

The core design challenge faced this semester was reconciling the pay-it-forward concept with the basic definition of a game. While the prototype created and design documented is being defined as an experience, the client's original vision was defined more as a game. The key issue with this definition essentially amounts to a contradiction in terms - a game typically involves extrinsic reward systems, but the principle behind the pay-it-forward concept, and altruism in general, is that a kind action is performed without the intention of receiving anything in return.

Prominent existing game attempts involving the pay-it-forward model include *Boom Boom Revolution* and *Akoha*, both card games revolving around mission cards containing ideas for good deeds. Players perform the action on the card and hand off the card to the recipient of their action. The recipient is then prompted to "play the card forward," continuing the chain, while also referring back to the player who gave them the card online. In this way, the player receives points (in the case of *Akoha*) or an additional geotag (in *boom Boom*).

By requiring this action in return, the game mechanics effectively compromise the spirit of the good deeds performed. Research revealed a common player reaction was dismay at the fact the deed was performed only for the benefit of a game, rather than out of a true sense of generosity. This reaction was something the team strove desperately to avoid. An early point of debate was whether to define the product as a game and all, and, if so, what type of reward system could possibly be put in place that did not undermine the project's premise.

Consultation with *GameAid* creator Clay Heaton, game designer Evan Hirsch, and Linda Swaney of Habitat for Humanity during the initial design phase proved highly insightful and helped shape the philosophy of the product. The team voiced its concerns over this conceptual challenge, and received feedback that both reinforced the team's initial assumptions and brought new perspectives to light.

The resounding consensus was to not attempt to circumvent human nature, and instead determine ways in which the design could play into it and make use of basic human impulses. For example, the team learned that many charity volunteers want to help, but on their own terms. Volunteers often wish to be up close to the action, in positions of glory that will win them recognition. Even in giving to a community, an individual satisfaction is taken, and this intangible reflective benefit appeared to be a motivational foothold that the team's product could take advantage of.

Concurrently, the team was considering the merits of a competitive generosity mechanic, utilizing social media platforms to gain visibility. Facebook, for example, seemed to be an effective medium within which players of a competitive giving game could seek to outdo their friends in terms of performing kind acts. The main issue with this concept was a philosophical one: such a model would aim to produce the most possible good, but it would undermine the concept of altruism if the actions were done for a reward rather than their own sake. The issue can be distilled as weighing the ends against the means. Ultimately, faculty feedback of this model as distasteful reinforced the team's instincts, and this option was abandoned.

Consideration of these issues led the team to opt for a design that emphasizes the inherent rewarding elements of generosity, namely the personal sense of satisfaction at having made a difference. The visualization of the Machine as a community network makes the personal impact something tangible for users to see and reflect on, and this solution seemed the best compromise between reward systems and staying true to the project's principles, most nearly reflecting the type of internal reward experienced by charity volunteers.

II. Psychology

Aside from the conceptual dissonance between altruism and reward structures, existing pay-it-forward game models have been thwarted by a failure to properly account for human psychological tendencies. In constructing a design for this project that could successfully transform human thought processes and behaviors towards altruism, a vital portion of the team's initial research involved understanding why human beings might be more or less likely to respond to various situations necessitating generosity.

One area examined was human response to charity pitches. The team's research yielded that people have been found to be encouraged by several criteria, including assurances that contributions of any size will help, focus on a single, specific, tangible goal, and focus on individuals through empathy-inducing imagery. People have been found to be discouraged by the futility effect, the feeling that their aid is not enough to make a difference, and vagueness of goals and measures of success. The bystander effect, waiting for others to act first, and a lack of immediacy to the issue also negatively impacted tendencies towards generosity.

Evaluating *Boom Boom* and *Akoha* from this perspective, the strengths and weaknesses of both designs were clear. The card-passing mechanic was inherently guilt-inducing. Even though both games attempted to frame the card as an opportunity, rather than a burden, the very presence of an unplayed card could be construed as nothing other than burdensome. The act of passing the card to another also could be perceived as preachy or lecturing. When surrounded by such negative feelings, disposal of the card as a means of distancing those feelings might appear preferable to involvement in the game.

Strengths found in the *Boom Boom* model include a community news feed, which provides a channel for players to view deeds they performed or read about as more tangible and immediate, and a geo-tracking feature for the cards, adding another dimension of tangibility to player's awareness of their impact. However, the map interface is not very fluid, requiring viewers of the site to click several times to see all of the data. This area was one the team saw a good deal of promise in, but with much room for improvement.

III. Accessibility vs. Efficiency

Another initial perceived area of challenge was the establishment of a balance between the product's technical power and the breadth of its appeal to an audience. The client's goal for the product was to reach as wide an audience as possible, but also to focus the experience around real-world interactions, with technology providing only a frame to support those interactions.

Electronic media are necessary for rapid and effective proliferation of the product among the population, but they also have the potential to compromise the real-world emphasis of interaction if relied on too heavily. Furthermore, the availability of certain technologies poses a potential barrier to entry among certain age-groups and socioeconomic demographics. In order to strike the optimal balance between these factors, it was necessary to research statistics on the availability and widespread use of various platforms to determine their viability, as well as to investigate particular technologies with the potential to more seamlessly bridge the gap between the software interface and the real world.

QR codes were one of the first solutions toward which the team gravitated, due to the fairly widespread use of smartphones and the accessibility of QR reader applications on that platform, as well as their ability to instantly connect users to electronic content from a position in the physical world through their capability to contain diverse forms of information. While not yet iconic among the general population, this technology is already being made use of by many technologically-savvy groups, is projected to become a part of the mainstream in the near future. However, while the potential barrier to entry posed is *relatively* low, it is a barrier that need not be put in place, and so the team decided to utilize the technology in a supportive role instead of relying upon it.

IV. Longitudinal Nature of Testing

Because the experience designed is one that transpires over a prolonged period of time and is perpetually in action, testing methods for the product are not devised in the way that they would be for most entertainment experiences that can be contained in a definable session with a clear beginning and end. As a result, the crafting of measures for success, particular of prototypes, provides a substantial creative challenge.

Additionally, due to the nature of this semester's development cycle, it was necessary to test the experience before technical components of the system were functional. In order to ascertain whether the experience model met certain criteria, it was necessary to create analogous versions of the experience, substituting other, often low-tech, solutions for the electronic framework under construction.

However, by engaging in this process, the team was able to learn unexpected things about the

model, including its adaptability to different settings. The experience was reformatted to occur through social media, as well as to function using only paper. Expansion and constraining of the audience has also proved insightful, as the experience has been structured to exist within a household, as well as within a larger organization, in addition to the originally intended scope of the general public.

V. Staff and Skills

The particular composition of backgrounds and skill sets on this team was not particularly oriented towards the development portion of the process. The primary BVW role of four of the six members was sound design, and no one on the team had significant experience with web development. Thus, a good deal of our programmer's time was spent learning the necessary skills. To complicate matters, one of the original team members had to withdraw from the program about five weeks into the semester, resulting in the loss of an artist. In order to produce a functional prototype by the end of the semester, the team began looking into outsourcing some of the programming to web specialists. With help from faculty advisors, the team was able to recruit one web programmer, but additional outreach attempts were not fruitful, as several contacts expressed their willingness to work but did not follow through. As a result of the setbacks in terms of constructing a functional prototype, testing of the system could not begin until very late in the semester. All testing efforts before that point required an analogous approximation of the experience.

D. Lessons Learned

The greatest lesson learned from this process has been to simplify. Simplify the design, simplify communication methods, simplify the process. By removing excess clutter from ideas, they become more flexible to adaptation, and that is exactly what this project requires. In meeting the challenge of creating a grassroots *movement*, the team has created a *platform* with room for expansion. It was discovered that one does not *design* a movement, as members of that movement will devise their own ideas that could never be anticipated. The best strategy is to prepare the space for that innovation to occur, and that will never happen if the design is rife with restricting rules.

Interestingly enough, with every simplification the team made, another possibility suddenly came into view. By moving from many individual machines toward one central Machine, the emergent possibility of user-defined Gear connection patterns became clear. By freeing the ID# construct from the Gear Tags, the possibility of what Gear Tags can be became more open, and the ways in which users can disperse them becomes a point of creativity and innovation rather than one of rule-based limitations.

Another lesson this process taught the team was the necessity of "walking the talk." By posting Gear Tags and stories on the *kindworks* Facebook page, one experiences the steps a user must go through. By wearing a *kindworks* shirt on the way to work, one's mindset is transformed. Suddenly the project is being represented, and its best face must be put forward. One begins to seek out goodness happening around them, as well as consider others in all of their actions.

From performing testing of the experience, the team garnered other valuable information.

The Boy Scout playtest revealed that a low-tech, family-oriented application of this concept is possible, and that parents may be more enthusiastic than their ten-year-old children. By presenting at church youth group meetings and school community days, it was realized how event-driven promotion can effectively boost awareness of the product, as evidenced by the *kindworks* Facebook page Insights. Activity always spiked after a presentation, and would dwindle without continual reminders. This finding reinforces the need for a promotional outreach plan that encompasses many areas of people's lives. If the product can reach people in many ways, it will not go overlooked.

E. Next Steps

There are a number of exciting ways in which *kindworks* can expand. Social media, emerging technologies such as augmented reality, and promotional corporate partnerships are some prominent avenues worth exploring in order to transform the movement into something widespread and iconic. By occupying many of the arenas in which people live and operate, *kindworks* can serve as an ever-present reminder of the need for right action in everyday life.

I. Social Media

Social media are already great platforms for spreading stories and represent a significant portion of people's online lives. By inserting *kindworks* into news feeds, it can gain entry to lives through prominent electronic channels, existing as a reminder in the virtual space as well as the physical space.

A great way to expand the system would be to have the option to automatically post to Facebook or Twitter whenever a member adds a new e-Gear. This tie-in allows members to feel that *kindworks* is integrated into their online life as a whole.

FourSquare is another area for expansion. Facebook users already use FourSquare to check in at various locations, sometimes gaining benefits such as restaurant discounts for promoting an establishment through social media. This check-in feature would apply directly to *kindworks* for members who want to instantly attach a geographic location to a good deed being celebrated.

kindworks members may also wish to opt-in for push alerts under such a location-based system. If an electronic version of a Gear Tag has been attached to a FourSquare post, people may want others to know, or may want to know themselves if an area they are visiting has been associated with any good deeds. An alert system utilizing location services data could let *kindworks* members know whenever they have entered the site of a good deed.

II. Augmented Reality

Future technologies that emerge will continue to offer new solutions to creative placement of *kindworks* into the real and virtual worlds. Augmented reality is a current emerging technology with the potential to bring these worlds together, which offers some very exciting possibilities.

Initial design work on this project was focused more heavily on low-tech solutions to a simple, real-world approach to the interaction. But technology is increasingly making it easier for people to bring the virtual with them into the physical world, allowing for entirely new types of

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experiences.

Augmented reality could allow Gear Tags to be posted to any location virtually. To associate locations with all of the deeds that have occurred there would enrich the meaning people derive from daily interaction with the world - the history of positive occurrences for places could be something accessible via a personal mobile device. Waiting for the bus could be transformed into an uplifting experience when learning of the nice things that have been done at that very stop, and may even inspire those present to wave someone ahead of them as a polite gesture, or to do something else kind that day.

III. Promotions and Partnerships

An important part of the *kindworks* initiative is finding creative ways to insert Gear Tags and the gear symbol and brand into the world for people to see. In order for the movement to gain traction, it cannot be something one sees once and forgets; it must be seen again and again. Utilizing partnerships and promotions with high-profile brands could first generate credibility for *kindworks* to lift it out of obscurity. But once established, the movement would offer a great deal of promise for partnering companies as well, and furthermore enrich the ways in which the public interact with those brands. Partnering with *kindworks* would do wonders for a corporate image, and the social media aspects of *kindworks* would allow for greater proliferation of brand recognition. Special promotions could also offer fun kindness challenges to consumers. Ketchup buyers could obtain a Gear Tag with their bottle of ketchup, and by locating its e-Gear in the

Machine discover a story about something nice the company did, complete with the corporate logo on the e-Gear design. The packaging could explain the promotion and the challenge to add the most e-Gears to the company's e-Gear, or come up with the most heartwarming story. In this scenario, more people are doing good deeds, the company is becoming known as having an interest in human issues, and the *kindworks* community continues to grow.