

IQP - Civil Good

Final Presentation

Goal

The goal of this project is to add more detail and explore avenues that would push this idea towards becoming both a reality and a force for social change.

Similar Sites - Conventional

- One on one
 - idebate.org
 - debate.org
- Forums
 - DebatePolitics.com
 - OnlineDebateNetwork.net
- Open format
 - [ChangeMyView Subreddit](#)
 - CreateDebate.com

Similar Sites - Unconventional

- Fact checking
 - Procon.org
 - Factcheck.org
- Debate wikis
 - Debatewise.org
 - Truthmapping.com,
 - DebateGraph.org
- Unrelated to debate
 - Yourmorals.org

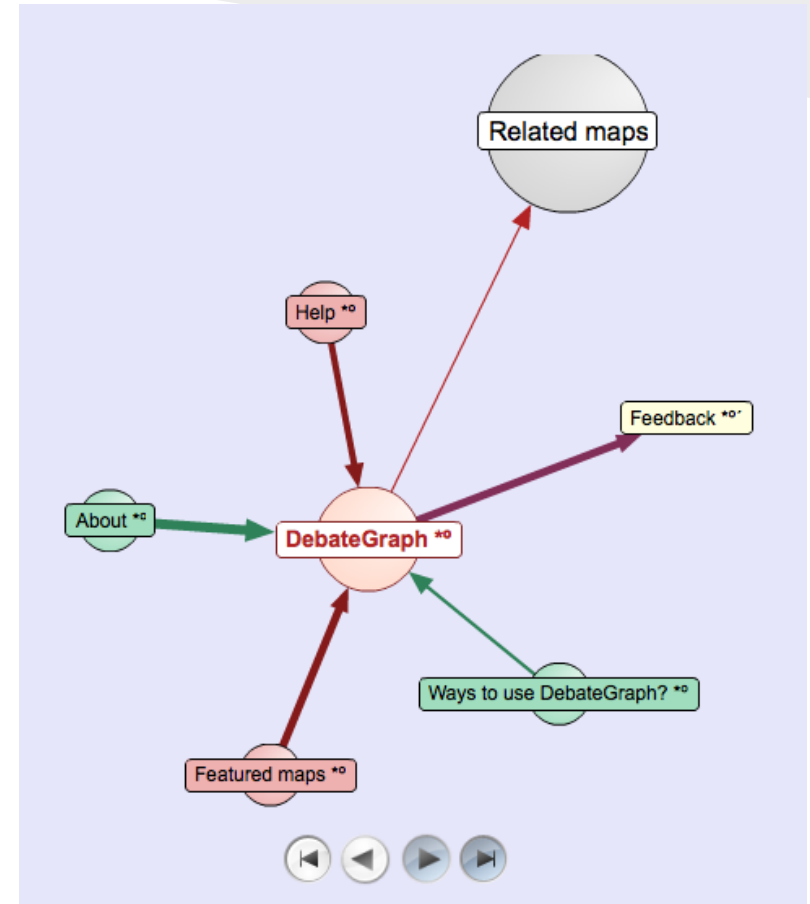


Image from Debategraph.org

Psychology - Online Disinhibition

Causes of disinhibition

- Dissociative anonymity
- Invisibility
- Asynchronicity
- Minimization of authority

Recommend

- Seeding with civil members

Psychology - Reducing Bias

Self-affirmation:

positive self-image produces an open mind

- Positive feedback
- User profile
- “Values essay” discussion system
- Should not promote awareness of effects

Other Psychological Influences

People will self-correct their biases when they are aware of them.

Biases like:

- boomerang effect
- halo effect

Recommend

- Raising awareness of negative biases
- Educated users only need a reminder

Psychology - Format of Discussion

Smaller groups (preferably one-on-one) are more effective in terms of:

- Quality assurance of ideas
- Effectiveness of information transfer
- Effort put forth per member
- General attitude towards fellow members

Legal Issues - Personally Identifiable Information

- Information that can identify an individual
- Every state is different
- Treat everything as PII
 - Good idea to notify users of all breaches
- Breach notifications

Legal Issues - Intellectual Property

- Copyright - the right to copy
- The “fair use” exception
- The DMCA’s “safe harbor” provision
- Speedy “notice-and-takedown” process

Legal Issues - Defamation

- A false, harmful statement about another
- Section 230 of the Communications Decency Act
- Courts have allowed “traditional editorial functions”
- Cannot meaningfully change the statement

Legal Issues - Information Requests

- ECPA, PATRIOT, FISA
- Subpoenas - talk to a lawyer
- Informal requests - ethical and business decision

Legal Issues - Use by Minors

- Children's Online Privacy Protection Act (COPPA)
 - Applies only to children under 13
- Ban children under 13, don't have to comply with COPPA
- Restrict ages 13-17 from mature topics

Legal Issues - General Litigation Avoidance

- Legal counsel on retainer
- Authorized individuals

Societal Uses - Political Polarization

Education reduces polarization.

Recommend

- Encouraging users to become familiar with debate topics
- Use the “Query” conversation type to force explanation

Societal Uses - Minority Opinion Representation

Spiral of silence: majority silences minority.

Recommend

- One-on-one conversation to prevent majority group
- Strict privacy

Societal Uses - History and Political Climate

Longitudinal measurements of political climate

Limitations of current measures:

- Response bias
- Lack of demographic information

Civil Good's advantages:

- Analysis of conversations

Societal Uses - TED talks model

- TED Talks
 - Goal: Provoke thought and change
 - Profitable
- Civil Good Conference
- Collaborate with TEDtalks
 - TEDx

Infrastructure - Web Hosting

- Available Methods:
 - In-house
 - Colocation
 - Cloud
 - Shared
 - Virtual Private Servers (VPS)
 - Dedicated
- Recommended is VPS and dedicated

Infrastructure - Databases

Between hierarchical, network, relational, object-oriented, and document-oriented DBMSes:

- A relational DBMS would be best for Civil Good's purposes
- A document-oriented system would also provide advantages, and the two can be used alongside each other

Infrastructure - Programming Languages & Open Source Technologies

- Database engines - both MySQL and PostgreSQL viable
- Web servers - Nginx
- Client-side programming languages - HTML, CSS, Javascript
- Server-side programming languages - Python web framework Django or Ruby web framework Ruby on Rails

Incremental Refinements

- Web is dynamic
- Balance changes and user consideration
 - Small, frequent changes
- Large changes unadvisable
 - Digg v4
 - Facebook
- Not simply addition of features
 - Clutter is bad

Data Driven Development

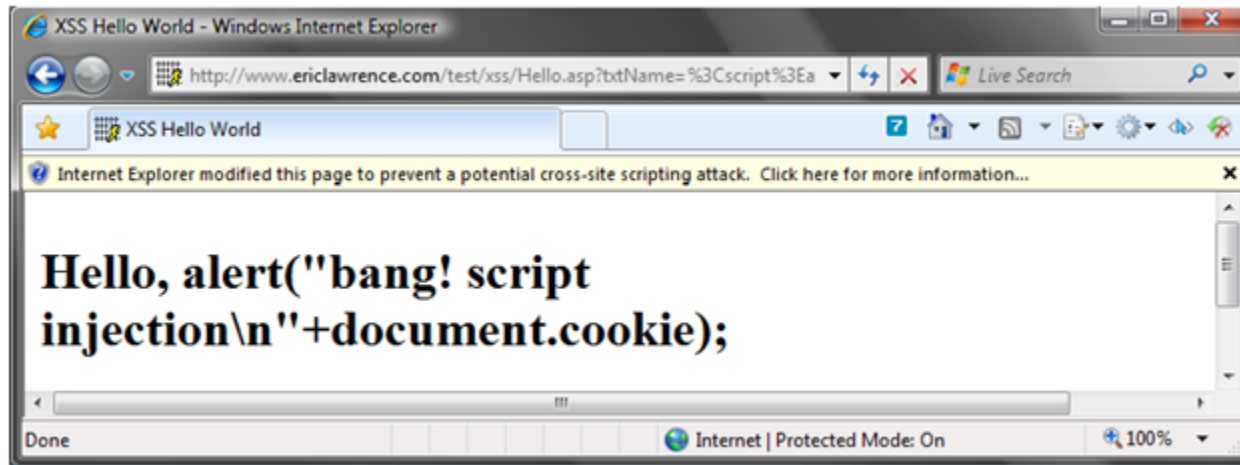
- Data collection

- Surveys
- User browsing behavior
- Site statistics
- A/B testing

- Data analysis

- Prioritize pages that get more views
- Improve navigability
- Statistical methods
- Heuristics

Security - Common Attacks



Cross-Site Scripting (XSS)

- Attackers run scripts by submitting malformed data
- Sanitize user data when building HTML

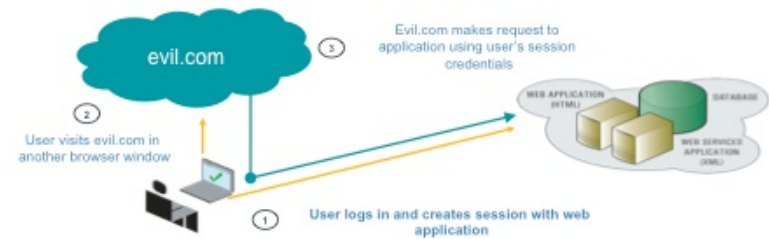
Security - Common Attacks

Cross-Site Request Forgery (CSRF)

- Attacker pretends to be a legitimate user
- Guests: verify HTTP Referer headers
- Users: CSRF tokens

Cross Site Request Forgery Attacks

Attacking trust relationships

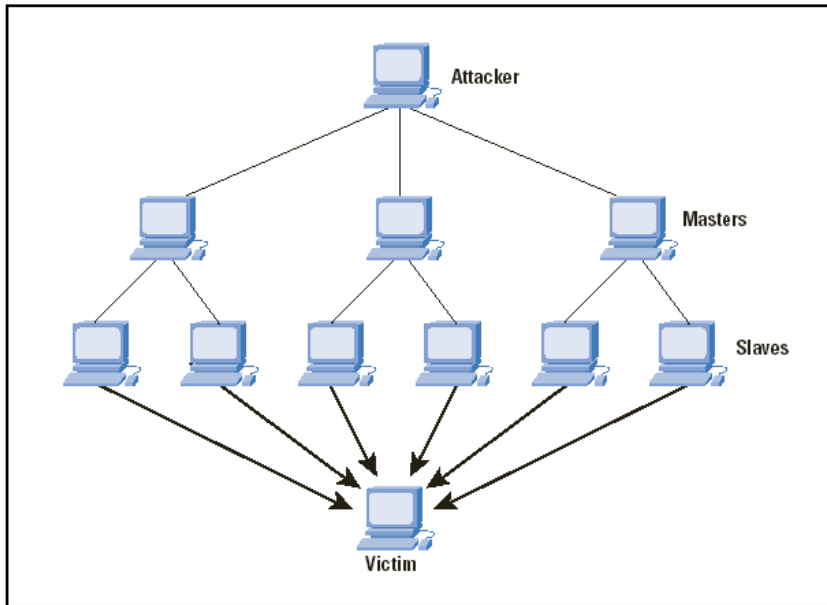


Protection actions –

- Tag each form with unique token and verify on form submission.
- Verify Referer headers, if available.

Security - Common Attacks

Figure 4: A DDoS Attack



(Distributed) Denial of Service [(D)DoS]

- Attacker prevents other users from accessing Civil Good
- Use intrusion prevention systems (e.g. SNORT)
- Rate limit connections

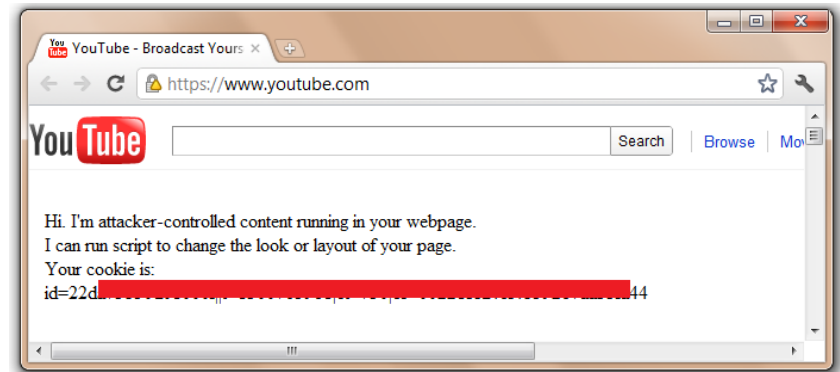
Security - Encryption

Man-in-the-Middle

- Attacker intercepts or modifies data between users and the server
- Use HTTPS for **all** connections

Database encryption

- Use algorithms with long keys such AES.

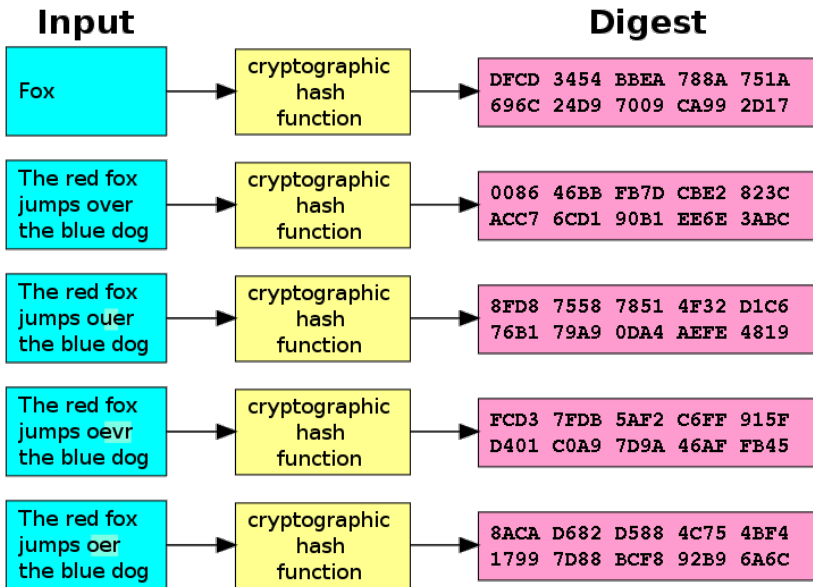


Security - Database Security

- Encrypt private information in the database
- Valid user input on the server side
- Restrict database permissions
- Avoid SQL injection; sanitize database inputs



Security - Password Security



- Hash passwords with existing, proven functions (e.g. SHA256)
- Unique salts
- No character restrictions or maximum password length
- No password expiration
- Encourage strong passwords

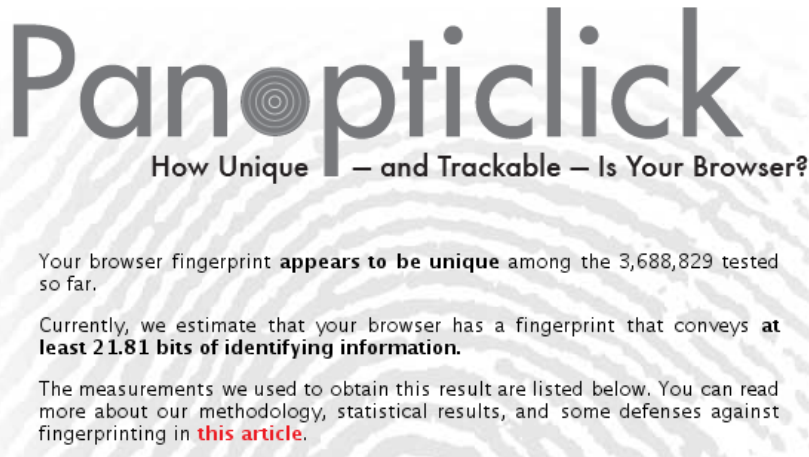
Privacy - Minimal Tracking Requirements

- Session Identification
 - Cookies
 - HTTP authentication
 - IP address
- Usability Testing
 - Clickstream Analysis
- Web analytics
 - Server Logs

Privacy - Third Party Privacy Risks

- Cookies
- HTTP referrer header
- Web Bugs
- IP address
- Browser Fingerprinting

Privacy - Browser Fingerprinting



- Identify user browser with a combination of information
- Trackable Data
 - **Plugin details**
 - **System fonts**
 - User Agent
 - HTTP Accept Headers
 - Screen resolution
 - IP address

Privacy - Privacy Policy

- Address issues that users care about
- Cut down on legalese, order in readable format
- Strictly enforce the policy
- Generates trust, helps with user retention

Community - Attracting Developers

Open source development:

- Peer recognition
- Philanthropic mindset
- Alumni effect
 - previous exposure = easier to work with

Recommend:

- Initial codebase
- Challenge to developers

Community - User Trends and Retention

Recommend:

- Accessible conversation topics
- Balanced registration process
- Established set of rules
- Developer participation with community
- Aesthetic appeal matters

Business Model - Operational Costs

- Requirements for VPS:
 - 6.2 GB bandwidth per month
 - 50-60 GB disk storage for the foreseeable future
 - 256 MB RAM per month
- \$34.47 per month for VPS
- \$11.63 per year for “.org” domain name

Business Model - 501(c)(3) status

- **Pros:**

- Tax exemption
- Donations are tax deductible
- Companies may offer free services

- **Cons:**

- Paperwork
- Incorporation in the United States
- User fee

Business Model - Marketing Costs

Search Engine Marketing

- \$1.30-\$1.60 per day
- Brings 15 to 20 clicks per day

Ad related to [online discussion](#)

[Google+ Discussion Forums - Talk about the stuff you're into](#)
www.google.com/+learnmore/communities

Join a discussion group today.

Email Advertising

- High response rates; low costs
- Not linked to user accounts
- Do not recommend purchasing lists of potential users

Display Advertising

- Very high impression volume; high cost (not recommended)

Business Model - Revenue

Advertisements:

- Avoid on conversation page
- Use a platform that protects users
 - Project Wonderful
 - Adzerk
 - Build your own
- Targeted based on demographics--very valuable
 - Limit advertisers to general trends (e.g. age ranges)
- Text-based, unobtrusive; banners that blend with design

Image Source

↑ Is it OK to go thru a carwash with ice and snow still on my car? (self:AskReddit)
• (1|1) submitted 3 minutes ago by Wthelicopt ☑ to AskReddit
↓ 1 comment share save hide report [I=c]



search reddit

what's this?

↑ 3071
↓ Apparently the Spanish version of signs have to have a moustache (i.imgur.com)
• (3221|983) submitted 4 hours ago by JonLuca ☑ to funny
↓ 181 comments share save hide report [I+c]



↑ A few years ago I went on a cruise with my family and took this picture (i.imgur.com)

Business Model - Revenue

Donations:

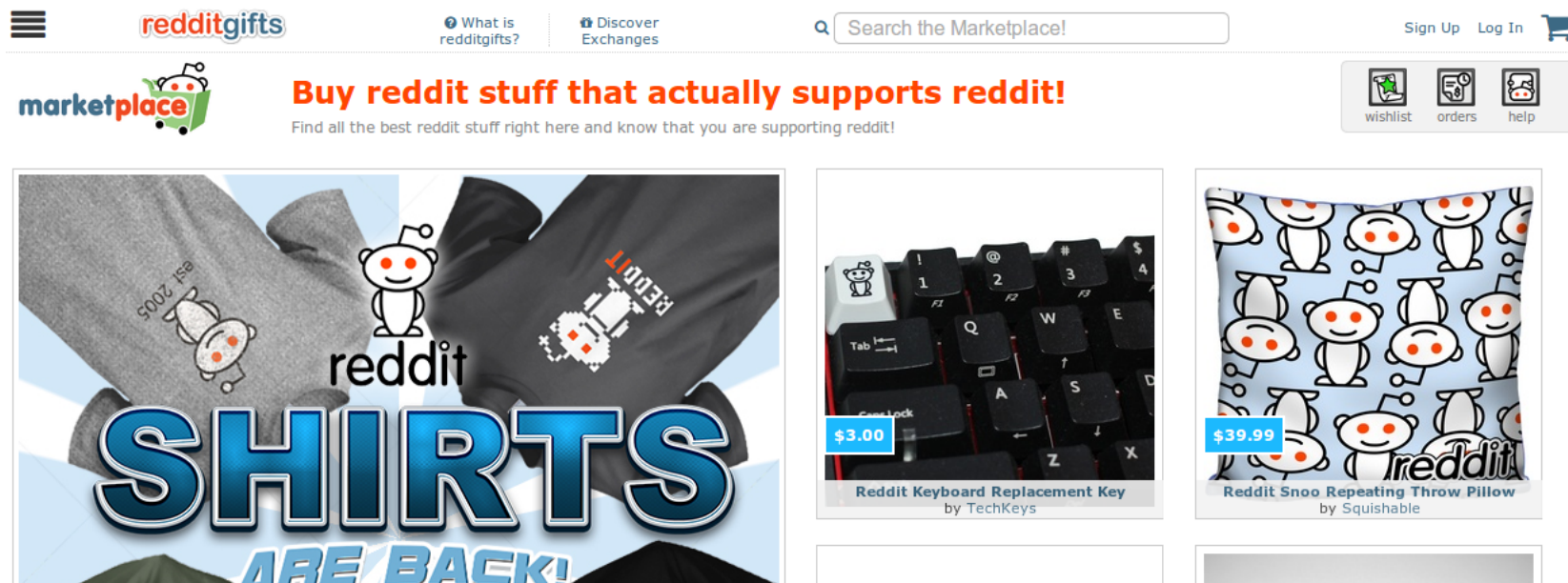
- Do not solicit more than six times a year
- Utilize demographic information to determine how often to ask users (e.g. younger people more likely to donate)
- Once there is a loyal user base, utilize a daily donation progress bar.



Business Model - Revenue

Online Store:

- Most effective once a large, loyal community has been built
- Reliable source of income
- Example: redditgifts



User Interaction - Recommended Design Changes

- Simplified sign-up process
- Ask user for information during Seek creation
- Have only one type of Fave
- Make polls optional
- Broaden Seeks automatically
- Add gamification elements

User Interaction - Conversation page improvements

- Removal of “undo” button
- Consolidation of text size buttons
- Renaming of “object” button
- Implementation of a “report” button
- Removal of display names/profile page links of partners, except Faves
- Implementation of “user status” indicator (online, typing, etc.)

Conversation [Debate] with DogmaMan98 Profile...

Topic: Abortion - General

Chronological Just Him Just Me Pick & choose...

Him **Me**

Tuesday
fighting for self-preservation, or if you have to sacrifice some human life for the overall good, then you're allowed to kill. Or if in self-defense.

Yesterday
Regarding war, then, how do you reconcile civilian casualties? Or casualties even of POWs who are on your side, who could get killed in bombing raids. How about drones that attack the wrong target and kill civilians, some of whom might even oppose the war? At what point is it OK to kill innocent people?

This morning
It's never OK to kill innocent people, but sometimes that is inevitable as you try for the overall good result. I think that as long as very good care is taken to prevent civilian losses, then you cannot fault a commander or soldier who means well but makes an accidental mistake.

This morning
On the other hand if the casualty was due to negligence, then I think a court-martial is in order. Like in this article I read recently.

This morning
Alright, here's one contradiction. First you said that it was clear-cut. But then you agreed that there are exceptions, for war, even if innocent life is lost: the ends justify the means.

This morning
So if it's regretful but acceptable to kill a child as collateral damage in a well-planned bombing raid, why is it **not** acceptable to kill a child if he is going to be born with Down's syndrome, to an impoverished couple who doesn't want him, can't feed or clothe him, etc.? Isn't that **also** killing for the greater good, just like in war?

Source
New York Times, Jan 2nd, 2007
The Myth of Collateral Damage
by John Q. Columnist
Cited by: 524 Rating: 7.3 Link

Source
The National Review, Feb., 2012
A No-Win Situation in the Situation Room
by Jane Q. Contributor
Cited by: 29 Rating: 6.5 Link

Monday
I think it's wrong for a human to take the life of another innocent human. Pretty much as simple as that.

Tuesday AM
... But if you have the moral high ground, and you're fighting for self-preservation, or if you have to sacrifice some human life for the overall good, then you're allowed to kill. Or in self-defense.

I see where you're going, but there are two big differences that might help explain. One is that a country at war is automatically accepting risk, and losing innocence, implicitly by the actions of their government. The other is that there are few if any alternatives in war, but with a fetus there is always the option that

? ↗

B / U AA AV : 1 2 3
Refer... Source... Undo ↶
Find in Conversation... Object...
Cancel Post Later Post Now

Concept for a Conversation entry window

User Interaction - Rating system

- Simplify Rating Criteria
 - Quantity
 - Accuracy
 - Clarity
 - Relevance
 - Politeness
- Use a 5-star format rating system



User Interaction - Experiment

- Usability study between website versions
 - <http://civil-good.wpi.edu/> - Original (10 participants)
 - <http://civilgood.wpi.edu/> - Modified (10 participants)
- Modified version ranks higher
 - The suggestions do help in refining the user experience

Other recommendations

- Make *Conversations* a menu option
- Declutter front page
- Implement tutorial system

Mobile Presence - Demographic

- Large percentage of the population own mobile devices
- Many use their devices solely for online activities
 - Sometimes more frequently than desktop users
- Gain exposure by developing for mobile devices

Mobile Presence - Application Security

- Mobile security threats - malicious application behaviors or mobile malware
- Can reduce risk of user data being stolen by:
 - Storing minimal data on user devices
 - Recommending security software
 - Encouraging safe browsing practices

Mobile Presence - Mobile Website Design

Streamline the mobile version by:

- Removing unnecessary graphics and other content to prioritize more vital material
- Reducing content hierarchies to minimize unnecessary clicking and page-loading

Mobile Applications vs. Websites

Mobile website recommended

- An app's superior graphics and performance not required
- An app's ability to function while offline not useful
- Accessible by anyone with a Web browser; apps must be approved, discovered, and purchased
- Can be developed just as easily as desktop website; apps require different tools and skills

Conclusions

- Provided research to support existing ideas
- Added depth on topic areas as yet unexplored
- Provided recommendations for refining the user experience
- Explored avenues to help the idea become both a reality and a force for social change

Thank you

for the opportunity to work on Civil Good.

We're looking forward to using it!

Questions?