



To: [REDACTED]

Cc: [REDACTED]

From: Jamie Horowitz

Date: June 3, 2020

Subject: Empower Innovation User Interface Testing Assessment Report (Draft)

Introduction:

Empower Innovation is a collaborative platform to help users find funding and network. Goals are to access new funding opportunities efficiently and get leads on collaborators. Empower innovation was launched in October 2019.

The purpose of this assessment is to baseline the user interface and its qualities to gauge the site against industry standards and to identify opportunities for continuous improvement.

I used two methods that are complimentary:

1. A Test Tasks method which is designed to evaluate whole user experiences and identifying pain points and usability problems.
2. A Heuristics Evaluation which identifies 10 general principles for interaction design.

The following assessment applies each method, making suggestions on site improvements when applicable.

Overall, the site is of high quality from a UI perspective. While important improvements are preferred and warranted, no critical failures exist.

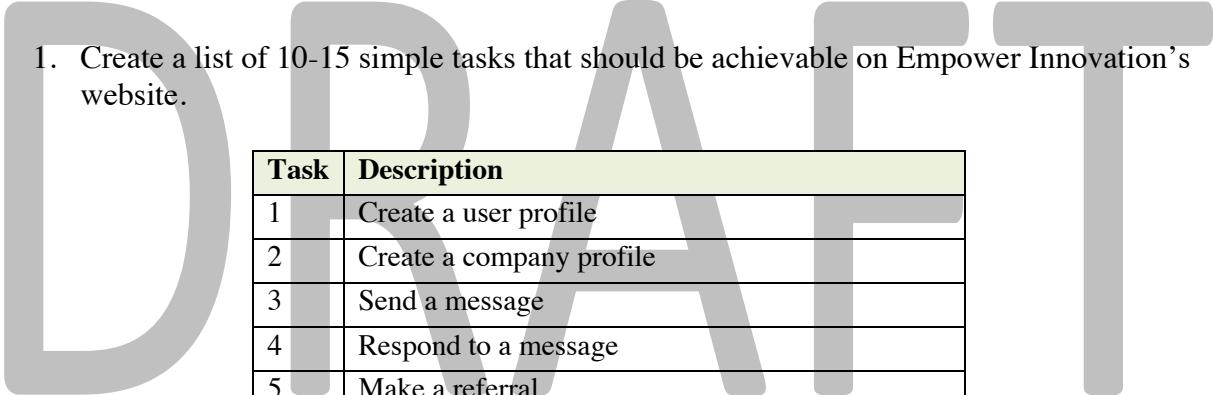


Test Tasks:

source: <https://uxdesign.cc/measuring-and-quantifying-user-experience-8f555f07363d>

This User Interface Test was shared by Matej Latin, a Senior Product Designer at GitLab. He discusses the current trend behind websites being “data-driven” in that they make changes based on popular trends and because the numbers say so. However, feedback needs to be both qualitative and quantitative in order to highlight the true areas of improvement per specific application.

Below is the guide to a quantifying user test based on these remarks. This test is designed for evaluating whole user experiences and identifying pain points and usability problems. This is accomplished via key metrics including perceived difficulty rating, errors committed and task success rate.

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1. Create a list of 10-15 simple tasks that should be achievable on Empower Innovation’s website.

Task	Description
1	Create a user profile
2	Create a company profile
3	Send a message
4	Respond to a message
5	Make a referral
6	Search for a topic
7	Filter a search
8	Make a list
9	Share a list
10	Save funding opportunities
11	Save organizations
12	Find an upcoming event
13	Favorite something

2. Execute tasks.
3. Label each task according to their level of importance.



4. Determine a number on a 0-3 scale to showcase the success the user had completing the task.
 - (direct success—3 points) if they were successful immediately
 - (indirect success—1 point) if they fail first but got around it in the next attempts
 - (no success—0 points) or even failed completely
5. Rank the level of difficulty of each task from 1-7 (1 being easy, 7 being very hard)
 - Ex: Rating 1 means the task is easy so the maximum (7) points are assigned
6. Calculate Overall score = Success score + Difficulty score per task
 - maximum possible score in the scale above is 10
 - if the score is 7 or lower the cell is colored yellow
 - if the score is 2 or less it's colored red as it's a high priority to resolve.

Task	Description	Importance	Success(0-3)	Difficulty (1-7)	Score	Comments
1	Create a user profile	High	3 - Direct Success	1 - Not Difficult At All - 7	10	
2	Create a company profile	High	3 - Direct Success	3 - Not so Difficult - 5		Difference in wording between "Company Profile" and "User Profile with a Company"
3	Send a message	High	0 - Failure	3 - Not so Difficult - 5		8 could not find my other account, did not have
4	Respond to a message	High	3 - Direct Success	3 - Not so Difficult - 5		5 manage messages on
5	Make a referral	High	3 - Direct Success	1 - Not Difficult At All - 7		8 no notification when logging in
6	Search for a topic	High	3 - Direct Success	1 - Not Difficult At All - 7		10 implied
7	Filter a search	Medium	3 - Direct Success	1 - Not Difficult At All - 7		10 shouldn't show the fields not being searched
8	Make a list	High	1 - Indirect Success	2 - Not Difficult - 6	7	7 looked at dashboard first
9	Share a list	High	3 - Direct Success	1 - Not Difficult At All - 7	10	
10	Save funding opportunities	High	3 - Direct Success	1 - Not Difficult At All - 7	10	(added to a list)
11	Save organizations	High	3 - Direct Success	1 - Not Difficult At All - 7	10	(added to a list)
12	Find an upcoming event	Medium	3 - Direct Success	1 - Not Difficult At All - 7	10	
13	Favorite something	Medium	3 - Direct Success	1 - Not Difficult At All - 7	10	

7. **Score Average:** 9.07

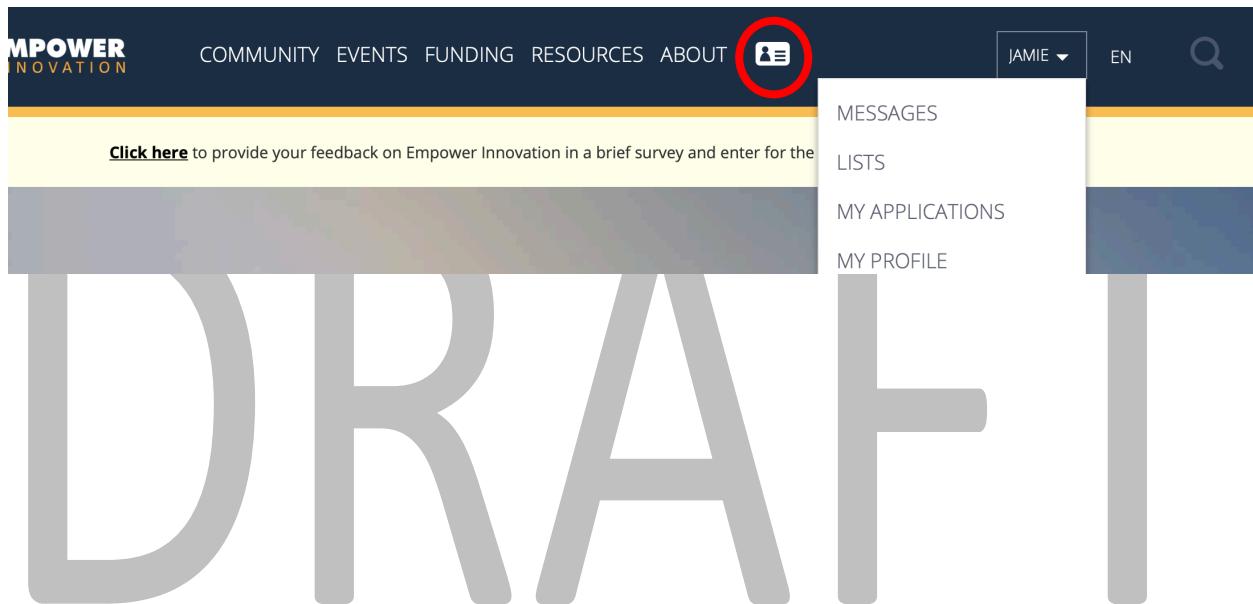
Low Score: 5

8. Go back and focus on failures, then indirect successes



My Conclusions:

- **Lists**
 - Looked to dashboard icon first thinking it was lists?
 - Easy to add items to a list from search results



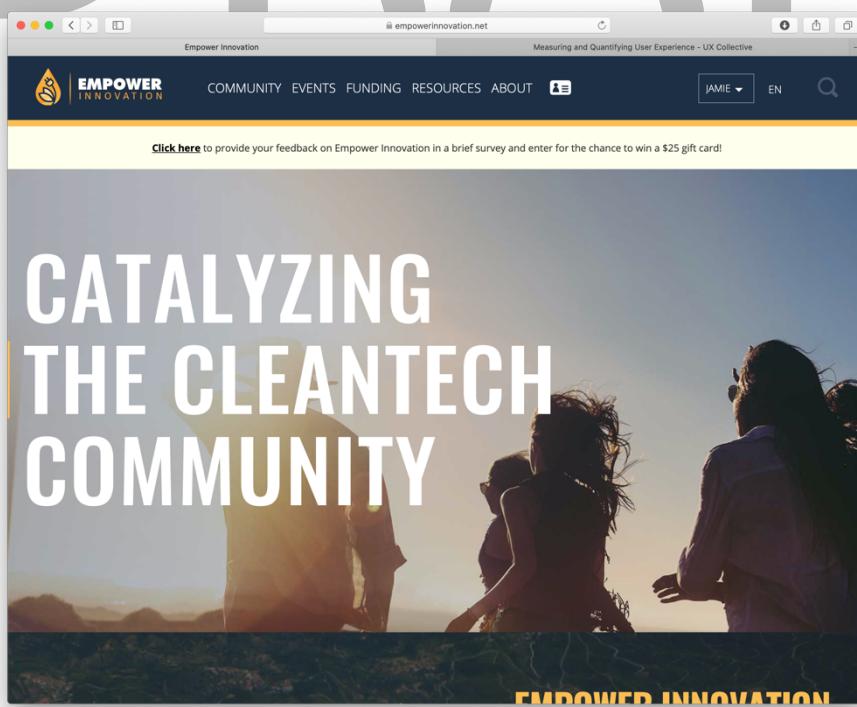
- **Dashboard Difficulty**
 - Home page should be your dashboard, not page before you log in



Main Screen before logging in:



Main Screen after logging in:





- Dashboard Icon not easily recognizable
- Should be placed under personal name
- Switch Search and Dashboard icon locations

A screenshot of the Empower Innovation website's navigation bar. The bar is dark blue with white text. From left to right, it includes the Empower Innovation logo, a navigation menu with links for COMMUNITY, EVENTS, FUNDING, RESOURCES, and ABOUT, a user profile icon with a red circle around it, a search bar with a magnifying glass icon, and language selection (EN). A red arrow points from the text above to the user profile icon. A dropdown menu is open next to the profile icon, showing options: MESSAGES, LISTS, MY APPLICATIONS, and MY PROFILE.

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- **Messaging Difficulty**
 - Tester had to self-discover to turn on additional setting to allow ability to receive a message
 - Setting found under manage account



The header navigation bar includes the Catalysts logo, a search icon, and links for COMMUNITY, EVENTS, FUNDING, RESOURCES, ABOUT, and a user dropdown for JAMIE and EN.



A large background image shows silhouettes of several people against a bright, possibly sunset or sunrise, sky.

MANAGE ACCOUNT

LOGIN AND SECURITY

DATA

NOTIFICATIONS

DELETE ACCOUNT

CONTACT US

Notifications

Manage Platform Communications

Manage automatic communications from the Empower Innovation platform.

When enabled, you will receive email notifications about your password reset, invitations to join an organization, requests to join an organization, lists shared with you, private messages received, and replies to submitting a Contact Us form.

When disabled, you will no longer receive email notifications about shared lists or private messages.

Manage Email Subscription

I would like to receive email notifications about Empower Innovation's features and content.

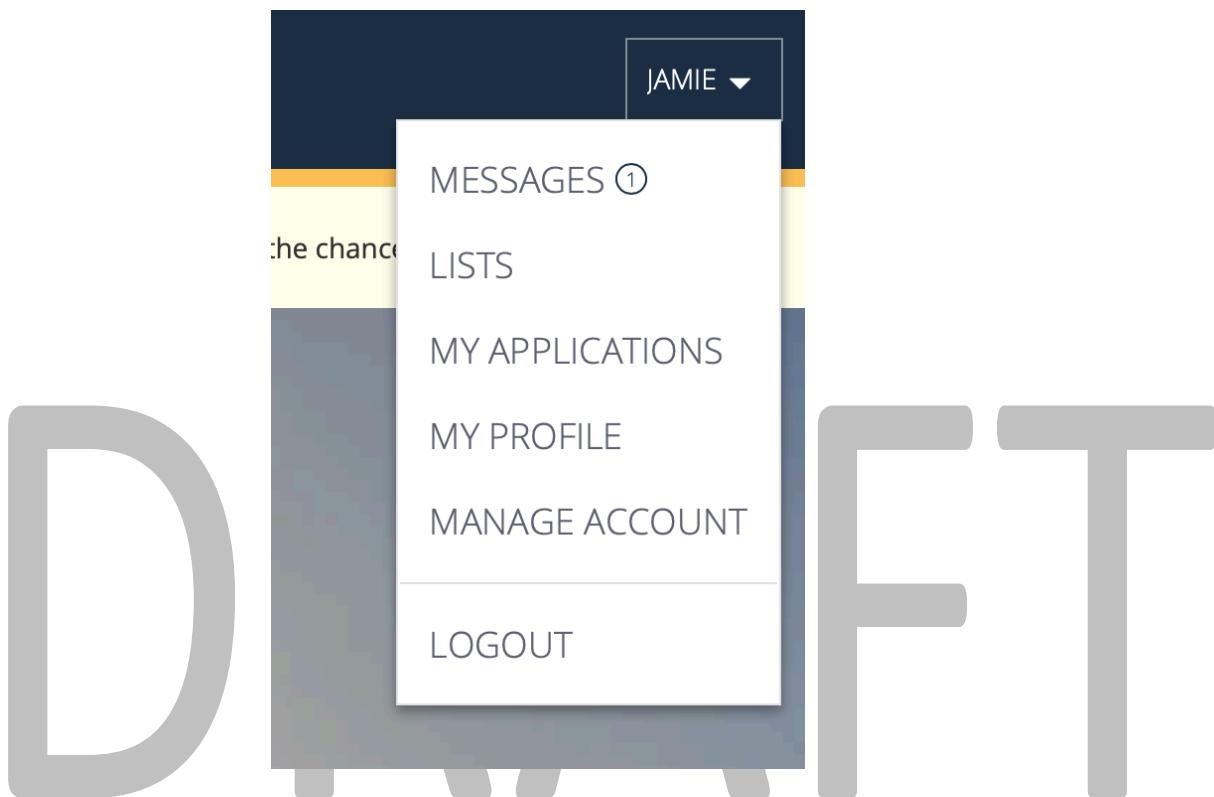
Manage Messaging

I would like to receive direct messages from other members of Empower Innovation.

Note: When disabled, you will be able to send messages and receive replies, but other members will not be able to start a conversation with you.



- Need notification that is visible when first logging in as opposed to minimalist number next to MESSAGES or number on dashboard





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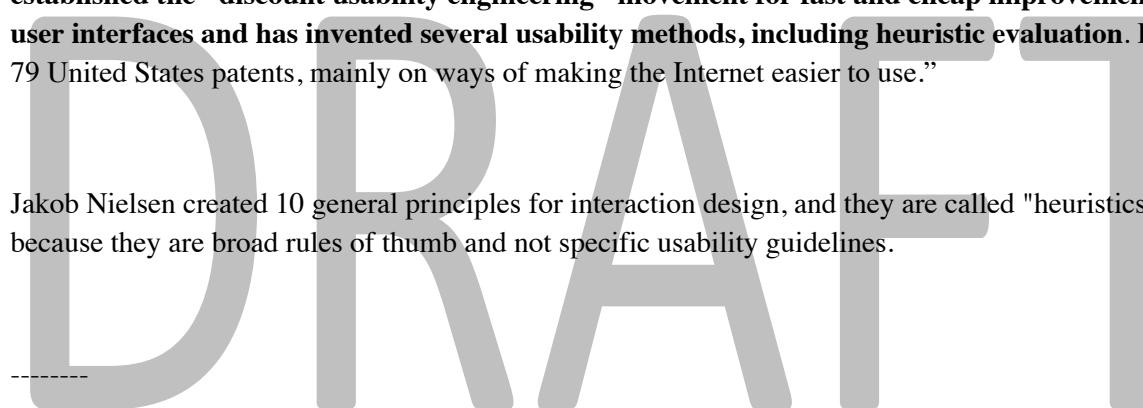
Heuristics Evaluation

Usability Heuristics for User Interface Design

Background on Jakob Nielsen, creator of Usability Heuristics:

<https://www.nngroup.com/articles/author/jakob-nielsen/>

"Jakob Nielsen, Ph.D., is a User Advocate and principal of the Nielsen Norman Group which he co-founded with Dr. Donald A. Norman (former VP of research at Apple Computer). **Dr. Nielsen established the "discount usability engineering" movement for fast and cheap improvements of user interfaces and has invented several usability methods, including heuristic evaluation.** He holds 79 United States patents, mainly on ways of making the Internet easier to use."

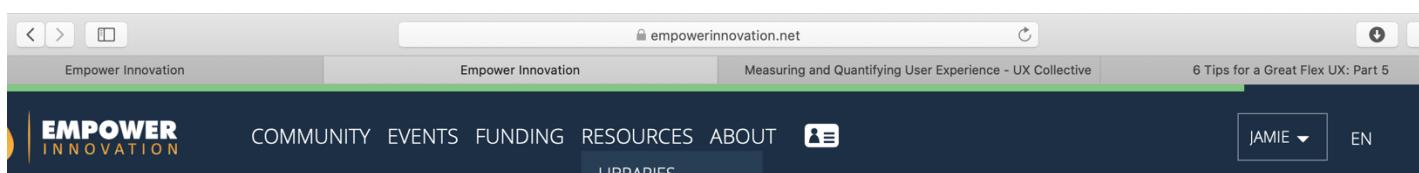


Jakob Nielsen created 10 general principles for interaction design, and they are called "heuristics" because they are broad rules of thumb and not specific usability guidelines.

I went through each of the 10 Heuristics to find examples, or lack of examples, of each design principle on the Empower Innovation's site. I referred to the following website for reference examples of each Heuristic: <http://designingwebinterfaces.com/6-tips-for-a-great-flex-ux-part-5>



1. **Visibility of System Status** (The system should always keep users informed about what is going on, through appropriate feedback within reasonable time. For example, the progress during a file transfer. Provide immediate feedback, etc.)
 - o Progress bar while website is refreshing
 - o Dots that animate appear when an action from pressing a button is hesitated → Fine page filler because assisted with green progress bar.





2. **Match between system and the real world** (The system should speak the user's language, with words, phrases, metaphors and representations familiar to the user.)

- o Community options written simply
- o Record type options written simply

The image shows a user interface with a sidebar on the left containing categories: COMMUNITY, EVENTS, ORGANIZATIONS, STARTUPS, PROJECTS, and MEMBERS. To the right is a vertical panel titled "FILTERS" with a section for "RECORD TYPE". The "RECORD TYPE" section lists the following items with their counts:

Record Type	Count
Members	(1206)
Events	(115)
Resources	(115)
Organizations	(350)
News	(1416)
Spotlights	(10)
Projects	(2)
Funding Opportunities	(329)

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3. User control and freedom (Supports undo and redo actions. Allow user to override the system.)

- Navigation gives user menu options to navigate to different pages
- *Left nav bar = Website public resources. Right nav bar = User specific options.*

Improvements Suggested

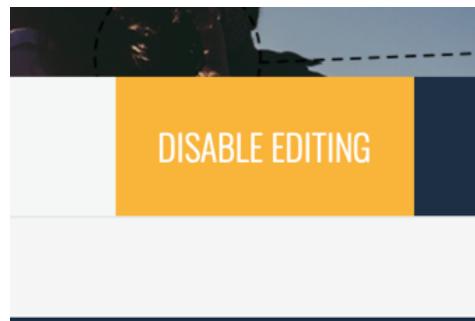
- *Why is dashboard grouped on the left?*
- *Change click action to hover over name*

A screenshot of the Empower Innovation website's homepage. At the top, there's a dark header with the 'EMPOWER INNOVATION' logo, a search bar, and a user dropdown menu for 'JAMIE'. The main content area has a large banner with the text 'GLOBAL SEARCH' and a background image of people outdoors. A vertical sidebar on the right contains sections like 'MESSAGES', 'LISTS', 'MY APPLICATIONS', 'MY PROFILE', 'MANAGE ACCOUNT', and 'LOGOUT'. Below the main content, there's a large, semi-transparent watermark with the letters 'URWAF'.

- Edit User Profile Button: disabling implies permanent consequences, like a user can't edit it later:

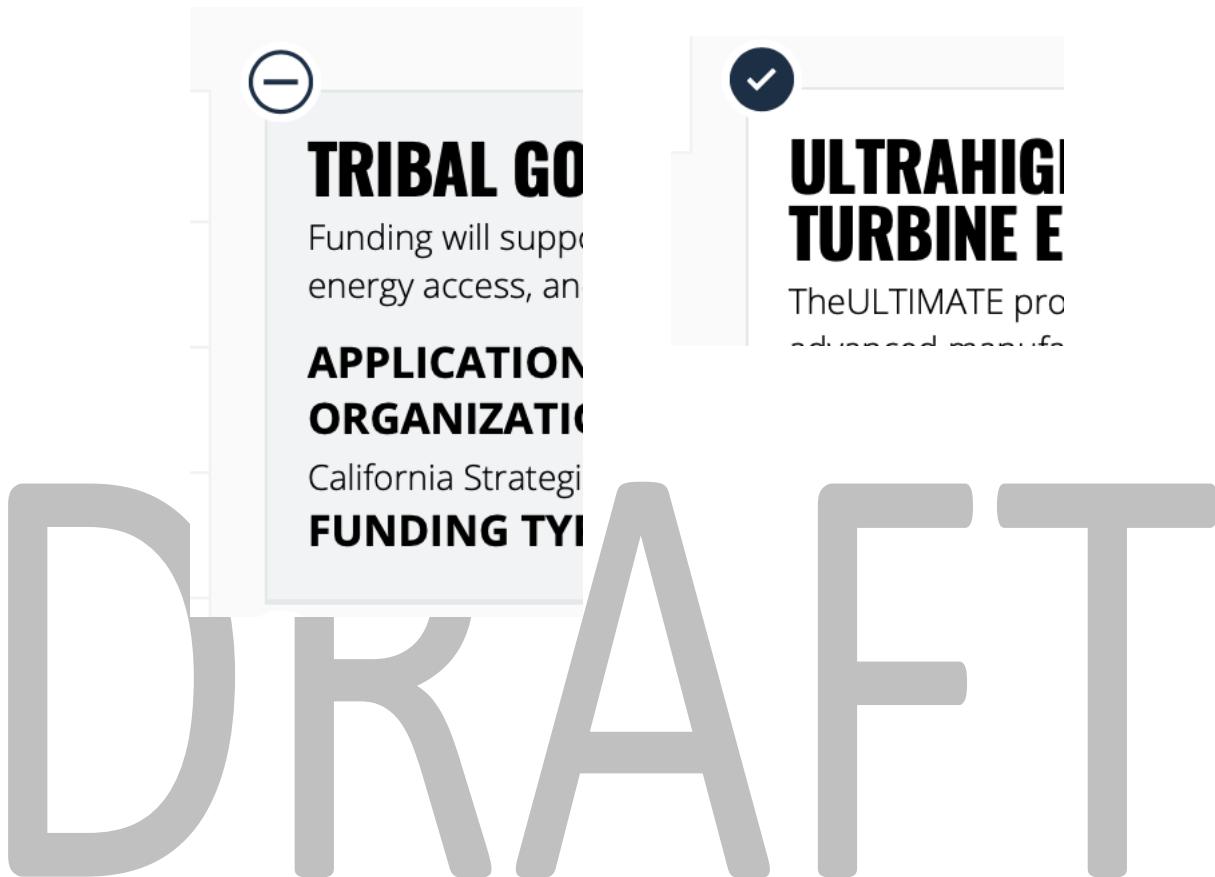
Improvement Suggested

- Use different wording





- Easy to un-select a funding type/resource/member from list





4. **Consistency and standards** (Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions)
- Consistency between layouts of searches on Resource Library page, Tool, and Database page
 - Noted: “Library” is the only tag with “Resource” attached to it
 - Overall site consistency
 - User familiarity with actions such as using a navigation bar, favoriting items, searching
 - Consistency in layout between all tabs on “Community” dropdown

Improvement Suggested

- Change “Resource Library” in pink label to “Library”

The image shows two screenshots of the Catalysts platform interface. Both screenshots feature a top navigation bar with a search bar containing '(RESOURCE TYPE: RESOURCE LIBRARY)' and a 'CLEAR SEARCH' button. The first screenshot is for the 'RESOURCE LIBRARY' category, displaying three results:

- TECHSTAR ENTREPRENEUR'S TOOLKIT**
Techstars Entrepreneur's Toolkit is an online educational resource to help you learn the fundamentals of entrepreneurship and accelerate your success.
Tags: Business Operations & Management, Communication, Engagement & Outreach, Finance & Accounting, Legal, Operations & Maintenance.
- MOBILITY ON DEMAND LEARNING CENTER**
The MOD Learning Center is a self-guided learning experience to explore the possibilities of shared mobility.
Tags: Climate, Environmental Justice, Equity, Transportation.
- CLIMATE CHANGE ADAPTATION RESOURCE CENTER (ARC-X)**
EPA's Adaptation Resource Center (ARC-X) is an interactive resource to help local governments effectively deliver services to their communities even as the climate changes.
Tags: Air Quality, Climate, Government, Health, Resilience, Water.

The second screenshot is for the 'TOOL' category, displaying three results:

- GATEWAY CITIES CLIMATE ACTION PLANNING FRAMEWORK**
Local jurisdictions can use this tool to develop a voluntary Climate Action Plan for reducing greenhouse gas emissions in their communities.
Tags: Air Quality, Climate, Economic Development, Environmental Justice, Equity, Health, Resilience.
- THE BUSINESS MODEL CANVAS**
The global standard used by companies of all sizes, the Business Model Canvas can be used to describe, design, challenge, and pivot your business model. It works in conjunction with other strategic management and execution tools and processes.
Tags: Business Operations & Management, Media & Marketing.
- CALIFORNIA HEALTHY PLACES INDEX (HPI)**
The California Healthy Places Index is a powerful new tool, developed by the Public Health Alliance of Southern California, to assist you in exploring local factors that predict life expectancy and comparing community conditions across the state.
Tags: Air Quality, Climate, Economic Development, Education & Training, Environmental Justice, Equity, Health.



SEARCH (RESOURCE TYPE: DATABASE)

CLEAR SEARCH

FILTERS

RESOURCE TYPE (1)

TAGS

EQUITY CATEGORIES

PERSONAL FILTERS

Advanced Manufacturing

Materials & Recycling

DATABASE

DOE ADVANCED MANUFACTURING OFFICE

Entrepreneurs in the Advanced Manufacturing space will find AMO's website a valuable source for funding opportunities, technology benchmarking and assessments, and information on existing and upcoming programs.

DATABASE

ANGELLIST

AngelList is a platform for startups to raise money, build teams, and launch their products. AngelList allows startups to raise money from angel investors free of charge.

Data Monitoring & Analytics

DATABASE

ALTERNATIVE FUELS DATA CENTER

DOE's Alternative Fuels Data Center provides state-by-state information on laws and incentives, case studies and publications, and a wide array of tools such as fueling station locators and fleet conversion calculators.

Alternative Fuels

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- “Startup” button brings the user to a page titled “Organizations” not startups. But this is the same layout as “Organizations”

Improvement Suggested

- Change title “Organizations” to “Startup Organization” on Startup page

Organizations Page Header:

The screenshot shows the top portion of a web page with a large, semi-transparent background watermark reading "DRAFT". Overlaid on this is the page header. At the top center is the word "ORGANIZATIONS" in large, bold, white capital letters. Below it is a subtitle: "A SEARCHABLE DIRECTORY OF INNOVATORS, FUNDING PROVIDERS, COMMUNITIES, TECHNOLOGY ADOPTERS, AND OTHER GROUPS USING EMPOWER INNOVATION." To the left of the main title is a search bar with a magnifying glass icon and the word "SEARCH". On the far right of the header are two small icons: a list and a refresh symbol. The overall design has a modern, clean look with a dark header area.

FILTERS

TYPE OF ORGANIZATION

CLEANTECH PRODUCT OR SERVICE PROVIDED

BUSINESS CATEGORY

MEMBER OF PARTNER PROGRAM(S)

cyclotronroad	CYCLOTRON ROAD World's First Entrepreneurial Research Fellowship TYPE OF ORGANIZATION Startup Services	(dropdown arrow)
RELECTRIFY	RELECTRIFY Relectrify supplies advanced control technology, which increases the lifetime and decreases the cost of battery storage systems. TYPE OF ORGANIZATION Technology Innovators	(dropdown arrow)



Start-Up Page Header:

ORGANIZATIONS
A SEARCHABLE DIRECTORY OF INNOVATORS, FUNDING PROVIDERS, COMMUNITIES, TECHNOLOGY ADOPTERS, AND OTHER GROUPS USING EMPOWER INNOVATION.

SEARCH (TYPE OF ORGANIZATION: TECHNOLOGY INNOVATORS) CLEAR SEARCH

FILTERS

- TYPE OF ORGANIZATION (1)
- CLEANTECH PRODUCT OR SERVICE PROVIDED
- BUSINESS CATEGORY
- MEMBER OF PARTNER PROGRAM(S)

UPRISE ENERGY
World's first commercially sized mobile wind turbines
MEMBER OF PARTNER PROGRAM(S) Southern California Energy Innovation Network
TYPE OF ORGANIZATION Technology Innovators

COMMUNITY ENERGY LABS
Community Energy Labs is reinventing energy choice. We build human centered solutions to deliver affordable 24/7 carbon free power at scale.
MEMBER OF PARTNER PROGRAM(S) None
TYPE OF ORGANIZATION Technology Innovators

Projects Page Header:

PROJECTS
A SEARCHABLE DIRECTORY OF CLEANTECH PROJECTS, PROGRAMS, AND DEMONSTRATIONS FROM EMPOWER INNOVATION MEMBERS.

SEARCH

FILTERS

- TECHNOLOGIES RESEARCHED OR DEPLOYED
- LOCATION
- EQUITY CATEGORIES
- PERSONAL FILTERS

EVmatch Community Charging Network, City of Boulder
EVmatch received a grant from the City of Boulder, Colorado to offer our community charging service to residents.
PROJECT PARTNERS City of Boulder

EMPOWER INNOVATION
Navigant is managing the Empower Innovation platform on behalf of the California Energy Commission.
PROJECT PARTNERS iCatalysts, SkipsoLabs

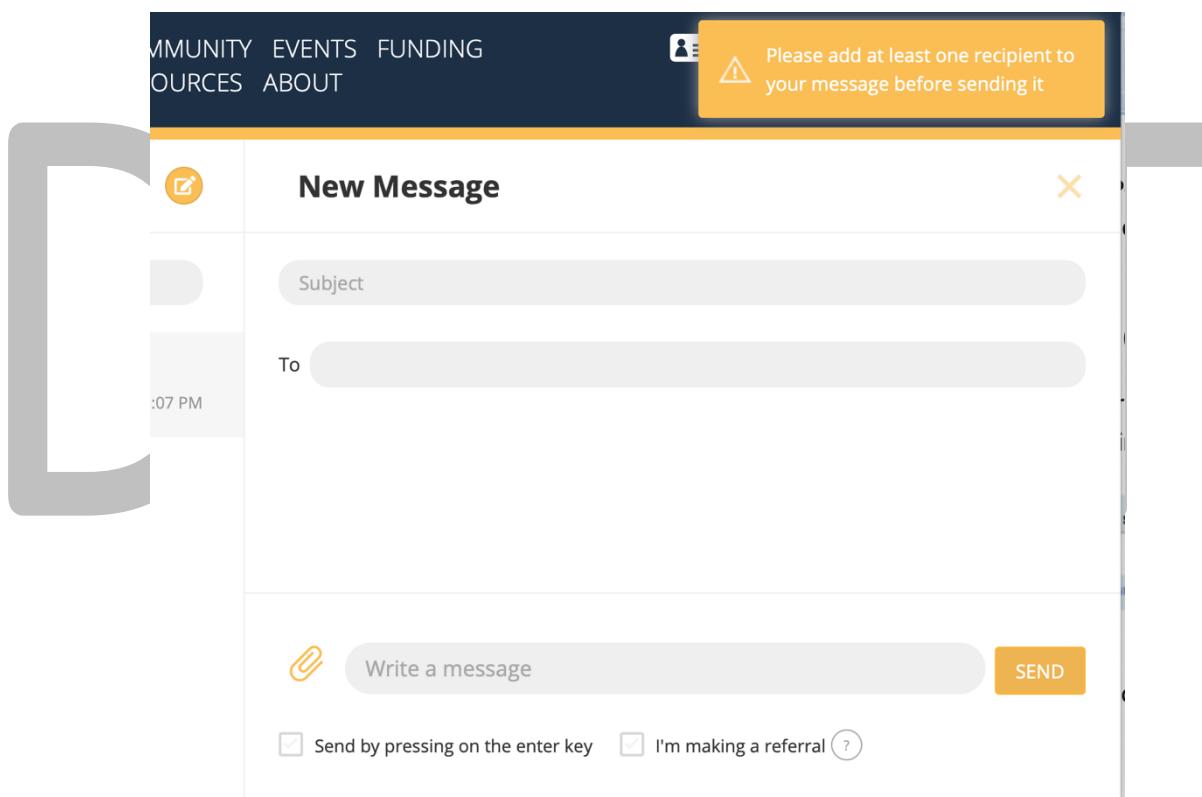


5. **Error prevention** (Prevents a problem from occurring in the first place. Be permissive to various entry formats.)

- o Send button on Messaging is always enabled

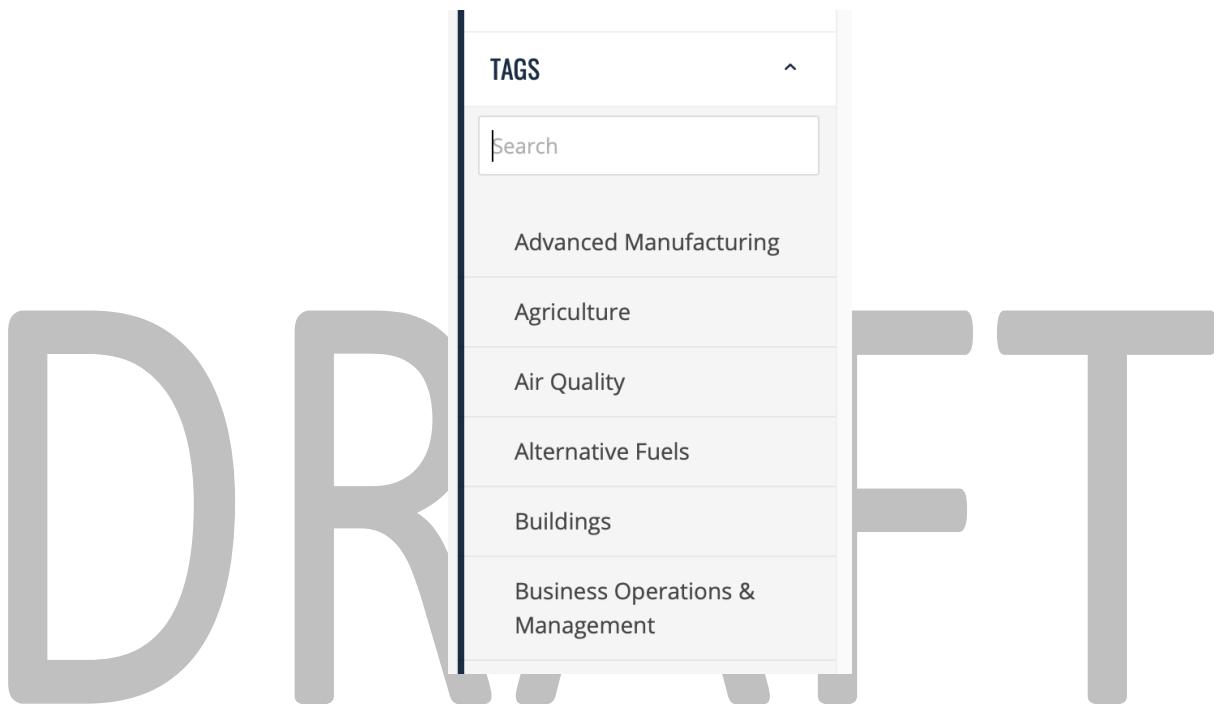
Improvement Suggested

- o Could default to disabled until all required fields are filled out





6. **Recognition rather than recall** (Making objects, actions, and options visible. Make navigation visible and make it easy to go back, go to home page and quit.)
 - o Lists out tag options to easily choose from list, with mini search bar to gain quicker access to it
 - o The list is long enough that the search bar is necessary





7. **Flexibility and efficiency of use** (Speed up the interaction for the expert users with accelerator. Experts prefer few screens with a lot of information and a lot of flexibility in the methods, while novice users prefer going through step by step sequences with little information.)
 - Ability to favorite items and keep the list of favorites upfront on the user's dashboard
 - Lists are also methods to bookmark and group members and organizations together and make them easily accessible and shareable with others

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8. **Aesthetic and minimalist design** (Dialogues should not contain information that is irrelevant or rarely needed. In other words, present only necessary information for the task, rarely used information should be in secondary screens or windows.)
- Would not classify this site as minimalist design:
 - Lots of bolding, capitalization, and dark lines and text
 - Consistent design: headings, subtexts, and format are consistent throughout

Improvement Suggested

- Improve consistent nature of color scheme
 - Could reuse accent colors such as green from loading bar or green, pink, and brown from Resource pages to unite different tools together.
 - For example, lists are accessible between different dashboard pages, but could possibly be assigned a color to make each list stand out and be more easily accessible

The screenshot shows a website for "EMPOWER INNOVATION" with a dark header bar. The header includes the logo, navigation links for COMMUNITY, EVENTS, FUNDING, RESOURCES, ABOUT, and a user dropdown for JAMIE. A search bar is also present. The main content area features a large image of solar panels under a blue sky. Below the image, the word "ORGANIZATIONS" is prominently displayed in large white letters, followed by a subtitle: "A SEARCHABLE DIRECTORY OF INNOVATORS, FUNDING PROVIDERS, COMMUNITIES, TECHNOLOGY ADOPTERS, AND OTHER GROUPS USING EMPOWER INNOVATION".

On the left side, there is a sidebar titled "FILTERS" with dropdown menus for "TYPE OF ORGANIZATION", "CLEANTECH PRODUCT OR SERVICE PROVIDED", "BUSINESS CATEGORY", "MEMBER OF PARTNER PROGRAM(S)", "EQUITY CATEGORIES", "LOCATION", "AREA OF EXPERTISE", and "COMMUNITY CONCERNES".

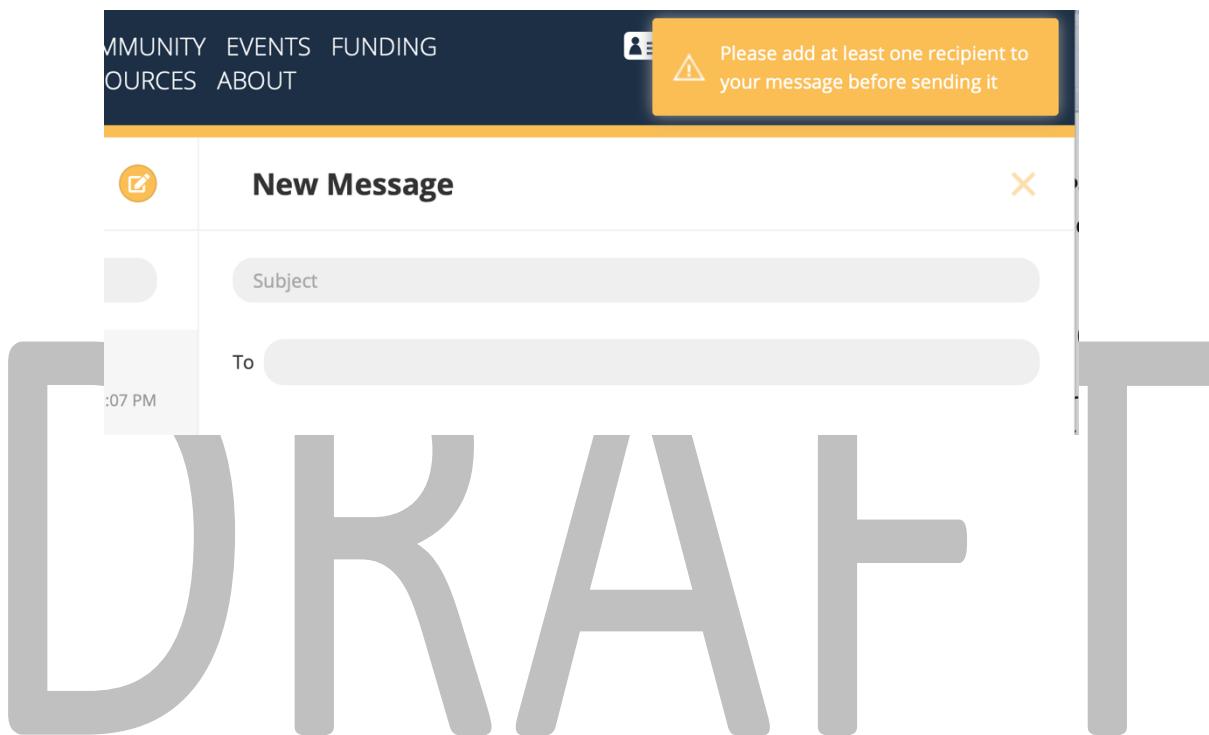
The main content area displays three organization entries:

- BLUEJAYS HOLDINGS LLC**
Research/Development/Commercialization of Energy Management technology for DER/Storage/Demand for bill reduction and/or grid (or microgrid)services
MEMBER OF PARTNER PROGRAM(S) None
TYPE OF ORGANIZATION Technology Innovators
- CITY OF PALM SPRINGS CALIFORNIA**
Conduct sustainability initiatives for the City of Palm Springs, California
TYPE OF ORGANIZATION Local Communities
- ELECTRIPHI**
Electriphi saves energy costs + simplifies EV transition for commercial vehicle fleets
MEMBER OF PARTNER PROGRAM(S) None
TYPE OF ORGANIZATION Technology Innovators

On the right side, there is a call-to-action button labeled "ADD YOUR ORGANIZATION" with the instruction "Hover over the + to add your organization".



9. **Manage errors** (Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.)
 - o Error message in messaging
 - o A positive is that the site has few places for people to make programmatic errors

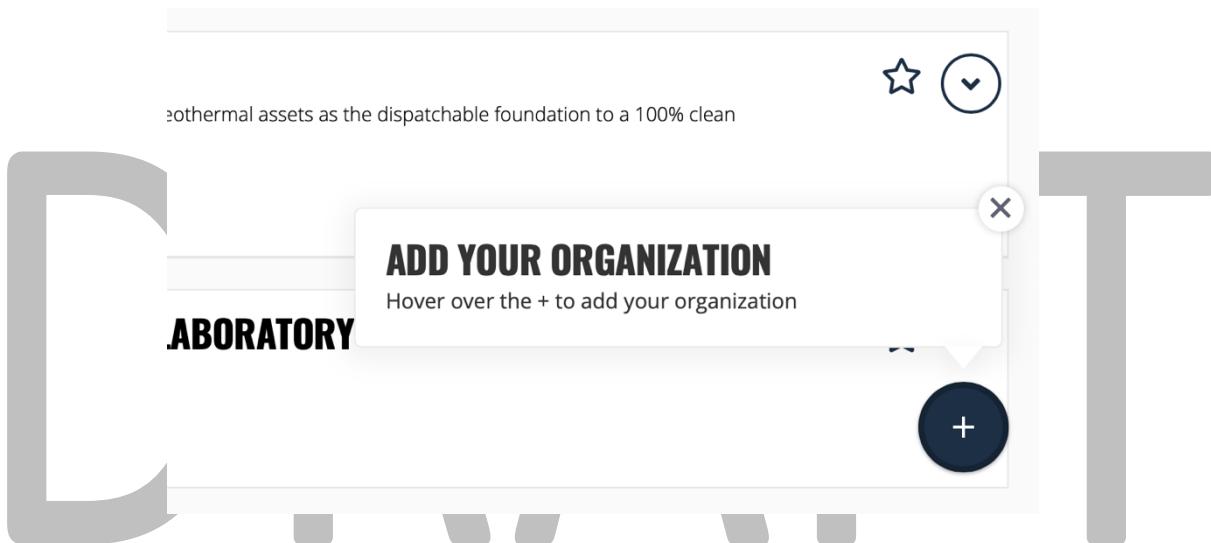




10. **Help and documentation** (Use prompt and contextual help related the task, allow easy search.)

Improvement Suggested

- Add some on-boarding styled pop-up notifications to show user about certain features



- No help center on navigation bar!



- User guide is a minor link listed on the bottom of the footer of the site
 - Not intuitive to new user → Should be more accessible

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