

# Hephaestus

A collaboration platform for tech4good developers

*In a modern world, **developers** are akin to the **carpenters, blacksmiths and workers** of older times; developing and building to improve everyday life*

*Hence, we've named our project after Hephaestus, the Greek God of craftsmen*

"

Christopher Tan, Clement Neo

# Chosen Problem Statement

Develop and design a global tech-for-good innovation & collaboration platform, to enhance tech-for-good information sharing / transparency, learning, exchange and accelerate collaboration among tech for good ecosystem players

## Pain Point

In the current setup, there is a disconnect **between fellow Developers**, and **between the Developers and Organisations**

- Between fellow Developers, there is no platform to discuss ideas and to share freely on what they have ideated
- Between Developers and Organisations, Developers simply pose ideas which are either accepted or rejected by Organisaions

# Our Solution

Provide a platform where users can freely chat, voice call and share ideas all the while trying to solve complex world problems together

We propose a platform for people to

- Learn about social issues to work on and innovative solutions
- Propose innovative ideas or find like-minded teammates with the technical competencies
- Have their ideas follow a stringent minimum requirement or learn how to start a project
- Projects with potential are promoted and can be mentored

# Impact

## Novelty

-  Speed of collaboration - devs can hop onto the platform to learn more about the trending social projects
-  devs can find like minded teammates with the required technical competency or expertise
-  Culture of innovation - devs can bring and share radically different ideas

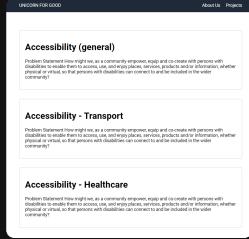
## Automation

- Streamline the project proposal submission process
- Allow for pledging, event submission, and act as a T4G directory
- Give approved projects a 'home page' as well as a platform to start a community and attract others to contribute

# Main Components

## Landing Page

- About us information
- Trending approved projects
- Latest social problem



## Admin Page

- admin-only web dashboard
- Lists all project proposals submitted
- Allows for managing of problem statements

A screenshot of a web-based administration interface. At the top, there's a navigation bar with links for "Navbar", "Users", "Teams", "Project Proposals", and "Team-Users". Below this is a main content area divided into several panels. On the left, there are panels for "Hephaestus" (with user "neoapprox"), "Team1" (with user "neoapprox"), "Team2" (with user "hamster"), "Team3" (with users "hamster" and "tester"), "Team4" (empty), "Team5" (with user "clemmy"), and "Team6" (empty). To the right of these is a sidebar with sections for "GENERAL" (Threads, CHANNELS, Welcome, Rules, Announcements, Problem Statements), "DIRECT MESSAGES" (hephaestusbot, Invite Members), and "Things to do" (Read the Rules, Read the Problem Statements, Write to Welcome).

## Mattermost Server

- A Discord-like, self-hostable platform for chatting and collaboration
- has heavy integration support to create bots and commands that aid in supporting such a community
- can host multiple "Teams", each Team being a small group of channels where individuals may chat, voice call, and share freely

A screenshot of the Mattermost server interface. The top navigation bar includes "Channels", "Search", and other standard icons. The main area shows a list of channels: "Hephaestus" (selected), "Welcome", and "Town Square". The "Welcome" channel is currently active, displaying a "Welcome to Hephaestus" message from "hephaestusbot". This message includes a welcome message, the purpose of the server (collaboration for developers), and three icons representing "EDUCATE", "EMPOWER", and "INNATE". Below the channel list, there are sections for "Things to do", "Read the Rules", "About Us", and "Find out about the solutions proposed". At the bottom, there's a text input field for "Write to Welcome" and a toolbar with various text and media editing icons.

# Demo

1. Users can visit the landing page to get to Mattermost
2. Once they create an account, they are given a welcome message to describe the server, and its capabilities
3. From here, users may:
  - Read the rules
  - Find out more about SIP
  - Read the available problem statements
  - Read the existing solutions being developed

The screenshot shows two views of the Hephaestus Mattermost Server. On the left is a dark-themed landing page with a banner for 'Welcome to Hephaestus' and three sections: EDUCATE, EMPOWER, and ENHANCE. On the right is a light-themed user creation form titled 'A collaboration platform for tech4good developers'.

**Landing Page Content:**

- Welcome to Hephaestus**: Welcome to the Hephaestus Mattermost Server
- EDUCATE**: We believe that education is the most powerful program for leaders, entrepreneurs and activists. Whether you're a student, developer or researcher, we help develop the necessary skills to deliver impact for greater good.
- EMPOWER**: As a platform for large-scale social innovation, we believe that technology can be used to empower individuals, communities, organizations and institutions to work together to solve the world's biggest challenges.
- ENHANCE**: Our goal is to enhance the world by creating a culture of innovation, research, and acceptance of new ideas and technologies. We believe that through the power of technology, we can create a better future for all.

**User Creation Form:**

- Email address: \_\_\_\_\_
- Choose a Username: \_\_\_\_\_
- Choose a Password: \_\_\_\_\_
- Must be 8-64 characters long.
- Create Account

# Demo - Using Mattermost

1. Mattermost can be used to chat, send files and voice call
2. It has in-depth formatting, allowing for in-channel sharing of code, LaTeX formulae etc

The screenshot shows the Mattermost web interface. On the left, there's a sidebar with a user profile for 'Contributors' (@alice.miller) and sections for 'FAVORITE CHANNELS', 'PUBLIC CHANNELS', 'PRIVATE CHANNELS', and 'DIRECT MESSAGES'. The 'DIRECT MESSAGES' section is currently selected, showing a message from 'Tom Smith' to 'Alice Miller' dated Nov 30, 2017. The message contains a screenshot of a presentation slide titled 'Waypoint Switches from Slack to Mattermost' and a file named 'Screenshot at Nov 13 10-23-00.png' (1MB). Below this, they discuss availability for a call. Alice then sends a document named 'Wendy Jones.pages' (510KB) for review.

Contributors  
@alice.miller

FAVORITE CHANNELS

- Amy Blais, Tom Smi... 1
- Community Heartbeat

PUBLIC CHANNELS +

- Marketing: Twitter
- Public Test Channel
- Reception
- More...

PRIVATE CHANNELS +

- Marketing Project Disc

DIRECT MESSAGES +

- Tom Smith
- More...

Switch Channels - 8K

Tom Smith ▾  
Online • Add a channel description

Alice Miller 10:27 AM

Screenshot at Nov 13 10-23-00.png  
PNG 1MB

Tom Smith 10:28 AM

Thanks Alice, this looks good! Please update the blog.

Alice Miller 10:28 AM

Sure, will do!

Alice Miller 10:29 AM

Also, Tom, when would you be available for a call?  
Need to discuss about marketing assets.

Tom Smith 10:30 AM

I would available in an hour if you'd like to chat.

Alice Miller 10:30 AM

That works for me, see you then!

Thu, Nov 30, 2017

Alice Miller 11:15 AM

@tom\_smith Can you review this document when you have a chance?

Wendy Jones.pages  
PAGES 510KB

Write a message...

Help

# Demo - View Projects

1. In the `solutions` channel, users can view the existing projects, adding a "like" to them if wanted
2. To learn more, users can click into the project to be invited into the Project's Team

The screenshot shows a Slack interface with the 'Hephaestus' workspace selected. On the left, the sidebar displays various channels and teams. The 'GENERAL' section includes 'Announcements', 'Rules', and 'Welcome'. The 'SOLUTIONS' team is highlighted with a blue border. The main area shows the 'Channels' list with 'Threads', 'ANNOUNCEMENTS', and 'SOLUTIONS' selected. The 'SOLUTIONS' channel has three messages:

- Solution S001**: A post from 'bloom Team' with a message about improving social mobility among low-income women. It includes a 'Visit Project Website' link and a 'Likes - 17' button.
- Solution S002**: A post from 'Habitat Heroes' with a message about building homes through a virtual game. It includes a 'Visit Project Website' link and a 'Likes - 9' button.
- Solution S003**: A post from 'Habitat Heroes Team' with a message about Habitat for Humanity's problem statement. It includes a 'Visit Project Website' link and a 'Likes - 9' button.

At the bottom, there is a rich text editor and a toolbar.

Each icon is a Team, with one main Team, and the rest being Teams hosting the various other approved projects

# Demo - Submit Proposals

1. By heading to the Submissions Team, users can start a "Playbook" to initiate the submission process
2. A channel will be created for them, with a Playbook on the side. This contains a checklist of what to prepare
3. Once prepared, users can use the `/submit` command to fill in a form for their proposal, on Mattermost

@playbooks joined the channel.  
@hephaestusbot added to the channel by you.

hephaestusbot 2:44 AM  
Submit your project proposals here!

**Submit Solution Proposal**  
Think you have what it takes to solve some of the world's biggest problem? Send in your proposals for evaluation now!

**Educate**  
We develop highly responsible programs to develop our students. We believe in the power of education, and we are committed to delivering impactful results for greater growth.

**Empower**  
As educators, we bring world-class resources to our students, bringing together innovative ideas, technologies, and knowledge to help them succeed.

**Enhance**  
On the global stage, we strive to increase global impact, and enhance our students' learning experience through various modules, celebrating the success of each individual learner.

**Requirements**  
Project Ideation, Technologies employed and

**How to submit**  
Open the clipboard at the top-right, and click **Run** on the "Project Proposal Submission" Playbook

**Benefits**  
Get your own Team channel to attract other developers to work on the project together, acting as a home page for your proposal.

This channel is not running any playbook.

### Your Playbooks

**Project Proposal Submission**  
Last run was 10 hr. ago • 2 total runs

Run

**Checklist** 1 checklist    **Actions** 5 actions

### Playbook Templates

**Blank** 1 checklist 1 action Use

**Product Release** 4 checklists 3 actions Use

Run details

**Project-Hephaestus**

Project Name: <placeholder>  
Problem Statement: <placeholder>

Project Lead: <placeholder>  
Team:

Owner: @clementnjk Participants: Nobody yet. Add participants?

Update due in 7 days Post update

### Checklists

**List Project Details** 1 / 2 done

Project Name  
 Targeted Problem Statement  
 Project Details  
+ Add a task

**Technical Details** 0 / 2 done

Technologies to use  
 Nature of project (web application, mobile app, etc.)  
+ Add a task

Submit Project Proposal

Submit a project proposal based off of one of the provided problem statements

Proposed Name \*

Problem Statement \*

Project Description \*

Technologies & Nature of Project \*

Past experiences and Portfolio \*

Cancel Submit

4. This submission is then shown on the admin dashboard, to be evaluated. Admins may also chat with the user on Mattermost to get a better idea of their submission

# How we built it

- Frontend with React, HTML and CSS
- Backend with Flask and Firebase
- Collaboration platform with Mattermost
- Hosted on DigitalOceans

A dark, atmospheric photograph of a forest. The scene is filled with tall evergreen trees, their dark green needles silhouetted against a very bright, overexposed sky. The light is coming from behind the trees, creating a strong lens flare effect. The overall mood is mysterious and somber.

End