



software
campus

OUTPUT

Software Campus SusAF Workshop

28.01.2021

Analyzed systems:

1. Twitter
2. Apple Health App
3. Smart Retail
4. Nursing Robot
5. Lane Assistant
6. Spotify
7. Github
8. Alexa
9. Deepl

1. TWITTER

Scoping

Product or Service Vision

- Social: Low barrier social interaction
- News: The first place to see breaking news
- Open to everyone

Known sustainability effects

- Energy consumption (storage, traffic, ...)
- Promotion of Fridays for Future vs. Fake News Propagation

Social Dimension

Sense of community

Strong sense of community marginalized vs. extreme

possibility to connect with someone + receive their message (in a direct or indirect way)

Everyone can post easily and most of the time at least some people are interested

discrimination, hate speech

Trust

Can erode trust in democratic institutions

Outcomes for engagement: intermediary topics get more attention

tools to mark fake news

get lost in sea of posts and information overload + information overload + information overload

Inclusiveness and diversity

Promotes and reinforces social equality: Women empowerment, LGBTQ+ Rights, etc.

Open to everyone

Bottom: Success in amplifying the voice of others

Low media literacy of the users (misinformation)

diversity and homogeneity: demographic, geographic, etc.

Equity

Low barrier to entry - most information available

Access through third party apps is getting more difficult

vs

Treating everyone the same (but based on their needs and not on their needs)

Participation and communication

Creates information bubbles: the Status Quo

power of groupthink: to support a hypothesis

power of groupthink: to attack a hypothesis

More intense and universal global communication: necessary for solving global challenges

Organic & planned

Individual Dimension

Health

Optimizes for engagement: Users may become addicted

get support from fellow users being affected

Get in touch with other people having a topic or having health issues

Sharing information about health issues can be bad for mental health

Exercise your voice: lots of people & topics to make sure you are seen (or not)

Lifelong learning

Keep up with the latest research

Making things of health and healthcare

No other support to change your opinion

Privacy

Does it go on the internet or not? forward on the internet or not? Employability

Ad targeting

Private/locked accounts

No need to use your real name or picture

possibility to make threads public & ask for support

Safety

Doxing

Reporting of Tweets can take a lot of time

A user with many followers could be used to attack a smaller account

Agency

Inspire: Seeing others doing positive things

Own landing something in a business and point in lighting

Environmental Dimension

Material & resources

very little hardware required (only internet and a device to connect)

Waste & pollution

Users have to keep their devices and software up to date

More data to go for targeting requires even more storage of data

Biodiversity

Users have to keep their devices and software up to date

Energy

Users have to keep their devices and software up to date

Can optimize energy usage

Logistics

More hardware data: e.g. about mail addresses, phone numbers, etc. to improve logistics

Economic Dimension

Value

Twitter is not a free service for users

Make people happy

Users and being supported advertising

Twitter is not a free service for users

CRM

Twitter is not a free service for users

Twitter is not a free service for users

Supply Chain

Twitter is not a free service for users

Twitter is not a free service for users

Governance

Twitter is not a free service for users

Twitter is not a free service for users

Innovation

Twitter is not a free service for users

Twitter is not a free service for users

Technical Dimension

Maintainability

Difficult to change the code of a large system

The API is not for developers but for developers

No native support for trigger warnings and spoilers

Usability

easy to use, few functions

Increased length of tweets (280 characters)

Native support for trigger warnings and spoilers

Adaptability

Twitter is not a free service for users

Twitter is not a free service for users

Security

Deal with data that is too large to be stored in a single database

Twitter is not a free service for users

Scalability

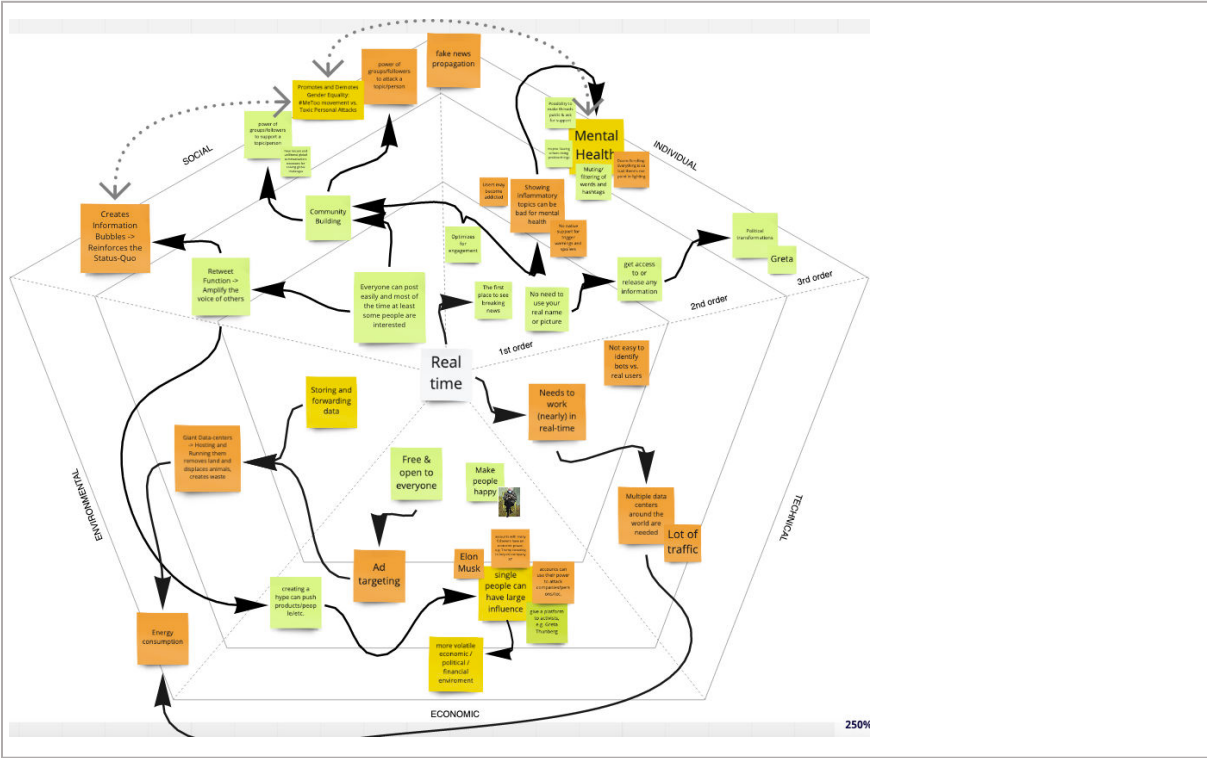
Multiple data centers around the world are needed

Needs to work (nearly) in real-time

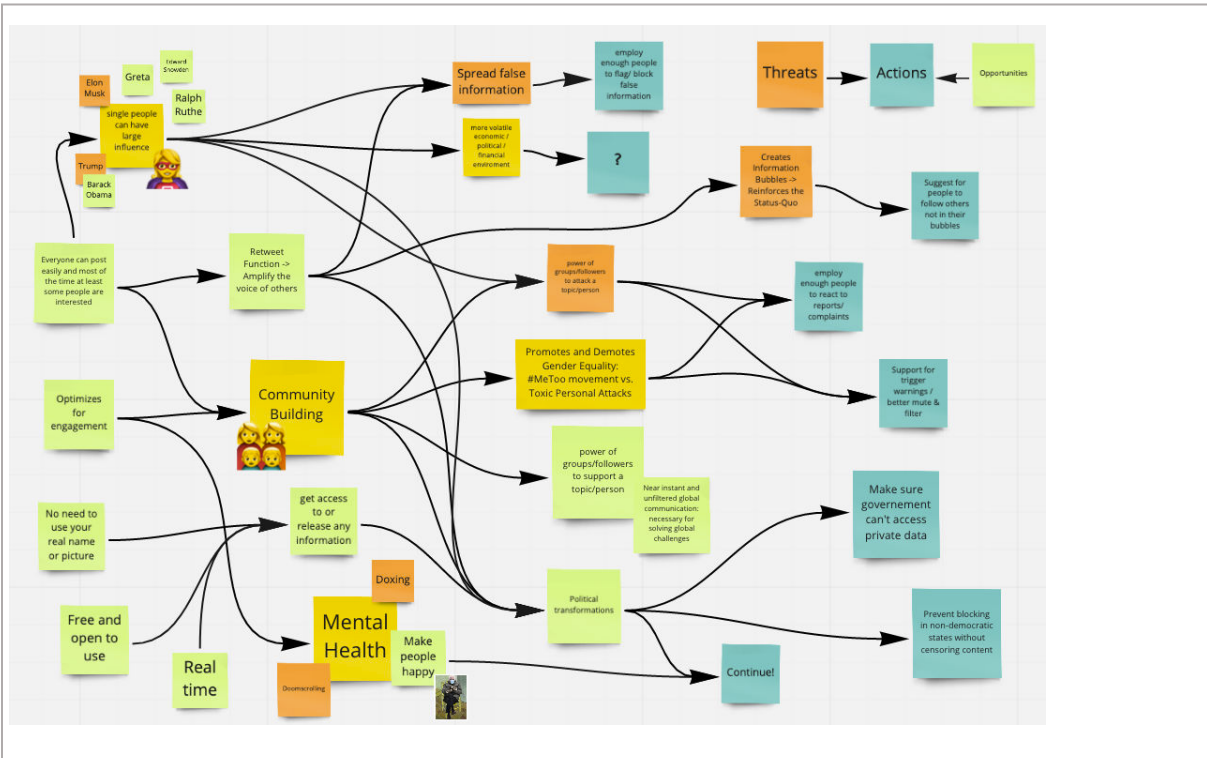
You can manipulate what is trending

1. TWITTER

SusAF Diagram

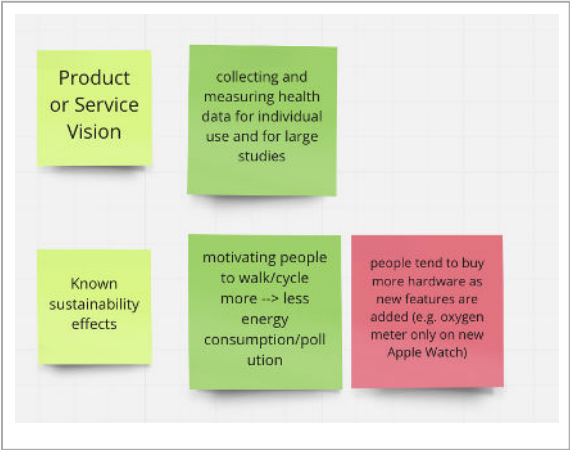


Opportunities, Threats & Actions

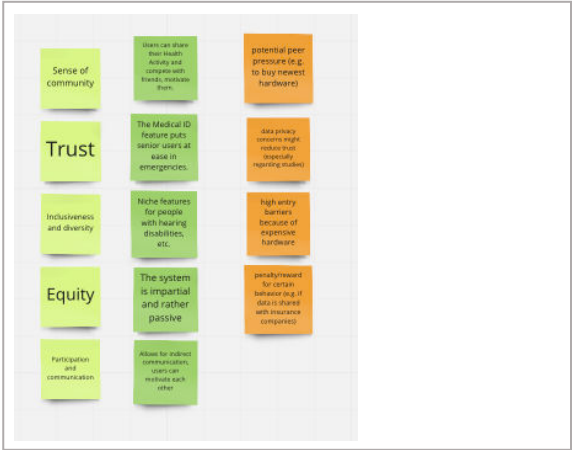


2. APPLE HEALTH

Scoping



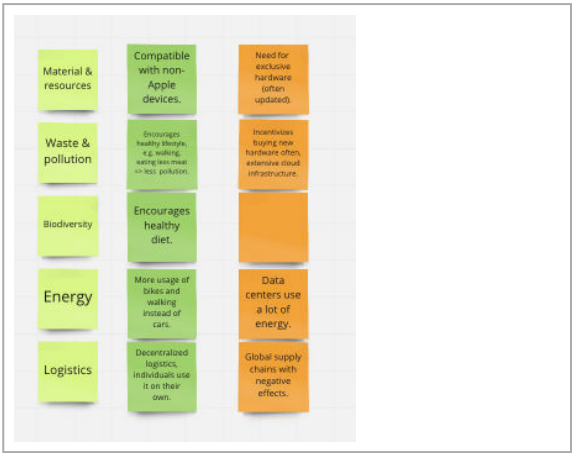
Social Dimension



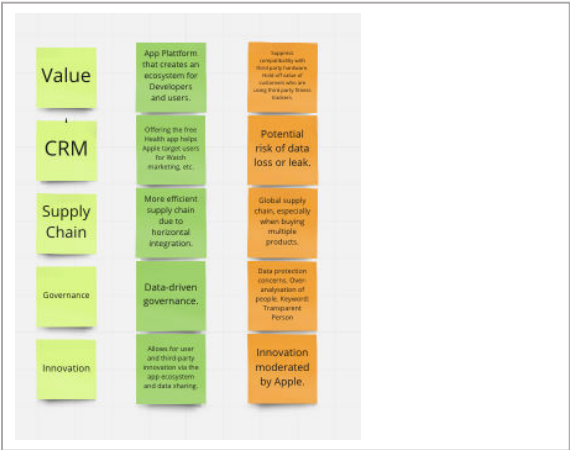
Individual Dimension



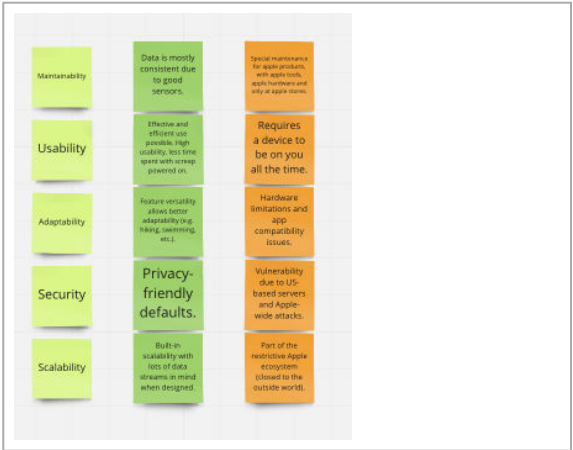
Environmental Dimension



Economic Dimension

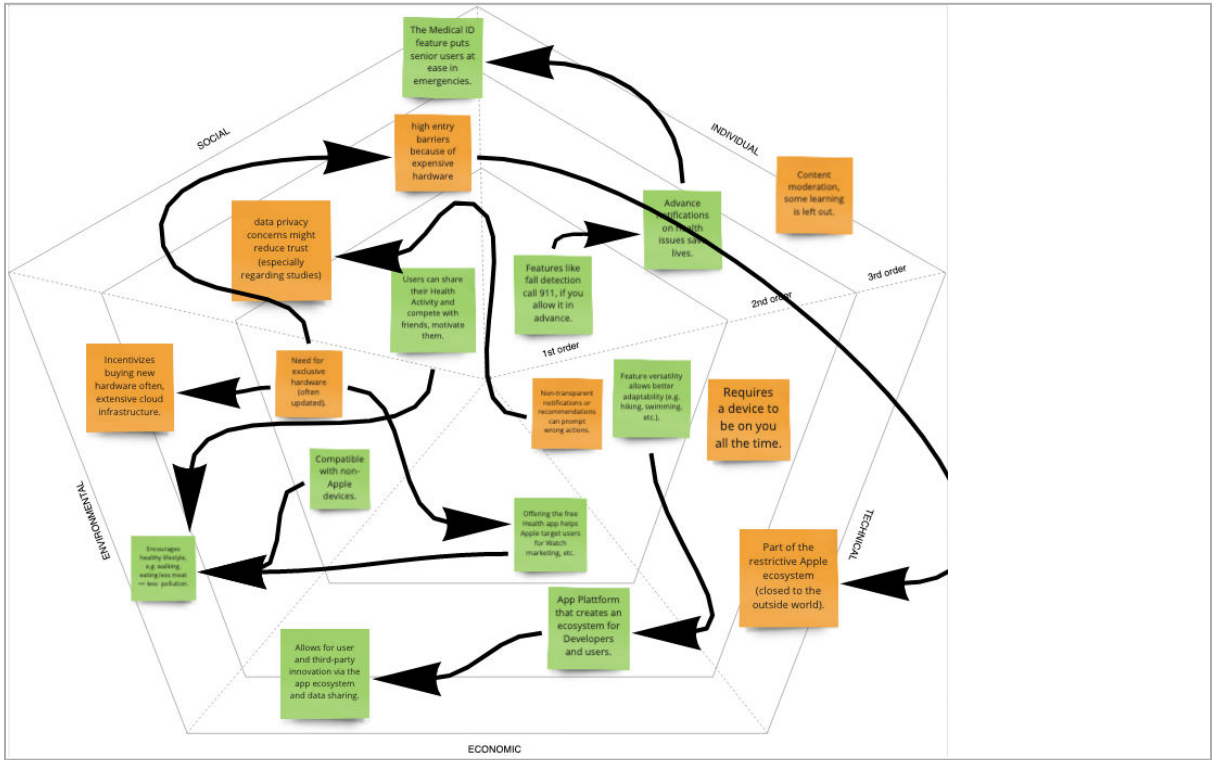


Technical Dimension

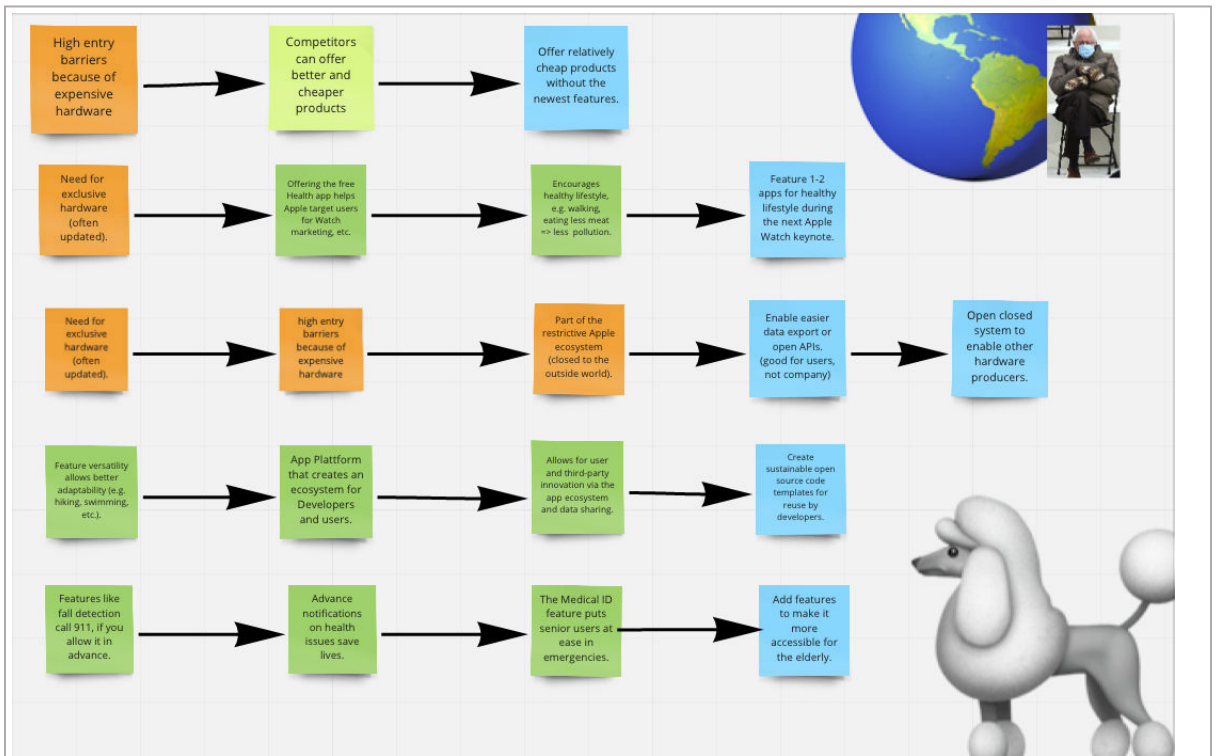


2. APPLE HEALTH

SusAF Diagram

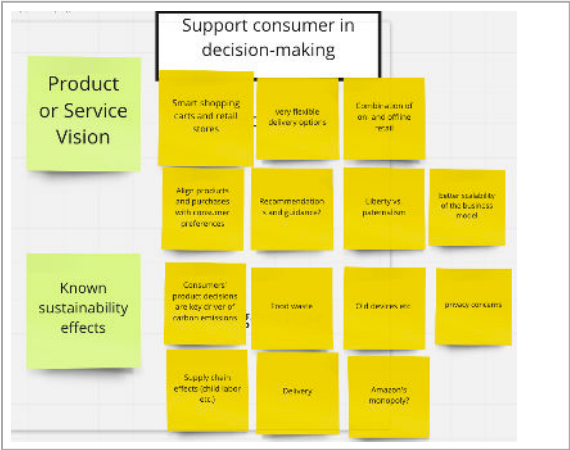


Opportunities, Threats & Actions

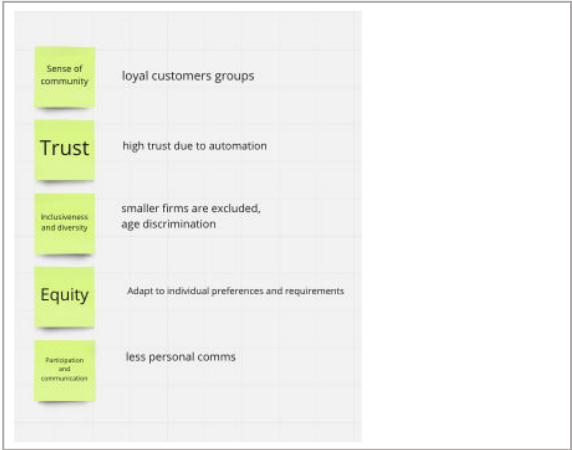


3. SMART RETAIL

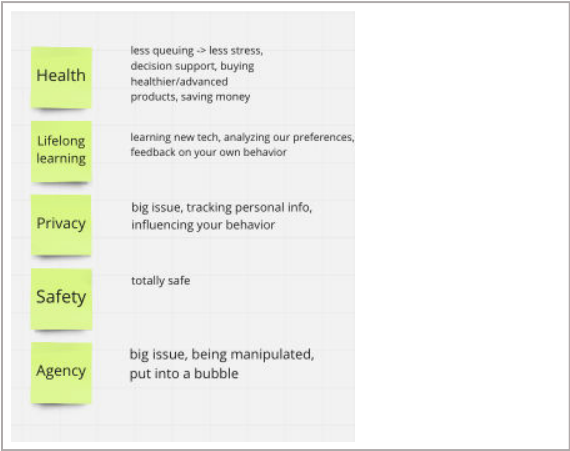
Scoping



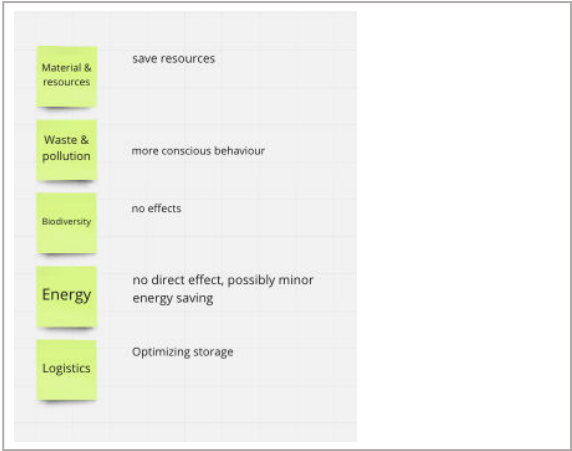
Social Dimension



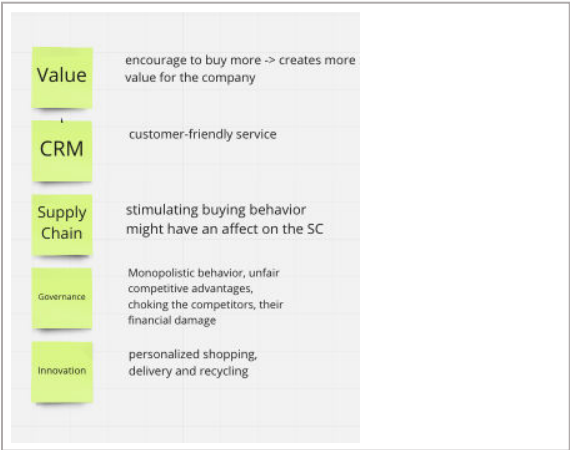
Individual Dimension



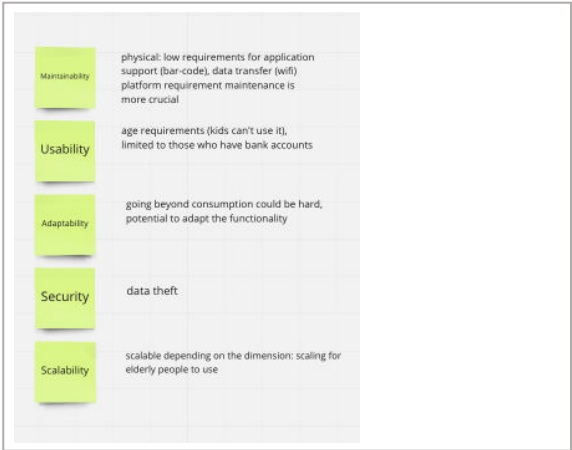
Environmental Dimension



Economic Dimension

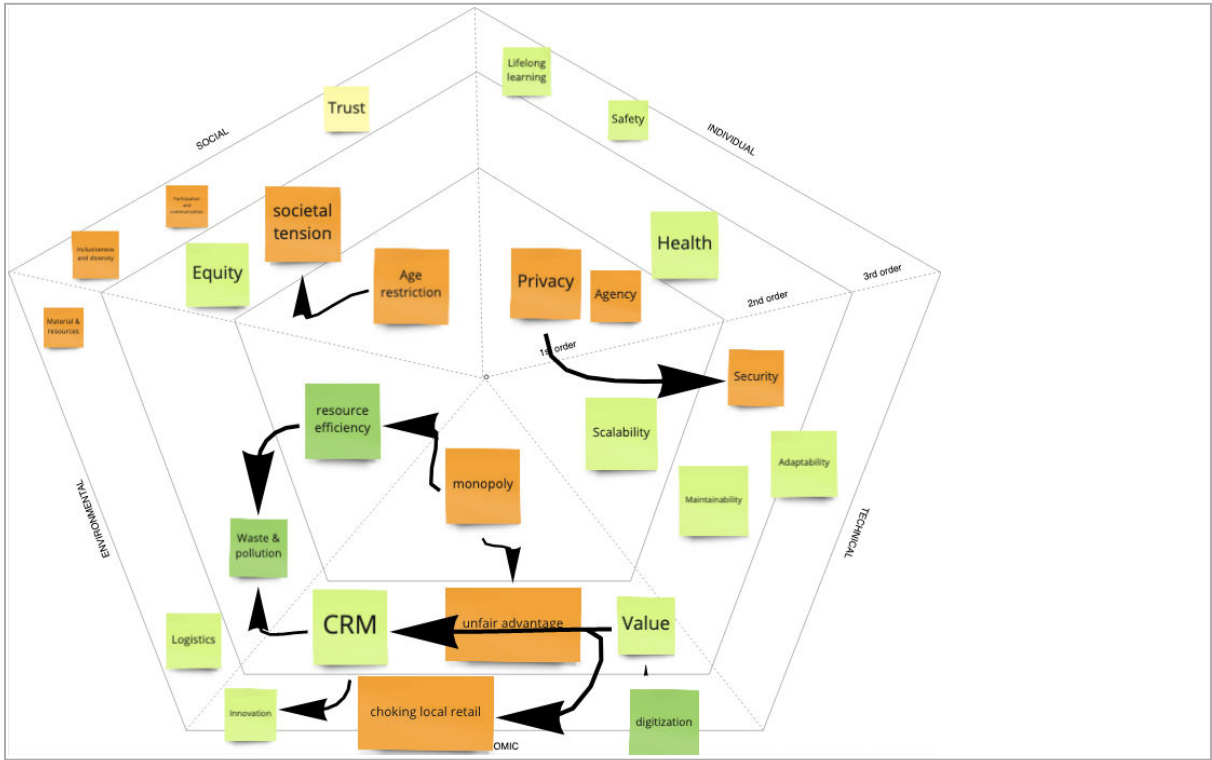


Technical Dimension

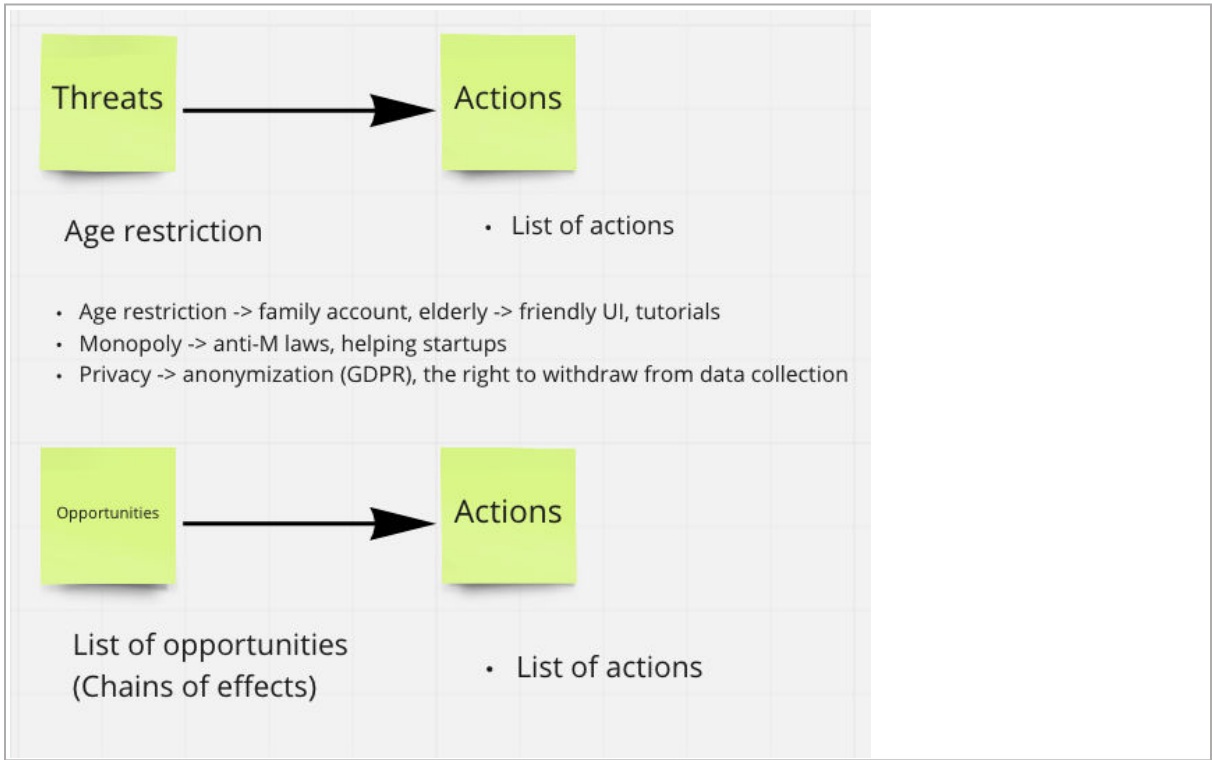


3. SMART RETAIL / SMART CART

SusAF Diagram



Opportunities, Threats & Actions



4. NURSING ROBOT

Scoping



Social Dimension



Individual Dimension



Environmental Dimension



Economic Dimension

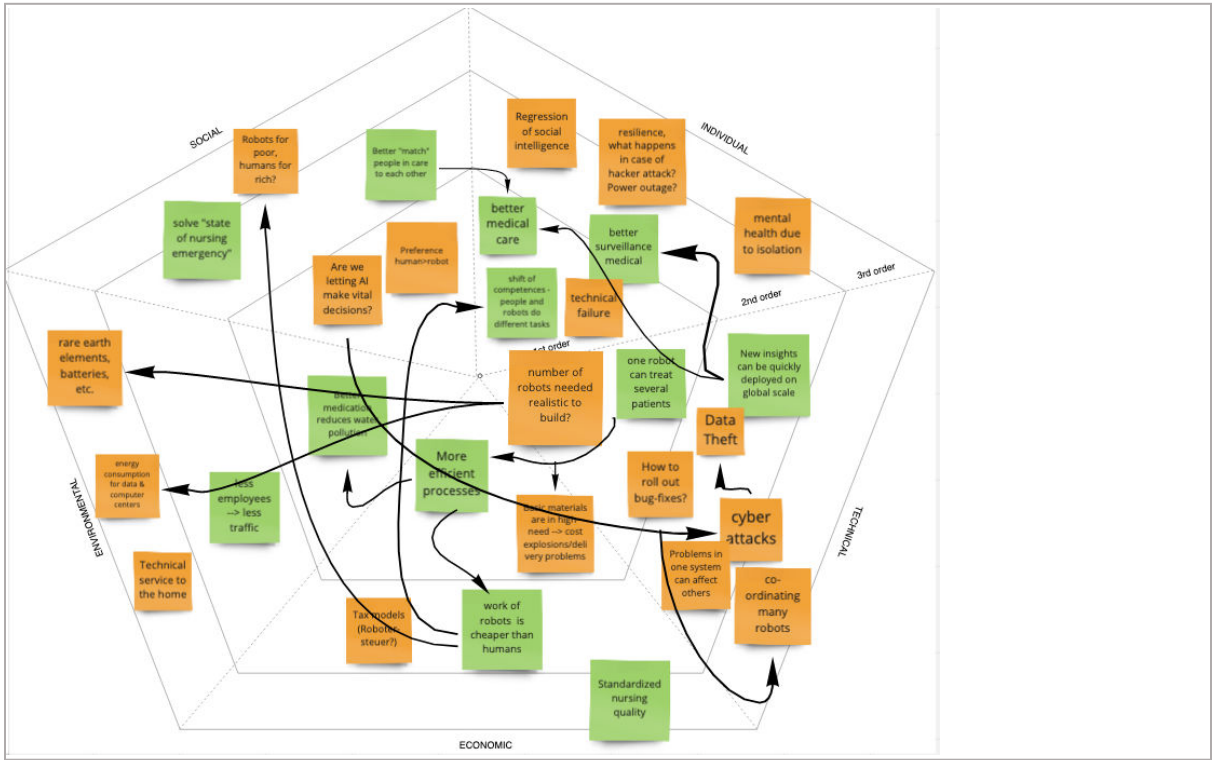


Technical Dimension

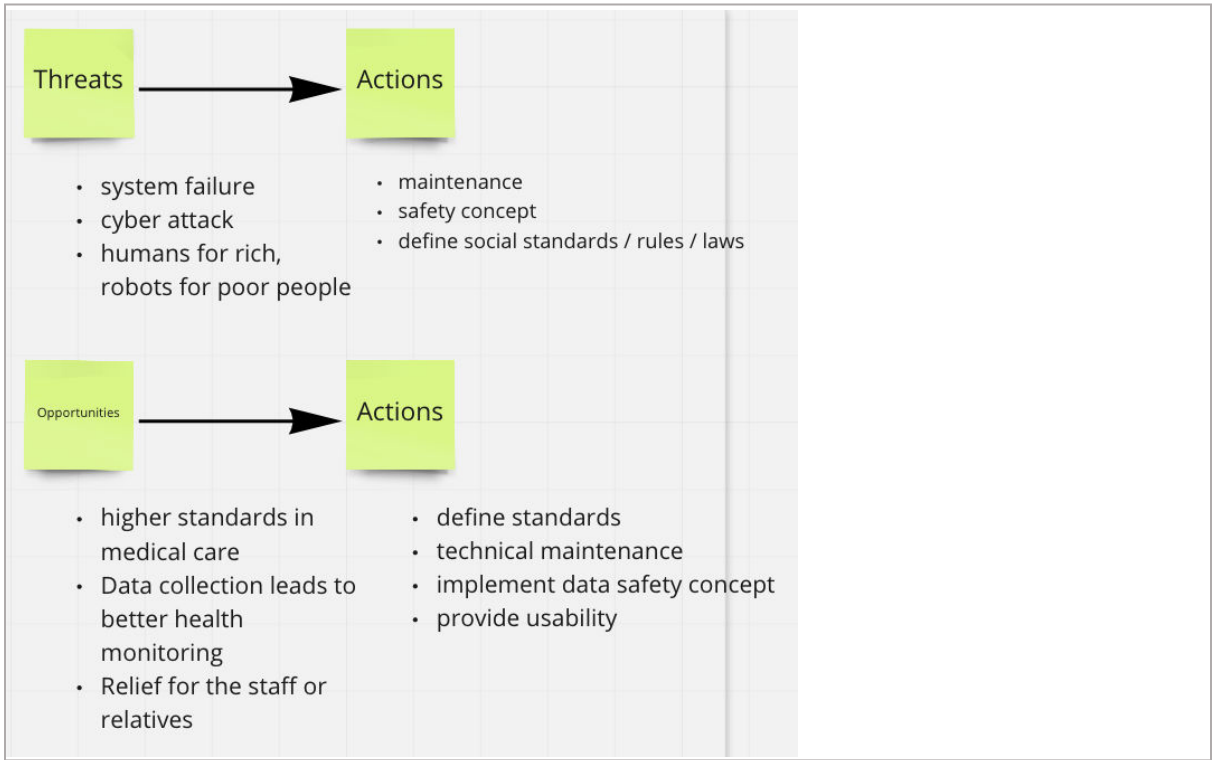


4. NURSING ROBOT

SusAF Diagram



Opportunities, Threats & Actions

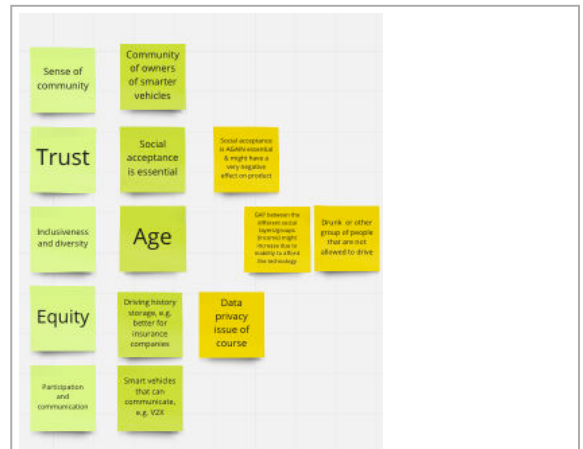


5. LANE ASSISTANT

Scoping



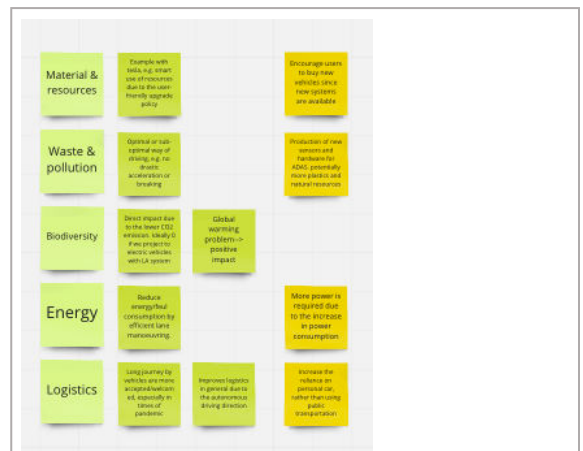
Social Dimension



Individual Dimension



Environmental Dimension



Economic Dimension

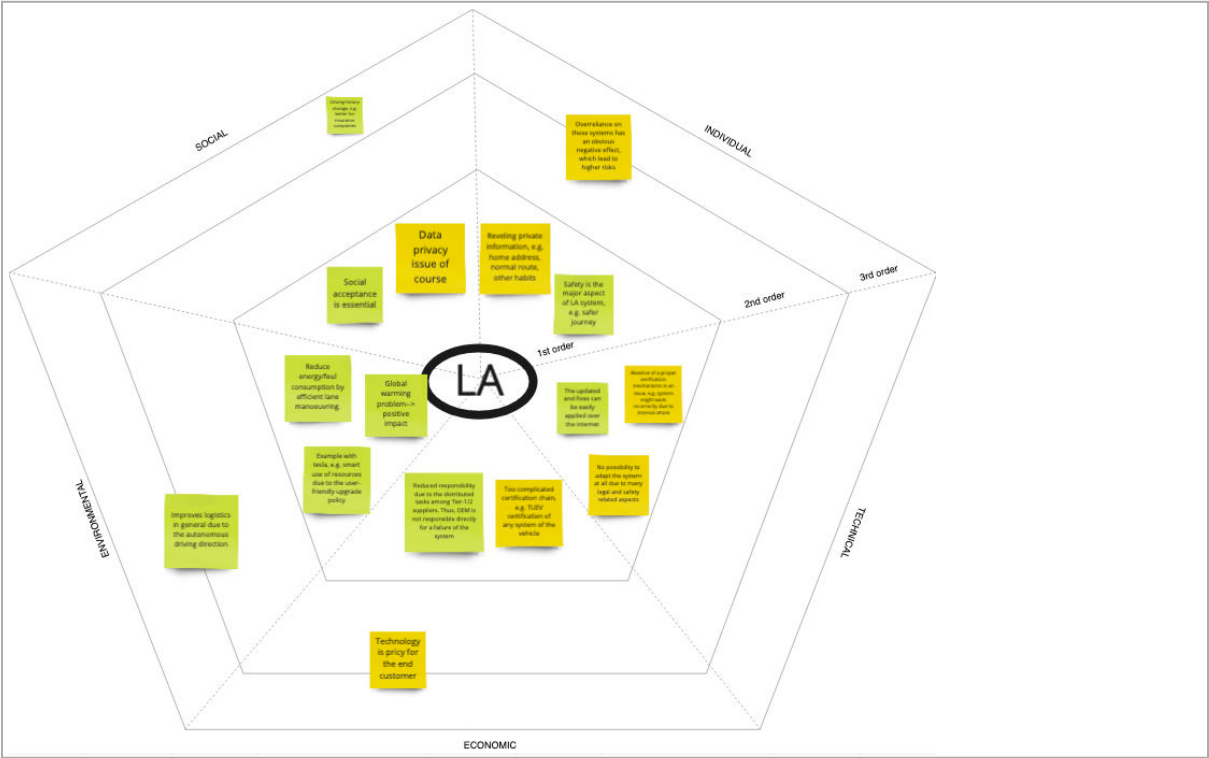


Technical Dimension

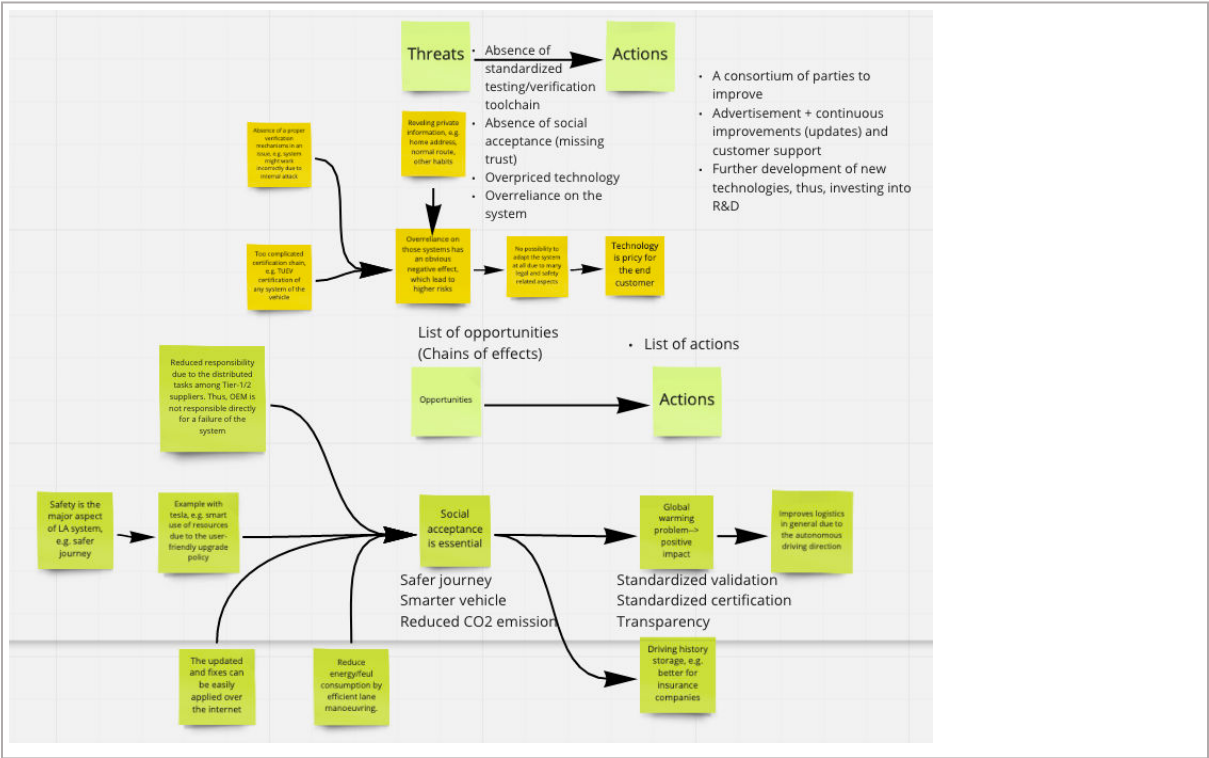


5. LANE ASSISTANT

SusAF Diagram

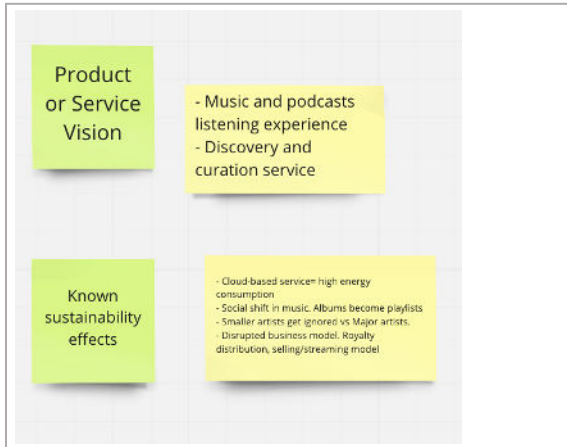


Opportunities, Threats & Actions



6. SPOTIFY

Scoping



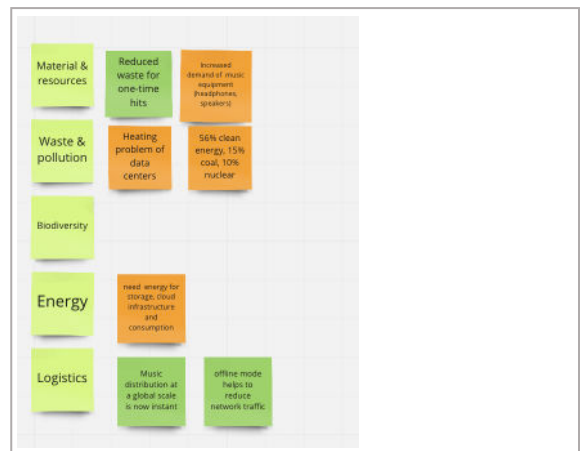
Social Dimension



Individual Dimension



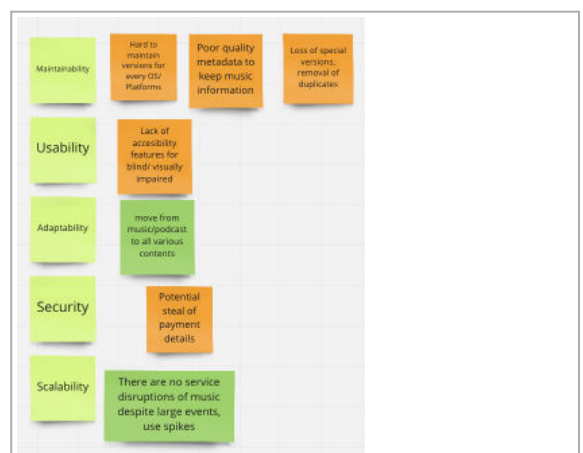
Environmental Dimension



Economic Dimension

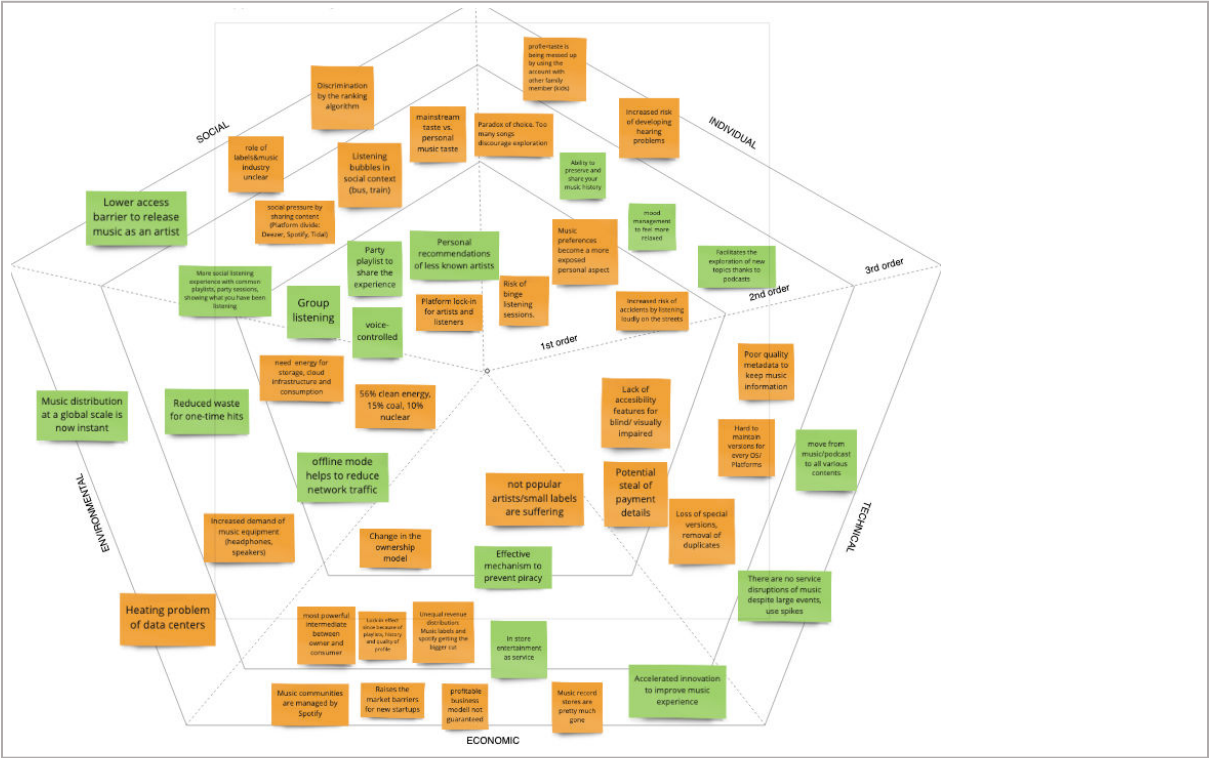


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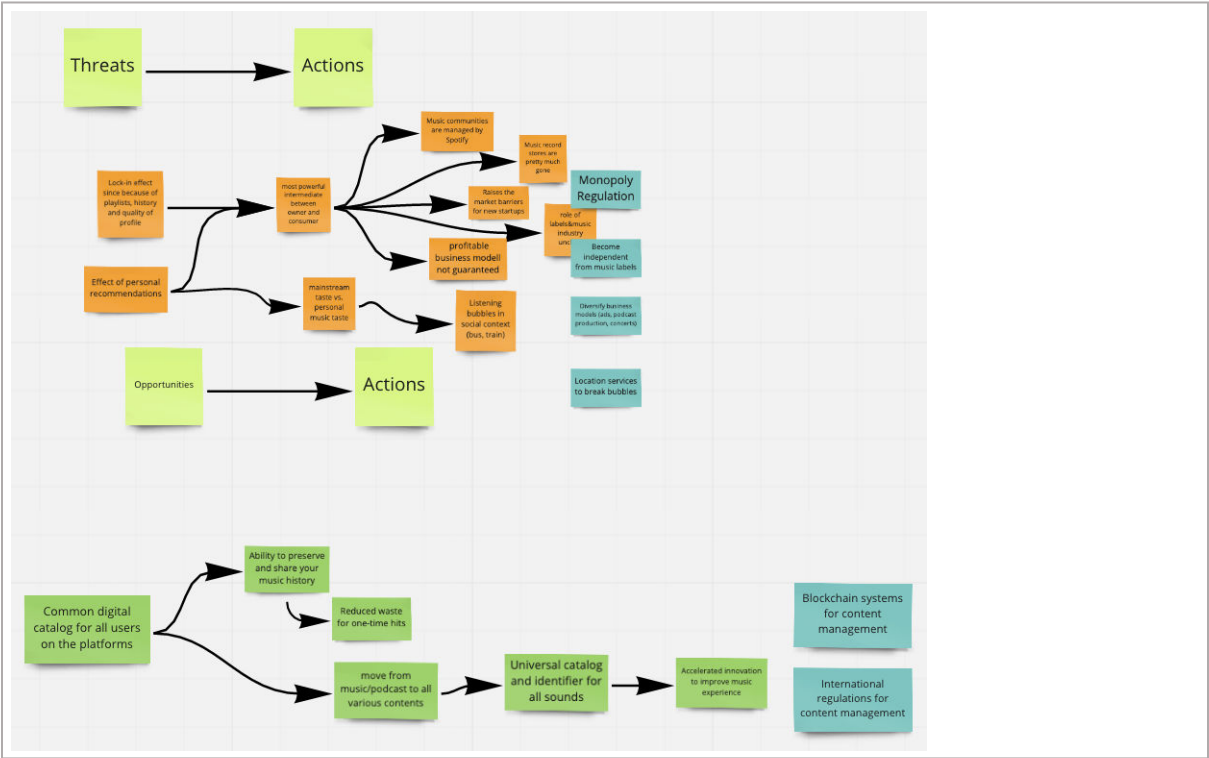


6. SPOTIFY

SusAF Diagram

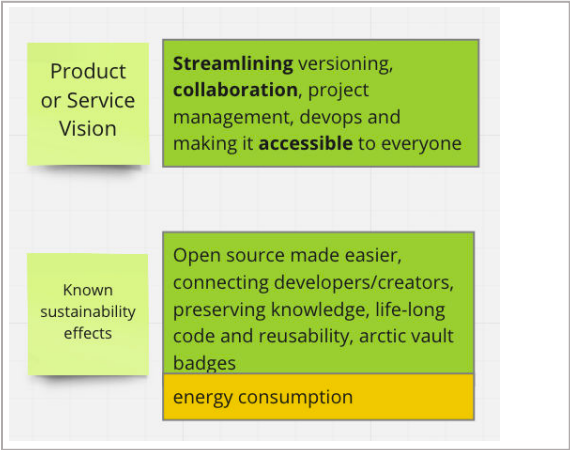


Opportunities, Threats & Actions



7. GITHUB

Scoping



Social Dimension



Individual Dimension



Environmental Dimension



Economic Dimension

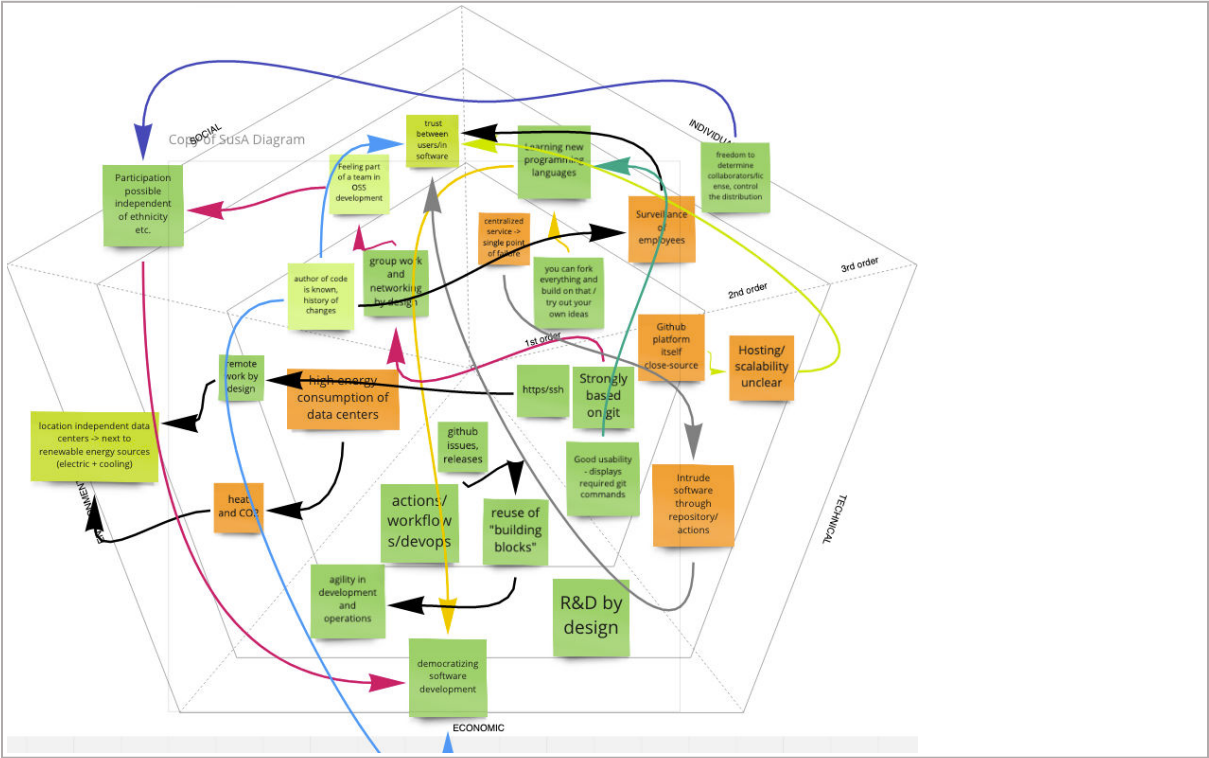


Technical Dimension

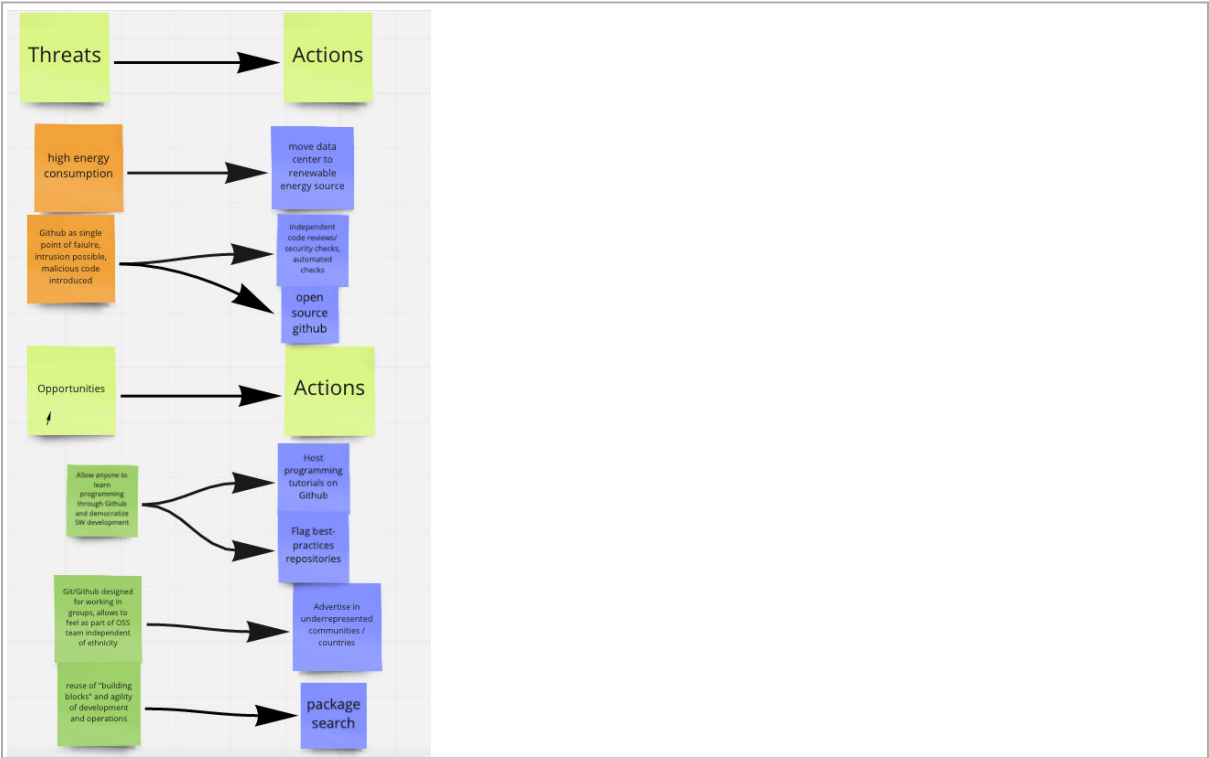


7. GITHUB

SusAF Diagram

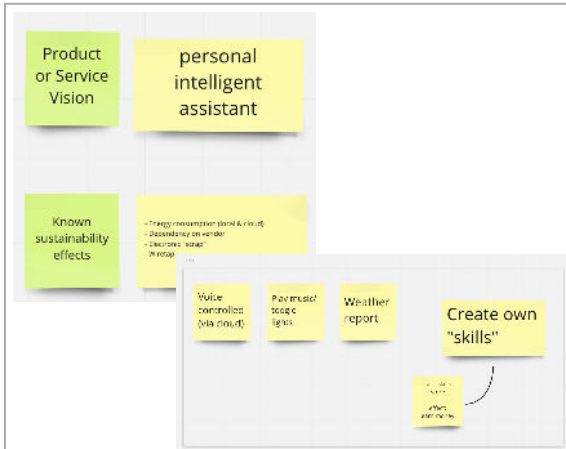


Opportunities, Threats & Actions



8. ALEXA

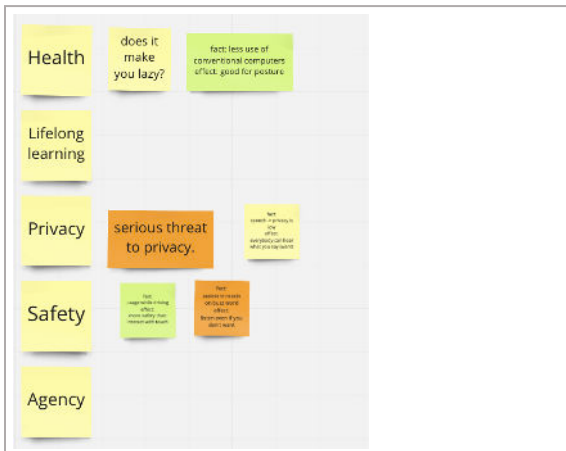
Scoping



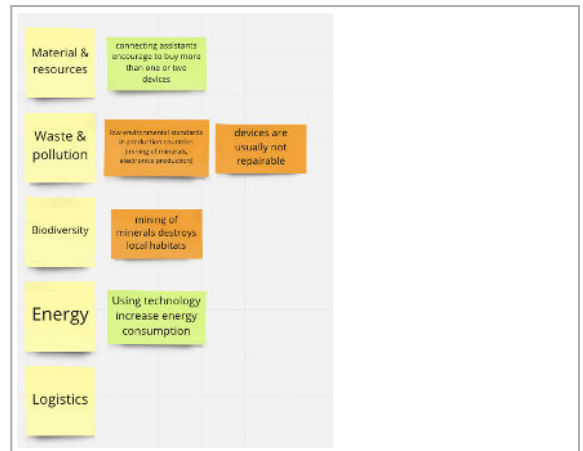
Social Dimension



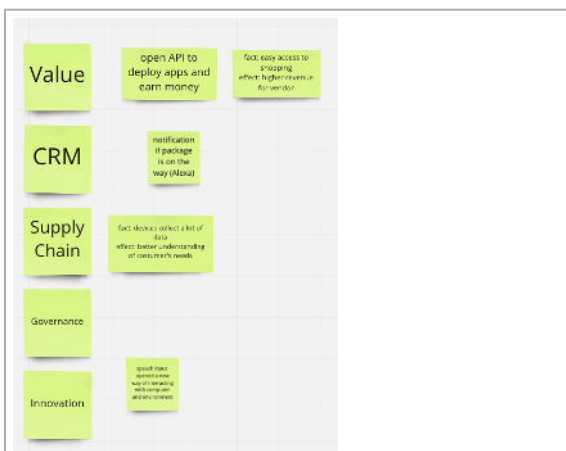
Individual Dimension



Environmental Dimension



Economic Dimension

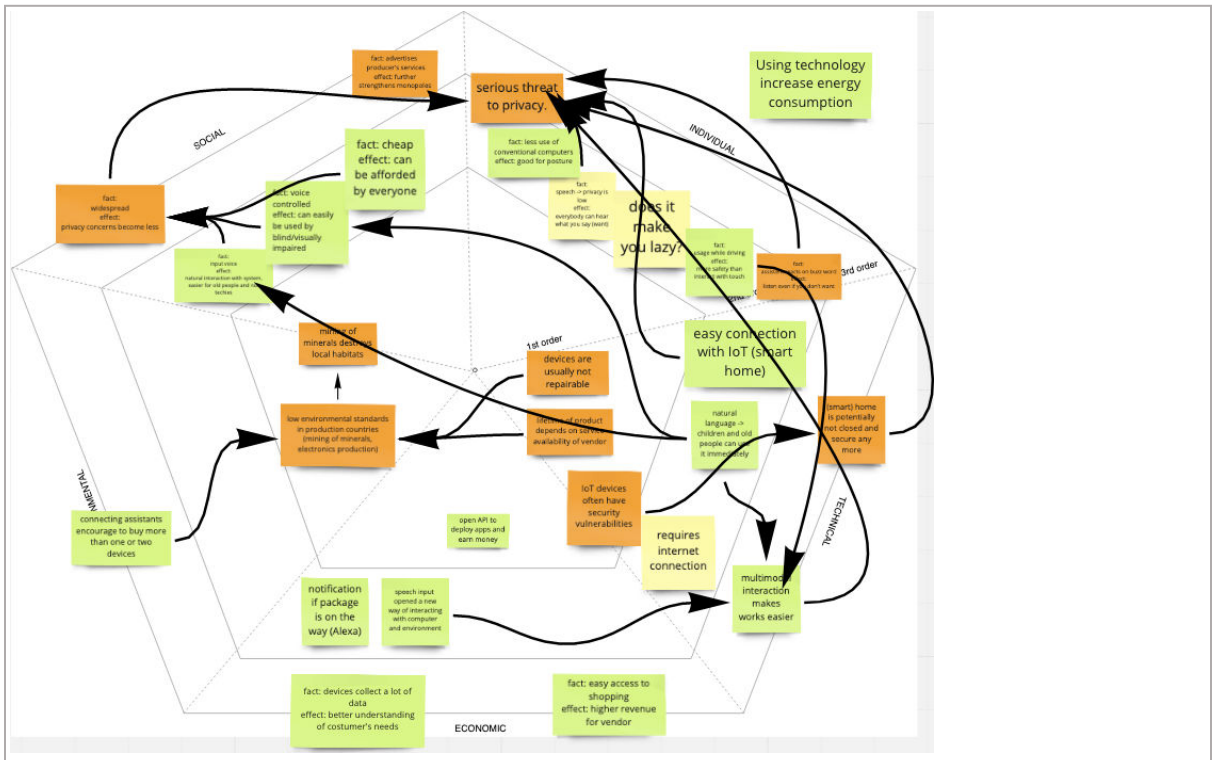


Technical Dimension

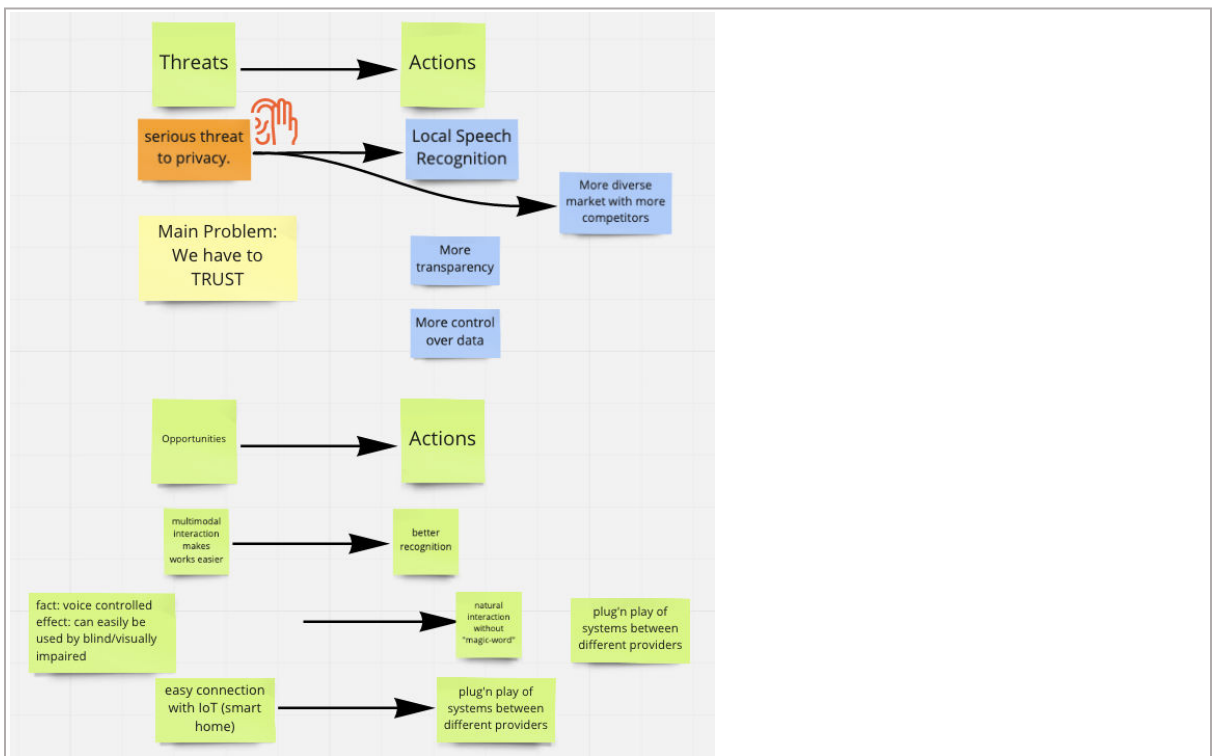


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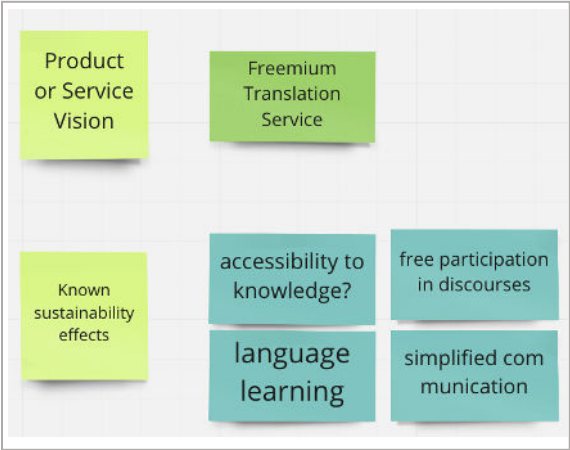


Opportunities, Threats & Actions



9. DEEPL

Scoping



Social Dimension



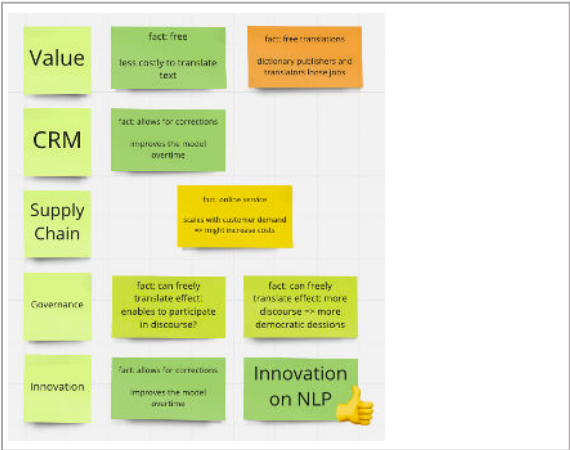
Individual Dimension



Environmental Dimension



Economic Dimension

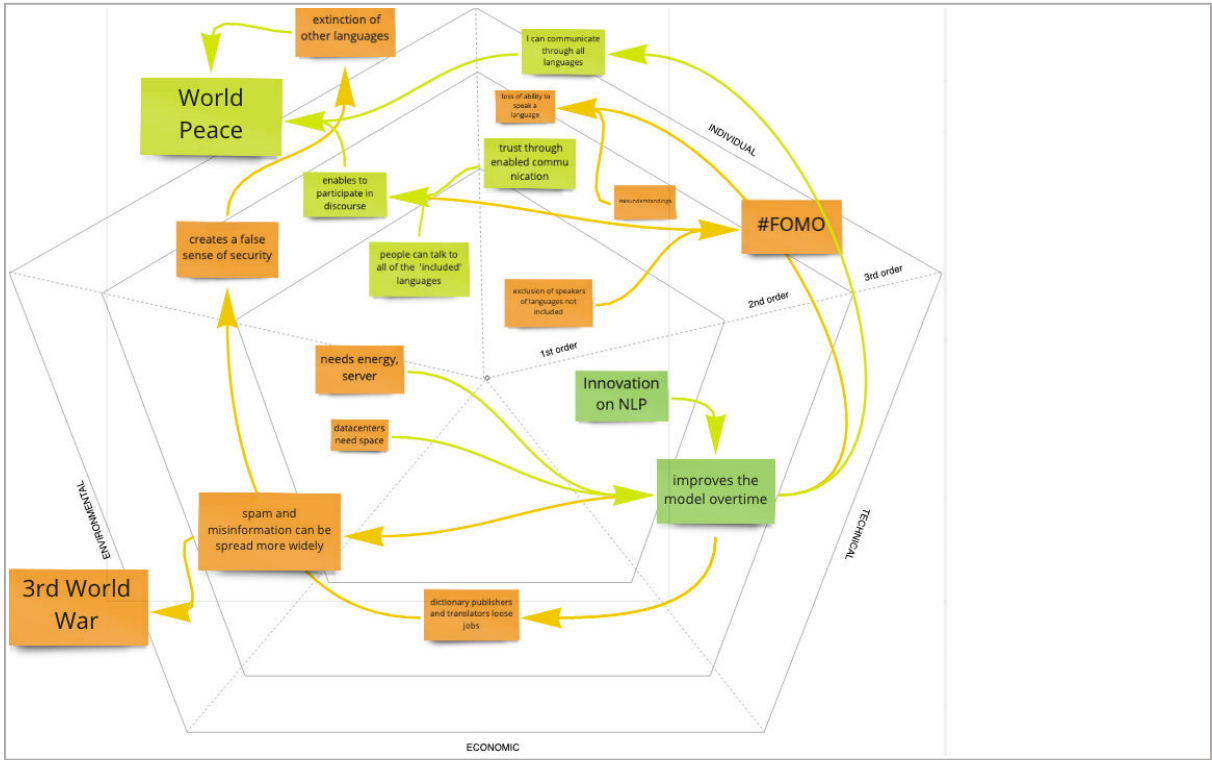


Technical Dimension



9. DEEPL

SusAF Diagram



Opportunities, Threats & Actions

