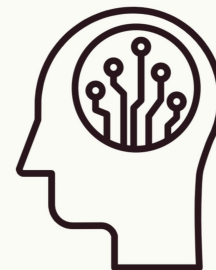# Designing for Behaviour Change: Swachhta Pledge Portal

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MSc Cognitive Science Project II

Under supervision of Dr. Sumitava Mukherjee

Decision Lab Research Group

Motivation

WASH diseases - Water, Sanitation and Hygiene

There were more than 1.32 crore cases of acute diarrhoeal disease, 24 lakh cases of typhoid and more than 5 lakh cases of vector borne disease like malaria, dengue, chikungunya in India in 2019.

Source: National Health Profile
Ministry of Health and Family Welfare
Govt. of India (2020)
2020

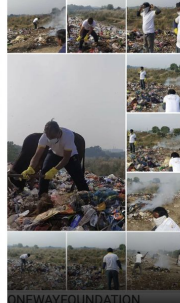| WASH-related ailment	Outpatient				Inpatient			
	Rural (%)	Urban (%)	All India (%)	n	Rural (%)	Urban (%)	All India (%)	n
Malaria	1	0.5	0.8	363	2.1	1.6	1.9	1783
Filariasis	0.1	0.1	0.1	23	0.1	0	0.1	56
Jaundice	0.2	0.1	0.2	80	1.4	1.5	1.4	1328
Diarrhoea	2	0.9	1.6	682	2.5	2	2.4	2227
Worms infestation	0.2	0.1	0.1	54	0.1	0.1	0.1	92
Undernutrition	0.1	0.1	0.1	39	0.1	0.1	0.1	74
Eye infection	0.7	0.3	0.6	248	0.5	0.3	0.4	390
Skin infection	2.7	1.6	2.3	991	0.6	0.7	0.6	564
All WASH diseases	6.9	3.6	5.7	2480	7.2	6.4	6.9	6514

Source : National Sample Survey of India (NSS),namely, 'Household social consumption: Health', July 2017- June 2018

Existing organisations signing up for the pledge

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Govt Of India is reaching out to people at a large using the Swacchta Pledge campaign

Mass Pledge by Organization/Institute

https://swachhbharat.mygov.in/basic-page/take-pledge

A more relatable example

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Let's take Pledge for Planet ✏

From Events <events@admin.iitd.ac.in> on 04.05.2023 12:19
✉ Details ≡ Plain text

Dear IIT Community,

Greetings from Unnat Bharat Abhiyan, National Coordinating Institute, IITD!

Civil-20 is one of the Engagement groups of the G20 process. The purpose of Civil20 (C20) is to bring together voices, ideas and solutions from civil societies across the Globe. The Government of India has appointed Mata Amritanandamayi as the Chair of Civil 20 (C20), an official engagement group of the G20. The C20 in Bharat has created 14 working groups covering various aspects that civil societies work on. LiFE (Lifestyle for Environment) has been identified as one of the significant working groups and YOJAK is designated as the National Coordinator of the LiFE working group. They identified Unnat Bharat Abhiyan as a supporting hand for youth and Higher Education Institutions' engagement.

The diversity of life on our planet faces major challenges from threats like climate change, deforestation, etc. But each of us can make a difference. And together, we can protect our planet and keep global warming below 1.5°C (2.7°F). Our impact on the planet primarily comes from what we eat, what we buy, how we power our homes, and how we travel from place to place.
We have started to observe the consequences of climate change everywhere in daily life. The time has come to now improve our lifestyle to environment friendly
systems.

Together, we can take action to create lasting solutions and protect the future of nature. A movement to take a pledge to conserve, protect and care for the planet through LiFE (Lifestyle For Environment).

Will you join us?

Let's Take Pledge Here: https://pledge.mygov.in/life-movement/

Faculty and students are invited to take Pledge and Upload their certificates on social media and Tag us UBA, G20, C20, LiFE.
We are also taking group pictures, for which timings will be coordinated.

IIT Bombay @iitbombay · Jan 16, 2020   ···

IIT Bombay Director Prof. Subhasis Chaudhuri administered the **Swacchta Pledge** to all staff of Main Building at the Main Building foyer (ground floor) today.

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Aim

Find current design problems with the existing Swachhta Pledge platform and redesign it to drive behaviour change

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Studies Done

- Pilot : Usability testing done on 10 people using eye tracking and qualitative interviews

- Study 1 : User actionables collected from 71 people from IIT Delhi

- Study 2: Eye tracking and ratings on framings from 41 people from IIT Delhi

Pain points identified from Pilot study

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- It was found out that the section of the website which provides analytics of how many people have already taken the pledge, was not placed at the position that is accessible to the users.
- Taking an online pledge felt more of a forced formality
- Presentation of text was at a fast pace
- The demands from the pledge were too high - like convince 100 other people to take the pledge
- There should have been clear action points given as to what they should do to promote cleanliness
- How their contributions could make a change should also be displayed
- No visuals
- Personal contact details were asked, which the user's were apprehensive of giving
- Not a lot of people knew about the platform

Framework for Behaviour Change
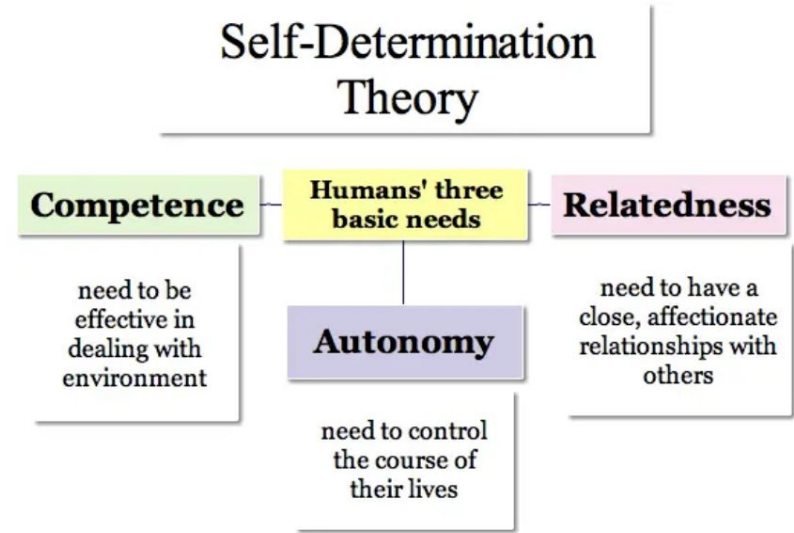
Autonomy

The need to feel in control of one's actions and decisions

- The pledge doesn't give autonomy to users on the actionables.

Feedback from user interviews – pledge feels like a forced formality

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Design proposal to include Autonomy

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Instead of displaying all the text, give selectable action points which users can choose from before they take the pledge

Actionables taken from Study 1 data

Competence

The need to feel capable and effective in one's actions

- Participants reported that the current pledge is asking for efforts they cannot put easily

Eg - convince 100 people to take the pledge

Design proposal to include Competence

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- Thematic analysis done on actionables collected from Study 1 data to find recurring themes
- Provide actionables from those themes as options
- Since these actionables are given by user's themselves, it fits the criteria for competence

Autonomy and Competence - Sample Design

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Relatedness

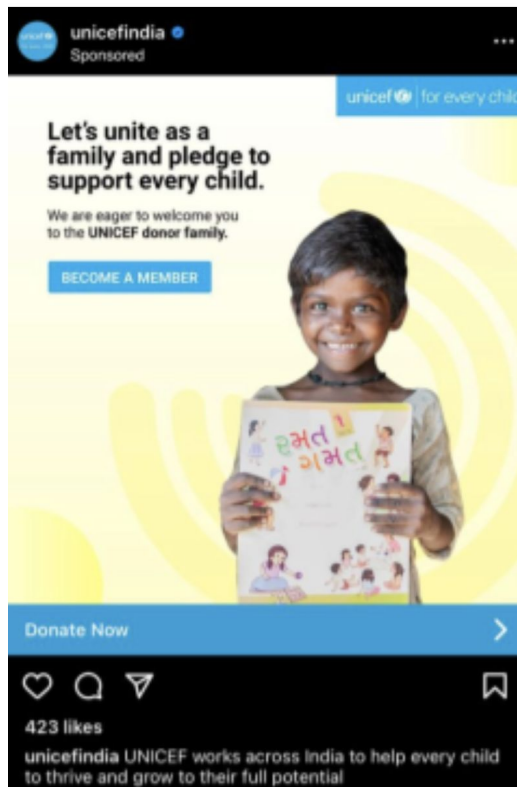Will to interact with, be connected to and experience caring for others

- Who do people care for more ?

  Self, family or a nation?

Existing example - UNICEF India

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Framing Designs - Self, Family, Nation and Original

SWACHHTA PLEDGE

1 CLEANLINESS IS DIRECTLY LINKED TO GOOD HEALTH OF YOUR FAMILY
Maintaining cleanliness can reduce the risk of spreading infections and illnesses, such as colds, flu, and stomach viruses.

2 HELP YOUR FAMILY MEMBERS DEVELOP HABITS TO MAINTAIN CLEANLINESS
Cultivate small habits like washing hands frequently, not littering your surrounding and discarding any litter that you find. Lead by example

3 CREATE A CLEANLINESS ROUTINE
Practice a regular cleanliness routine with your family to cultivate an attitude of cleanliness.This will help the family bond over good values

4 TAKE AND SPREAD THE PLEDGE TODAY
Take the pledge today with your family and spread the pledge further to more families.
Let's build a healthy and clean community.

SWACHHTA PLEDGE

1 YOUR HEALTH IS IN YOUR HANDS
Handwashing can prevent 1 in 3 cases of diarrhoea and 1 in 5 cases of respiratory infections

2 BUILD A HABIT NOW, REAP BENFITS LATER
Follow the 2 minute rule for maintaining cleanliness and hygiene:
If it will take less than 2 minutes to clean something, do it right away

3 INCLUDE A CLEANING ROUTINE TO SELF CARE
Having a clean and organized environment can help reduce stress, improve mental clarity and focus, and create a sense of accomplishment and control

4 SPREAD THE PLEDGE, NOT GERMS
Take the pledge today to maintain hygiene and cleanliness in your surroundings, for good health. Spread the pledge further to your social circles to build a healthy community

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SWACHHTA PLEDGE

1 OUR LEGACY
Mahatma Gandhi fought for the freedom of Mother India and dreamt of a clean and developed nation

2 OUR DUTY NOW
Now it is our duty as a citizen of this country to keep it clean.

3 I PLEDGE
I take this pledge as a citizen of India, that I will remain committed towards cleanliness and devote time for this.
I will will neither litter nor let others litter

4 SPREAD THE PLEDGE
I will devote 100 hours per year to voluntarily work for cleanliness and will encourage 100 other people to take the pledge

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SWACHHTA PLEDGE

Mahatma Gandhi dreamt of an India which was not only free but also clean and developed.

Mahatma Gandhi secured freedom for Mother India.

Now it is our duty to serve Mother India by keeping the country neat and clean.

I take this pledge that I will remain committed towards cleanliness and devote time for this.

I will devote 100 hours per year that is two hours per week to voluntary work for cleanliness.

I will neither litter nor let others litter.

I will initiate the quest for cleanliness with myself, my family, my locality, my village and my work place.

I believe that the countries of the world that appear clean are so because their citizens don't indulge in littering nor do they allow it to happen.

With this firm belief, I will propagate the message of Swachh Bharat Mission in villages and towns.

I will encourage 100 other persons to take this pledge which I am taking today.

I will endeavour to make them devote their 100 hours for cleanliness.

I am confident that every step I take towards cleanliness will help in making my country clean.

Design Proposals to Include Relatedness

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- Include relatedness using framings
- Family performed better than Nation
- Self and Family performed similarly

Data taken from Study 2

Descriptives ▼

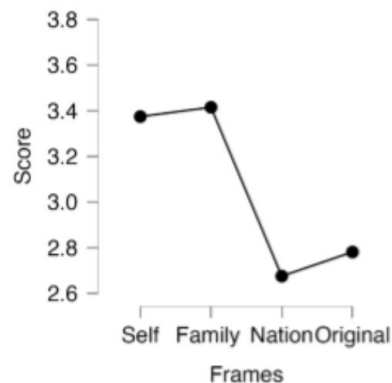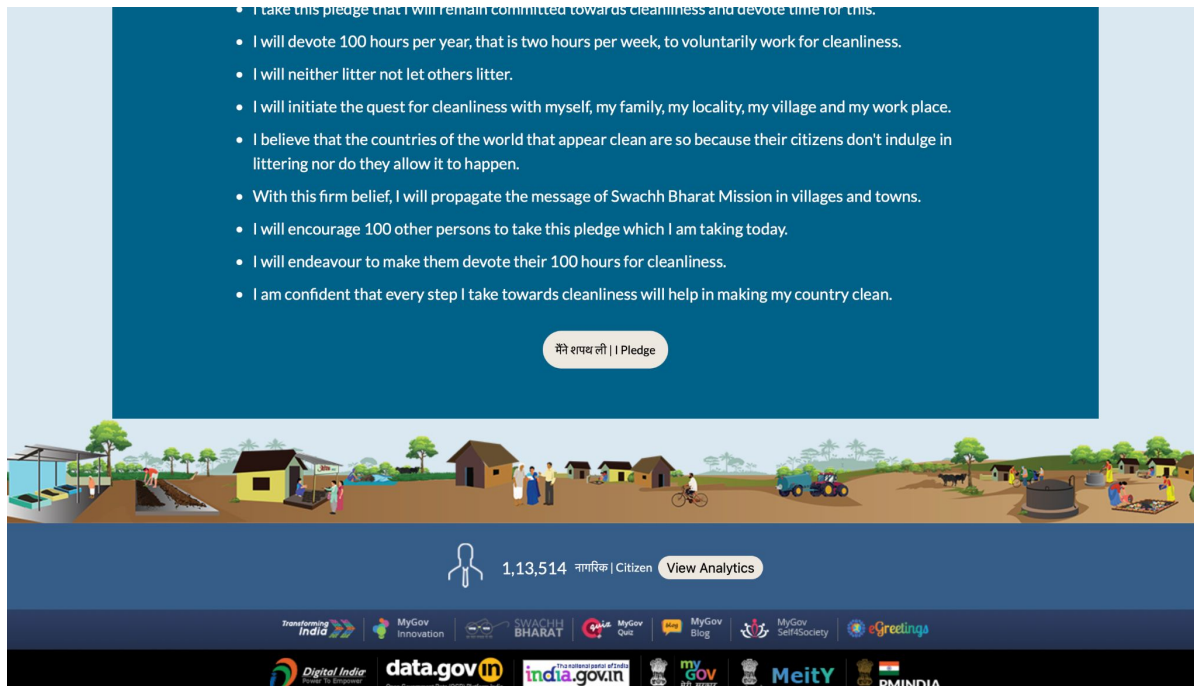| Frames	N	Mean	SD	SE	Coefficient of variation
Original	41	2.780	1.066	0.167	0.383
Self	41	3.374	0.793	0.124	0.235
Family	41	3.415	0.872	0.136	0.255
Nation	41	2.675	1.001	0.156	0.374

Descriptives plots

Table 2: User Ratings given to framed and original pledge designs

Design Proposals to Include Relatedness

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Better
visibility and
display of
existing
statistics as
social proof

Design Proposal for Pro Social Behaviour

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Heightening one's self awareness while taking the pledge, leads to more pro social behaviour

Add the name of user in the call to action button to achieve that

I Pledge

I , Neha Negi, Pledge

Relevance to Cognitive Science

Applied project to redesign a mass public pledge portal to drive behaviour change

- Motivation
- Attention
- Cues for Pro Social Behaviour

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