


# Can You Hear the Faraway Crying?

*"Infinite faraway, countless people are all connected to me."*

They say globalization is the topic of the 21st century, but fragmentation is what I see.
In such a fragmented society, can people see others' pain? Can people feel the sufferings of people faraway?

An Interactive Installation
An Independent Project
07/2021-09/2021

# Background

## What touched me?



*Do you know the civil war in Ethiopia?*

In literature class, the teacher asked if anyone in the class knew the ongoing war in Ethiopia. There were 81 students in class that day, and no one knew that there was a war going on in the faraway Africa.



*Is it normal that we don't know?*

Then I raised a question online: Is it normal that young people know little about important international affairs? Many netizens said that it was normal to know nothing far from us.

*Is it?*

## What is the issue?

### Fragmentation

Global fragmentation refers to the absence or underdevelopment of connections between the world community.

The bond between global citizens is not so strong nowadays.

### Inequality

Inequality is not just about wealth. There is also inequality in safety and health, materials and resources worldwide.

People in the world have quite different living conditions.

create conditions for young people not to concern themselves with distant affairs and see pain of faraway people.

### Armed conflict

*Armed conflict is a suitable subject to research 'young people and distant affairs'.*

Two main reasons why armed conflicts are a representative type of 'distant affair': Firstly, armed conflicts are typical international affairs that are far away from most people's life, especially the young people. Secondly, armed conflicts are an aggregation of miseries (such as violence, slaughter, rape and poverty ) that ever beset mankind.

# Primary Research

## Survey

300 Chinese young people participated in the survey, which tested their knowledge about armed conflicts. Respondents were asked how often they read international news, how they reacted to reports on armed conflicts and whether they had once got involved in fund-raising for refugees or anti-war demonstrations or anything alike.
The results were analyzed with SPSS.

### Reliability and Validity

The reliability and validity of the effective questionnaire are analyzed to measure the consistency and reliability of the results of the questionnaire.

Table 1 Reliability analysis of pre questionnaire

| Research Dimension | Number of Questions | Cronbach α | Evaluation |
|---|---|---|---|
| Understanding Level of Wars/Armed Conflicts | 3 | 0.738 | Good Reliability |
| Degree of Concern for Wars/Armed Conflicts | 3 | 0.756 | Good Reliability |

The Cronbach α is greater than 0.6, which shows that the measurement of this questionnaire is reliable and the internal consistency of the measurement results is high.

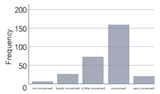
Table 2 Exploratory Factor Analysis of pre questionnaire

| | | |
|---|---|---|
| KMO-value | | 0.872 |
| Bartlett test of sphericity | chi-squared approximation | 588.438 |
| | df | 15 |
| | P-value | 0.000 |

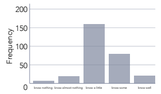
The KMO-value is 0.872>0.6, which means the questionnaire has good validity; The P-value is 0.00<0.05, which means the questionnaire has good construct validity.

## Descriptive Analysis

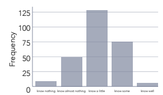
1.Degree of concern for international affairs



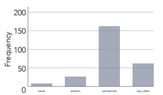

2.Knowledge about armed conflicts



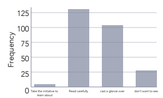

3.Knowledge about Geneva Conventions




4.Frequency of seeing information on armed conflicts




5.Reaction to information on armed conflicts




6.You think people in war zones are related to you




7.You once participated in activities for people in war zones




## Insight

Chinese young people know the fact that there are armed conflicts in many parts of the world.

They realize that fragmentation and inequality do exist at a global level.

They do have empathy for situations of those who are in war zones.

They think that their passions are conducive to actions.

However, they pay little attention to the affairs, the people and their sufferings, and the reasons are as follows:

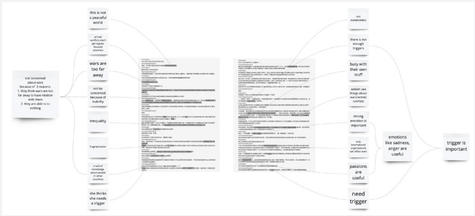
They regard their concern as 'meaningless' and feel that they cannot make a difference.

They need a trigger to remind them to concern themselves with international issues such as armed conflicts.

They are busy with their own stuff.

## Semi-structured Interview

*The dialogue has been simplified.*





Interviewee: Pang Songyuan (student)
Age: 22
Method: Face-to-face interview






Interviewee: Zheng Yi (student)
Age: 24
Method: Face-to-face interview

# Conceptual Basis

## My Voice

*In the context of global fragmentation and inequality, can we still hear the faraway crying?*

I'm not going to propagate my opinion. Instead, I hope to

(a)prompt the target audience to reflect on their relationship with ongoing armed conflicts;

(b)help the target audience realize the present fragmentation and inequality;

(c)prompt the target audience to ponder what they can do.

## Theoretical Background

*Why is it likely that the audiences will have feelings for the content of the video?*




Firstly, Simulation Theory.
Parts of humans' brain in the medial prefrontal cortex show overlap of activation for both self-focused and other-focused thoughts and judgments.
Secondly, Theory of Mind.
Humans can use cognitive thought processes to explain the mental state of others.

*Why is it likely that there will be thinking, self-examination and action in the interactive process?*



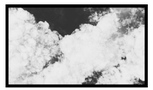
It's hard for people to forget how they feel, and the feelings can be conducive to thinking and action.

*How can we use 'feeling' effectively?*



Firstly, people need to see how their action will contribute to the issue. If people believe they have the power to produce results, they will attempt to make things happen. Also, people need to know how to do the thing.

What others have done to ease the sufferings of people in war zones is also likely to be accomplished by us ordinary young people.

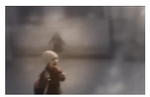


Secondly, tell better stories. Great stories leave space for the audiences, allowing them to put the pieces together for themselves.

The video about how others involve in peacebuilding work in war zones is composed by several fragments, which leaves space for imagination.

# Concept

## Symbol



**The video about war**
-Violence, slaughter, rape, poverty in the world
-The sufferings of others



**The blank screen**
-People's choice of not caring about the sufferings of others



**The video about people making a difference to war**
-The possibility of our concern & actions making others' life better

## Interaction

| Input | | Output | |
|---|---|---|---|
|  | Scenario 1:<br>You don't care about people's sufferings in wars, so you say 'I don't care', and the speech sound sensor detects your words. |  | The screen is off. |
|  | Scenario 2:<br>You have passions when watching the video about war, so you squeeze the ball, and the pressure sensor collects the pressure data. |  | The video about how people made a difference to war starts to play. |

# Storyboard

1



Audiences watch the video about armed conflicts, hearing the sound of gunfire and children crying for mama.

2



Audiences are reminded that they can say 'I don't care' if they don't quite care about what is being shown.

3




Audiences say so.
/Audiences find it hard to say so.

or

4




Strong passions make audiences squeeze the ball in their hands, and the video about how people made a difference to war starts to play.

# Technical Support

## Hardware



Pressure Sensor

FSR402



Arduino Uno



Speech Sound Sensor

Adapted LD3320

## Coding

### Processing

```
import processing.video.*;
import processing.serial.*;
Serial port =new Serial(this,"/dev/cu.usbmodem142401",9600);
Movie movie1;
Movie movie2;
int state = 0;
char ch;
void setup()
{

  size(1920, 1080);
  background(0);
  frameRate(60);
  movie1 = new Movie(this,"M1.mp4");
  movie2 = new Movie(this,"M2.mp4");
  movie1.loop();

}

void movieEvent(Movie mov) {
  mov.read();
}
```

To import libraries.

To set the serial port.

To set one state: State 0, let movie1 (the video about war) start to play.

To create two new objects: video1 and video 2.

To set their sizes and forms.

```
void draw()
{
  //if(port.available()>0)
  {
   ch = port.readChar();
   if(ch == 'a' && state == 0)
   {
     state = 1;
     movie1.stop();
     background(0);
   }

   else if(ch == 'b' && state == 0)
   {
    state = 2;
    movie1.stop();
    movie2.play();
   }
  }
```

To set two states.

State 1
To let the screen become all black once the speech sound sensor detects you saying 'I don't care' .

State 2:
To let movie 1 (the video about war) stop, and let movie 2 (the video of how people make a difference to war) start to play once the pressure reaches a specific level.

```
if(state == 0)
{
  image(movie1,0,0);
}
else if(state == 1)
{
  background(0);
}
else if(state == 2)
{
  image(movie2,0,0);
}
}
```

movie 1 — 'I don't care.' → black screen

movie 1 — pressure → movie 2

### Arduino

```
int pressureAnalogPin = 0;
int pressureReading;


void setup()
{
  uint8_t ASRMode = 1;
  Wire.begin();
  Serial.begin(9600);

#if 1
  WireWriteDataArray(ASR_WORDS_ERASE_ADDR,NULL,0);
  delay(60);
    ASRAddWords(1,"ai don t ke er");
  if(WireWriteDataArray(ASR_MODE_ADDR,&ASRMode,1)){}

  else{}

#endif


}
```

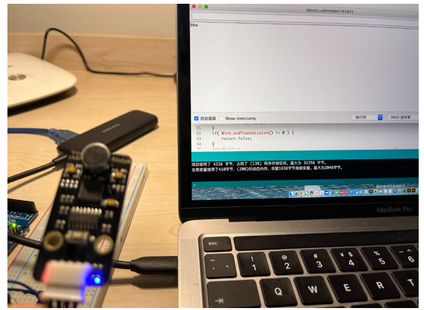
In mode 1, to set what speech sound ('I don't care.') you want the sensor to identify (the sound can only be set in the form of phonetic transcriptions).

```
void loop()
{
  unsigned char result;
  delay(1);
  WireReadDataArray(ASR_RESULT_ADDR,&result,1);
  if(result)
  {
  Serial.write('a');
    }

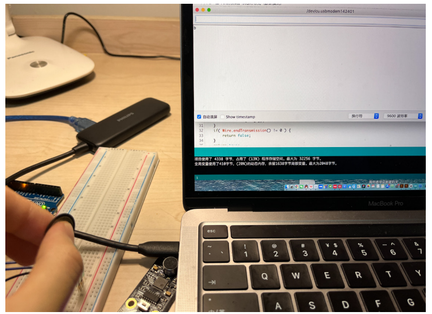
  pressureReading = analogRead(pressureAnalogPin);
  if(pressureReading>100)
  {
    Serial.write('b');
    delay(1000);
  }
```

To send bytes.
What the speech sound sensor detects is represented by 'a', while what the pressure sensor collects is represented as 'b'.

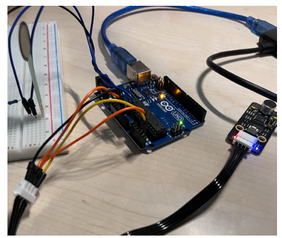
# Final Test



Testing the speech sound sensor



Testing the pressure sensor



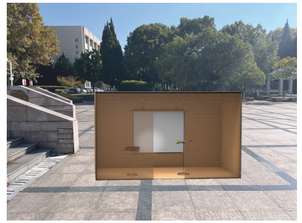
Before I put it in public, I had to make sure that it can perform well.
And I also have to find ways to project the videos onto the huge screen.



(I used VGA to realize the projection.)

# Mock Scene

*As long as I get permission from our school to set up the huge installation...*



## Material

The installation is built out of cardboard, which is easy to get in daily life.
The cardboard is supported by metal rods.
(The front of the installation is translucent only in the picture, in order to let people see the interior.)

## The Interior

There is a projector, a screen and a box with two sensors in it.



## Location

The installation is placed on the playground in front of the library and academic buildings, which a lot of students pass by every day.

# Final Display



Watching the video about war.



Squeezing the ball.
Video of how people are making a difference starts to play.



Speaking out 'I don't care'.

# Design Evaluation

Yes ✓
No ✗

| Name | Whether it was impressive | Whether it evoked your feelings | What your feeling was | Whether you said 'I don't care' | Why or why not | Whether you have something to say |
|---|---|---|---|---|---|---|
| Hu | ✓ | ✓ | I felt guilty, shocked and sad. I felt happy that there were people doing things for others. | ✗ | I may feel guilty if I say so. | What is the relation between people in different parts of the world?<br>Is it really true that "one world, one dream"? |
| Julia | ✓ | ✓ | Why are there so many people suffering in the world? | ✓ | I just wanted to have a try. | Maybe people all have their own destinies. |
| Henry | ✓ | ✓ | anger, sadness, wanting to help | ✗ | It was hard to say such cruel words when someone saw a video like that. | In some way, I may be concerned with others faraway. |
| Qin | ✓ | ✓ | I feel sorry for people in war zone. Also, I felt full of power. I was very inspired. | ✗ | I couldn't because I did care. | It is not good that I only think about myself. |
| Wang | ✓ | ✓ | Shocked, caring, feel capable | ✓ | I was told to, and words wouldn't hurt anyone. | I feel lucky that I am who I am, but it doesn't mean that I don't care about others far from us. |

## Conclusion

The interaction did prompt a large proportion of audiences to reflect on their relation with armed conflicts, and some audiences even started to think about their concern for distant things and people.
However, some audiences were misled by the function of the speech sound sensor and thought that saying 'I don't care' was a necessary step.
I think there is room for improvement.

## Reference


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