



In visible

As It Should Be

In_Visible As It Should Be

Artist's Statement

what

Is an interactive visualization to represent the emotions of a good day or a bad day from people that are carriers of invisible illnesses.

why

People suffering such conditions, besides the consequences of the illnesses themselves, have to struggle on a daily basis with disbelief and disrespect regarding their situation. Those people turn themselves more and more muffled anonymous voices.

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Artist's Statement (cont.)

how

From a dataset of responses collected from real patients, the information includes reference to disease type, how long the patient has been suffering the disease, related to some demographics information. The responses include as well how people they rate their day, and the most relevant emotion accordingly. Each emotion, in its turn, is individually composed by the feelings the person had related to that emotion. Using colours and movements to depict emotion and related feelings, each individual response will summon a behavioural representation on their graphic universe.

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Design Questions

data

How to parse the data table: XML or JSON?

After parsing, how to handle the series of Strings? Convert them to any other datatype?

visuali
zation

Associating data to elements: which goes with which?

Which graphical elements are emotions better represented by?

Which colours are emotions better represented by?

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Design Questions - Data

The screenshot shows a comparison between XML and JSON representations of a complex dataset. On the left, the XML Input section displays a large, multi-line XML document representing form responses. The XML includes various nested elements like 'feed', 'updated', 'category', 'title', 'link', and 'entry'. On the right, the Result : XML Tree View section shows the same data as a hierarchical JSON object. The JSON structure follows the same outline as the XML, with 'feed' at the root, followed by 'updated', 'category', 'title', 'link', and 'entry'. Each 'entry' contains sub-fields such as 'rel', 'type', and 'href'. A central panel contains a green 'START DOWNLOAD' button and a list of '3 Easy Steps' for downloading the file.

```
syndrome, howlongagodidyouhave the above condition identified  
diagnosed: 1-3 years, which country are you living currently:  
Canada, what is your gender: Female, which is your age group:  
41-50, how would you rate your day today: 2, how would you define  
your emotions at this moment: Sadness, considering your emotion  
of sadness how would you define your feelings now: Discouragement  
<content><link rel='self' type='application/atom+xml'  
href='https://spreadsheets.google.com/feeds/list/  
1zLK2gKb-BaVQATpt5bH1aVl8lmnw24cF3Ss8sDfL_QY/1/public/  
full/b4e41' /><gsx:timestamp>2017-03-11 12:04:40</gsx:  
timestamp><gsx:which is your condition in the case you have mult  
iple please select the one that was first identified diagnosed  
<gsx:Joggers syndrome><gsx:which is your condition in the case you  
have multiple please select the one that was first identified diagnosed  
<gsx:how long ago did you have the above condition identified diagnosed>1-3 years</gsx:how long ago did you have the above  
condition identified diagnosed><gsx:which country are you living currently>Canada</gsx:which country are you living currently><gsx:what is your gender>Female</gsx:what is your gender>  
<gsx:which is your age group>41-50</gsx:which is your age group>  
<gsx:how would you rate your day today>2</gsx:how would you rate  
your day today><gsx:how would you define your emotions at this moment>Sadness</gsx:how would you define your emotions at this moment><gsx:considering your emotion of fear how would you define  
your feelings now><gsx:considering your emotion of enjoyment how would you define  
your feelings now><gsx:considering your emotion of enjoyment how would you define  
your feelings now><gsx:considering your emotion of anger how would you define  
your feelings now><gsx:considering your emotion of anger how would you define  
your feelings now><gsx:considering your emotion of fear how would you define  
your feelings now><gsx:considering your emotion of disgust how would you define  
your feelings now><entry><id>https://spreadsheets.google.com/feeds/list/1zLK2gKb-BaVQATpt5bH1aVl8lmnw24cF3Ss8sDfL_QY/1/public/full/b4e41</id>
```

In_Visible As It Should Be Design Questions - Visualization

<http://mastersofmedia.hum.uva.nl/blog/2013/03/06/visualizing-emotions-turning-dry-data-into-stories/>

Masters of Media
Academy & Master's Program U.A., University of Amsterdam

Visualizing Emotions: Turning 'Dry' Data Into Stories

By: Lydia van der Spek
On: March 6, 2013

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The best data visualizations are the ones that tell you a story. A good data visualization has the ability to show you something that you wouldn't have seen by only looking at the data. It presents the data in a way that the viewer can explore and understand it. Transforming data to symbols allows us to see it and therefore react to it. Data is abstract, but it can be transformed into symbols that we can relate to. Symbols can make data more relatable or give the viewer a better understanding of the degree of seriousness of certain statistics. As Stephen Few notes, the saying that a picture says more than a thousand words is only true in the case of data visualization if the graphic is designed well (If Few, Stephen. "Data Visualization for Human Perception." The Encyclopedia of Human-Computer Interaction, 2nd Ed. Seegard, Mads and Dan, Rikke Friis (eds.), Aarhus, Denmark: The Interaction Design Foundation, 2013.)). Therefore, well-designed data visualizations have the potential to provide emotions or add an emotional layer to statistical data that alone are just facts and figures.

Feelings and emotions are a recurrent subject for data visualizations, which either provoke or depict them. I find this interesting as data visualizations that do either of these two things therefore focus on something that is very rare when looking at dry statistics. The visualized or experienced emotion is a layer of something not visible to the human eye but present in every viewer of the visualization. Or, as Alberto Cairo argues, the visualization functions as a tool to facilitate comprehension and to evoke emotions in the viewers' minds (Cairo, Alberto. The Functional Art: An introduction to information graphics and visualization. New Riders, 2012.)).

The following projects are a few examples that focus on emotion, through either portraying human feelings as data or using data to measure human feelings.

Visualizing Emotions: Turning 'Dry' Data Into Stories

<http://www.ibtimes.com/emotions-mapped-human-body-most-accurate-visualization-emotion-related-bodily-sensations-photo-161112>

International Business Times

Emotions Mapped In The Human Body, 'Most Accurate' Visualization Of Emotion-Related Bodily Sensations [PHOTO]

BY ZOE WENTZ ON 12/11/2014 11:30 PM

FEELINGSTEST ADVERTISEMENT

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In a new study, French researchers have published illustrations depicting how human emotions affect the body.

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Emotions Mapped In The Human Body

<http://atlasofemotions.org/>

ATLAS OF EMOTIONS

UNIVERSAL EMOTIONS

FIVE UNIVERSAL EMOTIONS

Most emotions researchers agree on these five Universal Emotions: emotions that all humans, no matter what culture they were raised, have in common. The movement of the shapes reflects the fluid nature of emotions – the way their strength and frequency varies from moment to moment. Select an emotion to learn more

ENJOYMENT

FEAR

SADNESS

DISGUST

png

Atlas of Emotions

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Design Questions

raw
data

Timestamp	String: yyyy-mm-dd hh:mm:ss
Condition	String: preset list of responses
How long from diagnosis	String: ##-## years
Country	String: preset list of names
Gender	String: preset list of responses
Age Group	String: ##-##
How the day rate	String: #
Emotion feeling at the moment	String: preset list of responses
Feelings associated to emotion	String: preset list of responses – item, item, item

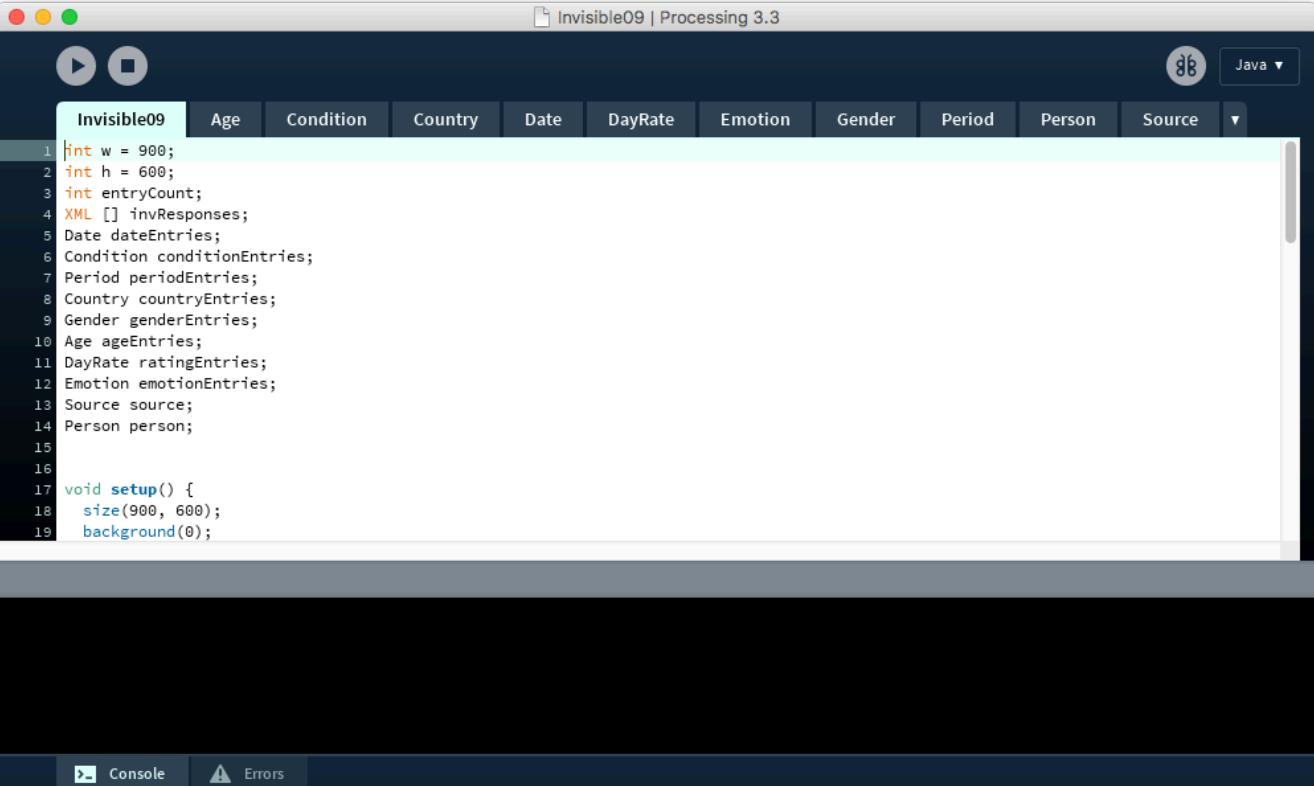
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Design Decisions and Other Questions

parsed data	Timestamp	String: MMM dd, yyyy
	Condition	String: preset list of responses
	How long from diagnosis	Float: random(##, ##)
	Country	String: preset list of names
	Gender	String: preset list of responses
	Age Group	Int: int(random(##, ##))
	How the day rate	Int: #
	Emotion feeling at the moment	String: preset list of responses
	Feelings associated to emotion	String: item item item

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Design Decisions and Other Questions



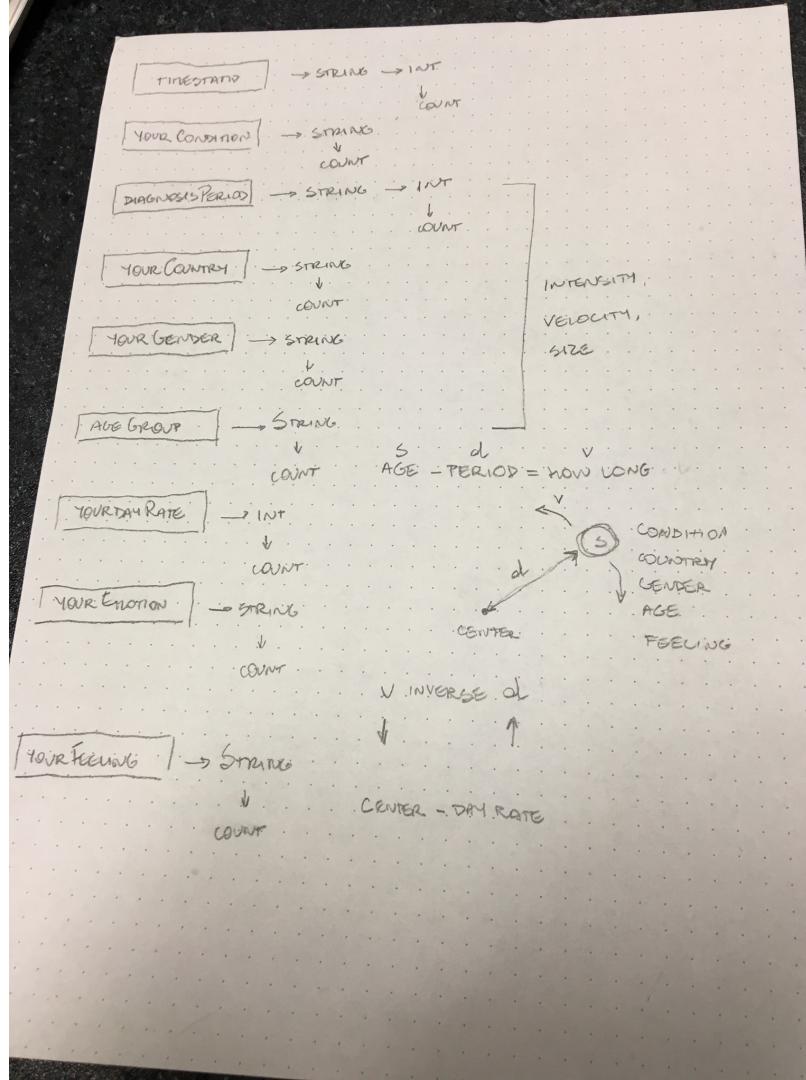
The screenshot shows the Processing 3.3 IDE interface. The title bar reads "Invisible09 | Processing 3.3". The top menu bar includes "File", "Edit", "Select", "Mode", "Tools", "Help", and "Java". Below the menu is a toolbar with buttons for "Play", "Stop", "Reset", and "Java". A tab bar at the top has tabs for "Invisible09", "Age", "Condition", "Country", "Date", "DayRate", "Emotion", "Gender", "Period", "Person", "Source", and a dropdown arrow. The main code editor area contains the following Java code:

```
1 int w = 900;
2 int h = 600;
3 int entryCount;
4 XML [] invResponses;
5 Date dateEntries;
6 Condition conditionEntries;
7 Period periodEntries;
8 Country countryEntries;
9 Gender genderEntries;
10 Age ageEntries;
11 DayRate ratingEntries;
12 Emotion emotionEntries;
13 Source source;
14 Person person;
15
16
17 void setup() {
18     size(900, 600);
19     background(0);
```

At the bottom of the screen, there are two tabs: "Console" and "Errors".

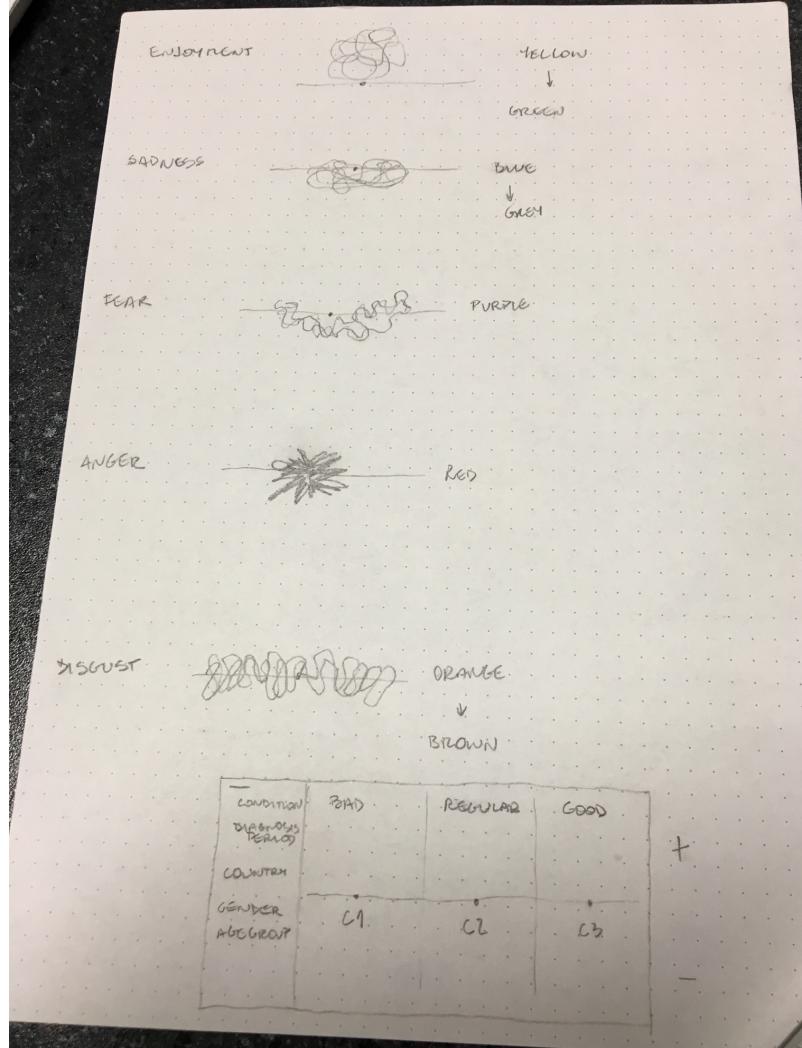
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Design Decisions and Other Questions



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Design Decisions and Other Questions

How to combine movements?

Use or not a body direct visual relation?

How to represent the gender gap?

(88 responses = 86 W / 2 M)

