**PLEASE READ ALL OF THIS CAREFULLY**

A screenshot of a spreadsheet

Description automatically generatedAs I’ve mentioned, our project involving the iMotions software gives us data that looks like the above, which are estimates of facial expression of emotion! Very interesting. Does it matter if a partner is smiling while criticizing a partner’s behavior vs. when they are clearly expressing their anger? Do partners do better when solving serious problems when they maintain neutrality in the way they express their emotion, or does this translate as disinterest and harm the relationship? In what situations is expressing anger in your face beneficial for relationship outcomes? How do partners’ faces while the other is talking translate into perceived progress towards solving the problem at hand? There are many valuable questions that could be asked!

However, one critical assumption in our data is that the facial muscles are actually being validly tracked. This is unfortunately not always the case! **When a person yawns, for example, the software goes haywire and activates lots of emotions.** And, people do all sorts of things that make it so that the imotions data could be invalid. We have to be able to make sure that this does not impact our results.

Therefore, I’ve created a small app in which you can categorize images so that we can know during what times the data is ‘good to go’ or if it may be suspect – if a face is partially or completely obscured, for example.

There are various situations we will want to take into consideration. **It is extremely important that you make the proper categorizations, so please don’t hesitate to look back at this part of the manual if you need to.**

Videos will look like this, and You are categorizing the person on the left AND the right!!!

**A person and person on a television

Description automatically generated**

Here are the scenarios:

1. By default, an image is categorized as “0” – this means that we don’t need to take any further action. The image is good to go! The face is not obscured by anything, and there is no reason why the software would be giving us unreliable data!

A person with yellow dots on his face

Description automatically generated

The software uses points like this on the face to make its determinations, so if these are all clearly visible and there are no other problems, then you can just leave it alone.

1. You mark an image as a “1” if a person is **PARTIALLY** out of frame, which may look like this:

A person sitting on a couch

Description automatically generated

Here, the person’s face is partially obscured and we don’t know for sure if iMotions will misrepresent the emotions here. To be safe, we would mark this as a “1”.

Sometimes, categorizing an image can be tricky -

A person sitting on a couch

Description automatically generated

Is that out of frame enough? I would say no, as the facial muscles that iMotions is using are probably still being detected. When making these determinations, focus on these points in the face:

A person with yellow dots on his face

Description automatically generated

If any of these are out of frame, mark it a 1.

1. Mark an image a “2” if the face is covered ENTIRELY. Sometimes a person covers their whole face with their hands, etc. IF a person is FULLY out of frame, you should categorize this as a “2” as well. IF an image is FULLY blurred, you also categorize this a “2.” Basically I want this categorization to mean “I cannot even see the face, so the software can’t either.”

A person sitting on a couch with a blanket covering their face

Description automatically generated

1. People will sometimes cover their faces partially while talking – this is probably the most likely situation you will encounter. Most of the time you are categorizing an image, it will be “3”.

A person sitting on a couch

Description automatically generated

Those are examples of a face partially covered. It can be tricky to identify, as sometimes it’s right on the edge, like here. She’s almost covering her mouth, and the eyebrow may be stretched out a little bit by her finger. I would leave this a 0.

A person with her hand on her face

Description automatically generated

Another example includes bangs and hats covering eyebrows which should be marked if they obscure the previously mentioned points of the face.

1. You mark an image a “4” if people tilt their head dramatically. This could look like this:

A person with her eyes closed

Description automatically generated

OR if a person’s head is tilted such that you can only see their profile (one side of their face). If it reaches to the point of being only one side, mark that a 4.

1. You’ll mark “5” if people are drinking water. If they are drinking water, flag seconds in which their faces are obscured by water bottles. NOTE: Also flag images in which the person’s face is still clearly adjusting from having drunk water.
2. You’ll mark “6” if a person is eating. If people are eating, chewing makes imotions go crazy. I don’t expect people to eat during these videos, but if they do – please mark it a 6 during any time in which they are visibly eating and note it in a “conversation note” – more on that later. We will have to look at these videos more carefully at a later point, as it is not as clear through images alone during which seconds people might be moving their mouth in unusual ways when eating!
3. Yawning - pretty self-explanatory. It makes iMotions falsely detect a lot of emotions at once!
4. Weird faces… This one is kind of hard to explain and find an example for. It’s rare, but I’ve seen it. This means that a person intentionally does a weird face for some reason. A face that would throw off something picking up basic emotions because it’s just intended to be weird. I once saw someone making fun of another person with a mocking voice and an ugly-face, which made all the emotions be detected. This is unusual - if you mark an 8, flag it for review and write a note for the image so others can look at a later time.
5. This is a special one! You’ll use this to mark the end of a video. Sometimes, the video will go black as the video has ended, and you will see several frames of black. For example, you may see 491/489 to 489/489 all black. I want you to put 9’s for both the person on the left and the right on frame 491 – the first frame when the video is over! This way, I will know that the video has ended and I can discard anything after 491 for the data analysis.

NOTE: If you are unsure about an image, you should (1) flag it for review. And (2) email me so that I can clarify what I am expecting, so that in the future you can make the proper categorizations!

**How to Use the Platform**

First, you will sign in with your name. This will make sure that actions you take on the platform are attributed to you, so make sure you are signed in!

Then, you will look at the right side of this page:

A screenshot of a computer screen

Description automatically generated

You will be able to see which conversations are complete, which are in progress, and which have not been claimed by another user.

[For context, couples in this study are given a code, 4003, 4005, etc. and the study had them have 4 conversations (labeled C1, C2, C3, C4) over three different timepoints – T1, T4, T7.]

Of course, if a conversation is complete, or ‘claimed’ by another user who has marked it as being ‘in progress’, don’t work on those! You might want to mark a few videos you plan to work on in advance as ‘in progress’ by you so that you can be sure that others won’t decide to work on the same conversation as you at the same time.

Once you find a conversation you want to work on, select that conversation and hit “Start”. Wait a few seconds, and the images for that conversation should load.

A screenshot of a video chat

Description automatically generated

The tab next to the title of the video will allow you to mark a conversation as “In progress,” “Complete,” or “Checked.” Once you complete a conversation, be sure to mark it as complete!

Don’t worry about “Checked.” We want to first go through an initial round of categorizing these images, and if necessary we might do a round of checking **at a later date.**

The app is simple to use. Hitting the (?) will tell you:

A screenshot of a computer

Description automatically generated

You will need to categorize the person on the left and on the right. Here is an example of what that looks like:

A screenshot of a video chat

Description automatically generated

He is partially out of frame, so he is a 1, and her face is blurred entirely, so it is a 2.

**TIP: You will want to do a run-through focusing only on one person, and then another focusing only on the other!** This makes the task much easier.

If you are unsure of what to categorize an image… give it your best guess and flag it with the “Flag for Review” button on the bottom. You probably want to email me in the beginning to make sure you’re not over-flagging things that should be categorized in a certain way. You might also want to leave a note for the image explaining why you flagged it.

You can leave notes at the image level and the conversation level. These are meant for extreme scenarios, where things are odd for some reason and I would benefit from further context. For example, if a person has a hat that completely covers half the person’s face for the whole conversation, then it’s a good idea to note this in a “Conversation Note” which is tied to the conversation as a whole. In contrast, if a particular singular image is noteworthy, you want to note that in “Image Note.” Don’t flag excessively – these are meant to be rare. If in doubt, email me!

The platform should save periodically on its own, which you will see in a little pop up. However, you probably also want to be sure that things are saved. When you click the save button, wait a few seconds until it confirms it has saved!

Remember to mark conversations as complete when you are done.