

## **StoryFace: playing with the normalization of facial emotions**

**Serge Bouchardon**

Professor at the Université de Technologie de Compiègne, Alliance Sorbonne Université (France)

Research: <http://www.utc.fr/~bouchard> / Creation: <http://www.utc.fr/~bouchard/works/>

*Log onto a dating website and find love! Make sure your face shows your true feelings. You're being watched...*

*StoryFace* (<http://www.storyface.space/>, see figure 1) is a digital creation based on the capture and recognition of facial emotions. The user logs onto a dating website. They are asked to display, in front of the webcam, the emotion that seems to best characterize them (figure 2).

The logo for StoryFace features the word "StoryFace" in a sans-serif font. The letter "o" in "Story" is replaced by a red heart icon. The "Story" part is in red, and the "Face" part is in yellow. A registered trademark symbol (®) is located at the top right of the "e" in "Face".

StoryFace®

<http://storyface.space>



Figure 1. The online interactive creation *StoryFace*.

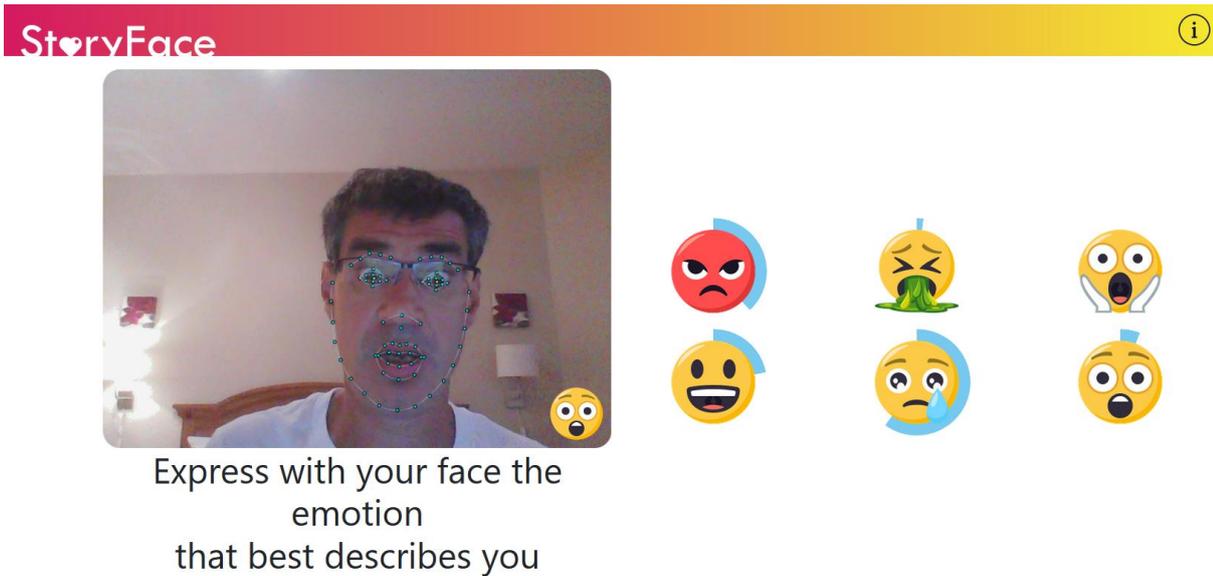


Figure 2. The user expresses the emotion that seems to best characterize them.

After this the website proposes profiles of partners. The user can choose one (figures 3 and 4) and exchange with a fictional partner (figure 5).

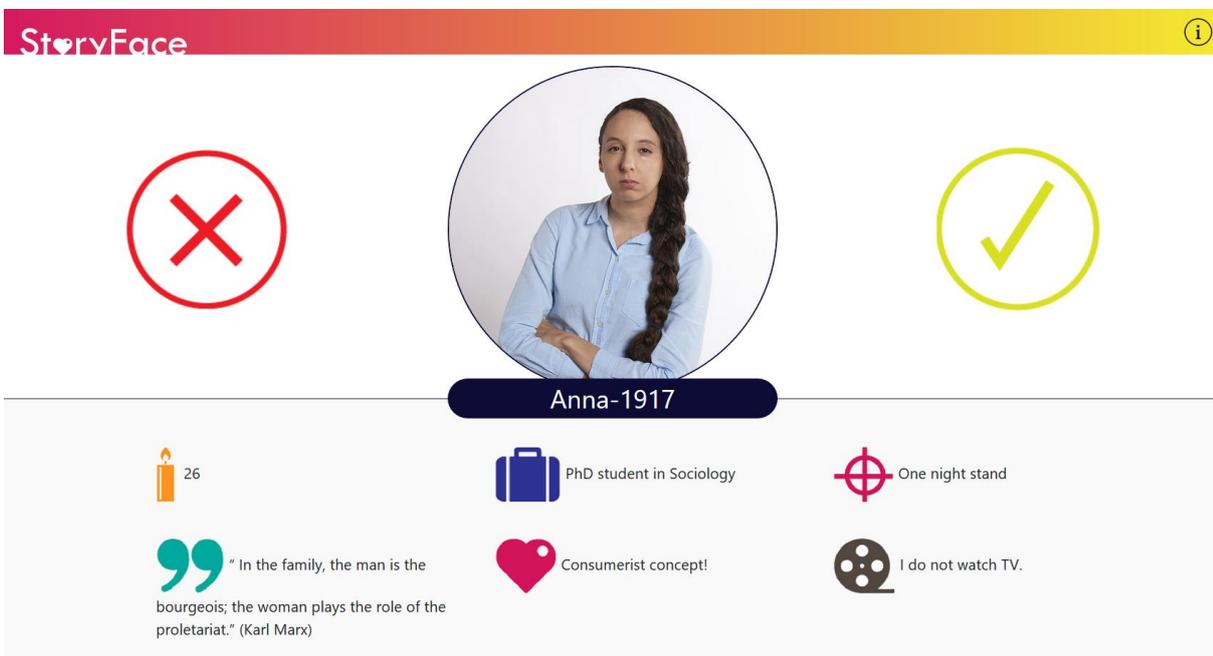


Figure 3. A fictional partner.

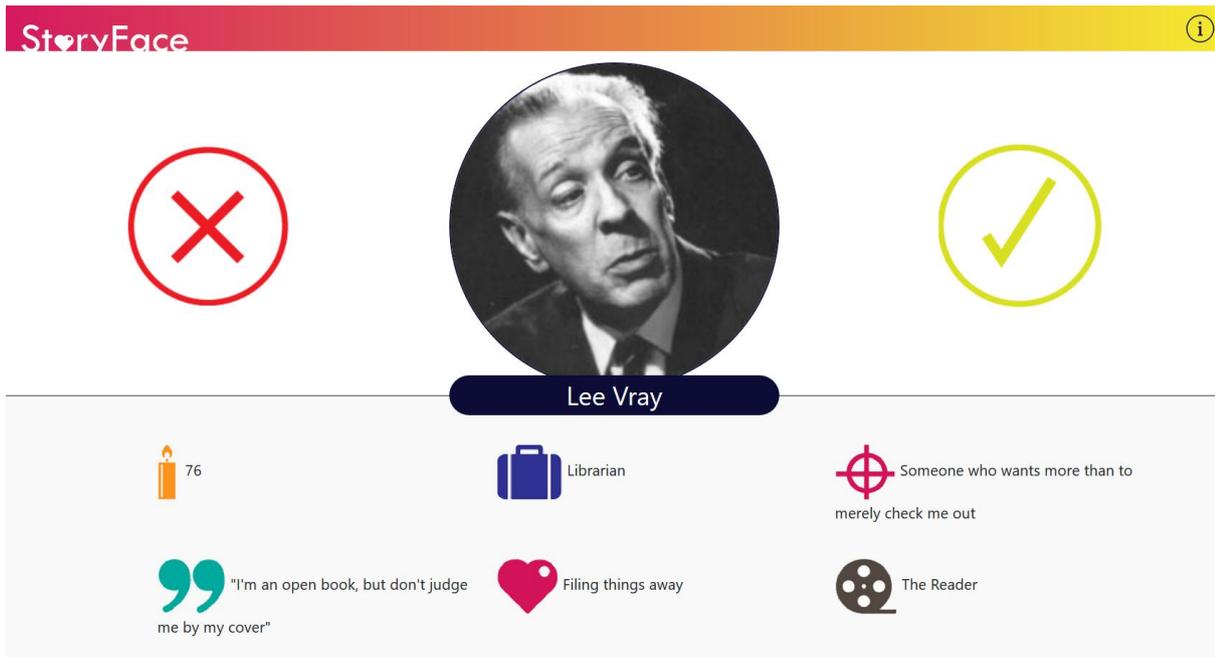


Figure 4. Another fictional partner.

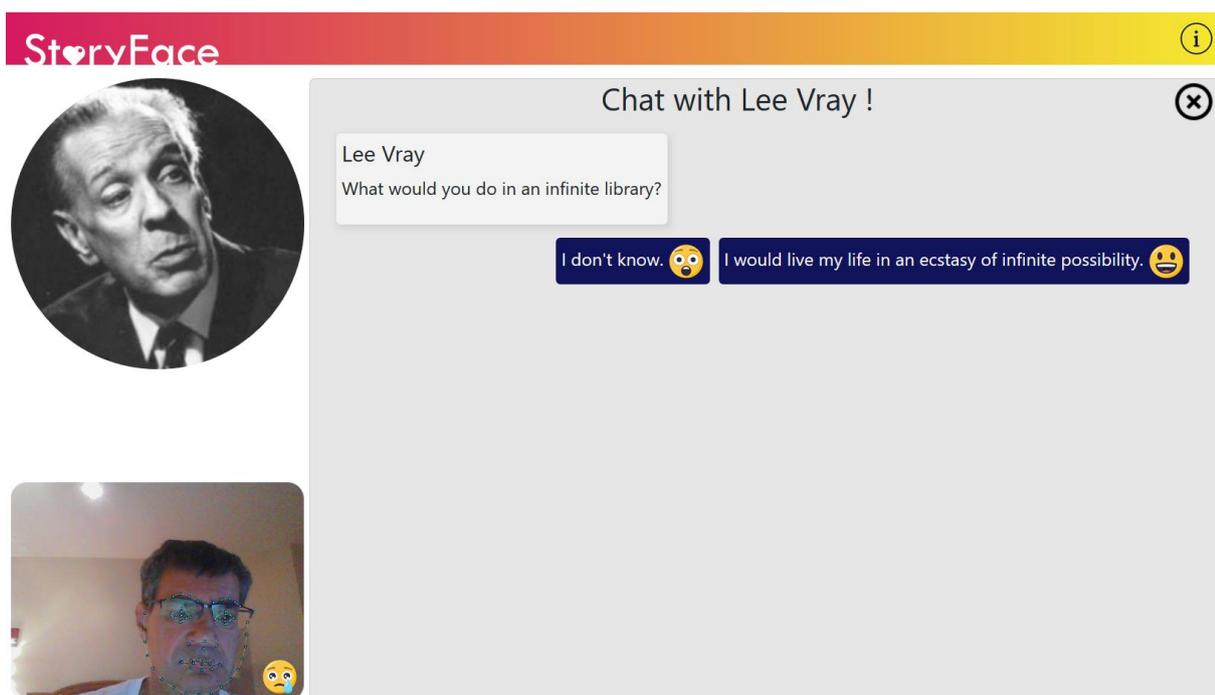


Figure 5. The chat with the fictional partnet starts.

The user is now expected to focus on the content of the messages. However, the user's facial expressions continue to be tracked and analyzed (figure 6)... The user is compelled to adjust his or her emotions artificially so that the narrative can continue...

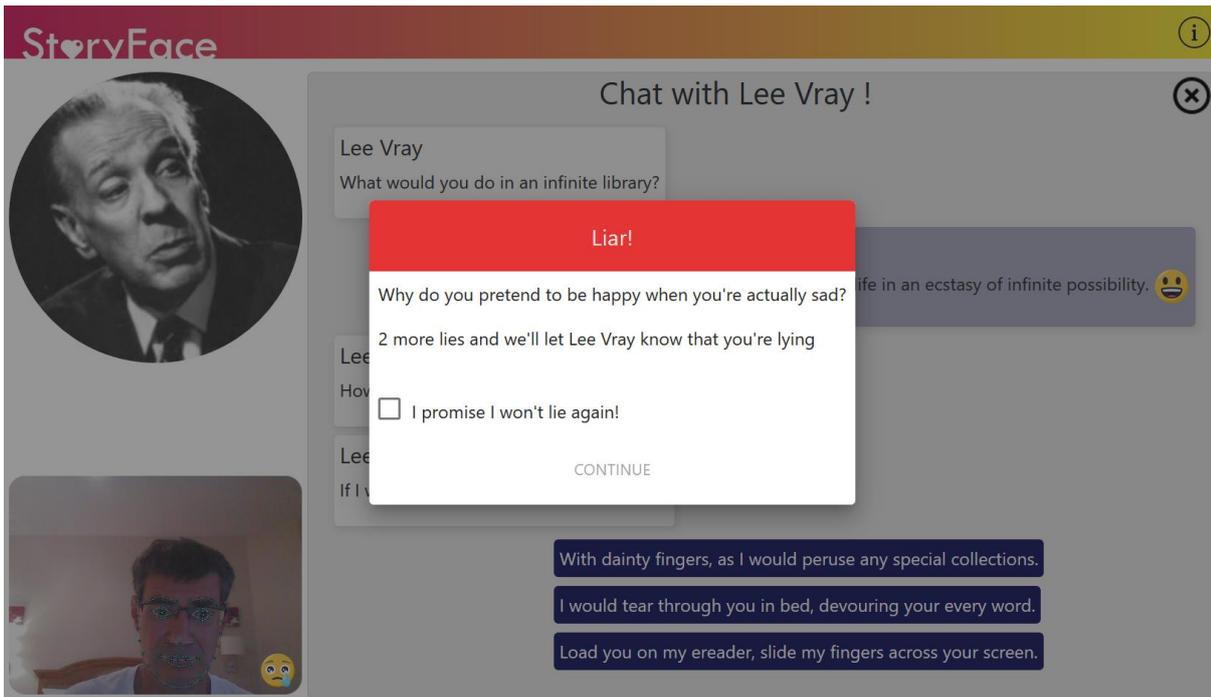


Figure 6. The user's facial expressions continue to be tracked.

## The normalization of emotions

What is highlighted here is the tendency of emotion recognition devices to normalize emotions. Which emotion does the device expect? We go from the measurement of emotions to the standardization of emotions. More broadly, this creation deals with issues of emotional surveillance and industrialization of emotions. Some researchers put forward the notion of "emotional capitalism" to refer to the economic logics of the exploitation of affects by online platforms (Alloing and Pierre, 2017). The new approaches to the measurement of emotions through facial recognition question the privacy of the individuals analyzed, as much as the risks if these methods become a means of governance. However, among the designers of emotion capturing devices, the question of exploiting the results is not really perceived. What is striking in these devices is a command to be oneself (express your emotions) in a world of standards and norms (emotions are standardized, based on a universalist approach according to which there is a determined number of emotions common to all human beings. The recurrent reference to Paul Ekman, who promoted the universality and discreteness of emotions in a Darwinian approach (Ekman, 1970), is remarkable. In 1982 (Ekman and Friesen, 1982), Ekman postulated six basic emotions: anger, disgust, fear, happiness, sadness, and surprise (on which emotion recognition devices are mostly based), and supplemented these in the 1990s with eleven

additional emotions. He thus identified the types of emotions that he considered universal, that is to say observable basic emotional expressions in unconnected cultures. This universalist and acultural approach is reinforced by emotion recognition devices, which in return tend to normalize emotions.

## **The Digital: a *pharmakon***

Based on the notion of *pharmakon* of the ancient Greeks, Bernard Stiegler underlines that the Digital, like any technology, is both cure and poison (Stiegler, 2013). Technics are ambivalent. So, there is an interesting tension between a generalized form of surveillance and exploitation of our emotions that can be done without us being aware of it (it is a form of alienation by devices, which requires a critical approach), and the possibility given by these devices to perceive our affective expressions in order to better analyze our *self-writing* and our interpersonal communications (this is the reflexive dimension of the devices, which can be perceived as positive). Emotion recognition tools can thus be useful to confront our own emotions (why not imagine such a device to help us control our emotions when we talk with someone online). By playing with the emotion capturing device, *StoryFace* highlights this tension. Being aware of this tension is part of digital literacy.

## **A contributive narrative**

This digital literacy dimension (being aware of the ideology encoded in the devices) is reinforced in *StoryFace* by the contributive dimension of the piece. Anyone can create fictional partners (figure 7).

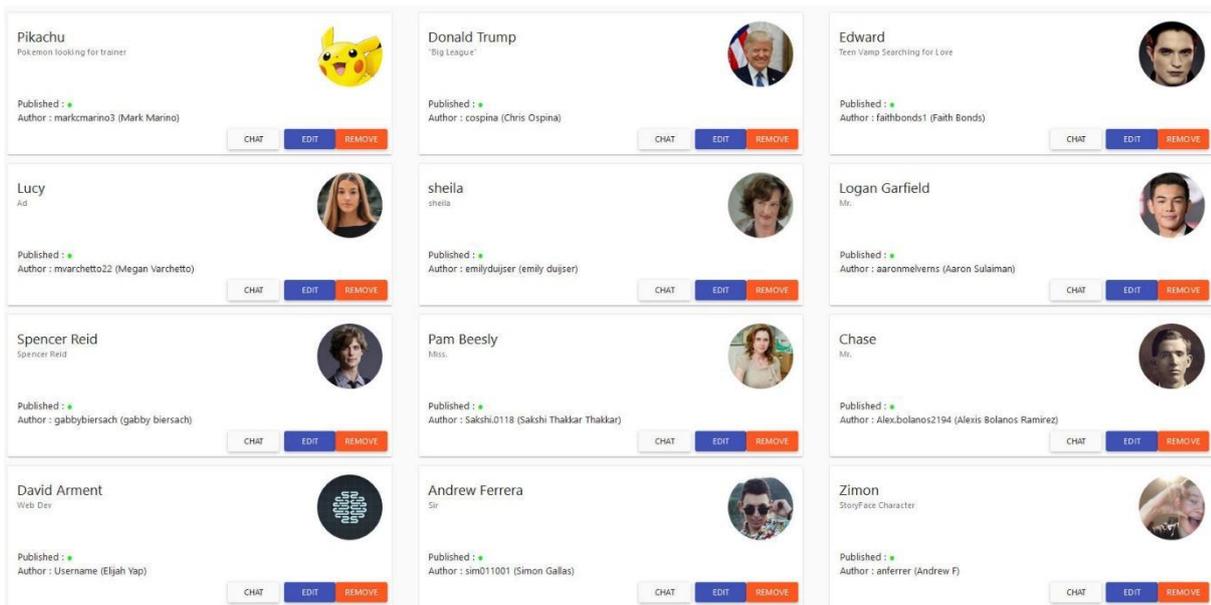


Figure 7. Any user can create fictional partners : some characters created by internet users.

Thanks to an interface, the user can create a profile easily (figure 8), which encourages creative writing practices. This piece is also an example of contributive digital narrative insofar as it gives the user the possibility to create a character which other users will interact with. The user reads and plays in order to understand the underlying issues, but they can also create in order to understand them. The user can create questions and answers, and associate emojis with every question and every answer (figure 9). This gives the user the opportunity of a practice-based reflection on the relationship between the written language with words, the emojis and the facial emotions, and the way they can be interpreted.

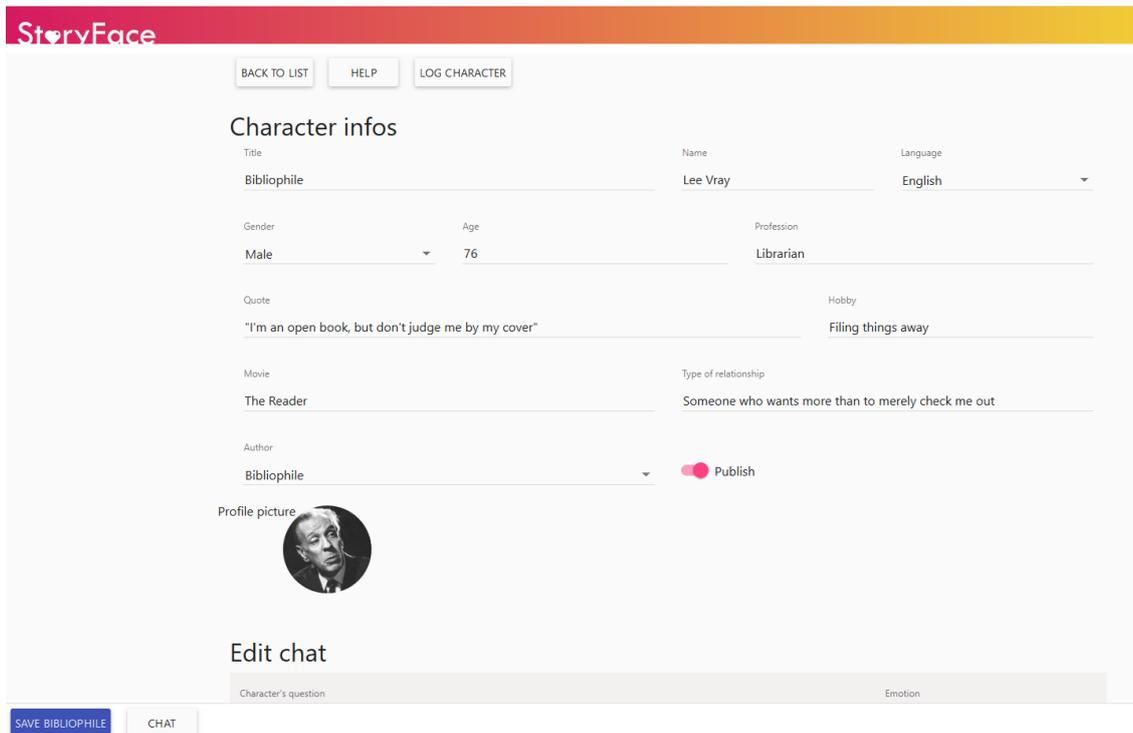


Figure 8. The contributive dimension : the interface is used to create the profile and the chat with a fictional partner.

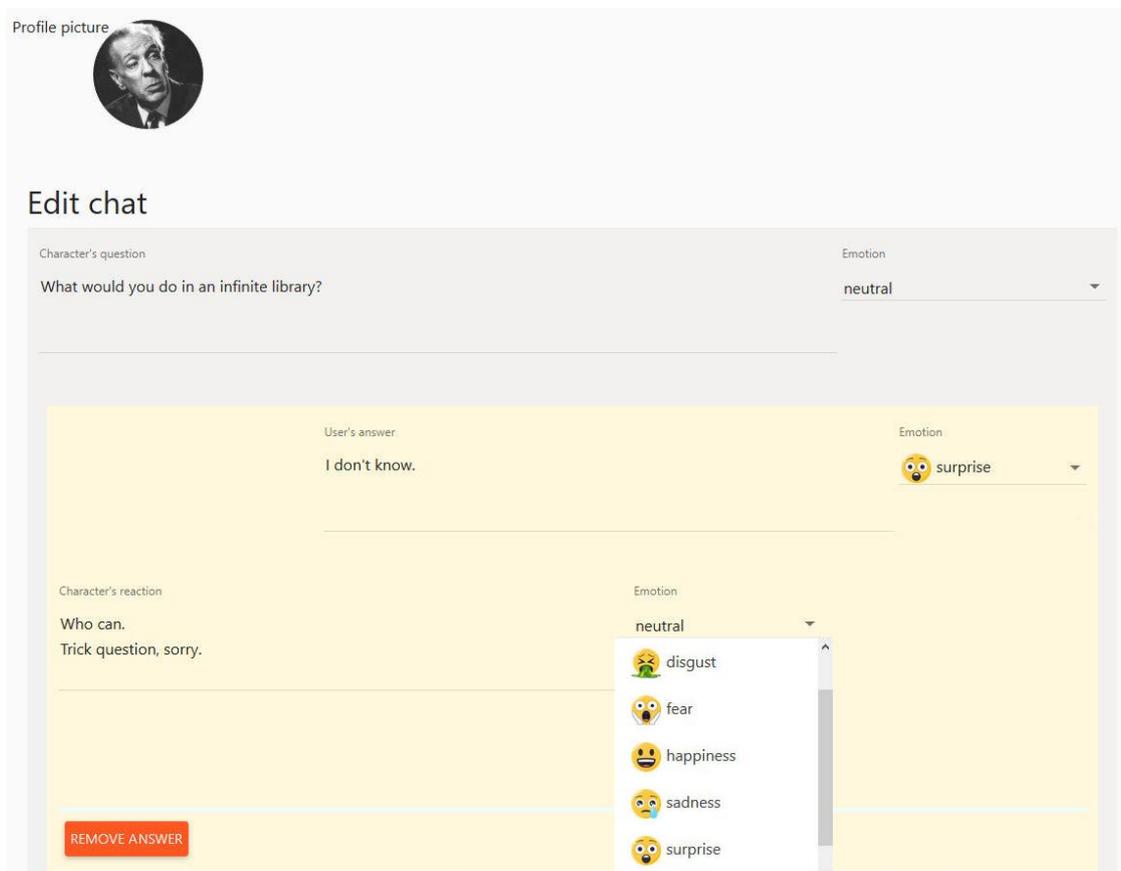


Figure 9. Anyone can write questions and answers for the chat with the fictional partner, and associate emojis with any of these.

## **An interactive narrative based on reflexivity**

The narrative is constructed as a potentially endless series of exchanges between the reader and different characters. The narrative unfolds through the user's play with his/her own image and facial expressions. The user can play with the way they express or hide their feelings, and the way emotions that are oversimplified into emojis can be misread. The exchanges with the fictional characters are thus based on the emotions and facial expressions that the user conveys consciously or unconsciously. This piece is an example of interactive digital narrative in which the user can not only interact with his/her own face but also through his/her own face. The narrative is based on reflexivity via reflection (like the reflection of oneself in a mirror), on a reflexive interaction with the technical device.

## **Conclusion**

*StoryFace* could be considered as a *reflexive narrative*. With the reflection of our own image and facial expressions, and the way we can play with them, we are invited to have a reflexive attitude towards dating websites ("love of self or love of others", cf. Kessous, 2011). We are also invited to have a reflexive attitude towards emotion capturing devices and to deconstruct the ideology underlying the algorithms. In a supposedly homogenous global digital culture, do we need and want our emotions to be normalized when we communicate with machines, and with others ?

## **References**

- Alloing, C. and Pierre, J. (2017). *Le web affectif – une économie numérique des émotions*. Paris : INA éditions.
- Ekman, P. (1970). "Universal Facial Expressions of Emotions". *California Mental Health Research Digest*, 8(4), 151-158.
- Ekman, P. and Friesen, W. (1982). "Measuring facial movement with the facial action coding system", in Ekman P, ed. *Emotion in the Human Face*. 2nd ed. Cambridge, UK: Cambridge University Press, 178–211.

- Kessous, E. (2011). "L'amour en projet. Internet et les conventions de la rencontre amoureuse », *Réseaux*, 2011/2 n°166, 191-223. Paris : La Découverte.
- Stiegler, B. (2013). *What Makes Life Worth Living: On Pharmacology*. Cambridge: Polity Press.

## **Versions**

StoryFace offers two versions, one in French and one in English.

*StoryFace* is also available as a free app on the Play Store.

Video capture on Youtube: <https://youtu.be/H0xfMmJf2wk>

## **Acknowledgements**

Based on an original idea by Serge Bouchardon, *Storyface* has been developed with the collaboration of Alexandra Saemmer, Franck Davoine and engineering students of the *Université de technologie de Compiègne*.

It is also the fruit of a collaboration with *Visage Technologies* (<http://visagetechologies.com/>) for the precise recognition of facial emotions.