# *fred :-)*, a gestural story

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To what extent can a story be based on the user's gestural interactions with a mobile phone? In the application *fred :-)*, the smartphone speaks to the user as if he or she were its "friend", hoping to start a relationship. The experience relies on a smartphone's many sensors (touchscreen, front-facing camera, microphone, accelerometer, gyroscope…). The user has to perform different gestures (see figure 1): smile, talk, tickle, stroke, pinch, tap, shake, play with the light, the volume… How do the different interactions contribute to the interactive narrative and the building of emotions?
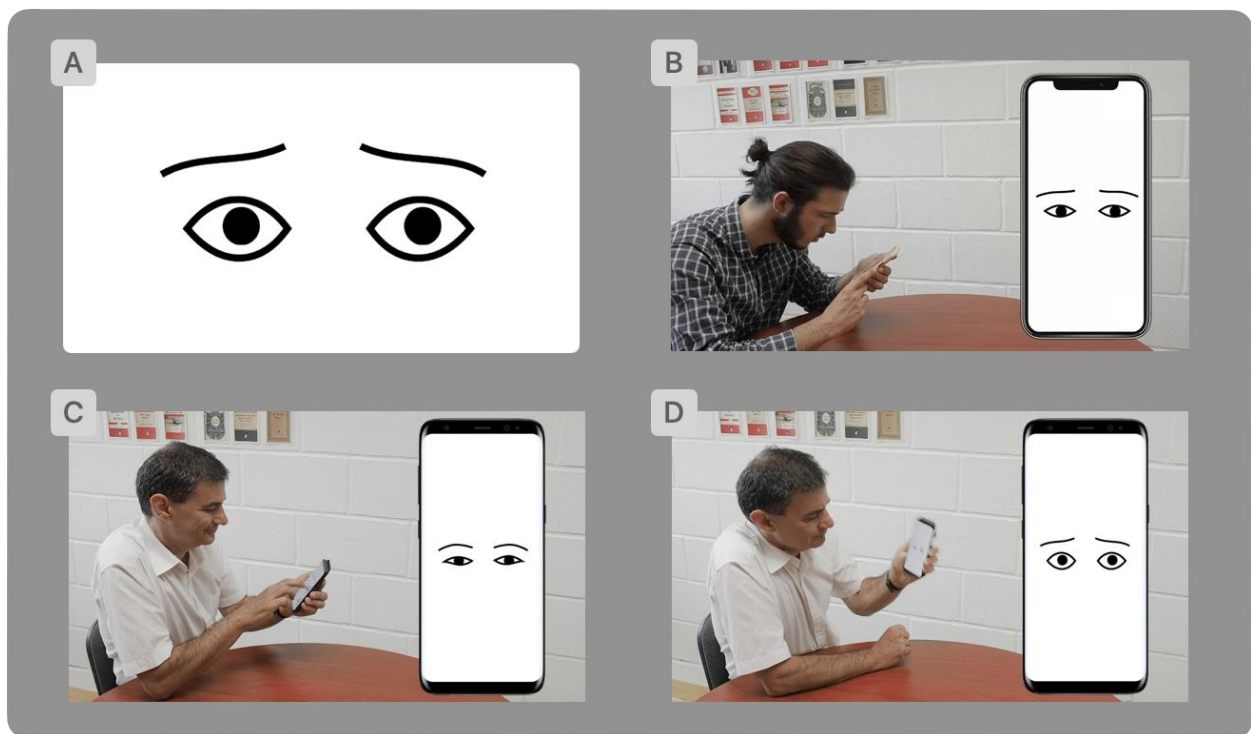
Figure1 . A) fred's eyes, B) talk, C) tickle, D) shake.

Gesture and meaning

Yves Jeanneret (2000) claims that the simple act of turning the page of a book "does not suppose *a priori* any particular interpretation of the text." However, "in an interactive work clicking on a hyperword or on an icon is, in itself, an act of interpretation" (Jeanneret, 2000, p.113). Jeanneret further suggests that the interactive gesture consists above all in "an interpretation realized through a gesture" (Jeanneret, 2000, p.121). However, the distinction that Jeanneret proposes between turning a page and clicking on a hyperlink is not necessarily obvious and could be criticized. Moreover, the limits of *interpretation* are stretched quite dramatically if any clicking is considered as interpretative. It can yet be pointed out that, in an interactive work, the gesture acquires a particular role, which fully contributes to the construction of meaning (Bouchardon, 2018). This is the case in the interactive narrative *fred :-)*.

Some typologies of gestures already exist (see for instance the gesture icons in figure 2 which are listed among others in (Andrew, 2020)), and the repertoire of these gestures is continually expanding. In *fred:-)*, these gestures allow the story to unfold. The objective was to articulate these gestures with the emotions of the character.
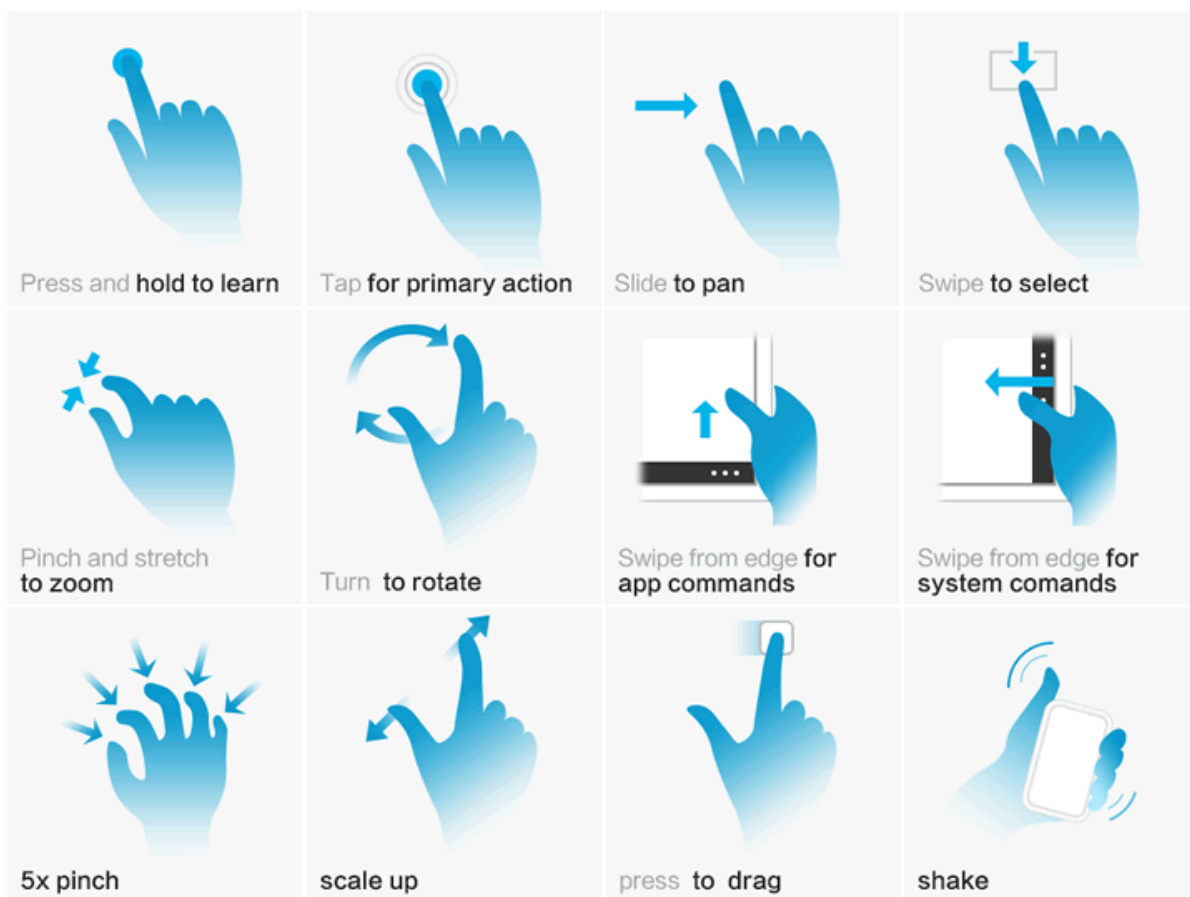

Figure 2. UX Gesture Icons by Gaoyounger.

A Twine-based gestural story

fred :-) is based on a scenario written with the open source software, *Twine* (https://twinery.org/). *fred :-)* has a hypertextual structure (cf. figure 3), and its originality lies in the fact that the passage from one step to another can only be realized through different gestures (and not via a mouse click on a hyperlink, as in many Twine-based stories). There is no link or reactive element displayed on the interface. You can only see the eyes of fred. This increases the user's impression that he/she is interacting with the character.
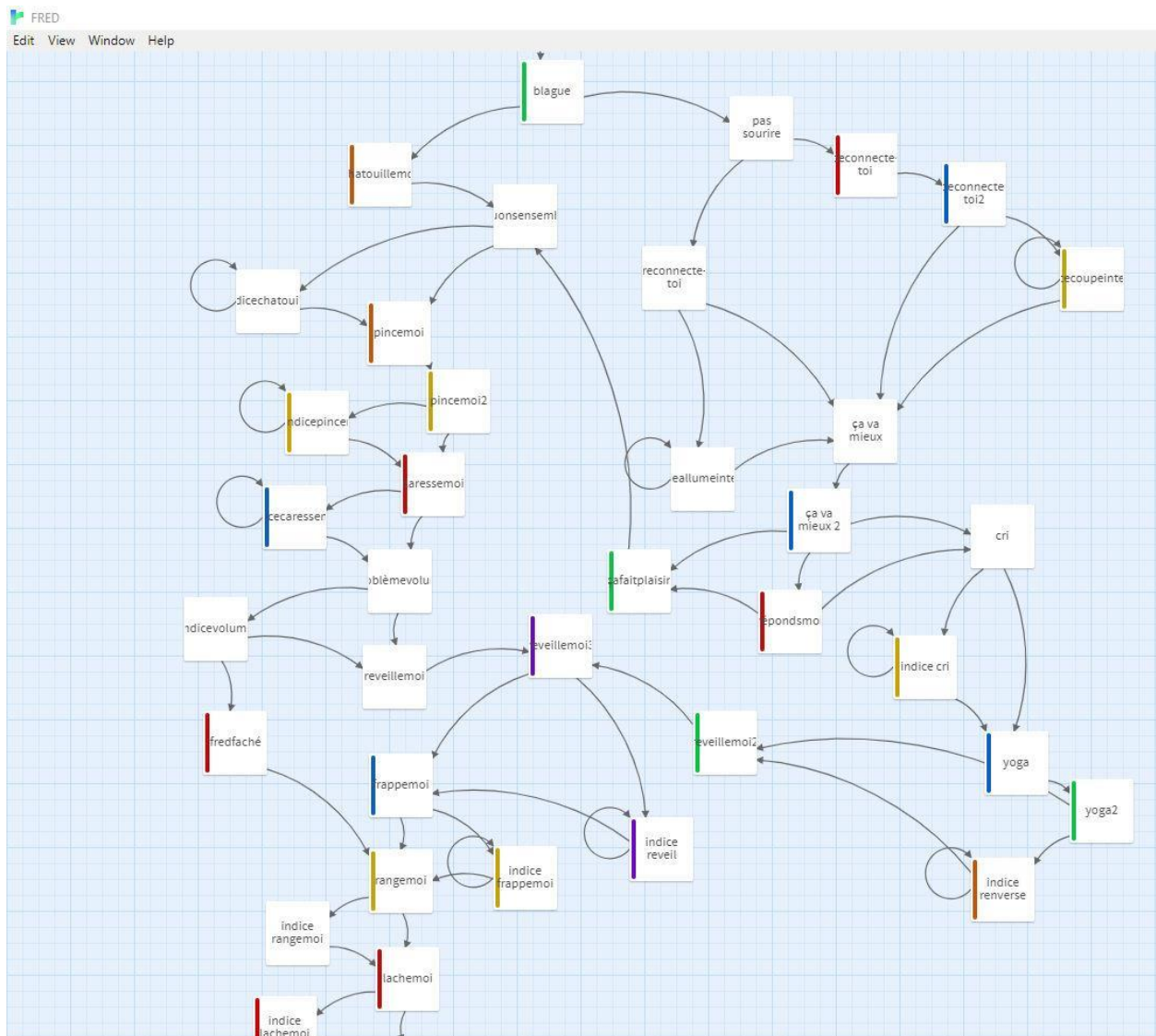

Figure 3. An excerpt from the scenario with Twine.

The emotions projected onto the bot

Intimate relationships between bots and human beings may begin to form in the near future. Market forces, customer demand, and other factors may drive the creation of various forms of bots to which humans may form strong emotional attachments.

Which emotions can one project on a bot? Two eyes are enough to project many emotions. First we worked on the representation of the eyes. Several graphic sketches were created, designed to be easily animated (low geometric complexity) and simple enough to avoid the "uncanny valley" (cf. figure 4).
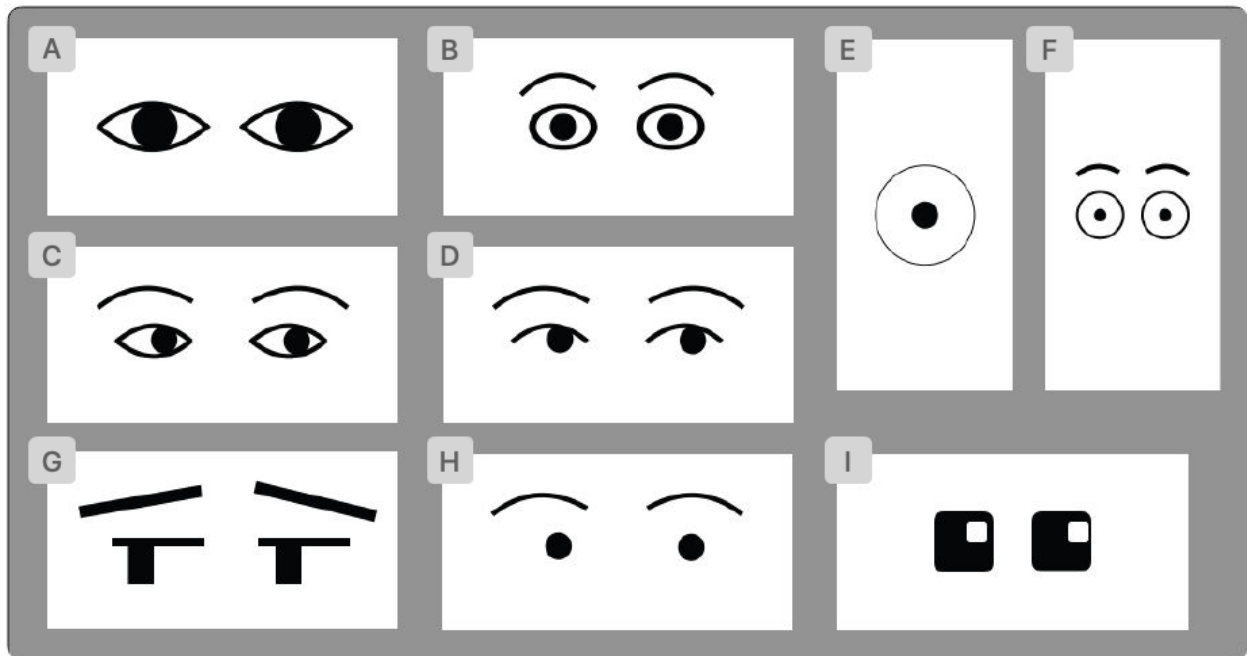

Figure 4. Visual exploration for fred by the graphic designer Alexandre Truong.
Design C was eventually chosen, as it turned out that eyelids as well as eyebrows were required to clearly represent a wide range of emotions.

Then we worked on the representation of different emotions (cf. figures 5 and 6). The voice plays a very important role. When the user starts the application, there is a random choice between a male and a female voice (both for the English and for the French version).
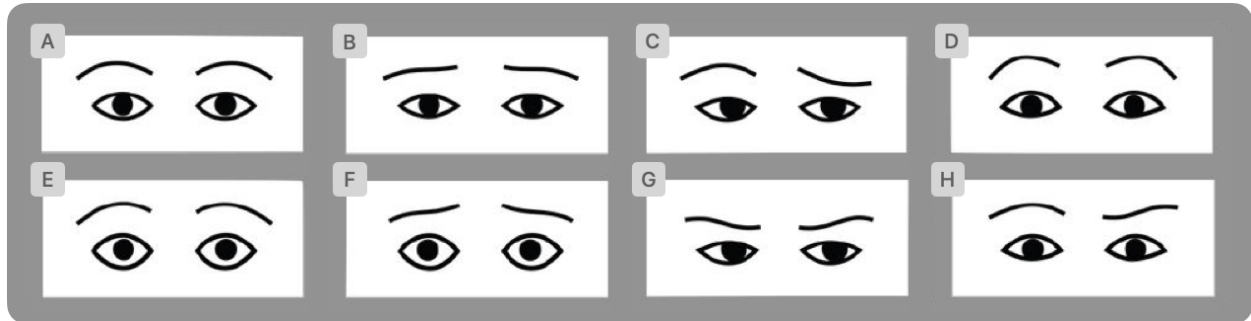
Figure 5. Expression of different emotions:
A) neutral, B) sadness, C) contempt, D) joy, E) surprise, F) fear, G) anger, H) disgust.
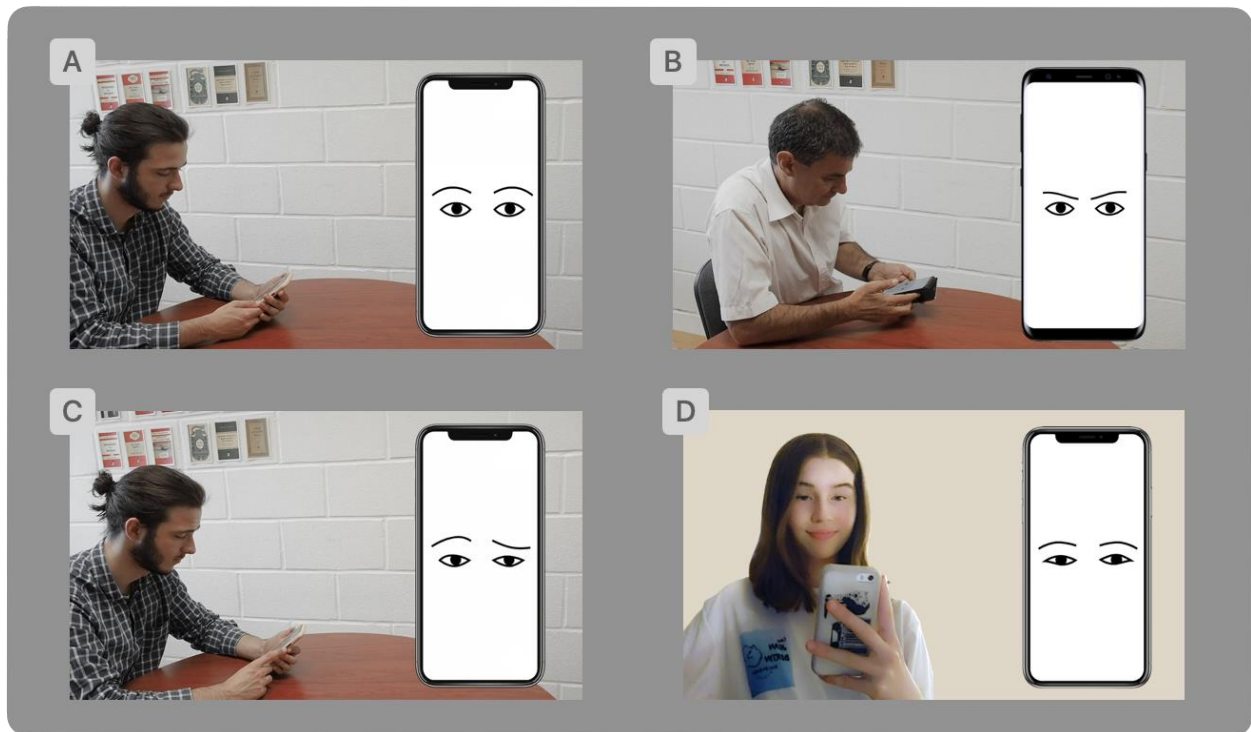

Figure 6. A) neutral, B) anger, C)contempt, D) joy.

What do we feel for fred? Empathy or identification? Françoise Lavocat (2016) postulates that empathy is based on the hampered desire to help the character, to penetrate his/her world. Other authors consider that identification may be linked to passivity (in the sense of non-interactivity), passivity which would make it possible to absorb everything that the character experiences. And actually, fred tells us that in many aspects we bear a resemblance with him/her.

With *fred :-)*, we might feel some empathy, but there is above all a reversal of situation : fred plays with us, with our reactions and gestural manipulations, so that in the end, the feeling is mostly reflexive: how do we feel when we project emotions onto a bot?

Digital Literacy

Through a series of interactions, *fred :-)* enables users to become aware of the constraints and possibilities of smartphones and makes them reflect on the relationship they have with these devices. It is also a digital literacy challenge. For instance, in one branch of the scenario, the user is asked to disconnect from the internet. To do that, the user can activate the flight mode for instance (figure 7).
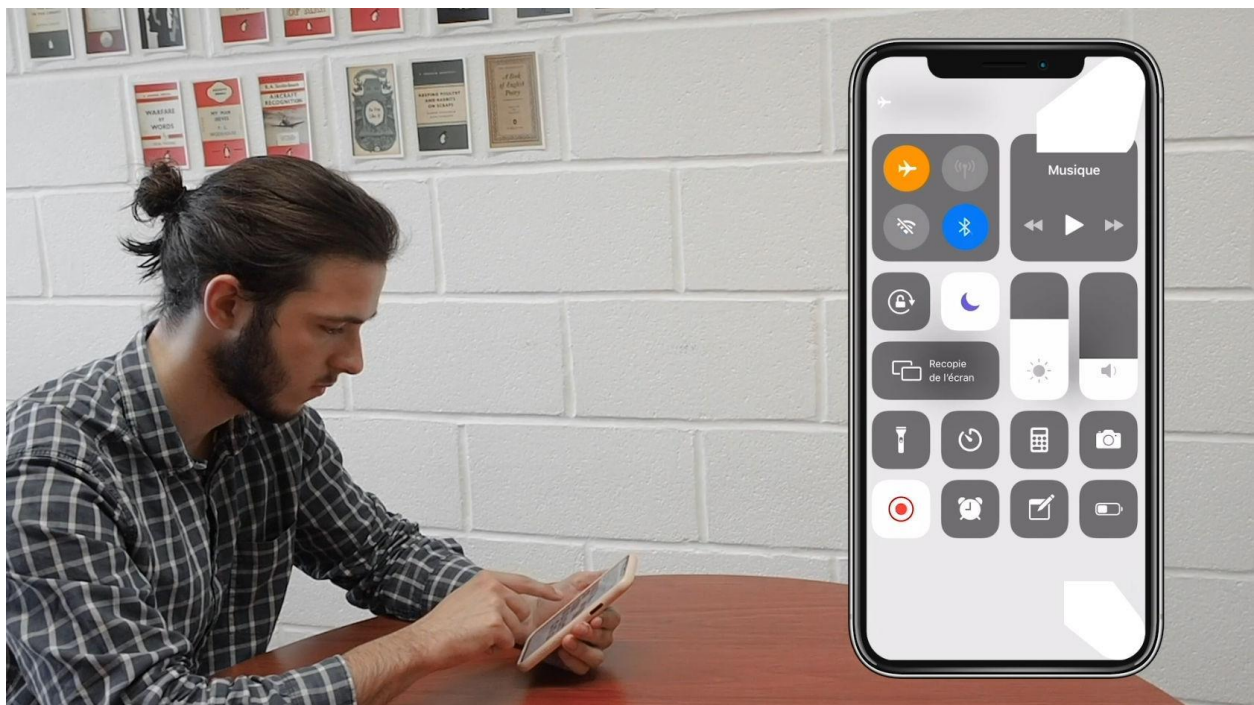
Figure 7. The user is asked to disconnect from the internet by activating the flight mode.

In the end, the users will hopefully become familiarized with the different possibilites of their smartphones, particularly in terms of gestures.

This story for smartphones is first and foremost a gestural and reflexive story. The creation *fred :-)* may "touch" teenagers in particular and make them reflect on the emotional relationship they have with a smartphone, and more broadly on its use.

References

- Andrew, P. (2020). "15 Free Gesture Icon Sets for Mobile App Designers", *Speckyboy*, https://speckyboy.com/free-gesture-icon-sets/
- Bouchardon, S. (2018). "Towards Gestural Specificity in Digital Literature". *Electronic Book Review*, décembre 2018, http://electronicbookreview.com/essay/towards-gestural-specificity-in-digital-literature/
- Jeanneret, Y. (2000). *Y a-t-il vraiment des technologies de l'information?* Paris: Septentrion.
- Lavocat F. (2016). *Fait et fiction. Pour une frontière.* Paris: Seuil.

Details

fred :-) is freely available on both stores, in English and French.

- Play Store: https://play.google.com/store/apps/details?id=com.utc.fred
- App Store: https://apps.apple.com/us/app/fred/id1466792875

Video capture of some interactions:

- https://youtu.be/iLg5dTQgcQI (English)
- https://youtu.be/keYj7bJEwd0 (French)

Acknowledgements