

***Sensitive Rose* and the mobile tag era**

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Introduction

The objective of this paper is to present the artwork *Sensitive Rose*, which was developed with dynamic mobile tags, and also to describe the potentialities of mobile tagging as a tool for creating artworks. In this sense, we will start introducing the main concepts of mobile tagging, and then presenting the artwork.

Mobile tagging

Mobile tags are 2D-barcodes that can be scanned by mobile devices in order to decode the information kept in the barcode.

There are many types of 2D-barcode (tag) and it is possible to encrypt many kinds of data into them. However, regarding mobile tagging, the most common encrypted information is URLs. The process of mobile tagging can see in the figure 1.



Figure 1. Mobile tagging process (source: Mobile Tagging Blog, 2007)

The most used patterns of 2D-barcodes for mobile tagging are QR Code (Quick Response Code) and Datamatrix. While conventional bar codes (Figure 2) are capable of storing a maximum of approximately 20 digits, a QR Code (Figure 3) is capable of handling up to thousand characters and all types of data, such as numeric and alphabetic characters, Kanji, Kana, Hiragana, symbols, binary, and control codes (Denso-Wave, 2009).



Figure 2. Conventional barcode storing the number 123456



Figure 3. QR Code storing the URL 'http://www.martha.com.br/'

According to (Denso-Wave, 2009), the capacity of storage of a QR code is:

QR Code Maximum Data capacity	
Numeric only	7,089 characters
Alphanumeric	4,296 characters
Binary (8 bits)	2,953 bytes
Kanji, full-width Kana	1,817 characters

Most of the new models of mobile devices come already with the mobile tags (QR code and Datamatrix) reader. Older versions of devices can install a QR code reader, such as i-nigma (www.i-nigma.com), becoming so able to scan them.

Sensitive Rose artwork

Sensitive Rose is an interactive compass rose formed by mobile tags (QR Codes) that maps people's desires (Figure 4).



Figure 4. Screenshot of the work *Sensitive Rose*, 29th Nov 2008, showing the coloured spheres related to people's participation. The tag in the right lower corner is the entrance to the work.

The work is a big projection (3 m x 3 m) and the interactions happen via cell phone or mobile devices by scanning the entrance mobile tag (the one that stays in the lower right corner of the projection (Figure 4). Once in the interaction page the interactor is

asked; What do you want from life? The possible answers can be: love, peace, revolution, nothing, everything, family, friends, money, power, and so on (Figure 5).



The image shows a mobile web application interface. At the top right, there is a small text 'fechar'. The main title is 'SENSITIVE ROSE' in a large, bold, black font, with a red vertical bar under the letter 'I' in 'SENSITIVE'. Below the title, it says 'by martin gabriel'. There is a red arrow pointing upwards from the center of the title. Below the title, there is a form with a label 'Nome:' followed by two empty input fields. Below the input fields, there is a question 'O QUE VOCÊ QUER DA VIDA?' followed by a dropdown menu with the option 'Nada' selected. At the bottom of the form, there is a button labeled 'Enviar'.

Figure 5. Page accessed via cellphone after scanning the entrance tag for the Sensitive Rose artwork

Each interaction creates a new sphere around the tag related to it – if the person chose love, it will cause the sphere to appear next to the tag love with the colour the work associates to love (in this case, red). A mobile tag is encrypted with the text 'Joe wants love' (imagining that the interactor's name is Joe) and that tag goes to the compass rose of desires replacing the previous tag related to love (see Figure 6).

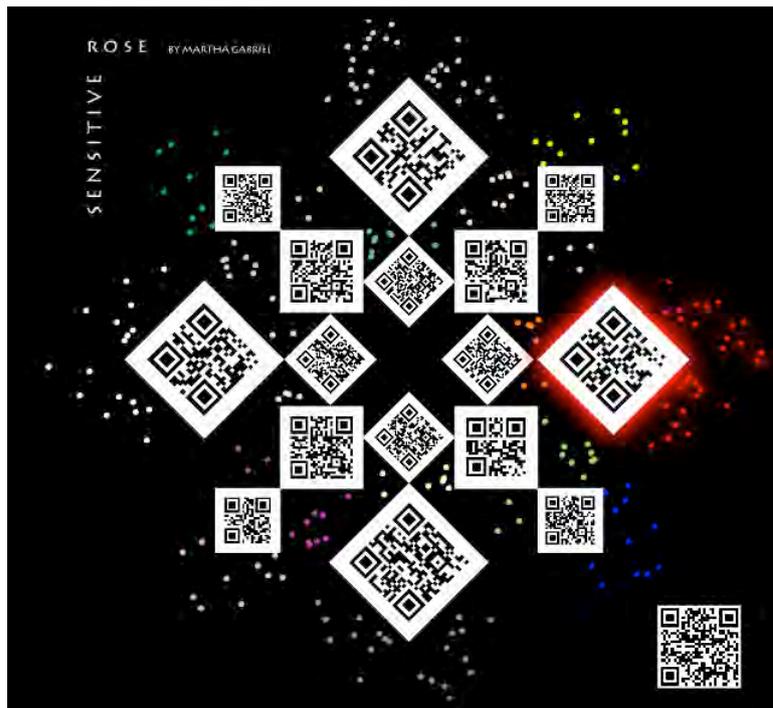


Figure 6. Sensitive Rose after an interaction with the tag “love”
(the red one shown in highlight)

Much as in a compass rose the most important direction is North, since all other directions are positioned according to it, in the Sensitive Rose, the most wanted desires are always positioned in North. Also, according to the order of relevance of choices of the desires, all the work reconfigures itself when the relevance changes. When this happens, the whole rose disappears as zoom out and appears again, reconfigured in zoom in (see Figure 7).



Figure 7. Sensitive Rose after an interaction with the tag 'love' causing the reconfiguration with the tag 'travel' (the blue one in North position in the top)

In this sense the work functions as a compass rose that navigate in the people's desires, showing what people want most in life. The navigation however is done in a secret way by using a codified poetic of mobile tags (QR Codes). So, the texts associated with each tag cannot be deciphered by naked eyes but only by using a device that allows seeing beyond the surface. The same thing happens in life, since when looking at people faces, we cannot know for sure their desires but only guess them. When they 'talk' and reveal themselves, decoding themselves to us, we get the information.

Another intention here is to extract poetics of the QR Codes in a Visual Poetry. In the same way that Concrete Poetry use alphabetic codes – letters/words – using their visual characteristics to create meaning, the Sensitive Rose has the same goal: creating concrete poetry formed by mobile tags (visual codes of information) where the data input and output are altered through the work.

Conclusion

Mobile tagging is a very accessible technology that functions as a physical gateway to the online world, increasing the possibilities of interaction with physical objects and people. In this sense, the mobile tagging use is unlimited and includes explorations in Arts.

The artwork *Sensitive Rose* explores the QR codes (Quick Response Code pattern of mobile tags) potentialities in order to build an interactive online navigation tool via a big wall projection. The objective of the artwork is to explore the codified characteristic of the mobile tags in order to not reveal the desire mapping to the naked eye, but rather, providing tools for navigating and exploring those desires, deciphering them, as it is in life.

References

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