1

My object of replication is a video, which is generated by code.

The sound and image have a delicate connection. the image includes colour and position, while the sound includes pitch, loudness, and timbre. Among them, loudness and pitch are related to spatial position, while timbre is related to colour.

During the replication process, the sound serves as my input, and the output is animation.

To establish a connection between two variables by coding, we first need to determine the range of variation for each variable.

- Loudness: amplitude (0, 1)
- Pitch: Spectrum (0, 255)

However, the timbre is defined by all other perceptual properties of a sound.

In the replicated object, higher volume corresponds to a larger or closer visual representation, while higher pitch corresponds to brighter colours. This setup is in line with human perception and provides a comfortable experience.

- Color: R(0, 255), G(0, 255), B(0, 255)
- 3D Position: Camera Z(-x, x), Width (0, windowWidth), Height (0, windowHeight)
- 2D Position: Width (0, windowWidth), Height (0, windowHeight)

I believe the core of this tool lies in the correspondence between different variables, especially when the variables belong to different types of information, such as visual information, auditory information, and body movements. My proposal is an experiment, considering auditory information and body movements as input materials. I am also considering incorporating more visual characteristics as parameters, such as shape (circle, square, triangle), and text (font, weight, size).

2

I would like to name this exercise on methods of iterating in two ways. The first name is "Iterating of Translation". In this approach, coding is used as a tool to achieve a medium-level translation. The second name is "Loose Association", inspired by Raymond Queneau's "Exercises in Style" and Ryan Gander's "Loose Associations". Through different rules and perspectives, A can be transformed into 100 different Bs, and this transformation can be extended further to A→B→C→D.

In "Exercise in Style," Ryan Gander uses different perspectives to tell the same story. Medium A is a personal experience, while medium B is text. The text compares the experience itself, with missing details and added viewing angles. In the transition, characteristics of medium A are lost, while characteristics of medium B are added. We can never say that a certain piece of text is equivalent to a certain personal experience because they are fundamentally different. However, we can seemingly identify which text describes which experience, and when we do so,

we realise there is a certain correlation between the two. This "correlation" is a rule, such as how the association between "button" as an object and "button" as text is derived from the rules of the English language.

Taking language as an example, we consider English pronunciation rules and English spelling rules as a common, default rule. But we must also be aware that 'a' has different pronunciations in different languages. After realizing this, the relationship between the letter 'a' and the pronunciation /ēi/ is surprising. If correlations can be established between sound and text, can correlations also be established between sound and colour, sound and shape, text and colour, and text and sound?

As a tool, coding provides a means to establish a strict bridge between medium A and medium B: the if/else statement. In a conditional command, once the input is determined, the output is also unique. However, as Ryan did in the exercise in style, I can come up with a hundred commands and medium B. This connection can be seen as a loose association, a drift. In the preface of loose association, Emilie Renard mentioned that "Loose Associations is a reminder of the Theory of Dérive that Guy Debord defined in 1956 as the 'technique of the hasty passage across varied urban ambiences', or in other words a means of moving by transition." In the exercise of methods of iterating, the points in space are transformed into visual or auditory elements, with coding serving as the line connecting them.

Reference List:

Pitch, loudness and timbre. UNSW. Available at: https://www.animations.physics.unsw.edu.au/jw/sound-pitch-loudness-timbre.htm (Accessed: 15 January 2024)

Philip Ording. (2019). *99 Variations on a Proof* (pp. 15-18). Princeton University Press.

Raymond Queneau(1958). *Exercises in Style.* Gallimard.

Ryan Gander(2008). *Loose Associations.* Onestar Press.