JUST TYPE – A MULTICHANNEL PLATFORM FOR EXPERIMENTAL TYPEFACES

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This paper reports the journey of making interactive art projects that showcases inspirational and experimental typefaces. It uses radio-frequency identification technology, videos and projectors to create a typographic world that reveals the history, inspiration and experimental design of typefaces. The result is a multichannel platform consisting of three interactive art projects.

Fig. 1. Left: Screenshots of the journey of a font. Center: Type Personality. Right:Pangram Art
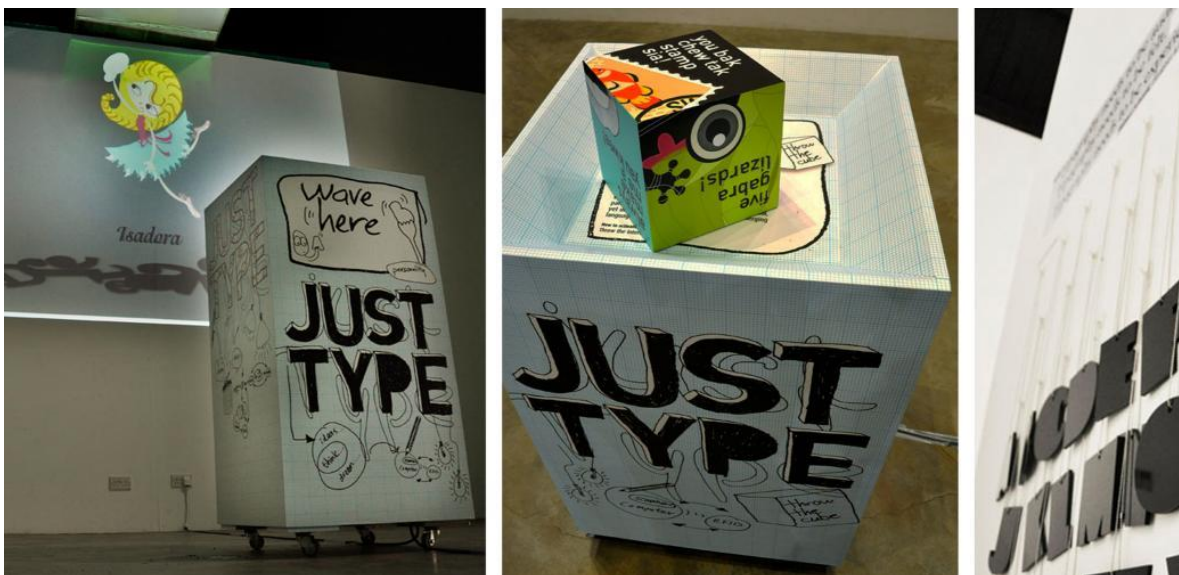

Fig 2. The console for Type Personality (left), Interactive table (center) and alphabet tags (right).
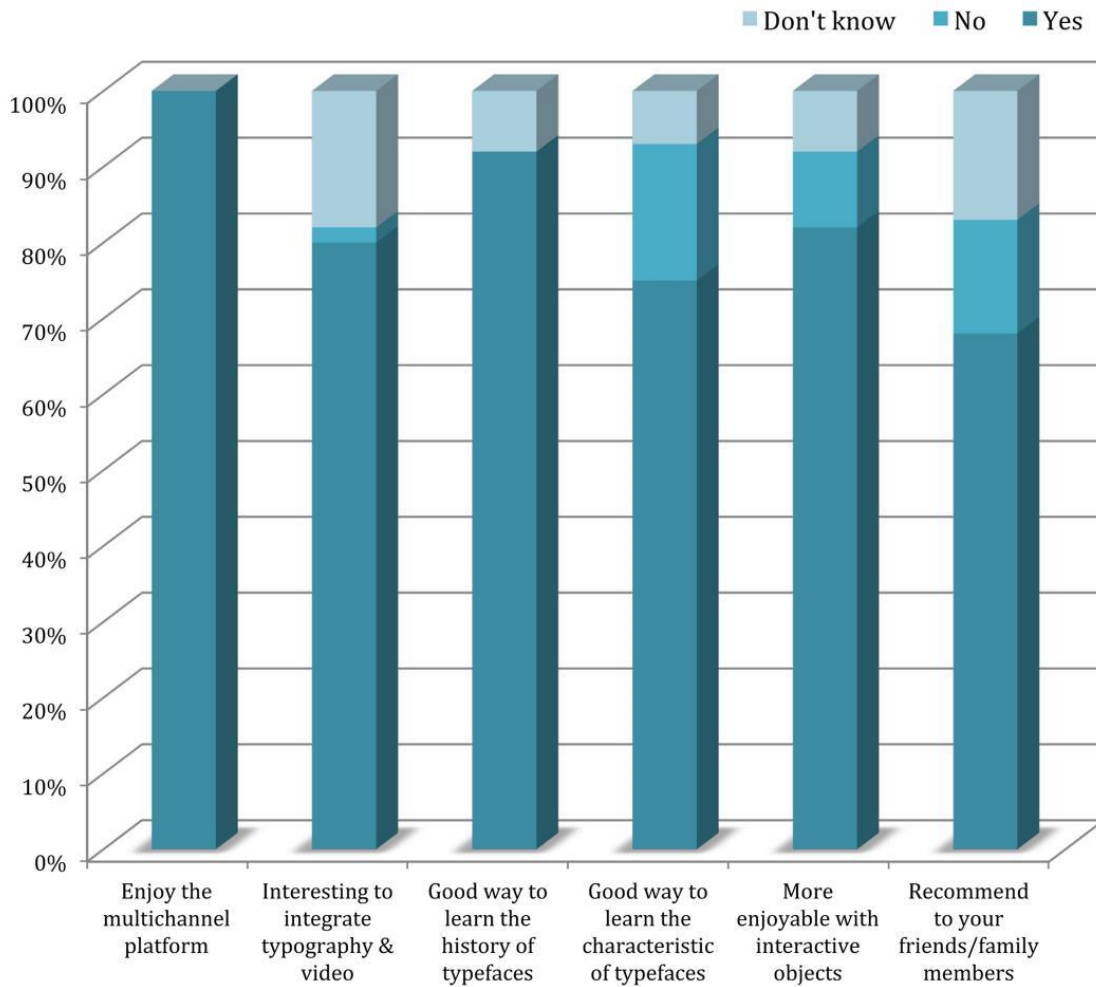
Fig. 3. Survey results

Typography needs to be audible.

Typography needs to be felt.

Typography needs to be experienced.

_Helmut Schmid, designer and typographer

Communication is the main purpose of letters but "there's more to a letter than simply its sound or shape". [1] The different shape and character of a letter affects how we read. For example, a tagline printed in an advertisement evokes a different response in the reader than the same words that appeared on the screen. Given the existence of over 100,000 typefaces, many of which are freely accessible to designers, what are the processes through which one chooses a font? Are our choice of typeface based purely on our aesthetic preferences or influenced by the associations we have of a particular typeface's history and cultural significance? This article aims to explore our experiences with typefaces.

This article reports the journey of making interactive art projects that showcases inspirational and experimental typefaces. It exemplifies how the author selects typefaces and imagines typefaces as people with their own characters and histories. The projects use radio-frequency identification (RFID) technology, interactive videos and projectors to create a typographic world that reveals the history, inspiration and experimental design of typefaces.

The result is a multichannel platform consisting of three interactive art projects – The Journey of a Font, Type Personality and Pangram Arts. The teaching and learning of typography is usually textual, with little or no visual supplements. [2] [3] Therefore, the experience of this multichannel platform is designed to be interactive, fully visual and enjoyable. All videos have an ID and viewers have to use the RFID alphabet tags or the RFID cube to activate it. The multichannel platform is exhibited in a gallery to collect data. The survey results show that the multichannel platform can serve as a useful resource for novice graphic designers, as well as spark the curiosity of anyone with an interest in typography. In addition, the use of typography in video allows us to reclaim the lost art of arranging typefaces in a way that would make an 18th century typesetter's head spin. [4]

The Making of the Art Projects

Art project One, The Journey of a Font, comprised ten typographic motion graphics videos. Inspired by the movement in typography by typographers, Ralph Coburn and John Maeda, [5] [6] the videos explored the concepts of spatial dimension, human/ environmental scale and motion. Each video showed the inspiration of one typeface, introduced its designer and tracked how the font had been used. To begin with the project, desk research was conducted to understand the history and inspiration of twenty-six typefaces. The typefaces selection was based on the alphabet A to Z and the name of the typeface. For example, Avant Garde had been chosen for letter A, Bembo was chosen for letter B and so forth. In the end, ten typefaces were selected for further development. The criteria were based on their interesting background and by the standard of 30 essential typefaces for a lifetime by Joshua Berger. These ten typefaces came into existence between 1845 and 1989, namely, Avant Garde, Bembo, Clarendon, Din, Frutiger, Gill Sans, Helvetica, Trajan, Univers and Vag Rounded. The idea of these typographic motion videos was focused on aesthetic outcome. On the start screen, thousands of letters were flying ubiquitously. When the RFID was activated, the information of a typeface emerged from the flying letters and displayed artistically. The videos were created from Adobe After Effects and original typefaces were used for text display.

Art project Two, Type Personality, comprised ten motion graphics videos. This project was an interactive exploration of typographic form. The idea derived from the personal experience of the author. Being a font fanatic, the author remembers typefaces by visualizing them as people based on the history or popularity of the typeface. She believesone need to be familiar with each typeface to be able to understand their personalities and use them appropriately. In this project, the author anthropomorphized typefaces

and gave them unique human attributions, so that viewers may understand the typeface characteristics through interaction and play.

The formation of the characters of the typefaces used the style of Bembo's Zoo [7] by Roberto De Cumptich de Vicq – a children's ABC book that fashioned letters of the alphabets into animal likeness. Except that it was more complex and refine. The final character designs were formed by hundreds of letters using Macromedia Freehand.Next, Adobe Flash was employed to create the animation of the characters. Each motion graphic video showed how the used of letterform, colour, contrast, scale and layering gave typefaces their distinct personalities. The challenging part of this art project was to upload the vector images to Adobe Flash. The whole image had became raster image in Adobe Flash, therefore individual letters had to be uploaded separately.

Art Three, Pangram Arts, comprised six motion graphics videos that explored the connection between pangram and visual. A pangram was a phrase that used all twenty-six letters of the Roman alphabet at least once. A pangram was invaluable to graphic designers because it aided visualisation of what each letter would look like in a font. The pangrams in this part of the art project gave expression to the colloquial, yet unique, Singlish spoken in Singapore by merging language, illustration and typography. The Singlish pangrams served as the basis for creating the visual images. For example, one of the pangrams was 'Four yellow top black taxies drive up Jalan Bukit Merah on quiet hazy night to liakgao'. In Singlish, Jalan Bukit Merah' is a housing estate in Singapore that frequent by lovers and 'liakgao' mean peeping Tom in Malay language. Therefore, a visual of four taxies and a man with dripping mouth was drawn to represent the pangram. The pangrams were also layout in typographic style to use as part of the video.

When the six images had been sketched, the process of making this art project was almost the same as art project two. Macromedia Freehand was employed to create the vector image of each pangram. Then, Adobe Flash was used to create the animation. This art project was the easier to create as mistakes had been learned from the first two art projects. Three pieces of music were also especially composed for all the videos to prevent copyright issues. Being a first-timer doing projection arts, the author had also learned that it actually take a longer time for a person to read the information of the projection on the wall than on the computer screen.

The Integration of Videos and Radio-frequency Identification Technology

The final phase of the project was to integrate the videos and the Radio-frequency Identification (RFID) technology. The project used two kinds of activation methods. One method was to activate the videos from a distant of 30 cm to create a surprise effect. This method used alphabet tags that were designed especially for this project. Each alphabet tag was made up of two sheets of black acrylic and a passive RFID tag. The RFID tag was to be embedded permanently between the acrylic sheets, therefore, passive RFID tags were chosen because it relied entirely on the reader as their power source and read up to one foot away. Every RFID tag came with a unique ID. [8] [9] Twenty-six alphabet tags of A to Z were created and each tag can activated one movie on both art projects One and Two – The Journey of a Font and Type Personality. The other method was more interactive as the viewer had to throw a cube on a special designed table to activate the videos. Six RFID tags were placed firmly on all six surfaces of the cube and covered with vinyl stickers. This method activates all six movies in art project Three –Pangram Art. All passive RFID tags used in this project were read-write storage tags, in which data can be added to or overwritten.

Being a graphic designer and not a hardcore programmer, the author used the simplest method to program the interaction – Adobe Flash's Action Script. To begin the programming, all twenty-six motion graphics videos of the three art projects had to be converted to swf format. Next, in art project One, The Journey of a Font, all ten motion graphics videos in swf format were uploaded to one flash file. Each motion graphics video was created as an RFID object with the same unique ID as the assigned RFID tag. After the programming, the flash file was exported as exe format. When the assigned RFID tag was read on a RFID reader that was linked to the computer holding the exe file, the video would play automatically. Subsequently, the same programming process was applied to art projects Two and Three.

The Multichannel Platform

The final outcome was a multichannel platform that held the three art projects. Two interactive consoles and an interactive table were custom made to hold the projectors, computers, speakers and RFID readers. The multichannel platform was installed in a gallery as an exhibition for the public to experience it and give feedback. The exhibition was named Just Type. The experience of the multichannel platform was designed to be interactive, enjoyable and informative. Before entering the multichannel platform, viewers had to choose an alphabet tag. If viewers want to view all the videos, they had to use all the twenty-six alphabet tags. The interactivity of the component of the three installations was controlled by the action of the viewers standing in front of the consoles or table. The viewers can either wave the alphabet tag in front of the consoles or by throwing the RFID cube on the interactive table. By doing one of the actions, it activated and played the motion graphics video that had the same unique ID from the tag or the cube.

A questionnaire survey was conducted to capture feedback from viewers. Two trained interviewers were in the gallery for three weeks to carry out the survey. One hundred and twenty questionnaire forms were collected. The interviewees were in the age rangeof fifteen to sixty-four. Sixty-five of them were novice and student designers. The survey results were promising, as it showed that 100% of the interviewees enjoyed the installations and 80% of them think that it was an interesting idea to integrate typography and video. 92% of the respondents stated that it was a good way to learn the history of typefaces and 75% of them agreed that it was a good way to learn the characteristic of typefaces. Sixty-one of the novice and student designers had also commented that it was useful for them to know the inspiration of typefaces. From art project One, they had learned which typeface was used and/or appropriate for certain medium. They also felt that art project Two, Type Personality, was a good way to remember typefaces but they visualized it differently based on their own interpretation. 68% of the interviewees would recommend the exhibition to their friends and family members. For non-designers, they commented that they were surprised that there were so many typefaces in the world. They were even more amazed that graphic designers actually study the anatomy of a typeface and the layout of text. 82% of the respondents agreed that the experience of the exhibition was more enjoyable because of the RFID cube and alphabet tags.

Conclusion

Exploring the interface of art and technology, Just Type is a multichannel exhibition that makes use of radio frequency identification (RFID) technology to explore the world of inspirational and experimental typefaces. The twenty-six videos introduce viewers the histories and personalities of typefaces and pangram art according to the algorithm of the videos' RFID tags, thereby allowing a unique interactive experience. This project has created an enormous palette of possibilities for creating interesting experiences

for exploring typography design. The multichannel platform has combined the experience dimensions of interactivity, intensity, breadth and meaning.

The final outcome has successfully created a platform to experience the physical interaction design with RFID and at the same time learn the history and characteristic of typefaces. The survey results seem to agree, maybe because it is refreshing as this is the first typography cum technology exhibition in Singapore. In addition, there are two popular art and design schools in the area of the gallery. Lecturers have brought their typography class to the gallery. Therefore, the multichannel platform has become a useful resource for novice and student graphic designers to learn how to choose a typeface for design project, how to remember a typeface and how to have fun with typefaces.

The integration of RFID technology and video projection is not new in the world of technology. But it is fresh in the area of typography design and as an exhibition piece. Although RFID technology has been used in our daily life, such as, library books, staff or student's card, etc, it is still able to create wow effects because viewers are unfamiliar with how the RFID technology works. Out of curiosity and too shy to ask, there are viewers who actually open the front of the console in secret to see what trigger the videos. In the area of education, the multichannel platform can be used in other disciplines like Science, Chinese, History, etc. The same RFID technology can also be applied to commercial outlets, such as, the sale of art pieces in tradeshow or gallery. For example, in a tradeshow, gallery owners can track the liking of their customers by recording the unique ID of their customers when they stand in front of an art piece for more than 5-10 minutes.

References and Notes:

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