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'Editorial thinking' for design research

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This paper examines the effectiveness of applying the editorial thinking methodology based on practical editor thinking patterns to design research. Design thinking first became popular in the 1990s at which time many alternative design methodologies were devised and shared with design researchers and practitioners. However, design thinking had also been recognised as a useful methodology to creatively identify and resolve problems in areas outside the design and engineering professions such as business. At the same time, more intuitive and creative approaches were being developed such as the critical design and speculative design concepts that were rooted in art. This paper defines editing as a series of tasks that involves the observation and collection of information and objects from around the world and the determining of novel contexts by taking new viewpoints when classifying, organising and restructuring them to create new values. Therefore, three experimental exercises were conducted to assess the viability of editorial thinking as a new design methodology.

Keywords: design research methodology; practical thinking patterns; contextualisation; innovation of meaning

1   Background

Since the 1990s, multidisciplinary and diverse design methods and tools such as design ethnography, scenario, personas, storyboard, storytelling, participant observation, participant design, customer journey maps and contextual design have been proposed to enhance design research protocols(Kumar, 2012; Hanington and Martin, 2012; Van Boeijen, Daalhuizen, Zijlstra, Van Der Schoor, 2014; Stickdorn and Schneider, 2011). To accompany these innovations, there has been an explosion in the number of suggested design genres; universal design, inclusive design, speculative design, critical design, design fiction, social design, service design, conceptual design and design thinking. Design thinking, in particular, has become internationally influential as it can be customised to suit every country and culture and as it encompasses areas other than design, has involved a wide range of specialists, all of which has significantly expanded design horizons. Design thinking was seen as an innovative process that could solve social problems by reframing issues using abductive approaches based on observation and hypotheses development rather than reductive simplistic approaches that focus on a solution. Therefore, design thinking involves systematically organising the various design tools so that they can be appropriately applied to each individual case, which could be products, services, business strategies, or social systems.

Following Design 0.0, which was the age of the artisan; Design 1.0, which was the age of styling design; and Design 2.0, which was the age of human-centred design based on design research, came the Design 3.0 concept proposed by Industrial design department, Korea Advanced Institute of Science and Technology (ID KAIST), which is defined as the age of empowering design in which users are engaged in the design with the designers who assist them in realising their visions (Lee, 2017).

In1971, the U.S. designer, Papanek, stated that 'All men are designers. All that we do, almost all the time, is design, for design is basic to all human activity' (Papanek, 1984). Around the same time in 1972, the German artist Josef Beuys announced that 'everyone is an artist' (Stachelhaus, 1991). While these novel discourses were greeted with surprise at the time, Design3.0 has encompassed these ideas into a practical working idea that everyone is creative, which has encouraged community involvement in design using the innovative digital machine tools that have become accessible to all in recent years, and which have allowed ordinary people to create what they want when they want; therefore, Design3.0 is beyond user-centred design or user-participatory design.

Forlizzi and others stated that 'over the last two decades, constructive design research (CDR)—also known as research through design—has become an accepted and popular mode' and further noted that there were three distinct design research genres: the lab, the field and the showroom; in which design action was the mode of inquiry (Forlizzi, Koskinen, Hekkert and Zimmerman, 2017). While both the lab and field constructive design research approaches take pragmatic stances when seeking to understand a situation, identify the problems to be solved and then design the solutions, the showroom approach to critical design or speculative design generates debates to reveal the hidden issues behind the design solutions. These two stances—constructive design research and critical design or speculative design or design fictions—have been recognised as creating undesirable conflicts (Forlizzi, Koskinen, Hekkert and Zimmerman, 2017).

In essence, the development of these ideas was as follows;

- Since the 1990s, various design methods and tools have been proposed as the ideas associated with Human-Centred Design began to be widely disseminated.
- The emergence of design thinking made it possible to extend objects of design, systematise existing design methods and tools, and develop a methodology accessible to a wide range of people other than design experts.
- The possibility of users being directly involved in design activities emerged along with the new technology that encouraged creativity in ordinary people.
- In the scholarly design research community, there was a negative conflict between the constructive design research concept that had a pragmatic orientation and the controversial critical design concept, which sought to find new values.

This paper, therefore, considers this background to focus specifically on practical editorial thinking and its applicability to design research. There were four reasons for the specific focus on editorial thinking:

- Editing may be the basis of the thinking or the skills needed to leverage a wide variety of the design methods and tools proposed so far.
- Editorial thinking could be useful for design thinking that tries to involve target users in the design process using a variety of design methods and tools.

- It is necessary to explore the possibility of developing editing skills in ordinary people, who are expected to become involved in main design activities, and to consider the education needed for this development.
- Editing, which includes information classification, association and context construction, is an integral part of many existing design practices and is applicable to both constructive design and critical design research. For example, for methods such as user journey maps, personas and scenarios, which have become key design research methods, the quality of editing directly affects the research results, which is also true for critical design, and especially in design fictions and the creation of future stories that require knowledge of the creative context.

2   Research purpose and methodology

The aim of this research was to focus on practical editorial thinking by modelling the process, developing a design research method and clarifying its applicability and effectiveness. First, the editing concept is defined, and then, based on an analysis of the segmentation and abstractions associated with the editorial practice workflow, a model is proposed. By examining each process in the model, the meanings and roles associated with each step are clarified and an editorial thinking methodology elucidated. To further examine editorial thinking, three exercises are described and practised, the results considered and the editorial thinking methodological implications examined.

3   Definition of editing

In this paper, editing is defined as a series of tasks that involve the observation and collection of information and objects from around the world and the determining of novel contexts by taking new viewpoints when classifying, organising and restructuring them to create new values. Editorial activities can be divided into three levels; the editorial practices of professional editors, the editorial act as thinking and the editorial act as a general living skill (Ikeda, 2019).

The editorial practice of professional editors is related to the skills and know-how necessary to edit printed and visual materials such as books, magazines, websites and videos, and encompasses a practical way of thinking about and the skills and knowledge required for planning, text rewriting, proofreading up to layout and printing direction or coding. In this paper, these editorial skills and knowledge are seen as the necessary resources for the abstraction of the thinking and skills to construct an editorial thinking methodology. In addition, the possibility of its application as a skill set for materialising and visualising editorial thinking is also considered.

The editorial act as thinking refers to the abstraction and generalisation model associated with the 'editorial thinking' process and practice of professional editors. Based on this model, we attempt to identify an editorial thinking method. Editorial thinking is the method used to place design objects in testing contexts to assess their viability. For example, techniques such as case use studies, customer journey maps and scenarios have been proposed as contextual design development methods that can be used to develop more appropriate, realistic, contextual stories by editing the information (material) obtained from observation, interview surveys and log analysis.

Editorial activity as a skill for general living is a creative activity closely associated with Design 3.0 and the ideas of Papanek and Beuys. For example, drawing on the general information literacy skills of utilising and then editing the vast information on the Internet, editorial thinking supports the user's creative design activities and user-participatory design in design research.

4   Process of editorial thinking

First, the editorial practice workflow, which includes the thoughts and practices needed to develop print media products such as books, magazines or websites, is analysed and articulated. These editorial work processes were re-constructed based on observation when I was a member of the editorial department of a magazine from 1997 to 2001, the experience of my editing activities, other editors' remarks in several Japanese references about their own editing experiences, editing methods and editorial theories (Nakamata, 2011; Sugatsuke, 2012; Shimuta and Hayakawa, 2014), and based on discussions at a symposium (Design Philosophy Bar; 'Provoke bar—Designing with Continuous Editing', held on 30th August 2018 at Konya 2023 in Fukuoka, Japan) on the theme of editing and design. The editorial thinking process was modelled on the editorial workflow obtained from the above-mentioned references and materials, as shown in Figure 1 (Ikeda, 2019). It is necessary to note that the editing flow shown here reflects the actual situation in Japan. Japanese uses the noun 'Henshu' for editing, which indicates all editorial actions such as concept development and ways of thinking for 'editing'. In English, 'editing' is referred to using the noun from the verb 'edit'. German uses the word 'Redaktion', which tends to indicate an editorial department or an entity that edits. Therefore, the nuances are different from the Japanese 'Henshu' (=editing), as it appears that the English and German meanings of editing emphasise the more practical work of arranging content and text rather than editorial thinking. In this paper, 'editing' refers to all editing activities including thinking.
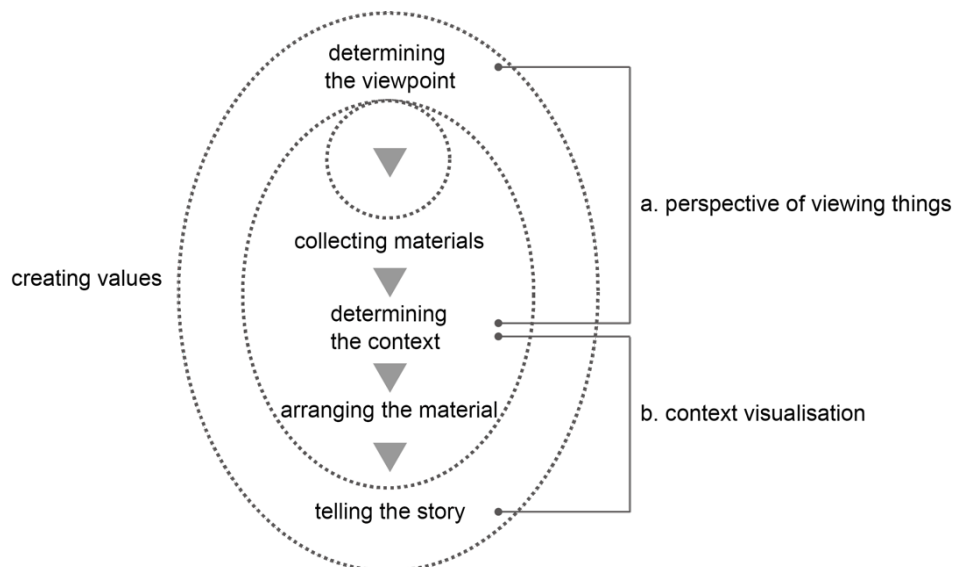

Figure 1 Model of editorial thinking process by the author

As shown in Figure1, editing starts by determining the theme and the viewpoint, after which objects or materials related to the information to be edited are collected based on the considered viewpoint. The 'viewpoint' is focused specifically on the identified theme, and can

be reworded to interpret the things around the theme. The 'materials' are individual object examples related to the theme. However, 'determining the viewpoint and collecting the materials' does not proceed in a straight line, but is a circular process as shown in figure1. Sometimes, important things and examples are found that do not fit the initial perspective but cannot be ignored, and sometimes, things are found that were not expected to be deeply related to the theme but appear to be relevant. Therefore, it is often necessary to shift or adjust the initial perspective, and depending on the materials collected, the original viewpoint may also change significantly, and may be abandoned to re-set a new viewpoint. In this way, until the editor as a creator is convinced that the materials, the decided viewpoint and the theme are connected without contradiction, the theme and the viewpoint are constantly being considered in the circular process between the viewpoint and the materials collection.

Once the viewpoint is fixed and the materials fully aligned, the context appears, thereby revealing the thematic development path and the message. The individual materials (cases) that have been collected and selected based on the viewpoint (theme) are then linked to a causal relationship, and if there is a contradiction-free context identified, the context visualisation process commences. Context recognition is basically 'the potential tendency for humans to make lines from points, combine fragments and fragments and sublimate them into a continuous illusion' (Toyama, 1975); that is, the daily life editing activities associated with basic human thinking is the root of editing. Once the context is fully understood, the collected materials are arranged, shaped and put on the media to tell a story that is accessible to an audience.

The above describes the overall editorial thinking process flow, which can be roughly divided into two stages; 'a. perspective of viewing things' and 'b. context visualisation', as shown in Figure 1.

The steps for 'a. perspective of viewing things' are fixing a viewpoint, collecting material and determining the context, and the steps for 'b. context visualisation' involve further determination of the context, arranging the material in line with the determined context and telling the story. Therefore, the determination of the context connects these two stages because as editorial thinking is the act of connecting individual things (materials), context determination is at the centre of all editing processes.

5 Two approaches to the perspective of viewing things

Looking more closely at the first stage; a. perspective of viewing things'; there are two approaches to deciding on the theme and viewpoint; a deductive approach, as shown in Figure 2 (left), in which the viewpoint is decided on and then interpreted with an image from the outside world that matches that viewpoint, or an inductive approach, as shown in Figure 2 (right), in which things in common to a specific thing in the outside world are converged to represent the viewpoint (Ikeda, 2019).
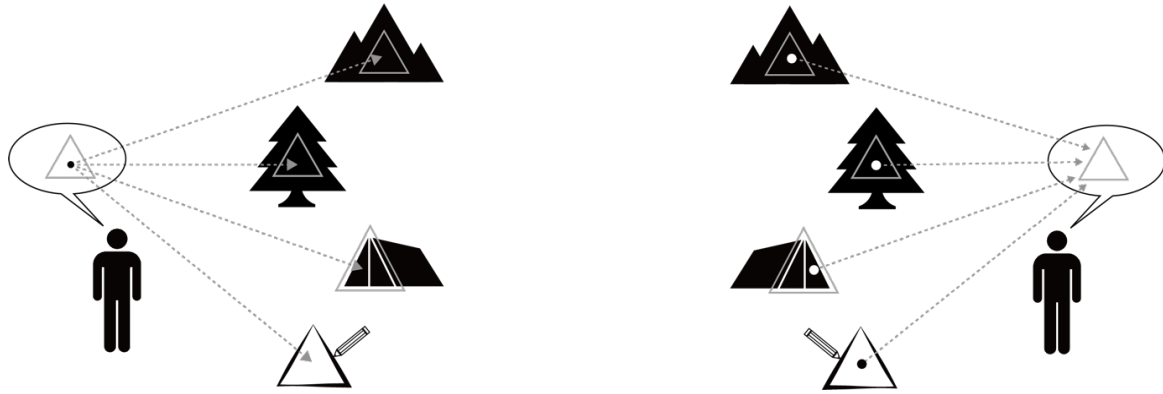
Figure 2 deductive approach (left) and inductive approach (right) to the perspective of viewing things

In the deductive approach shown in Figure 2 (left), for example, if a 'triangle' is the theme or the viewpoint, materials are collected from the real world that accord with the image of the triangle; that is, a consciousness of the triangle as the viewpoint makes it possible to see and collect triangles in the environment that may not have been seen before. While observing the materials related to the triangle collected in this way and moving between the viewpoint and materials collection, the original triangle that was set as the first viewpoint becomes adjusted to the real world and the viewpoint made clearer and more persuasive.

In the inductive approach shown in Figure 2 (right), something common to specific events is noticed while observing the real world, and a natural human flow that tends to associate individual events with each other emerges to relate these widely scattered individual things to reveal stories and analogies.

Therefore, the deductive approach that looks to the outside world after the assumption of the triangle is first established and the inductive approach that realises the triangle by looking at the outside world seem to be in contrast; however, in the editorial process, the two approaches are connected and merged, and often repeat the loop between the viewpoint and the collected materials.

6   Editorial thinking methodology

In the previous section, a model was presented to explore the design process application possibilities while organising the editorial practice thinking (figure1). In this section, the development of an editorial thinking methodology based on practical knowledge is explored. The methodological base for the editorial thinking model was applied in three exercises based on three themes; 'unexpected catalogue', 'editing of fragments' and 'dissimilating daily lives'. These exercises were implemented through trial and error and improvement from 2008 to 2018 in an editing class. The purpose of this study was to focus on the editorial act as thinking, the editorial act as skills for general life, and to formalise the 'perspective of viewing things' that editors have as tacit knowledge. The background of the students who participated in these editorial exercises ranged from product design, graphic design, architecture, language, philosophy, sports science, information science and economics.

6.1 Exercise 1: Unexpected catalogue

6.1.1   Outline

The purpose of this exercise was to experience the basic model for the editorial thinking process flow (figure1) to examine whether the editorial thinking process worked and the possible outcomes. The catalogue as a format was selected as the outcome of this exercise and contained all editing process steps. The tasks given to the students were as follows:

1. Find a viewpoint;
2. Collect materials according to your viewpoint;
3. Arrange the collected material according to the context;
4. Express the intended message through the collected material.

Historically, a typical catalogue media is a product catalogue, for which the materials must be collected, selected, edited and presented in a lineup to attract consumers. The lineup, therefore, is a visualisation of the dealer's world view through the actual goods. Further, product catalogues need to provide consumers with the information necessary to easily find, compare and make a purchase decision. Therefore, the following requirements were set for the 'unexpected catalogue' exercise.

1. Easy to compare items
2. Searchability
3. Items are classified
4. All items are treated equally
5. Consistency in the information provided

The catalogue content in this exercise was not necessarily limited to a product catalogue. It is a structure in which steps 3 to 5 can realise tasks 1 and 2. The most important challenge for this exercise was to create the 'unexpected' condition. What was unexpected was related to the editor's creativity as the value of the information transfer. The unexpected aspect came from the information asymmetry; that is, the value of the communication was established by the difference between what you know and what the other party does not know. This gap can make the unexpected condition valuable. However, mere surprise was considered insufficient as thinking should be built to the point where the audience feels empathy or sharing.

6.1.2   Outcome and evaluation

One student with a design background attempted to edit a catalogue of useless things. As the mission of design is to make something useful, these students were usually trying to realise designs that were functional and beautiful and could contribute to society. The theme was decided based on the idea that it would be better to refer to things that weren't useful so as to understand what it meant to be useful. However, from the uselessness point of view, the student hit a brick wall when collecting the examples of useless things as the material to be edited, which gave rise to the fundamental question as to whether there was anything in the world that was useless in the first place. For example, Marcel Duchamp's work <Fountain>, which has been exhibited at the Tate Modern in London and in other famous museums worldwide, is a sideways mounted male urinal that does not naturally function as a toilet; however, it is an important work when talking about art.

In this editing process, as the thinking was not limited to the concepts, richer thinking developed through the collecting, classifying, analysing and realising the worth of the

specific materials in front of them. While the concept-only operation seemed free, in practice it was found to have limitations. This exercise confirmed the usefulness of the inductive approach to editing as a thinking method. It was suggested that this editorial thinking model could work to generate discussions on the critical design process highlighted by Dunn and Raby (2013).

6.2   Exercise 2: Editing the fragments

6.2.1   Outline

In this exercise, pieces of information that were independently scattered were collected from a natural point of view with as little control as possible, from which a context was then derived and narratively expressed. As mentioned earlier, people tend to involuntarily seek causal relationships even if they appear unrelated. For example, when adults and children talk about their experiences to people, they usually generate narratives so that many selected events are reported as a single story. However, with the spread of the Internet, there has been an exponential explosion in fragmented information, which means that situations arise in which contextualisation is not possible, and therefore, there is a large amount of information in people's lives that is not meaningful. Therefore, to ensure a peaceful everyday life in modern society, it is now necessary for people to acquire high information editing skills. At the same time, it is ideal for high quality design research if users are able to explain their lives, thoughts and experiences in rich stories.

The tasks given to the students were as follows:

1. Select an optional 'one day'- it is better not to select a special day, but rather a common day;
2. Gather information related to 'one day' from social networks, blogs and archives such as newspapers, magazines and video sites;
3. Look over the collected information and imagine a story for 'one day';
4. Set a narrator and reproduce it narratively.

6.2.2   Outcome and evaluation

The outcome formats were diverse, such as a movie that showed a fictional type story that incorporated real events, novels, radio programmes that reproduced family conversations and poster collages representing various episodes that was accompanied by an impromptu talk. Therefore, the usual everyday events were given an attractive story character and the work of students, who were neither writers nor poets nor actors, was able to arouse audience sympathy.

This task demonstrated the potential of storytelling by ordinary people and their desire for expression through the selection and utilisation of media. Using easy-to-use digital tools such as smartphones for photography and video, graphics and editing software allowed for an expansion of the possibilities for expression by non-experts; therefore, this exercise proved effective in demonstrating that an 'editing ability in everyone' could be cultivated. As a design research method, it suggested that user-participant field research in constructive design research could provide storytelling insights into the target users and the possibility of its application to scenario making and storyboards.

6.3 Exercise 3: Dissimilating the daily lives

6.3.1 Outline

While 'editing the fragments' required the students to connect pieces of information to create context, in this exercise, the context was broken and the students were required to reconnect the pieces to reveal a new context. Editing is an act of repeating connections and disconnections and the continual discovery of new contexts. Therefore, the editing acts of cutting and linearisation can update and shift contexts, reshape reality perceptions and present new values. 'Dissimilating the daily lives' was an attempt to create a moment when the everyday suddenly became unusual, and habits or a matter of course that people were believing were removed and the undoubted context broken and then re-constructed. By shifting the everyday life values and meanings, the usefulness of editorial thinking as a trigger for 'innovation by making sense of things' (Verganti, 2009) was examined.

The students were instructed to do the following tasks:

1. Enumerate what you are looking at without paying attention;
2. Enumerate actions that you have not previously thought of;
3. Observe and disassemble the listed daily events into a work of different scope and with different resolutions;
4. Reconstruct the decomposed events in another context.

6.3.2 Outcome and evaluation

Many works were produced that appealed to the senses rather than being explanatory. One specific example was a work called 'moyashi' as shown in Figure 3. Moyashi refers to an ordinary and inexpensive soybean sprout food product that is packaged in a plastic bag and sold at most supermarkets in Japan. This student's work involved a simple slide show in which the bean sprouts had been taken from the package and carefully photographed one by one to produce an effect similar to time-lapse animation that made it look as if the bean sprouts were dancing on the screen. The inexpensive bean sprouts that are usually recognised in a one bag unit were separated into individual units and the different shapes and sizes emphasised and projected on a large screen, which provided a new perspective in which the everyday life was made humorous and a little strange.

Figure 3 Student work 'moyashi' (soybean sprout) for 'dissimilating the daily lives'

This exercise was useful in removing preconceptions and changing the way things are viewed, and proved to be particularly effective for the 'field' genre of constructive design research and the 'showroom' genre as it involved finding and expressing an alternative critical design perspective. It would also be suitable as a design research thinking process when trying to gain new insights from everyday things and actions or when looking for clues to create 'meaningful innovation' (Verganti, 2009).

7   Conclusion

The purpose of this research was to focus on an editorial thinking model process as a possible design research method and to clarify its applicability and effectiveness. First, the editorial process was defined, then the framework was clarified and the editorial thinking model derived from the identified editorial workflow. Three exercises were then conducted to explore the feasibility and effectiveness of this model; an 'unexpected catalogue' to confirm the validity of the editorial thinking model flow and the possibility of discovering a new viewpoint, 'editing the fragments' to confirm the usefulness of collecting fragmented information and contextualising them as a storytelling technique and 'dissimilating the daily lives' to explore the possibility of creating innovative meanings by updating existing context and creating a new context. The suggestions obtained from these exercises were as follows.

- The inductive approach that involves extracting specific materials (things and examples) and developing ideas based on these concrete materials, which is a feature of editorial thinking, gave rise to richer thinking and new points of view.
- Editorial thinking was found to support storytelling by ordinary people and design experts and could be used for a variety of existing user-participated design methods.
- Editorial thinking was found to encourage the updating and restructuring of existing contexts and was a useful thinking process for exploring new value in things and creating innovative meanings.

Therefore, it could be concluded that this professional editor thinking model could be applied to design research as editorial thinking. Future research will combine this model with existing design methods and explore the possibility of new methods based on editorial thinking.

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