

PROPOSAL OF A NEW PUBLICATION PROCESS USING THE KANSEI TABLE SYSTEM AS A MEANS OF DISTRIBUTING UNIVERSITY-GENERATED KNOWLEDGE

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ABSTRACT

Broad distribution of university-generated knowledge is one of most important issues of Japanese universities today. The aim of this research is to present a new concept of knowledge editing and university publishing process. First, the mechanism of the system called the 'Kansei Table System', which is under development in Kyushu University, Japan, is to be explained with reference to the matching mechanism and 'kansei' classification. Second, a survey of the university press system is to be performed, especially focusing on their history and some current problems, and in addition, some cases as examples of their publication trends. Third, some possible publication projects using this system will be surveyed. Lastly, a verification method for examining the efficiency of this editing procedure is to be considered.

Keywords: *Knowledge, Publication, University, Value creation*

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1. BACKGROUND OF THE STUDY

Recent environmental changes for universities in Japan, such as the decline in birth rate or the incorporation of national universities, has brought the universities to demand more effective usage of the university's intellectual resources. In the traditional differentiated university organization, researchers used to be required to deepen understanding only in the academic field to which they belong, and circulating the knowledge and gaining the valuation in the specific field was the only important thing for them. However, recently in universities that is not enough. Their research results have to be of practical use, and the researchers are even required to bring the university economical benefits through cooperation with their industry. Moreover, they are in need of adding some values to their research results and broadening its distribution to society in order to acquire research budget or grants, because of the government's restricted budget distribution policy transformation.

Whereas university presses, which have been playing the media role and publishing the research results, are also suffering from environmental changes such as the appearance of new media or the reduction of public subsidy for academic publication, and they also have need to appeal their own presence producing innovative publications which will meet both the consumer and author needs.

2. THE PURPOSE OF THE STUDY

In this paper, we attempt to edit the promotion of university knowledge using the Kansei Table System on the basis of the actuality that university generated knowledge is in need of promotion. As a promotion method of the university knowledge, we take the university press publication. The primary objective of this study is to propose a new promotion method of university-generated knowledge.

3. THE UNIVERSITY-GENERATED KNOWLEDGE AND KANSEI TABLE SYSTEM

3.1. Necessity of integrated research

As universities dig into scientific knowledge, they have been improving the existent academic fields and have also created new academic fields. This process has brought modern society a substantial wealth, but in some respects, we can't deny that the highly differentiated knowledge hierarchy makes it difficult to mutually understand and cooperate across fields.

On the other hand, in modern society, we are having various kinds of problems that the single academic realm cannot solve. To cope with those problems from the university's side, it is necessary to integrate the highly advanced knowledge which has been cultivated by the differentiation, and promote integrated research that matches the social needs and the return of its result are strongly required.

3.2. Development of the Kansei Table System

In order to deal with the above issue, Kyushu University has been moving forward towards the development of using the Kansei Table System as a drive tool to support both integrated research and the research concept designing¹. Of these two objectives, the first, “integrated research support,” means to support planning new research projects and coordinating them to make it happen, gathering university generated knowledge according to the user’s Kansei based demands, joining the researchers themselves, or uniting the researchers, local community and industry. The second, “research concept designing support,” aims to help the development of the new research viewpoint and the framing and comparing of a variety of social (and people’s) demands in the research sources, which university already has.

The core part of the Kansei Table System is formed with a database of the research sources and people’s demands. They are both expressed by the same form called “*needs sentence*,” that is taken from the perspective of the people’s point of view, and it characterizes this system. These *needs sentence* are based on data which has been collected through interviews and workshops with people and researchers, and then the *sentence* that can be deduced from it is picked out and summarized to extract the needs². Each *needs sentence* has a tag which is classified in accordance with the people’s Kansei, or emotion, into the three classes of “relief / safe,” “adaptation / convenience” and “comfort / impression.” With these tags, this mechanism formed to match the research sources and people’s needs (Figure 1).

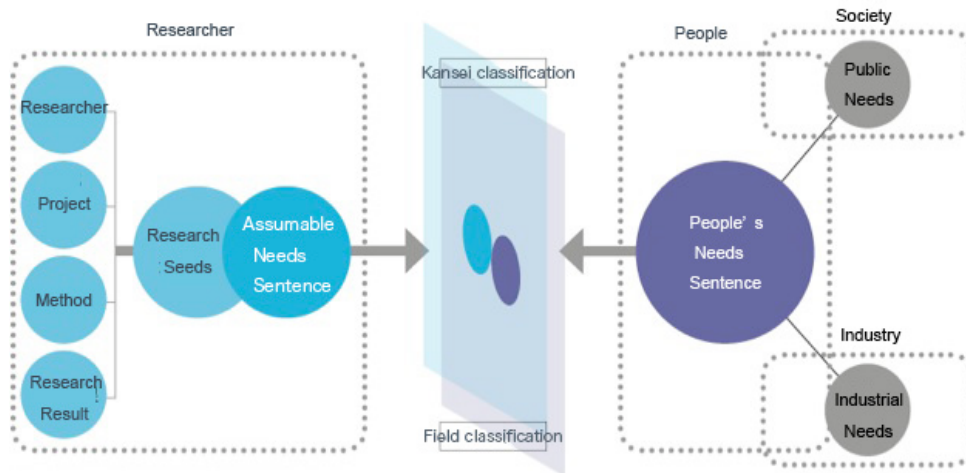


Figure 1: Main view of the Kansei Table System

3.3. Matching mechanism

The Kansei Table System has two kinds of retrieval systems for matching. One of those is a system that extracts each *sentence* identical with the Kansei classification, which is chosen by the operator and the Field classification. The second one retrieves them from the keywords. Using the morpheme analytical engine, the “*needs sentence*” is decomposed into a part of speech, and then it tries to match with the search term. The database files that the online dictionary “Wikipedia” offer is adopted to extract the peripheral key words from the initial search term. The “GETA,” general-purpose word association compute engine, is used

for the retrieval dictionary editing and for the calculating degree of the coincidence agreement with the retrieval condition keywords group (Figure 2).

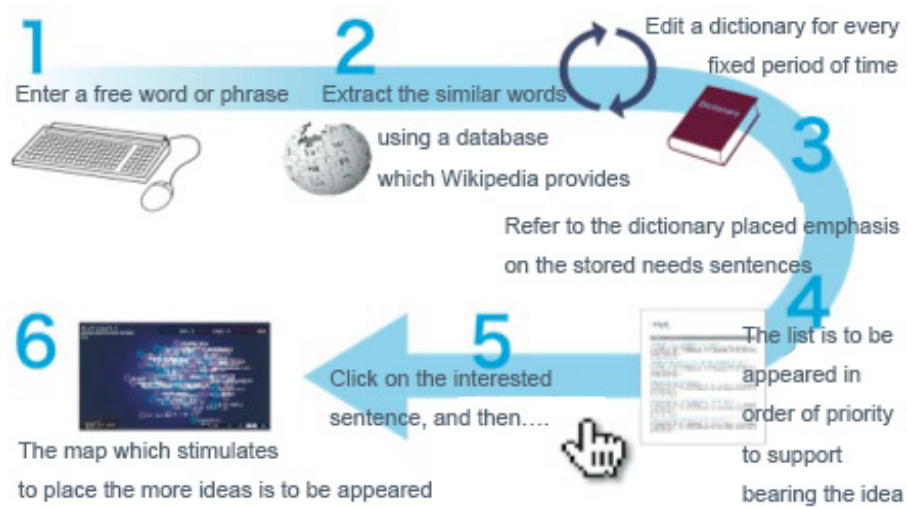


Figure 2: Matching flow chart

3.4. Setting up the criteria of “Kansei classification”

The “Kansei classification” used in the system is divided into three classes that are “category,” “Class” and “division.” For the “category,” the following three divisions have been set based on the three elements of Kansei defined by the User Science Institute (USI) / Kyushu University who developed the Kansei Table System: 1. “relief / safe,” 2. “adaptation / convenience,” 3. “comfort / impression,” As to the three elements of Kansei which form the base of the three divisions above, the USI explains that they recognize Kansei as a function to live a better adaptable life, and to support it, it is necessary to satisfy the following conditions: 1. The relief comes from Safety: the minimum condition to guarantee humans a healthy and comfortable life, 2. Adaptation / convenience: The conditions to adapt to the two adaptation means (biological adaptation / cultural adaptation) as a way the mankind relaxes after stress from the environment. 3. Comfort / impression: The condition to induce closer approaches, in view of the natural mechanism of beings such as “coming when it’s comfortable, leaving when it’s uncomfortable”.

With regard to the “Class” and the “division,” the classification has been set up in a top-down approach in which is led from the existent materials and by the bottom-up approach the “division” of which is classified by checking the research result of the USI with the three elements mentioned above.

3.5. Application of the Kansei Table System

In order to support integrated research and the research concept design, the Kansei Table System has been designed as a system that works through the internet and has the following five functions:

1. Retrieving the research sources (seeds) and people’s needs
2. Visualizing the mutual relationships between needs and seeds

3. Searching for the researchers, project and research methods from the view point of Kansei

4. Visualizing a network of the researchers

5. Visualizing the researchers and trends of the research

Exploiting those functions, the universities are expected to create integrated researches that creatively live up to social demands. Also, by editing and reconstructing the university knowledge assets, it could offer some new values to society.

In this paper, we consider the possibility of returning the results of integrated researches created with exploiting the Kansei Table System and adjusted to the social needs. That is to say, we think about producing edited knowledge as a manufactured product and think about the university press as a effective media to communicate with the society and people and think about the possibility of its publishing plan.

4. UNIVERSITY PRESS

4.1. The role and the status quo

The books published by the university press are roughly classified into three kinds: 1. Scholarly books. 2. Text books. 3. Enlightenment books. By publishing these books, the university press has been playing the following roles: 1. Publication media of research results 2. An effective resource of graduate and undergraduate level education 3. Means to return and publish the results of the research widely into society [1]. As to the current problems that the university press is facing, the following issues can be presented: incorporation of national universities in Japan, budget reduction for publication subsidy and the media transformation.

Due to the incorporation of national universities being executed as a part of a series of public organization reforms, while they have great discretion in their own budget administration, subsidies from the government have decreased and universities have come to be in need of raising external funds. In addition, because of the government's restricted budget distribution policy as stated before, the particular research budget for those who are not applicable have been relatively reduced, and it has directly affected the decrease in book purchases. Moreover, the birth rate drop in Japan has affected the administration of the universities. The curriculums have diversified and the number of students for particular classes has decreased, affecting the number of text book sales, though the universities have attempted to win other targets with as their students, such as forwarding curriculum reformation and establishing professional schools for undergraduates to compensate the income loss caused by the decrease in entrants.

The university press is the entity which always have been blessed with the patronage from the government in some way in their history. Even today, the extra-governmental organization called JSPS (Japan Society for the Promotion of Science) is still subsidizing academic publication in Japan, but the amount of the subsidy has been vastly decreased in recent years. The progress in information technology is also one of the affecting factors for

the university press. In recent years, especially in many of the science fields, publishing research results in electronic journals in English is becoming mainstream, and many of them are of western academic publishers who are becoming dominant

4.2. Trend of the product fields, and the possibilities

As we see the publication trend of the affiliated university presses of AJUP (The Association of Japanese University Presses), we can see that the trend declines in particular fields (Figure 3), especially in the natural science and engineering which are the only 20% of their former totals.

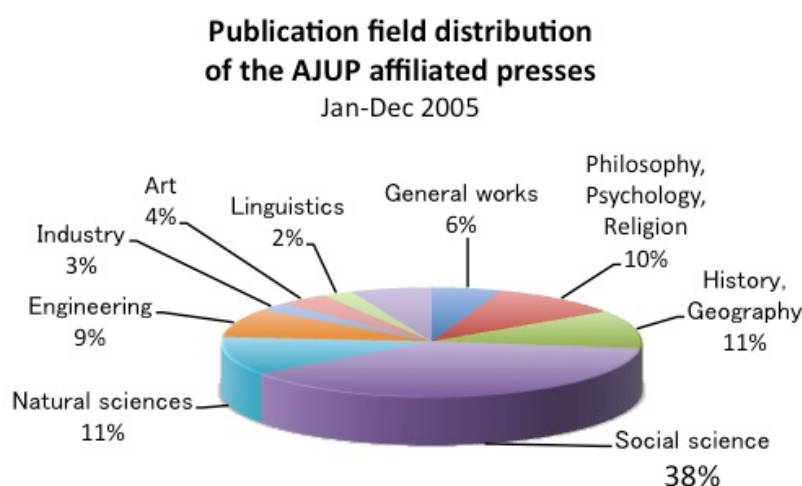


Figure 3: Publication trend of the affiliated presses of AJUP

This trend can explain some reasons for some particular academic fields, such as medicine, there are more dominant private publishing companies than the university presses. It also can be said that the fields which require up-to date information never suits the way to publish it as a book, and this ratio shows the problem of the media unconformity. When we consider the product the life cycle, the fields, which are shown on the graph in a high ratio, are surely the target product fields which university presses should have. However, when we think about the university's current situation that requires publicizing to society about the research seeds they have, aiming for industry-university cooperation, the scientific publications, which are not published for the research results but for the enlightenment and explanation, would also be possible.

5. THE TYPES OF PUBLICATION

5.1. University of Tokyo Press

The University of Tokyo Press is the organization that employs the largest number of employees among domestic university presses of nearly 50 employees, having the ramified sections, such as editorial, production, sales and public relations. The editorial department is divided into four sections, and one of those sections is specialized for natural sciences and

engineering. The notable point is that they have 33% titles from the natural sciences and engineering, and this ratio exceeds the 13% of the AJUP's ratio (Figure 4).

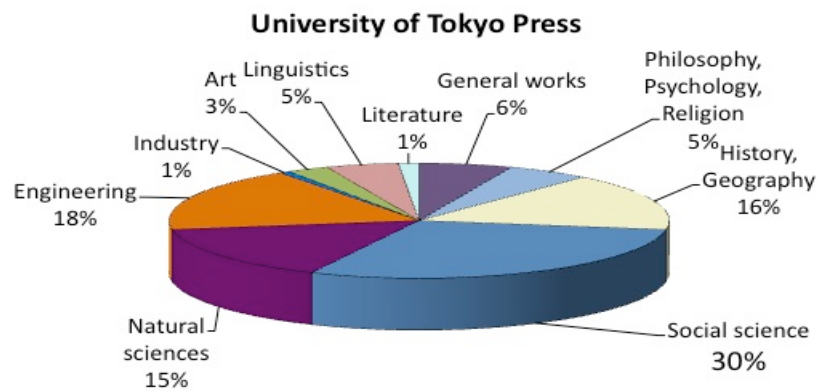


Figure 4: Publication trend of University of Tokyo Press

Also, they are the publisher whose topics often come up, they once succeeded in the sale of the educational text book titled "Academic skills for the human sciences," and they also made a record of over fifty thousand sales with the book titled "The UT Handbook of Academic Vocabulary." Regarding these facts, it is possible to say that their publication model is the type making the most of the resources which the University of Tokyo possesses, such as the researchers from various fields, celebrities, and brands.

5.2. University of Nagoya Press

As we see the publication trend of the University of Nagoya Press, we can also see that their publishing range is very narrow (Figure 5). It might be the exceptional trend only for this year, but it may show us their rough publishing tendency.

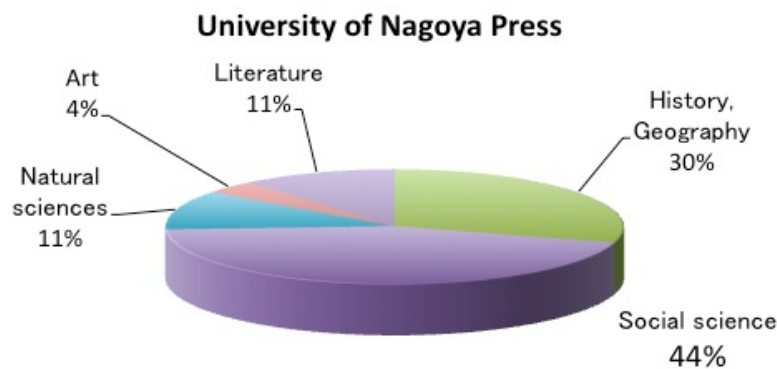


Figure 5: Publication trend of University of Nagoya Press

They are the university press who has won publication prizes the highest frequency, and has been a highly appreciated publisher in recent years (Table 1). The prizes they have won during the ten years from 1996 to 2006 is twenty-one, including a lot of the more prominent ones. It is said that the accomplished publisher finds the author with a future and editors

taking the initiative in editing with care to publish favorable books for readers, are the key factors of their success. They owe much to the editors, and it can be said that their publication model is a type based on personal capabilities.

Table 1: Prizes received during the period of 2005-2006

University Press (Publication frequency)	Awarded Prizes
University of Nagoya Press (Published 27 titles / year)	Sakuradakai special prize for distinguished service 2005
	The 27 th Suntory Prize for Social Sciences and Humanities
	The 27 th Suntory Prize for Social Sciences and Humanities
	The 27 th Suntory Prize for Social Sciences and Humanities
	The 10 th Herend Prize of the Collegium Mediterranistarum
	The 1 st Ichiro Yamaguchi Memorial Award
University of Tokyo Press (Published *180 titles / year) *approx.	The 25 th Energy Forum Award, Japan
	The 28 th Kadokawa Genyoshi Award, category of history research
	The 8 th Japanese Society of Social Psychology publication award
	The 18 th Asia Pacific Award, special prize
	The 21 st Aoyama Nao Award for History of Women
	JSCE Publication Culture Award, 2005
	The 27 th Suntory Prize for Social Sciences and Humanities,
The 27 th Suntory Prize for Social Sciences and Humanities,	
Kyushu University Press (Published 45 titles / year)	JSRSAI Association prize, Award of Best Books, 2006
	The 10 th Okita Memorial Prize for International Development Research
	The 32 nd Southern Kyushu Publication Culture Award
	The Kyushu Society of Agricultural Economics, scientific award 2005

5.3. Kyushu University Press

The Kyushu University Press usually publishes around 30 to 40 publications per year. As to publication projects, most of the projects are brought by the authors themselves. In the editing process, the author's idea is often consulted. Therefore, their editor's duties are limited to the range between the copy-editing and the production roles such as choosing the materials or communication with the printer. Although the academic level of publication is qualified by the authorities of the editorial committee, which mainly consist of the professors of Kyushu University, the contents of the publication are based on the author's expediency, and it is possible to say their publication model is an author oriented type.

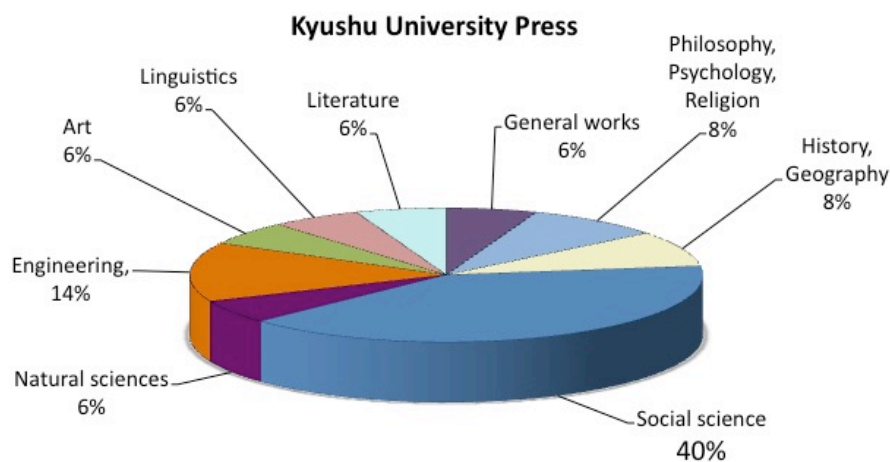


Figure 6: Publication trend of the Kyushu University Press

5.4. CUP / OUP

I would like to refer to the types of the two largest British university presses, though their scale and history are quite comparable. The history of university presses started from Cambridge University Press (CUP) and Oxford University Press (OUP) in England, as they received imperial charters for publishing from the King of England in the sixteenth century [2]. The press that introduced the letterpress printing and formed their style similar to current university press was the CUP. They received the first imperial charter from Henry VIII in 1534 and started to publish continuously from 1584, making them the oldest. Through the 18th century or thereabout, what supported economical growth of both presses was not the scholarly books, but was the Bibles and Prayer books, which were almost exclusively restricted to being publish in England, having been chartered from the government. While both university presses have both celebrity and dominance as top-class publishing divisions of universities, for the CUP for example, the sales of scholarly books for 2008 was only 28% of all³. The sales of English textbooks called ELT that transcend the academic books or the OED (Oxford English Dictionary) published by OUP are taking the place of Bibles as today's major finance. Their product line-up, making good use of English, now has become a common language of the world, and can be said to have a publishing model with the scale and advantage of the language.

5.5. Conclusion of publication types

We plotted the types of each of the presses that appeared in previous topics and on the matrix. The distribution is shown as below.

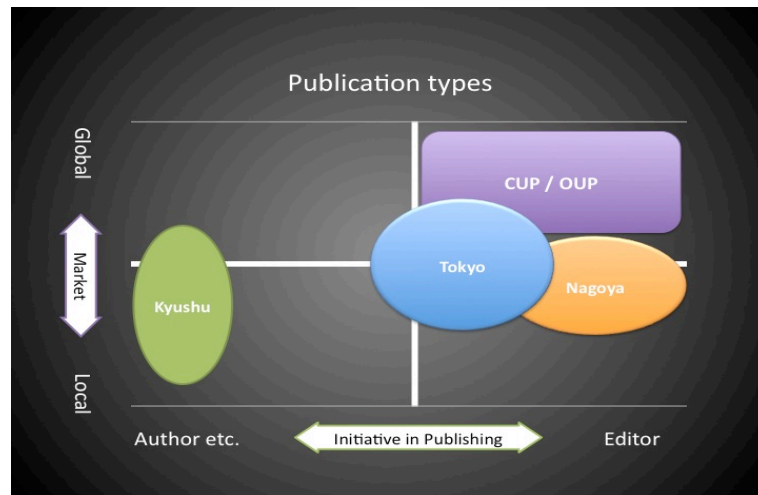


Figure 7: Publishing type comparison among each of the presses

According to this matrix, it tells that Kyushu University Press is apt to have the publishing type of which the author's intentions are strongly reflected, for that the editor's discretion is limited. That is to say, while the authors enjoy some advantages, it might not necessarily satisfy the readers' requirements. When we think of matching the people's needs and university's seeds by the Kansei Table System and publishing the outcomes through the Kyushu University Press, it might be possible to help make up the editors role, which owes much to a single person, and proportions the needs of the author (producer), publisher (sender) and reader (receiver).

6. PROCESS OF THE PUBLISHING PROJECT USING THE KANSEI TABLE SYSTEM

6.1. Process of the publishing project

Hereinafter, we examine the process of the publication project planning corresponding to the functions of which the Kansei Table System has. In this paper, we divide the process into four stages; 1. Considering the subject adjusted to the social needs with a fresh viewpoint 2. Considering the relative academic fields and authors (researchers) 3. Development and definition of the publication project concept 4. Considering the positioning, then trying to do the simulation.

6.2. Considering the subject adjusted to the social needs

The function that can be exploited in this stage is the "Researcher seeds and people needs search." Drawing out the group of relative *needs sentences* from the database stored in the system, after searching by the Kansei classification, field classification and optional word entering, it is able to display them at once or visualize them as a "*needs sentence map*" (Figure 7). The relevant *needs sentences*, which are centered on a Kansei, are displayed around the *needs sentence* which will be the main topic of the retrieval. It also is able to display the highly relevant *sentences* together as a group (Figure 10).

Making good use of this function and displaying the researcher seeds and people needs on the same plane, we can grasp the fields where both the needs and seeds are concentrated, and take it as a reference document for themed planning of each publication project.



Figure 8: The display screen of the “needs sentence map”

6.3. Considering the relative academic fields and authors

This is the stage of where to search for the appropriate author (researcher) examined in the stage mentioned in 6.2. On the previous “needs sentence map,” the relative researcher’s names are shown with the needs sentences and you can reach more detailed researcher information from there. Also, after choosing a particular researcher and applying for the “researcher network” function (Figure 9) for example, there will be mapped the another researchers’ name who has something to do with the person you choose so that you can expand on the subject with the information of the researcher’s side.

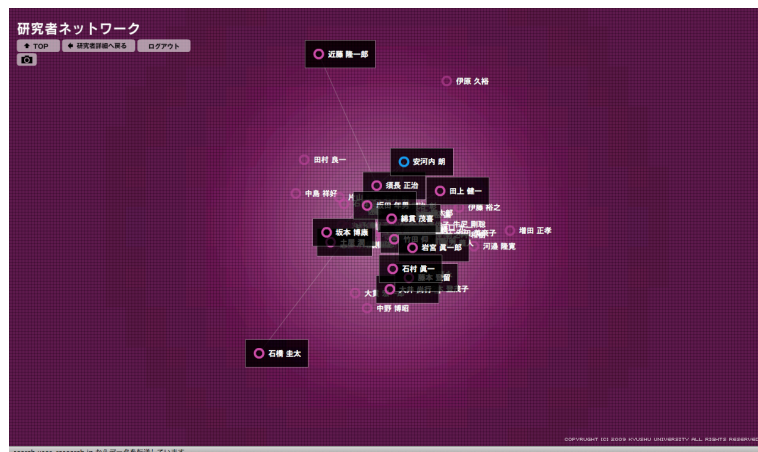


Figure 9: The display screen of the “researcher network”

6.4. Development and definition of the publication project concept

In the stage of rough frame forming of the theme and authors, in order to develop the concept of the project, it is necessary to unfold the ideas exploiting the relative needs by the “needs sentence map,” “researcher information” and by searching for other keywords related to the theme. In this stage, using the function of “Group displaying of the needs sentences

(Figure 10)” and defining the concept more clearly by extracting the point key *sentence*, it becomes possible to move the project, with consistency, from publication planning through production onto promotion.

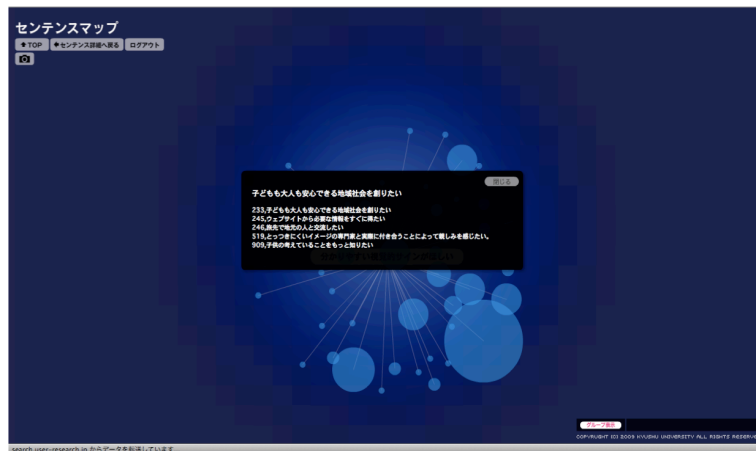


Figure 10: The group display screen of the “*sentence map*”

6.5. Considering the positioning

To consider where the on-going publication’s position is, the “check sheet” (Figure 11) is applicable. This function is the matrix, which has the Kansei classification on the horizontal axis and the field classification on the vertical axis, and visualizes the distribution of the seeds that researchers have. It can display other researchers or projects that overlap, so that a possible co-writer can be confirmed, In case planning the series publication project, it also must be effective for considering the design strategy whether it should focus on a particular field or just cover the whole realm thoroughly.

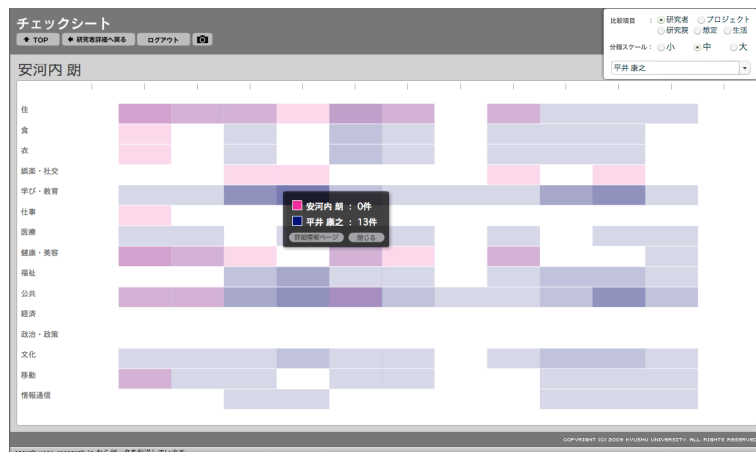


Figure 11: The display screen of the “*check sheet*”

7. PROPOSAL OF THE PRODUCT MODEL

7.1. University and liberal arts education

In manufacturing the outcomes retrieved by the Kansei Table System, it might be necessary to consider the current universities’ situations. After the University Establishment

Standards were revised in June 1991, the faculty of liberal arts, which played the role of the basic and common education in Japanese universities, was reorganized and many of those studies were disestablished. As a result, there the faculty reorganization based on the specialized education was set up, and it led to a general disregard for liberal arts education. In reflection of this tendency, various kinds of arguments have been made where a reexamination of liberal arts education has been strongly pushed for⁴. However, the definition of liberal arts education varies. Due to the social requirements, especially from the economic world, it seems that the respect for the specialized education will continue. Therefore, it is necessary to consider the position for new liberal arts education, which exceeds formal classification such as “specialized education” or “liberal arts education.”

7.2. Experiment on the new liberal arts education

Masaaki Sugimura [3] said, as he quoted from the words of French psychologist and philosopher GUATTARI⁵, that “education has much to do with the production of subjectivity.” He also said that the liberal arts education for the students themselves to set the coordinate axis should be sought, and the student’s social independency should be established with it.

The liberal arts education is also being argued in the context of “manifold problem solving ability” or “creative knowledge.” Stanford University started the “Stanford challenge” [4] in 2006, the project reflects that the university has been focused on practical education, and is interesting. As a main frame, this program aims at encouraging interdisciplinary research as a whole university and training global leaders who can flourish in the world. The project also includes dealing with art and creativity. It is suggestive that Stanford, which has turned out many practical talents for the society, started a new attempt to offer a cross academic program aiming as a solution to the problem.

Taking previous facts into consideration, the product model we suggest in this study should include the following points: 1. The subject, having a certain range of people’s needs picked up by the Kansei Table, of which should overcome by a whole society. 2. The contents that connect liberal wisdom and practical use, namely the liberal arts studies such as philosophy, art, literature and history, against themes such as the subjectivity establishment of the students themselves, innovation creation, application in current business management issues. 3. The things, which would be able to be introduced from the interdisciplinary themes that make readers to mention various academic fields or be able to create a new academic field system.

From these above considerations, it could be supposed to offer the case study textbooks and related courses of which its introduction with the practical themes having relationships with the reader as a living people, mentioning across the various academic fields on the solution process, may interest the readers in a traditional academic field.

8. CONCLUSION

8.1. Meanings of publication using the Kansei Table System

The proposal that editing university generated knowledge using the Kansei Table System and distributing those contents widely to society as a publication could be supposed to have following meanings:

* Matching the social needs and university seeds based on Kansei, it is able to create a new knowledge and overstep the barrier between the fields or the stereotypes like existent academic fields, types of industry, organizations and social classes.

* The integration of specialized fields and the cross academic research might be advanced in the research field in universities.

* The chance to make good use of university-owned knowledge might be increased beyond an editor's personal knowledge and network.

8.2. Future expansion and subject

To see whether this Kansei Table System driven editing of university-generated knowledge is effective or not, it should be examined of its effect by planning an actual publication project. As a way of the examination, in the future, we are planning to adopt the following method:

1. Preparing more than two documents of publication proposals which have been considered with the Kansei Table System

2. As a counterpart of the system driven publication project, preparing an existent type of the publication project or an already published books by the single author who have been mentioned in the above section.

3. Preparing more than two sets of those two kinds of publication projects referred to above, and presenting them to the examinee to carry out the reader's preferential examination.

The examinee of this investigation must be a potential reader who is an undergraduate student or above (over 19 years old). We are expecting to discover another new subject by classifying these examinees into the following three groups; 1. Common readers, 2. Editors, 3. Booksellers

The issues currently stand as follows. The Kansei Table System, which is being developed by and is going to be used in Kyushu University is a system only used on campus. So, while it will have the advantage that it can guarantee reliability and density with data referred in the system, it will also have a problem with the accuracy of the result lead by the system because of the reference data insufficiency. Especially on collecting people needs, making good use of the network opened to the internet, building up the data collecting method which is focused on the strategically set priority field, or developing the original needs sampling method are the future issues that we should deal with.

Moreover, considering a study as a pursuing act of universally acknowledged truth, the choice of data contents should be well considered in the development process.

In conclusion, this paper is the proposal of knowledge editing using the Kansei Table System that aims at creating new knowledge and value. However, this system doesn't cover the whole of editing, and it is needless to say that securing a talented editorial person is indispensable to publish a book as a product according to the content which the system suggests.

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⁵ PIERRE-FÉLIX GUATTARI (1930 - 1992)