Proposal for Experience Vision

Kazuhiko Yamazaki¹, Kentaro Go², Katsumi Takahashi³, Seiji Hayakawa⁴, Yoshihiro Ueda⁵, and Koji Yanagida⁶

```
<sup>1</sup> Fujitsu Design Ltd., Kawasaki, 211-8588, Japan
y.ueda@jp.fujitsu.com

<sup>5</sup> Chiba Institute of Technology, Narashino, 275-0016, Japan
designkaz@gmail.com

<sup>2</sup> University of Yamanashi, Kofu, 400-8511, Japan
go@yamanashi.ac.jp

<sup>3</sup> Holon Create Inc., Yokohama, 222-0033, Japan
takahasi@hol-on.co.jp

<sup>4</sup> Ricoh Company, Ltd., Yokohama, 222-8530, Japan
hayakawa@rdc.ricoh.co.jp

<sup>5</sup> Fujitsu Design Ltd., Kawasaki, 211-8588, Japan
y.ueda@jp.fujitsu.com

<sup>6</sup> Kurashiki University of Science and the Arts, Kurashiki, 712-8505, Japan
yanagida@arts.kusa.ac.jp
```

Abstract. Recently, it was known the problem-solving design approach has limitation to create new business or design. And service design is focused to create new business. Based on these background, we propose vision centered design approach named "Experience Vision". Purpose of this research is to propose design approach and method to create new service design or new product design based on vision centered design approach. Experience Vision is a comprehensive design method to envision innovative services, systems and products which reflect upon potential stakeholders' experiences and company mission and vision. Core of Experience Vision is vision centered design approach based on human centered design process with business perspective. For this purpose, we developed "Frame work for vision centered design method "and "Structured Scenario-Based Design Method (SSBDM)". "Frame work for vision centered design method " is based on SSBDM and user centered design approach which is focused user and business. This frame is including "Goal setting of project", intrinsic user value, policy of business value, value scenario, activity scenario, interaction scenario, scenario visualization, scenario evaluation, planning documentation, and specification.

Keywords: experience vision, service design, scenario, scenario-based design.

1 Introduction

In this paper, we introduce vision centered design method named "Experience vision". It contains summary of vision centered design method, approach to vision centered

design method, comparison with problem-solving method and framework for vision-centered method. Following is four background of Experience Vision.

"Limitation of problem solving design method" is the first background. Recently, it is important to propose new service, new product and new services. Design method is expected to propose new vision including service based on human centered design approach.

"Importance of service design method" is another background. Recently, service business and service based system/ product are growing rapidly.

"Expected designing method for experience" is third background. Recently, value can experience becomes more important than product value. However, the design meth for experience is not established. Design method that takes into account the overall user experience is expected.

"Expected evolution based on latest IT technology" is fourth background. In recent years, the latest IT technology has evolved dramatically; to propose a new vision method that corresponds to this IT technology is desired.

"Expected designing method to create new vision based on HCD" is fifth background.

Based on these background, we propose vision centered design approach named "Experience Vision". Purpose of this research is to propose design approach and method to create new service design or new product design based on vision centered design approach.

Experience Vision is a comprehensive design method to envision innovative services, systems and products which reflect upon potential stakeholders' experiences and company mission and vision. Core of Experience Vision is vision centered design approach based on human centered design process with business perspective. For this purpose, we developed "Frame work for vision centered design method "and "Structured Scenario-Based Design Method (SSBDM)".

2 Summary of Vision Centered Design

Based on 5 background, Experience vision is a comprehensive design method to envision innovative services, systems and products which reflect upon potential stakeholders' experiences and company mission and vision.

There are two case for vision centered design method to adapt. One is "When it needs to create a new value to existing products and services," and another is "When it needs to produce new product or service if ever."

As expected effect of this method is an effective in the following five cases;

- 1. To develop an easy-to-use products and services than ever before.
- 2. To find out customer value as the source of the next generation of competition.
- 3. To reduce costs and speed up development by starting from vision.
- 4. To develop services and products that satisfy customers.
- 5. To contribute to the management of the company to clarify the vector for the next generation of business.

3 Concept of Vision Centered Design Approach

Following is 5 concept of vision centered design approach;

1. Starting from intrinsic user value

Most design method will start from problem-solving. Problem-solving method will focus visible user problem by user research or other research. By Problem-solving method, it is not easy to propose new system and product because focusing visible user interactions or activities.

User research and user observation method is often used for finding problems. New approach is needed to propose new system and product by starting from intrinsic user value.

2. Create idea from value level or service level

Problem solving is often the idea from a lower level and vision centered design approach will be starting from higher level to create idea. And a higher level means the intrinsic value of the users, business and service level.

3. Consistently through to system specifications from the user research

Often even if it has been found intrinsic user value by user research, it is not easy to reflect the final product and systems. It is considered one factor there was no description of intrinsic user value. In vision centered design method, scenario is utilized as the common description of intrinsic user value.

4. Consider to collaborate experts from different fields

"Collaboration of experts in different fields," is one of the principles of humancentered design. In case of vision centered design methods, "The experts from different fields, including expert user (designer) and business professionals in particular is important collaboration. In order to facilitate this collaboration, easy-to-understand visualization is the key to everyone.

5. Involve user from the beginning of design process

One of the principles of human-centered design approach is "Listening to the user at all times". In case of vision centered design approach, one of concept is "ask the user always from a higher level".

4 Vision Centered Design Approach vs. Problem-Solving Approach

Fig.1 can be represented as in compares the problem-solving approach to vision centered design approach by diagram of the basic design process. In this figure, the process will be described by the vertical axis for the classification of activities and is the horizontal axis is time of design process. The horizontal axis has 4 layer such as value, activity, interaction and fact.

The black lines represent the traditional problem-solving approach and orange lines represent vision centered design approach on Fig.1.

In case of problem-solving approach, design process is starting from setting the goals of the project, conduct user research and quantitative to understand the problems and needs of users from there, identify the problem, creating idea to solve the problem, evaluation the idea, led to the development of products and systems to the final.

In case of vision centered design approach, design process is starting from setting the goal of the project to propose vision, conduct user research qualitative to discover the intrinsic value of the user from there, creative jump by idea development, value scenario, activity scenario, and interaction scenarios, evaluate the proposal, to the development of products and systems to the final.

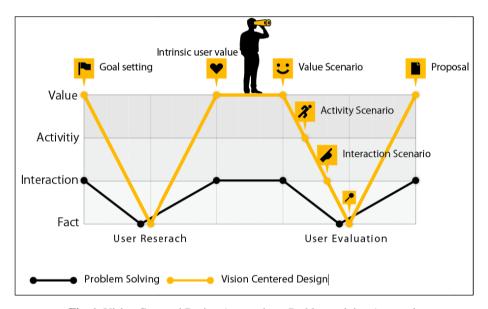


Fig. 1. Vision Centered Design Approach vs. Problem-solving Approach

5 Framework for Vision Centered Design Method

Core of Experience vision is vision centered design approach based on human centered design process with business perspective. For this purpose, we developed "Frame work for vision centered design method "and "Structured Scenario-Based Design Method (SSBDM)".

In the vision centered design method, scenarios (which are described from the user's perspective) will be introduced as a tool to describe and convey a vision of the future. Using scenarios for the design of services, systems and products has been a commonly addressed issue in the field of Human-Centered Design (HCD). SSBDM contains three layers of scenarios: value scenario, activity scenario, and interaction scenario.

As shown in Fig.2-Fig.5, "Frame work for vision centered design method" is based on SSBDM and user centered design approach which is focused user and business. This framework is including "Goal setting of project", intrinsic user value, policy of business value, user setting, business setting, value scenario, activity scenario, interaction scenario, scenario visualization, scenario evaluation, planning documentation, and specification.

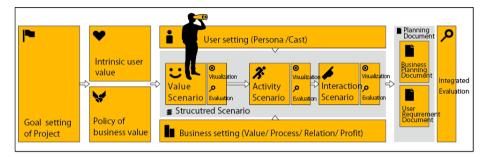


Fig. 2. Framework for Vision Centered Design Method

The following is the element of framework for vision centered design methods.

- 1. Goal setting of the project
- 2. Intrinsic user value
- 3. Policy of business value
- 4. User setting (Persona/ Cast)
- 5. Business setting (Value/ Process/ Relation/ Profit)
- 6. Structured scenario including Value, Activity and Interaction scenario
- 7. Visualization
- 8. Evaluation
- 9. Planning Document

Followings is each description for the element of framework for vision centered design methods.

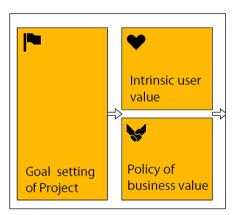


Fig. 3. Framework for Vision Centered Design Method-1

1. Goal setting of the project

As shown in Fig.3, the beginning of this method is to set project goal. For vision centered design approach, it is important to define project objectives to propose a vision as a first step. A setting for the target at each stage will consider user's viewpoint and business viewpoint. The goal from user viewpoint is including "When, where, who, or what kind experience". The goal of the business viewpoint is including "target position as a business and the company's brand, and position in the market".

2. Intrinsic user value

Before considering user scenario, it is important to clearly define "Intrinsic user value" and "Policy of business value". It is comers from the importance of user viewpoint and business viewpoint.

As a way to find the intrinsic user value, it is important to approach qualitative approach and reflective approach. As a concrete method, observational research, contextual research, user interview, photo essays, and photo diary.

3. Policy of business value

To clearly define policy of business value, it is important to reconfirm the corporate domain, such as division policy, and corporate policies. And then, we need to define policy of business value for each project.

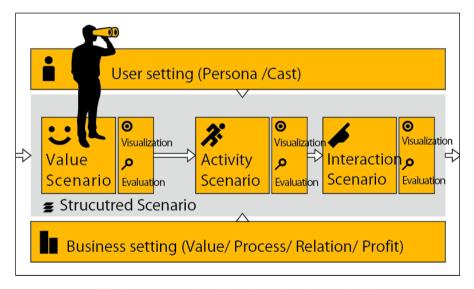


Fig. 4. Framework for Vision Centered Design Method-2

4. User setting

As shown in Fig.4, user setting and business setting are key approach for this method. In order to spread the idea and create a new idea, it is important to take steps to clarify the target users in stages.

The process for user setting is describing the approximate target user in setting the goals of the project, complete setting "user list, "temporary cast", "cast" and "persona. In addition, we need to link each scenario and each set of the target user.

5. Business setting

Vision centered design method is an approach to be considered from the early stages of both the business and the target user. Take steps to clarify in stages, and specification information about the business.

The process for business setting is describing the approximate business information in setting the goals of the project, defining policy of business value, draft business setting and detailed business setting. In addition, linking each scenario and business-related information, respectively.

6. Structured scenario

In the vision centered design approach, however, a scenario is used to describe a vision. That is, a scenario is created to explain the future goal resulting from the development. In this case, the scenario will function as a development goal. Unlike the problem-solving design approach, the act of designing will not always begin based on a scenario which describes the problematic situation, and the action can begin according to the designer's free, original idea and technology seeds. As a result of the design, visualization is required to share and assess the effect on users.

Scenario method structure, to create ideas for improving the "user satisfaction" and "efficiency of the system to develop" a, "the effectiveness of the services provided" by a scenario for each layer that are structured, finally is a method for describing the specifications of the product IT systems and truly usable.

With the vision centered design method, the scenario will be classified according to the hierarchy and then structured. Classifying the function of a services, systems and products with the focus on its components will make it easier to understand. It can be classified into three hierarchies here: value, activity, and interaction.

7. Visualization

Only scenario structure by text, it is difficult to imagine a concrete image. Utilize a technique called prototype, the user perspective to visualize the use of a technique called business model is a business perspective. By visualization of user and business, project member can be a member of the project evaluation and ideas to imagine a concrete image.

8. Evaluation

In the vision centered design method, is provided a process of "evaluation" and "visualization" to each phase of the Structured Scenario. After proposal and visualization, the evaluation done in each phase of the Structured Scenario is focused on a scenario should be selected to proceed to the next phase of the scenario from which to create more than one proposal. It also sets the evaluation process even after the full extent of the Structured Scenario was determined.

Evaluation process does the evaluation of prototypes and business mode diagram guided into the overall scenario. It is necessary that the value that is put on the business model and the proto-type is sufficiently effective to the user, which is the high degree of satisfaction. It has become something beneficial for the business of the company. It is important to evaluate the value of the proposals in these respects.

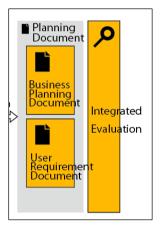


Fig. 5. Framework for Vision Centered Design Method-3

9. Planning document

As shown in Fig.5, final goal is planning document for this method. In the vision centered design method, after utilized structured scenario, it can be described "user requirements documentation" and "business planning documentation" as a part of planning document.

6 Conclusion

In this paper, we have described summary of vision centered, concept of vision centered design approach and framework of vision centered design method.

As a result of this study, we confirmed that framework of vision centered design method has possible is possible to propose new system and product.

We believe that *Experience Vision* (Vision Centered Design method), as a structured scenario method, is an effective way to efficiently produce sophisticated ideas.

References

- 1. Takahashi, K., Yamazaki, K., Ueda, Y., Go, K., Hayakawa, S., Yanagida, K.: Experience Vision. Maruzen Publishing Ltd., Japan (2012) ISBN 978-4-621-08565-3 C 3050
- Go, K.: What Properties Make Scenarios Useful in Design for Usability. In: Kurosu, M. (ed.) HCD 2009. LNCS, vol. 5619, pp. 193–201. Springer, Heidelberg (2009)

- 3. Edited by Japan Industrial Designers' Association: Product Design, Works Corporation, pp. 116–117 (2009)
- 4. Yanagida, K., Ueda, Y., Go, K., Takahashi, K., Hayakawa, S., Yamazaki, K.: Vision-proposal Design Method. In: Kurosu, M. (ed.) HCD 2011. LNCS, vol. 6776, pp. 166–174. Springer, Heidelberg (2011)
- 5. Yanagida, K., Ueda, Y., Go, K., Takahashi, K., Hayakawa, S., Yamazaki, K.: Structured Scenario-based Design Method. In: Kurosu, M. (ed.) HCD 2009. LNCS, vol. 5619, pp. 374–380. Springer, Heidelberg (2009)