

Pattern Concierge: Using Push and Pull Patterns to Help Clients Design Their Future

Haruka Mori, Faculty of Policy Management, Keio University

Norihiko Kimura, Faculty of Policy Management, Keio University

Shuichiro Ando, Faculty of Policy Management, Keio University

Takashi Iba, Faculty of Policy Management, Keio University

In this paper, we propose the concept of “Pattern Concierge” which proposes appropriate patterns to people who need them, and designs their actions to realize better future through dialogues. Pattern languages have usually been shared as reading materials, such as books and papers; therefore, people who read patterns need to choose appropriate patterns on their own: which we call a “pull type”. However, as Christopher Alexander says, in some cases, it is difficult for them to find out their desired patterns and design their actions with patterns by themselves. In this context, we propose Pattern Concierge: through a dialogue with people who want to solve their current problems, he defines their problems, shares appropriate patterns, and designs their actions together: we call this a “push type”. We, Iba Laboratory, have demonstrated this as a workshop in Keio University SFC’s Open Research Forum 2015. We present an example of the dialogue between a pattern concierge and a visitor, and also explain three practices for the pattern concierge workshop to succeed: 1.training in the dialogue workshop, 2.pattern wall, and 3.pattern cards. Then, we present some feedback from visitors of the workshop, and reflections on playing a role of pattern concierge from our laboratory members.

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General Terms:

Additional Key Words and Phrases: Pattern Language, Dialogue

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1. INTRODUCTION

How would people who read pattern languages design their ideal future with patterns? Christopher Alexander, in his first pattern language *A Pattern Language: Towns, Buildings, Construction*, explains in detail how readers choose the appropriate patterns and use them in their own projects (Alexander et al., 1977). On the other hand, in another book, he indicates the difficulty for the residents to design houses with patterns only by themselves; accordingly, he proposed a new function called the Architect Builder (Alexander et al., 1985). This function plays a role to tell, direct and make the residents understand the pattern language about houses, and create an entire design process in which the residents are allowed, and even encouraged, to play their natural role in helping to lay out their houses and helping to create their own community (Alexander et al., 1985).

We, Iba Laboratory have created in the past ten years (Iba, 2015) over 1000 patterns on human actions, which we call the Pattern Language 3.0. Moreover, we have had research on the method for their practical use, such as dialogue and web system (Isaku et al., 2013; Iba, 2014; Iba et al., 2014). However, there has been little discussion about how readers get to know pattern languages, choose the desired patterns, and design their actions with the patterns, as Alexander pointed out. In this paper, we first provide an overview of the conventional uses of pattern languages, and how readers get to know patterns and put them into their projects. Then, we propose the concept of “Pattern Concierge” as a way to support the readers to design their actions that make them realize their ideal future.

2. PATTERN LANGUAGES AND WAYS OF GETTING TO THEM

Pattern Languages have generally been presented as reading materials for the readers to absorb experts’ knowledge. Most of the patterns have been shared in the form of books, papers and websites. In the

Author’s address: H. Mori, Endo, Fujisawa-Shi Kanagawa 252-0882, Japan email: s14856hm@sfc.keio.ac.jp; N. Kimura, Endo, Fujisawa-Shi Kanagawa 252-0882, Japan email: s13300nk@sfc.keio.ac.jp; S. Ando, Endo, Fujisawa-Shi Kanagawa 252-0882, Japan email: s15045sa@sfc.keio.ac.jp; T. Iba, Endo, Fujisawa-Shi Kanagawa 252-0882, Japan email: iba@sfc.keio.ac.jp

software community, the conferences of pattern language (PLoP and other PLoPs held all over the world), have taken place over the past twenty years, where patterns have been shared as academic papers. Patterns have also been shared through the Web, such as Ward Cunningham's Portland Pattern Repository¹, which contains his software design patterns in the first ever wiki. In these ways of presenting patterns, people need to read and search for the necessary patterns by themselves.

We, Iba Laboratory, have proposed some more ways to share the patterns, and have gotten achievements out of it.

'Feeling of Life' System is a web system that uses pattern languages, and is where users express their daily aliveness with patterns through sharing photos and stories (Iba et al., 2014). In this system, the users must search for the suitable patterns to express their experiences by themselves.

Patterns also have been shared as the media of a dialogue. In a dialogue workshop, the participants go and ask others for the episodes of the patterns they want to practice. By doing this, the participants get a clearer understanding of putting those patterns into actions (Iba, 2014). This method also makes people search for needed patterns.

All of the methods written above have the same characteristic, which is the fact that people who need pattern languages have to take the initiative to go and choose the necessary patterns. We call this a "pull type". However in some cases, it is difficult for them to overview their current situation by themselves, and find out which patterns they need to solve the problem; in this situation they would not know what the actual problem is, because the situation requires meta-recognition, which is not always a simple task.

So, what is a better way to solve the problem using patterns? As Alexander proposed a role to design with the residents using pattern language in architectural field, a role to show patterns of human action and design them together is needed. Therefore, our answer is to make a new function to identify the problem to make it easier for them to design the actions using the patterns to solve the problem. This is what we call, "Pattern Concierge".

3. PATTERN CONCIERGE

Pattern Concierge is a new role that proposes appropriate patterns to people who need them, and designs their actions that realize better future together by pulling out what they really need through dialogues.

Pattern Concierge knows a number of pattern languages and their patterns. The concierge is not specific in a certain field, but knows multiple pattern languages to solve the client's problem essentially by having the dialogue from multiple perspectives. Thus, the proposed patterns can be from the different pattern languages if they are suitable for the client's context, because the variety of pattern languages means a more comprehensive approach to the problem.

The concierge pushes the loose patterns and the client pulls the desired patterns from the concierge to discuss the better future. When pushing the patterns, the concierge proposes the loose relation patterns, not the structured whole language. If he pushes the language itself, it would be too complex for the client to use the pattern language by himself, because it still requires some efforts to reach the best patterns to solve his problem. Thus, it is essential to select the few patterns in loose relation through the dialogue, pulling out the client's thoughts.

There are three steps that the concierge can do to suggest appropriate patterns through a dialogue.

Step 1. In the first place, the concierge helps the clients to clarify their situation. The situation may include what problem they are facing, or what they can do to achieve the best result they could have. This step allows finding the suitable pattern according to their context. In this point, the concierge can figure out the client's conflict because they have pattern-thinking, the way to think by defining the problem, force and the consequence. The concierge matches the client's situation into the number of problems and forces written in the patterns in the head.

Step 2. In the second place, the concierge suggests the patterns to make their situation better. The patterns that the concierge suggests could be more than one, so that clients would combine them into actions. The concierge goes these two steps back and forth to find the client's desired patterns.

Step 3. In the third place, the concierge discusses and designs with clients how they would put the suggested patterns into actions. With only a means of a reading material, it is difficult for them to actually move their thoughts into actions due to the patterns' abstraction level.

¹ <http://www.c2.com/cgi/wiki>

Because the pattern language takes participatory and bottom-up approach, the dialogue should encourage the clients to think proactively and design their actions together, rather than suggesting with top-down proposal. To achieve this, the pattern concierge needs to build such relationship. However, at the beginning, every helping relationship is imbalanced; the client is one down and the helper is one up (Schein, 2009); therefore, pattern concierge is required to deal with this problem.

Thus, the three steps for the dialogue are based on the process consultation (Schein, 1969). Edgar Schein recommends to start the communication process from the process consultation to realize the balanced helping relation in between the helper and the client; the process consultation assume that clients diagnose and remedy their own problems proactively, and the helper engages in process-oriented communication to understand their context and to fill the gap in between the helping relationship; for example, “Are my questions helping you?” or “Are we getting anywhere?” and the helper proceeds the dialogue to build the better helping relationship.

In the same manner, pattern concierge inquires and understands the clients’ situation (context, problem, and forces) in the beginning (Step 1), suggests patterns which he thinks are suitable and engage in process-oriented dialogue to check if those patterns fit into their situations or not (Step 2). Then, the two of them discuss and design actions together (Step 3). In this way, pattern concierge builds better helping relationship through the dialogue.

This approach urges the reader to put the desired pattern into actions. Unlike the patterns as reading materials, this method makes the reader first define the problem, search for the patterns for it, and design the future actions to achieve it.

4. PATTERN CONCIERGE WORKSHOP

We introduce an example of the practice of the Pattern Concierge. We held the Pattern Concierge Workshop in Keio University Shonan Fujisawa Campus (SFC) Open Research Forum 2015 (ORF) on November 20th to 21st, 2015 (Iba Laboratory, 2015) (Fig. 1). ORF is a public event where the laboratories from SFC exhibit and demonstrate their achievements of the research. Iba laboratory was one of the 79 laboratories to have a booth and hold a workshop there.

In this workshop, we used 19 pattern languages (531 patterns) shown in Table 1 that we have made in the past.



Fig. 1. Pattern Concierge Workshop

Table. 1. List of Used Pattern Languages

| | Pattern Language | The Number of Pattern | The Summary of Lanugage |
|----|--|-----------------------|---|
| 1 | A Pattern Language for Entrepreneurship & Management (Iba et al., 2012) | 36 | A pattern language for entrepreneurs to live with effective problem solving. |
| 2 | Change Making Patterns (Shimomukai et al., 2015) | 31 | A pattern language for fostering social entrepreneurship, and capturing the essentials that future actors can consult to create their ideal change. |
| 3 | Collaboration Patterns (Iba and Iba Laboratory, 2014a) | 34 | A pattern language for creative collaboration that creates new values that would change the world by producing an emergent vigour. |
| 4 | Cooking Patterns (Akado et al., 2016) | 27 | A pattern language to support cooks to gain sense and techniques used in certain situations. |
| 5 | Creative CoCooking Patterns (Isaku and Iba, 2015) | 34 | A pattern language for creative and collaborative cooking session. |
| 6 | Creative Education Patterns (Harashima et al., 2014a) | 15 | A pattern language for designing education which cultivates students' creativity and character. |
| 7 | Creative Life Patterns (Iba Laboratory, 2014) | 27 | A pattern language to make your life creative. |
| 8 | Generative Beauty Language (Arao et al., 2012) | 48 | A pattern language for one to live lively and beautiful in daily life. |
| 9 | Global Life Patterns (Matsuzuka et al., 2013) | 14 | A pattern language to support people to maintain individuality and design their own actions in respect to the "globalizing" society. |
| 10 | good old future (Kadotani et al., 2014) | 16 | A pattern language for good old future from Japanese culture, repeating principles that occur in the Japanese culture. |
| 11 | Learning Patterns (Iba and IbaLaboratory, 2014b) | 40 | A pattern language for creative learning to reflect on their learning style and to improve to become a better learner. |
| 12 | Learning Patterns for Self Directed Learning with Notebooks(Harashima et al., 2014b) | 19 | A pattern language for students designing their learning in self-directed learning with notebooks. |
| 13 | Parenting Patterns (Sasabe et al., 2016) | 22 | A pattern language for parents to interact with their child to grow together. |
| 14 | Personal Culture Patterns (Nakada et al., 2013) | 27 | A pattern language to support youth in creating a living with continuous selffulfillments. |
| 15 | Policy Language (Iba et al., 2013) | 18 | A pattern language for designing public policy. |
| 16 | Presentation Patterns (Iba and Iba Laboratory, 2014c) | 34 | A pattern language for creative presentation that encourage the audience to realize and take action towards the future. |
| 17 | SFC Culture Language (Ogo et al., 2016) | 27 | A community language for updating and reproducing the identity of Keio SFC. |
| 18 | Survival Lanugage (Furukawazono and Iba, 2015) | 22 | A pattern language to support survival when a catastrophic earthquake occurs. |
| 19 | Words for a Journey (Iba et al., 2015) | 40 | A pattern language to live well with dementia. |
| | 19 languages | 531 | |

4.1 Dialogue of Pattern Concierge

In this workshop, 29 members of Iba Laboratory participated as the Pattern Concierge. In the booth stayed 4-7 concierges, and had dialogues with the visitors. Here we present an example of the dialogue between a concierge and a visitor that took place in the workshop. (PC=Pattern Concierge, V=Visitor)

The dialogue starts when the visitor visits the booth and the concierge asks the current situation to him/her.

PC: Do you have any thoughts of how you want to be in the future, or have any problems that hinder your ideal future?

V: I have a problem in my current situation. That is, a person advises me and I know that advice is an important thing, but I can't carry it out. For example, my senior tells me to quit my part-time job and concentrate on my research if I'm finding difficulties in managing both my job and the research.

PC: Are you convinced of the advice?

V: Yes, I am. However, I can't quit the part-time job immediately, because I have to find someone to replace me in the job.

Through a dialogue, the concierge clarifies what the visitor is aiming for, or what problem he/she is facing. There are pattern catalogues and pattern cards in the workshop booth, which help the concierge to find the desired patterns (Figure. 2).

PC: Then, the problem is that you know that you should obey the advice but you can't change the situation instantly, rather than you are not concentrating on one?

V: Yes. I want my senior to understand my situation a bit more. When I imagine quitting my part-time job, I would need someone to replace me and teach him/her about the job, and then I would be pressed for my living expenses. To be honest, I don't want to be a kind of person who quits or refuses work. However, I am starting to think that I would need to quit either one of the two in the end.

PC: I see. So the problem is that you know the advice says the right thing, but you can't make that big decision immediately due to the situation, but it is stressing for you that your senior tells you the same advice again and again, but you don't want to refuse the work spontaneously.

V: That's right! Talking to you made my problem clearer!

PC: Then, I guess "Self-producer"² and "The Right Way"³ is your desired pattern. Using these patterns, you can be a "Self-producer" to be your ideal self of how you want to be after half a year or a year, and confirm if the actions you are taking now are being "The Right Way" to achieve it.

If the visitor thinks the patterns are useful, the concierge helps him/her design their future actions using the desired patterns through the dialogue.

V: How should I practice these patterns?

PC: For example, think of how you want to be after half a year. Then think, what you should put your first priority on. How do you want to be after half a year? Set the milestone, and think of what you should do to achieve it. That is what we call a "Self-producer".

V: Okay, I want to obtain visible and international results on my researches, like publishing them, and presenting papers in the international conferences. To do so, I want to put my priority on my research. At the same time, I want to continue my part-time job to earn money and to get connected to the society.

P: Then, think if you can achieve the goal with your approach you are seeking now. If that approach is not appropriate, you will need to convert to a better approach. That is how you think of "The Right Way".

V: So... Now that I'm not able to focus my efforts on both two, I feel like I need to convert to a new approach. Through this dialogue, I reconfirmed that I want to put my effort on my research, so I would prioritize it!

The dialogue of a pattern concierge was performed as written above. After the dialogues end, the concierges print out the patterns that they proposed into cards (which will be introduced in the next section), and give them to the visitors as gifts.



Fig. 2. Dialogue Between the Pattern Concierge and the Visitor

4.2 Three Practices for the Pattern Concierge Workshop to Succeed

Below are the three practices and operations we had in order to make this workshop a success.

² Learning Patterns: No. 38

³ Learning Patterns: No. 35

4.2.1 Training in the Dialogue Workshops

It did not necessarily mean that everyone who took part in making the pattern languages was in our current laboratory, nor does it mean that we knew all 531 patterns to begin with. However, in order to actually run this workshop, we figured that we needed to memorize all of them. This proved to be difficult if we only read the pattern catalogues due to the sheer volume of the pattern languages.

Therefore, rather than challenging ourselves to memorize all 531 patterns, we decided to hold a workshop to fully understand all the pattern languages so that the patterns naturally come up in a dialogue. We aimed for the members to be able to recall the pattern in the dialogue, because we found it difficult to memorize all the patterns. In order to accomplish this goal, we simulated Pattern Concierge dividing ourselves into two groups: one who acts as the visitor with a problem, and one who provides consultation with pattern languages as the Pattern Concierge. This way, not only were we able to understand the patterns, we were also able to practice being a Pattern Concierge.



Fig. 3. Dialogue Workshop

4.2.2 Pattern Wall

At the booth in ORF, we installed 5 plywood of 3.0mm, 3x6, 920mmx1830mm, and made a wall where we put all 531 patterns with their information such as pattern names, illustrations and solutions.

Having all the pattern languages on the wall helps the concierge to have a dialogue with the visitors' eyes on them. Consequently, the visitors were able to see the pattern names, illustrations and solutions to better understand each concept as the concierge explains them.



Fig. 4. Pattern Wall

4.2.3 Pattern Cards

These are the cards that the concierge handed out during the dialogue. On them are the pattern names, pattern illustrations and solutions. The purpose in handing these cards out was to allow the visitors to be able to look back at the patterns and use them as a guide even back home.

After the concierges held dialogues with the visitors, the concierges took notes of the patterns that they proposed. They then passed the notes to the staff in charge of printing the pattern cards. In order to have enough cards in case we needed to hand out more than one at a time, we kept a stock of at least 3 cards at once. The pattern concierge then took the printed cards and handed them out to the visitors.



Fig. 5. Pattern Cards

5. THE FEEDBACK ON PATTERN CONCIERGE WORKSHOP

The Pattern Concierge Workshop was chosen for “the most impressive booth (multiple answers)” among 79 booths as the result of an official survey of ORF. We introduce the data and feedbacks we got from the workshop.

5.1 Pattern Languages Used in the Dialogue

Out of 531 patterns, 249 patterns were used (679 including repeatedly used patterns) in the dialogues held in the two days. Table 2 shows the number of used patterns of each language, and Figure 2 lines up the most used pattern languages in order. Table 3 presents the most used patterns out of all the patterns.

The visitors of this forum mostly include university students and office workers, and many consultations were about daily lives and learning, collaborating in their works. Therefore, following patterns were mostly used; Generative Beauty Patterns to enhance liveliness and beauty in life, Learning Patterns for creative learning, Collaboration Patterns for creative collaborations and Personal Culture Patterns to act in one’s own way.

Table. 2. Sum of Patterns Used in Each Pattern Languages in the Two Days

| | Pattern Language | 2015/11/20 | 2015/11/21 | Total | Used Patterns |
|----|---|------------|------------|-------|---------------|
| 1 | A Pattern Language for Entrepreneurship & Management | 8 | 11 | 19 | 11 / 36 |
| 2 | Change Making Patterns | 10 | 19 | 29 | 16 / 31 |
| 3 | Collaboretion Patterns | 54 | 37 | 91 | 29 / 34 |
| 4 | Cooking Patterns | 5 | 5 | 10 | 8 / 27 |
| 5 | Creative CoCooking Patterns | 6 | 3 | 9 | 4 / 34 |
| 6 | Creative Education Patterns | 5 | 4 | 9 | 6 / 15 |
| 7 | Creative Life Patterns | 6 | 18 | 24 | 12 / 27 |
| 8 | Generative Beauty Language | 67 | 86 | 153 | 32 / 48 |
| 9 | Global Life Patterns | 15 | 10 | 25 | 12 / 14 |
| 10 | good old future | 4 | 3 | 7 | 4 / 16 |
| 11 | Learning Patterns | 60 | 44 | 104 | 34 / 40 |
| 12 | Learning Patterns for Self Directed Learning with Notebooks | 1 | 6 | 7 | 5 / 19 |
| 13 | Parenting Patterns | 11 | 8 | 19 | 14 / 22 |
| 14 | Personal Culture Patterns | 42 | 44 | 86 | 23 / 27 |
| 15 | Policy Language | 0 | 0 | 0 | 0 / 18 |
| 16 | Presentation Pattens | 17 | 20 | 37 | 16 / 34 |
| 17 | SFC Culture Language | 27 | 16 | 43 | 18 / 27 |
| 18 | Survival Lanugage | 1 | 1 | 2 | 1 / 22 |
| 19 | Words for a Journey | 3 | 2 | 5 | 4 / 40 |
| | Total | 342 | 337 | 679 | 249 / 531 |

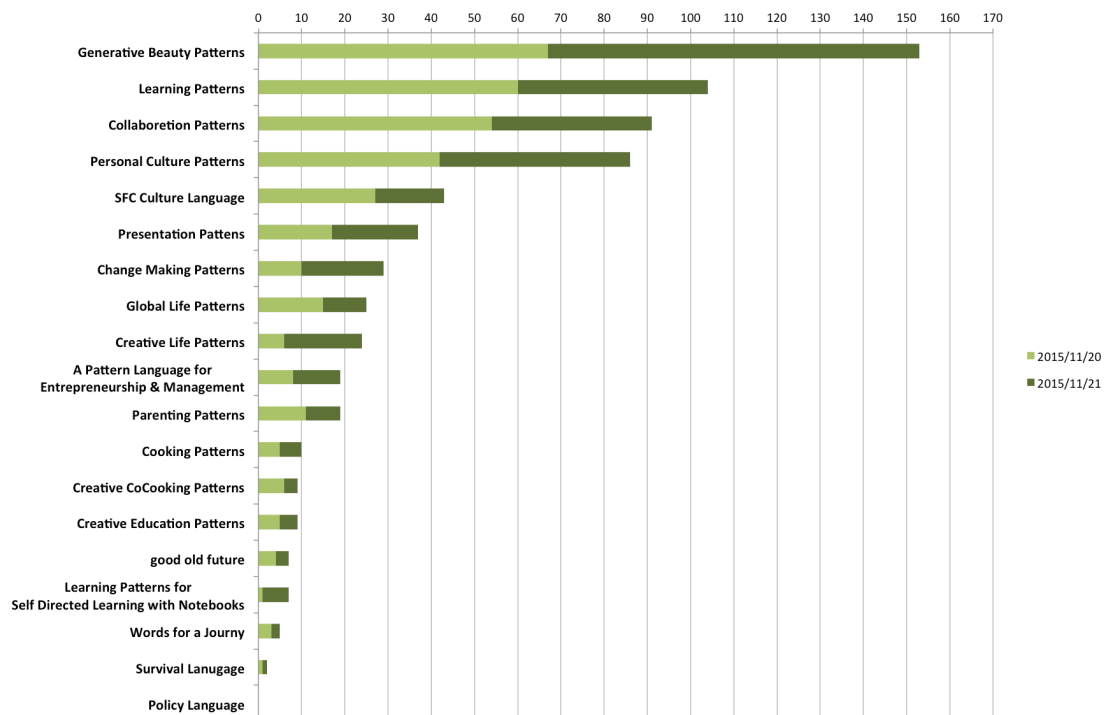


Fig. 6. Sum of Patterns Used in Each Pattern Languages in the Two Days (includes overlapping, ascending order)

Table. 3. Patterns Mostly Used in the Dialogues
(PL=Pattern Language, GBP=Generative Beauty Patterns, LP=Learning Patterns, CCP=Collaboration Patterns, PCP=Personal Culture Patterns, CLP=Creative Life Patterns, GLP=Global Life Patterns)

| PL | No | Pattern | Total |
|-----|----|-----------------------------|-------|
| GBP | 29 | Dream Day | 26 |
| LP | 7 | Output-Driven Learning | 18 |
| CP | 15 | Treat Time | 12 |
| GBP | 37 | Space Out | 12 |
| CP | 12 | Vulnerability Disclosure | 12 |
| PCP | 1 | "I did it!" Search | 11 |
| LP | 36 | Brave Changes | 11 |
| CP | 5 | Good Team | 10 |
| GBP | 17 | Courage to Leave | 9 |
| PCP | 21 | Self-Care Program | 8 |
| GBP | 41 | Be Passionate! | 8 |
| PCP | 11 | Like Guideline | 7 |
| PCP | 12 | Speciality Gems | 7 |
| CLP | 0 | Change Maker | 7 |
| GLP | 5 | Enough Language Skills | 7 |
| CP | 18 | Chaotic Path to Breakthrouh | 7 |

5.2 Feedbacks from Visitors

We got feedbacks on Pattern Concierge for the first time in the world from the visitors to the workshop (free descriptive answer). We pick some from them and introduce below.

The sentiments below proved that the role of Pattern Concierge was successfully accomplished. We were able to define the problem that the visitors were facing with the patterns, suggest the desired patterns and design the actions together to practice the patterns.

- My current problem became clear through the dialogue with the concierge.
- I got new point of view that I have not ever thought.
- I recognized what patterns I need to think of the principle for my actions through this experience.
- I would practice the patterns taught from the concierge.

Moreover, many sentiments said that they understood the usefulness of pattern languages. Rather than distributing pattern catalogues and explaining about pattern languages, it was more effectual to actually use pattern languages in the dialogue to design the solution.

- Although I did not know how to use the pattern catalogue I got before, now that I could have a dialogue with the concierge, it naturally came in to my head just like a word. It taught me that I could use patterns in daily communications.
- Each proposed patterns became my hints for the problem solution.
- I got interested in pattern languages through the dialogue with the concierge. I want to apply pattern language into my research field.

On the other hand, there were sentiments that mentioned the difficulty to have a thorough knowledge of pattern languages and be like a concierge.

- I felt the difficulty to use the patterns efficiently, because normal people do not remember that much patterns.

- It should be difficult to memorize all the patterns unless you are in an environment to use patterns on a daily basis like Iba Laboratory.

These sentiments prove that the pattern concierge has accomplished its aim. To conquer the last sentiments, the method to be a pattern concierge can be made by coming in touch with pattern languages through the dialogue workshops as shown in the next section.

5.3 Reflections of Pattern Concierge

We did a survey to reflect on the practice of pattern concierge from 29 members of Iba Laboratory.

The interesting sentiments say that the visitor also tried to find the suitable pattern for themselves and to design the actions together with the concierge during the dialogue, not only the concierge proposes the pattern. The viewpoints from the visitor seemed to be heuristic to the concierge as well.

- The moment I felt interesting is when I was finding the desired patterns for the visitor, he started to find the patterns together with me.
- The visitor also found the patterns and actions to solve his problem from different viewpoint from me. These made us think of more approach to achieve the goal.

Most sentiments said that pattern concierges themselves became confident of the effectiveness of pattern languages, as to the sentiments got from the visitors; rather than distributing pattern catalogues and explaining about pattern languages and their uses like Iba Laboratory had done in the last years, it was more effectual to actually use the pattern languages in the dialogue to design the solutions together.

- I realized the value of patterns when I saw the visitors getting impressed after I proposed the patterns.
- I had a strong conviction that the visitors got more curious about pattern languages. It was impressive that they deeply expressed thanks and shook my hand.
- I got conviction for the function of pattern languages as media of dialogues and ideas.
- I felt that each visitor had better gift than when we had our pattern catalogues handed out, because we succeeded to propose patterns that fit each of the visitors.

Many pointed out that the dialogue workshop was valid in order to master patterns, as the preparation for the pattern concierge.

- The dialogue workshop worked to understand the patterns.
- Using patterns as words by ourselves advanced my understanding and use of the patterns.
- The dialogue workshop was effective as a process of grasping 500 patterns, not memorizing them.

As stated above, members who played the role as the pattern concierge actually felt the effectiveness as a function to design the actions of the visitors together with pattern languages.

6. CONCLUSION

In this paper, we proposed “Pattern Concierge”, a role to suggest the required patterns referring to the clients’ contexts. Behind this proposition, we have the hypothesis that these “push type” of proposals help clients find more appropriate patterns to get their situation better. To prove this hypothesis is true, we, Iba Lab members all have experienced being a Pattern Concierge in the ORF as written in Section 4, and have got many impressive sentiments as written in Section 5.

Now that we, Iba Lab members achieved to be a Pattern Concierge, we would make a pattern language to be a pattern concierge, which includes tips for a better dialogue to clarify clients’ situation. By establishing this methodology, we propose that this could also be done in Pattern Languages 1.0 and 2.0 likewise what we have done in Pattern Language 3.0. A function like pattern concierge would suggest the better architectures/software design with patterns.

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