Everyone Has Idea, Everyone Can Be Architect

Our first step for finding a good architecture

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Abstract. It is an immutable truth that architecture ultimately exists for humans. Similarly, it is a well-known fact that countless architectural concepts derived and evolved to restrain development, to control building projects and to consider environment are eventually for the benefit of humans. Architecture today, however, is in the hands of a few renowned architects even though it is supposed to reflect human beings and times and to work for everyone. Is it too much to say that everyone should have a say in the space used by many? In that respect, we have devised DADL System. Anyone, Anytime, Anywhere. The system is an architectural game that stimulates human instincts, has online communities and is easily accessible by Anyone Anytime and Anywhere (3A Rules). DADL System aims to gather users’ ideas and develop architecture, which is essentially enabled by the ‘Advise’ feature. Advise is designed to lead users to think about architecture voluntarily and to guide them to express their ideas. The structure and contents of Advises are very important factors in DADL System. Also, it is divided into two domains, i.e. Web and Mobile, where data exchange is enabled via cloud computing, establishing a base in compliance with the ‘3A’ Rules. The DADL System supports the architecture of everyone without relying on opinions of a few, so as to open the infinitive potential for communication between architecture and humans, which today’s architecture should advocate.

Keywords. Digital Architecture; Design Creativity; Social Network Service; Web-based Design; Communication.

EVERYONE CAN BE AN ARCHITECT

Where is today’s architecture headed? It is a timeless truth that architecture ultimately serves for the benefit of humans. It is a well-known fact that numerous architectural concepts derived and advanced to restrain and control building development are meant to serve humans after all. That being said, does the architecture serve for the benefit of humans properly? Besides, in terms of the architecture for hu-
mams, how should individual diversity be reflected in architecture? Is it far-fetched to say that every user should have a say in a space used by many? If architecture for everyone is impossible, is there any way to implement architecture for nearly everyone? Having those questions in mind, we entered into an investigation. As a preliminary step, in order to find out who would lead the architecture in the world, we reviewed the demographics published in 2010 by the US. Census Bureau and the statistics from the International Union of Architects. It did not take long before we found that a small number of people form and lead architectural culture.

Unfortunately, a few renowned architects take the initiative in contemporary architecture. There would be no denying that the world moves following the thoughts of a few even though they state that they advocate public architecture for all. We learned that architecture should reflect human beings and times, while generating macroscopic stems and pursuing microscopic diversity. However, architecture these days resorts to uniformity rather than generating some macroscopic stems. ‘Architecture of all’ in the true sense of the phrase, that is to say, architecture allowing individuals to join seems to be a way to take a step toward ‘architecture for humans far from uniformity. Of course, the same is true of other fields as well. For example, when purchasing clothes, people have much more diverse and easy-to-access choices in comparison to housing. In other words, the fewer choices in architecture than in other fields warrant some efforts to form public opinion. Public opinion refers to general ideas/trends a majority of people agree on. Likewise, architecture needs to establish public opinion and form a culture as it is not free from trends and fashion.

They say, “Anyone can engage in architecture but not everyone can.” In reality, however, it would be far more appropriate to say that ‘Everyone cannot engage in architecture, which is too hard for anyone to do.’ Still, what if we could enjoy architecture just like playing a game? So what would happen if we could see a certain architecture reflecting the ideas of ‘nearly everyone’? Some are concerned about possible uniformity of such architecture. However, there is no need to be faint-hearted as people are diverse and so are the ideas they can come up with. We mentioned earlier ‘nearly everyone’. It is true that we cannot combine everyone’s ideas into one. Yet, is it not helpful to have a chance to listen to other people’s ideas? The figure below may help understand how to form the architecture of all, or architectural public opinion. Figure 2 is intended to help understand our notion that ‘forming a true architectural public opinion requires sharing ideas with infinitely many people.’ It is far from representing a process to generate a true architectural public opinion. There-

\[
\text{Public opinion} = \frac{\text{My thinking} + (\text{Your thinking} \times n)}{n+1}
\]

\[
\text{Public opinion} \times (n+1) = \left[ \text{My thinking} + (\text{Your thinking} \times n) \right] \times (n+1)
\]

\[
\text{Public opinion} + n = \left( \text{My thinking} + n \right) + \left( \text{Your thinking} \times n \right)
\]

\[
\text{Public opinion} \div n = \left( \text{My thinking} \div n \right) + \left( \text{Your thinking} \times n \right)
\]

\[
\text{Public opinion} - \text{Your thinking} = \left( \text{My thinking} + n \right) - \left( \text{Your thinking} \times n \right)
\]

\[
\text{Public opinion} \div \text{Your thinking} = \text{My thinking} \div n
\]

\[
\text{Public opinion} = \text{share My thinking with others}
\]
fore, with all due respect, we beg anyone who may consider our notion absurd not to take it too seriously.

In the film ‘X-man’ Charles, or the X man, can read other people’s thoughts, which we students let alone professors could not dare to dream about. It is nearly impossible to figure out and make everyone’s ideas reasonably converge into a single architectural public opinion. Hence, we came up with this idea. From the past, an architect has built houses based on the thoughts of a few groups or individuals. Any building is to be faced with lots of issues that the architect did not think about in the first place depending on places, times and users. Further, the reason that such issues have always existed is the very architecture. We are keen to develop architecture in a way that everyone can be involved in it. That is because an architect has to be able to sort out an ill space architecturally as a doctor cures diseases. To do that requires everyone to have an idea and to be an architect. For this, we look forward to seeing anyone access easily to architecture via an architectural game associated with online communities stimulating human instincts. We hope people will get over current problems and break away from standardized ways of thinking. That is why we have come to develop DADL System that overcomes what Aldous Huxley referred to as human weaknesses, i.e. ‘innate obedience to authoritarianism’ and ‘desire for compliance to general public’.

Live as you believe, or you will believe as you live. That is what today’s architecture is.

ABOUT ‘3A’ RULES
Technology has been innovative. Being innovative does not mean people need not think. However, technological development has increased convenience to the extent that people can hardly think. It is no wonder that digital dementia has emerged. People watch their autonomy and discernment diminish and still welcome oppression. Due to overflowing information, people fall victim to passivity. Students turn to the internet for school assignments and become deluded into thinking that they did think out the solution. It seems that all disciplines lead to one destination, the internet. We cannot leave architecture designing the world we live in to fall ill like this. As above mentioned, like a doctor who cures patients of diseases, we should make efforts with enthusiasm for the architecture of all.

We looked for methodologies suitable for the architecture of all and ended up in a game. The markets for overall games and online games have reached 8.4 trillion Won and 5.7 trillion Won, respectively, which is equivalent to 20% YOY growth. The global market for games including mobile ones shows the same growing trend. The game industry has had a rapid growth because games incite basic human desire for achievement, can be accessed regardless of time and place and, most of all, games are interesting with no need to spend much time as in real life. In addition, social media (Openness, participation, sharing a summary of the value in accordance with the advent of Web 2.0 social network based on the individual’s thoughts or opinions, experiences, and share information and create relationships with others, or to extend an open-qualified online platform means that.) have grown explosively. This is probably due to the psychology of people yearning for individual originality and diversity in ever-changing scientific civilization. The advancement of scientific civilization has brought something beneficial, rational and efficient to the society but it has not found something appropriate. Architecture has developed infinitely considering geometry, irregularity, spatial structure and program algorithms but still lacks in considering people. We did not intend to build a game for the architecture
of all, but we could find conditions for the architecture of all out of the game. This is the very ‘3A’ Rules, that is, Anyone, Anytime and Anywhere.

‘3A’ Rules refer to anyone being able to access the system anytime and anywhere with minimal conditions for attracting as many people as possible to form true architectural opinions. To implement the ‘3A’ Rules, we applied a range of established technology (e.g. Wire-based Networks, Wireless Networks, GPS, Cloud Computing, Augmented Reality, Sensor Networks etc.) to DADL System. Participants to DADL System on the Web or on Mobile mode are to display their ideas freely or criticize architectural structures harshly like vituperators or share wits or humors, so that the system can derive enthusiasm for architecture and views on life and value from the bottom of their brain. This is to facilitate communication with new structures and inculcate today’s architecture.
<table>
<thead>
<tr>
<th>Program</th>
<th>Character</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Google</td>
<td>Gather modeling data and supply. Gather information and supply. Make library and supply.</td>
<td>Share data. Show off personal modeling.</td>
</tr>
<tr>
<td>Minecraft</td>
<td>Simple building. Not architecture. Opened modeling method. Support cooperate</td>
<td>Show off personal idea. Feel fun from cooperate. Feel a sense of accomplishment</td>
</tr>
</tbody>
</table>

**Conclusion**

Google’s Google earth and Sketchup is a revolutionary. Convenient and simple features of the buildings and the location and brief information modeling is mainly used. SIMS and Minecraft game, although the architectural advantage, but a person is less character-driven game with another life in a virtual sense of accomplishment and a high degree of freedom of the game can be called creative. In addition, Autodesk, Inc. HomeStyler the world in virtual space by modeling reality by taking advantage of the material is high.

The table below summarizes the features and purposes of the similar existing games, which were devised for certain tasks within fixed platforms rather than aiming for free thinking. In contrast, DADL System is user-oriented, aiming mainly for gathering individual ideas without missing individual diversity for the sake of creating new thinking and architectural communication.

**DADL SYSTEM**

DADL (Digital Architectural Design League ; Korean word ‘다들’, means ‘Together’) System aims to share users’ ideas with a view to the architecture reflecting many people's opinions. DADL System is divided into web and mobile services depending on servers. DADL System provides the easy-to-understand tutorial types of educational programs for architectural knowledge and also the quests for reviewing what is learned. Further, virtual architectural modeling
Figure 6
DADL Web/Mobile system diagram.
or VR-based 3D tour enables assessment of diverse architectural structures. The mobile DADL System is based on GPS, which enables users to assess buildings and environment around their current positions, to perform real-time quests of the locations and to check out their assessments and other users’ advice (Advise) regarding the buildings assessed on the web.

It is Advise and Smart Posting that are essential for communication with everyone participating in the system. In short, Advise is similar to comments (replies) as part of the system structure and Contents used to induce voluntary thinking for architecture and relevant opinions from users. It is an important element in DADL System and a way to join, enjoy and express architecture-related activities. Other social networks enable users to limit the scope of their activities through friend or group follows, whereas Smart Posting automatically notifies users of their own and others’ activities via ‘the frequency of the same assessment targets,’ ‘locales,’ ‘interests’ and ‘awareness’ so as to meet the desires of those who yearn for new encounters, competition, originality, diversity and self-display. Moreover, the system is designed to give fun factors by means

<table>
<thead>
<tr>
<th>Level</th>
<th>1</th>
<th>10</th>
<th>20</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario</td>
<td>Modeling</td>
<td>Various type building</td>
<td>City plan</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Advise</td>
<td>Recommend advise</td>
<td>Selected advise</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Search building</td>
<td>Help people</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mobile/Web global quest</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Area size**

- House
- Hometown
- Apartment complex
- District unit
- City

**Open type**

- None
- 10Min
- 20Min
- 30Min
- 40Min
- 60Min
- 80Min
- 100Min
- 120Min
- 140Min
- 160Min
- Unlimited

**VR time**

- Close
- Open
of achievements and rewards. All the real and virtual Contents provided in the system are as in Fig. 6. Users have Level, Influence Index and Personal Space in DADL Web. Just like playing a game, they upgrade their Levels on DADL Web. The higher the Levels go, the more diverse buildings they can build, the more Personal Space they can extend and the more Contents they can enjoy. Beginners are given Scenarios in their Personal Space. Following the Scenarios, users come to understand architecture naturally and learn how to share thoughts on architecture with others. Users can access anonymous persons’ spaces to add comments (Advise) on architectural structures let alone their own Personal Space. Further, when the Advise earn recommendations, users’ Influence Index increases, which in turn opens multiple markets allowing them to engage in more activities. Figure 7 illustrates the Contents opened according to Influence Index. Users will try to raise the Influence Index by actively participating in Global Quest or real-life activities on mobiles as well as Advise. Fig. 8 shows user activities depending on their Levels and Table 2 summarizes an example of a Level-18 user’s activities.

DADL System is a base for creative thinking, so that the system will obey the person, not vice versa. DADL Web users can collaborate with other anonymous people. The collaboration can be for Global Projects the system presents or with someone anonymous invited to Personal Space. The

<table>
<thead>
<tr>
<th>Mobile</th>
<th>Web</th>
<th>Real</th>
</tr>
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**Level example - level 18**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Recommend advise</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Help people</td>
</tr>
<tr>
<td></td>
<td>Mobile/Web global quest</td>
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<table>
<thead>
<tr>
<th>Area type</th>
<th>Apartment complex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible type</td>
<td>House, Villa, Multi house, Low office, Church, High office, Market</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VR time</th>
<th>100Min</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Co-operate</th>
<th>Open</th>
</tr>
</thead>
</table>

**Figure 9**

DADL Mobile/Web correlation to real.

**Table 2**

Example of act by level.
collaboration system on the Web will lead to Advise-based communication within the common denominator of architecture. Such communication will improve mutual autonomous and open thinking. Here, the term ‘anonymous’ implies that DADL Web has no system related to friends. It has Smart Posting only. DADL Web aims to make a space, where the community of all can open thoughts and ideas freely. On entering the DADL Web, all participants set common goals and share an issue. Users will put Advise freely regarding Global Quest they system suggests, others’ Space and architects’ projects, enjoy games and share numerous ideas on architecture acquired in life. DADL Web exists to connect the virtual world with the real one and provides features and experiences that Web cannot give. On Mobile, users produce improvements or alternatives to real-life issues, whereas on the Web, they produce completely new ideas and thoughts. When users run DADL Mobile on their smartphones, GPS-based user positioning information is connected to the DADL Mobile. Then, the system will show where real buildings are located for them to advise on. Moreover, when users pass by buildings or locations they want to advise on, the system will notify them of the information so that they can immediately Advise on such buildings, new building/remodeling sites and overall urban environment.

DADL Mobile is valuable in that an architect may collect local residents’ opinions very easily and fast. For example, once the architect expresses his ideas that an empty site or a building seems suitable for certain facilities, people’s comments on the site based on GPS coordinates will be accumulated, which will in turn be important information in regard of commercial, architectural and urban development. Also, new building or remodeling projects by architects will cause some problems and encounter difficulties. Most of such problems result from lack of consideration over established buildings or local conditions. Mobile-based Advise may be a route for specific and detailed advice by local experts specialized in facilities, structures or electricity and for experiences and feelings of local long-time residents. Or, Mobile Advise may be a route for the handicapped or children to give little but important advice. Users can Advise on construction sites or new buildings as well. The information accumulated via Advise here will be used for and affect building maintenance and new structures to be built after demolition. In addition, free VR experiences of buildings are available regardless of Levels or VR Time on the web if users leave Advise on them. That an architectural structure has traces of users is equivalent to infusing vitality into the building, meaning architectural structures become wise with age as people do. Then, a wise direction for architectural development can be suggested and further communication between humans and architecture will be formed. Advise on every architecture maintained let alone new buildings or remodeled ones will make their own architectural history over time.

**FIRST STEP FOR CHANGE THE WORLD**

Humans can think infinitely. Human thinking occurs in anyone anytime and anywhere. Architecture is sure to develop further if people could share countless precious momentary ideas, which would otherwise go nowhere. What is the purpose of architecture? Perfect beauty? Aesthetics of structure? Functional completeness? Those are part of the answer. However, architecture should be suitable for users. That is why architecture is required to listen to what people say about good things before decisions are made. We hope the burden intrinsic to the term architecture could be lessened, so that Anyone will express and share ideas and thoughts Anytime and Anywhere. We have tried to derive communication between architecture and humans and to give fun factors for the sake of a true ‘architecture of all.’ It would be better off for people to share ideas and compete with one another without losing their own colors. Considering the true meaning of public opinions, which are empty and meaningless, DADL System will be the first step toward the ‘architecture for humans.’
We do not expect our tiny efforts will make everyone participate in architecture and change the world. However, we hope what we have done will be a chance to give a little harmony, moderation and balance to the chaotic disorder far from truths. It is not some great power but daily habits that lead a person to success. In the same vein, the power to change the world is not a huge one. If we are concerned about being oppressed by public opinions in current society rather than about truths being concealed before humans fall into passive and selfish beings, architecture should rely on opinions of not a few but all. This is the communication between architecture and humans and the infinite potential that today’s architecture should be oriented towards.

Do you live in a good house? Or, do you live in a house regarded as good?

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