

Forming and Perceiving Architectonic Taste through PIKANICO and Architaste

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ABSTRACT

This paper assumes that in an information-rich and time-poor society, mental shortcuts that discourage rational thought are important in shaping decisions among selections. The research focuses on understanding and forming the taste of people on architects' identities. The broader scope aims to establish an architectonic language of communication based on the links emerging among identity-taste dyads. The methodology consists of surveys, social networks analysis tools and PIKANICO game: they all gather, classify and eventually form this language's mental shortcuts. A possible application of this experimentation is an interface between the architect and the client, where the learning yields out of a left right arrow.

KEYWORDS: identity, taste, aesthetics, form, decision making

From Information Pollution to Recommender Systems

Information Overload: Raining Cats and Dogs

Bateson defines information as a difference that makes difference (Bateson, 2000, 459). However, today we are experiencing an overload of information that has led to information pollution (Nielsen, 2003). This overwhelming of information affects all aspects of our lives, from products to ideas, to necessities and desires; we are bombarded by confusing information bits. People are lost within the wrong information and cannot understand or find what they like.

From Info-Anxiety to Archi-Anxiety: Online Shopping Is Bad for Your Health

Information anxiety (Wurman, 1989, 334) affects the architectural image-based world as well; iconic pictures, star architectures, and signature buildings deluge the market and confuse the audience. Architecture's authors and audience (clients, users or citizens) suffer from these fads and trends in both the physical and virtual world (Wurman, 2001, 1). Everyday new architectural databases are popping up like mushrooms, filling screens with lots of good designs, ideas and social networks.

Architecture is piling up on our screens, and in our brains and time schedules; we are no longer sure whether it is indeed good architecture or where we can find architecture that we like.

Vision: Connoisseurs of Taste

In the post-era of ubiquitous computing and mass customization, people cannot afford making an effort; they need an environment fit to themselves. The new type of information consumer is both consumer and producer, a term that Wurman defines as prosumer (Wurman, 2001, 8). The kids of the Google generation are demanding and impatient. They want customized small boutiques, not massive crowded malls, where connoisseurs of taste can direct, influence or at least guarantee a successful satisfaction to their demand.

Filtering Forms

Who is the contemporary connoisseur of architecture that can match my taste with the right architect and projects? Can anyone predict what I like or guess my architectural taste? Is it possible to remove all redundant, irrelevant, useless information (imagery, architecture, architect) that will confuse me and consume my time? Can I look only what I like, even if this is subjective, subconscious or intuitive, or even not yet known to me?

Can we invent filters that will allow only the forms we like to arrive to us? Can these filters shape the taxonomies of form and styles based on our personalities? Can these filters eventually construct a recommender system that will inform us wisely? An automatic match-making mechanism based on algorithms and filters that can make the links for us?

An Architectonic Language Based on Mental Shortcuts

If there is a language for architecture that connects the building with its images and the images with words of people (Fig.1), then we can connect buildings with tags in a smart architectural image-based dictionary of form, a modular communication tool that can predict people's architectonic taste. PICA-NICO is an attempt at establishing just such a system.

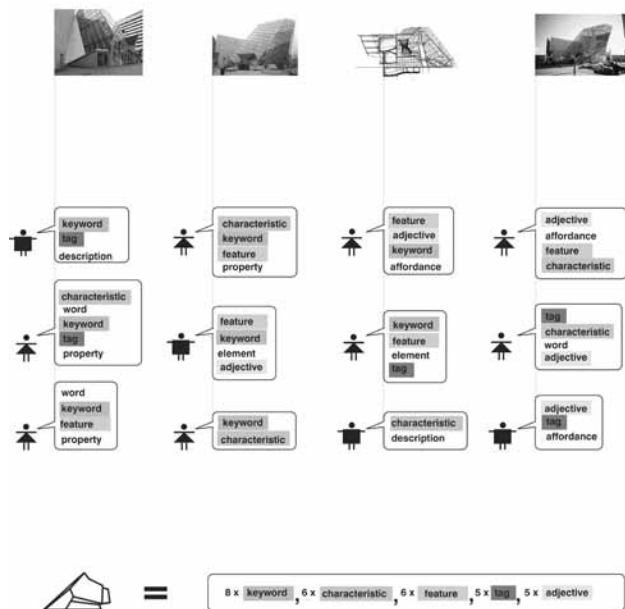


Figure 1. UFA cinema center by Coop Himmelb(l)au in Dresden, Germany

Building an Architectonic Recommender System

Being-liking Dyads

According to the conception of the relativity of aesthetic values, when we say that something is “beautiful” or more generally, aesthetically “valuable” we mean nothing other than that it “pleases someone” (Ingarden, 1989, 233). Ingarden connects the aesthetic values with the structure of the work

of art. He argues that in order to distinguish good music from bad music, we need to know the being, the self-identity of the work, what this musical work is about (Ingarden, 1989, 28). While defining this identity one has the difficult task of discovering the structure, the sediment that has remained after all mutations, modifications, and alterations caused by individuals, in the case of musical works by the performers (Ingarden, 1989, 114). In the case of a painting one has to distinguish the “picture” from the real thing. Similarly, with architecture the being of a building (or its DNA) may come in variations until it concretizes itself to its inner structure. These variations are generated, for example, by different photos or representations or by subjective individual understandings-readings.

The identity-taste dyad has its roots in mind-senses, being-liking or “maniera-gusto” dyads. Robert Klein argues that once the individuality of expression was requested, it was complemented by the appreciation of art work. The “style-taste” eventually unites itself with the so-called “productive taste” and has its roots in deeper philosophical meanings, like love, beauty, genius and others. In the Renaissance the senses were associated with the mind; therefore judgment was a combination of sensitivity and intellect (Klein, 1980, 163).

Background

A field in which judgment, preference, style, and other subjective assessments have been more clearly linked with the structure of the artwork itself, is music. The last years a few internet radio stations have begun an effort to define radio stations that would fit people's preferences and play similar types of music like Pandora Internet radio, Lust FM, and others. In order to sort preferences and define similarities among pieces, Pandora analyzes the songs based on their “DNA genes”. These genes eventually form the Music Genome Project.

This concept of customized radio stations has appeared in other areas of the Web, especially those linked with online dating and people-matching services. Similar algorithms are being used to create groups of similar “objects”. The success of these algorithms increase analogously with the number of people using the online platforms: the more active websites can provide more feedback, the better information available to help them to adjust.

Following these examples, I propose PICA-NICO and ARCHI-TASTE.

PICA-NICO

PICA-NICO is an interactive machine learning tool (Toloudi, 2008) that gradually “learns” user preferences by classifying their choices in a database of images of buildings. Each image/building in this database is described as a vector of attributes. The vector representation is essentially the brand DNA of the

building, since these attributes express the most important characteristics of the architectural work. PICANICO guesses the architectonic taste of the user by proposing similar images based on samples positively ranked by the user. Through this process PICANICO can offer statistical data regarding popularity, consistency and likeness/resemblance among projects, architects and attributes of the works. A possible application of PICANICO is to be used as an interface between the architect and the client, where PICANICO can learn about the taste of the client through feedback.

PICANICO is a recommender system that, through a filtration process, deals with information anxiety caused by information complexity, overload and pollution. It leans towards information underload and attention economy through a mental short-cut process by defining identity as a set of keywords assigned to an object by a subject. In PICANICO, identity is eventually what is engraved in people's minds. Such a definition allows subjectivity and multiple forms of identities to coexist and be valid. In this way PICANICO is a tool of customization that allows users to understand and form "images"/architectonic identities through their own perceptions and understandings.

ARCHITASTE

As the PICANICO interface is being formed, ARCHITASTE, a series of survey questionnaires, is set up to guide its engineering. ARCHITASTE investigates how architecture is perceived and chosen by people. They are both ongoing research methodologies to explore perceptions and constructions of the architectonic identity. On one hand ARCHITASTE tries to render the different understandings of architecture and on the other hand PICANICO is learning about users taste while advancing it with similar proposals. One can compare PICANICO and ARCHITASTE explorations with eye tests looking for the perfect prescription or aptitude tests searching for inclinations and biases. (The structure of ARCHITASTE questionnaires structure is confidential since the surveys are still ongoing).

Experimenting With Language

Many Languages

While developing his pattern language, Christopher Alexander argues that every person has its own pattern language. That is why the emphasis in the title of his book *A Pattern Language* is on the "A" (Alexander, 1977). He continues by saying that all great architects have had their own pattern languages. In these languages, experience has created rules of thumb that are used by them to make a building. Some keep them secret (Frank Lloyd Wright), some write books about them (Palladio); in any case they all use them to make their designs (Alexander, 1979, 203).

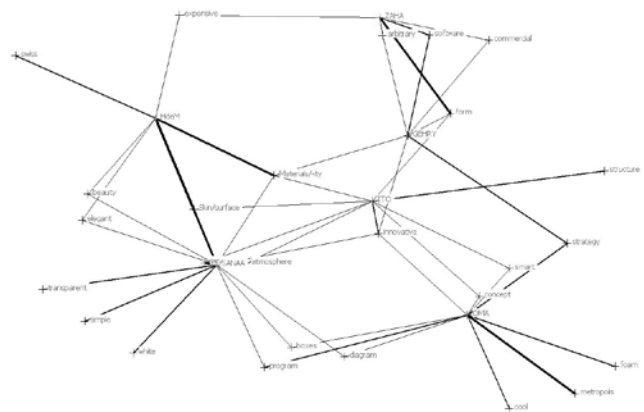


Figure 2. Architects and the characteristics of their works

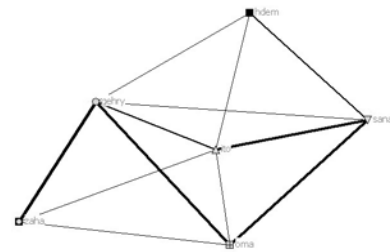


Figure 3. Relationships among architects

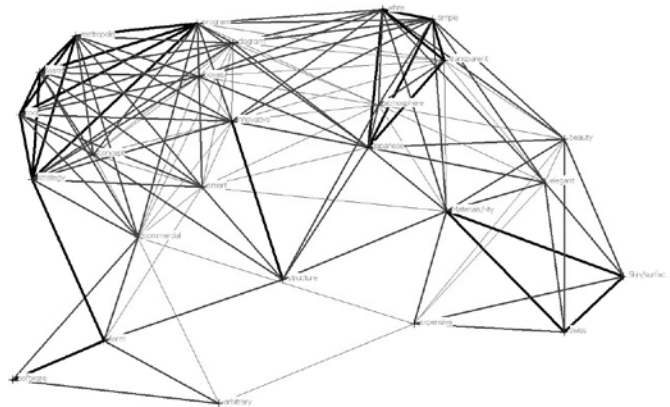


Figure 4. Characteristics that tend to cluster to each other

Signified-Signifier and Beyond

A critical part of this research is to reveal the most salient characteristics (similar to Alexander's rules of thumb or patterns mentioned above) of each architect/architectonic work/firm as these sowed and hoed among different segment groups. The role of the subject in defining the identity of the photos (or buildings or architectures) is assigning them their most important features.

There are multiple levels of signified-signifier concepts for the subjects. It is not obvious what is the signified or signifier. However, there is some hierarchy. On the top of pyramid is architecture with its notions, followed by the buildings, then the photos, and finally the words/tags. Architecture is eventu-

ally understood through the vocabulary deriving from photo-building descriptions.

Robert Klein also deals with the problem of representation. He refers to Panofsky's essay on iconology and he brings up the issue of the two meanings of figurative work. Primary and secondary meanings are different from each other. The primary meaning relates to conventional or learned experience (unrelated to the actual model represented) and the secondary meaning relates to the iconographical belonging to the things represented. Rigorously classifying the categories of meaning is not possible (Klein, 1980).

The Tag Initial Experiment

A group of Harvard Graduate School of Design March II students was asked to assign the first names that came to mind when they thought of architects and architectural firms (Toyo Ito, Zaha Hadid, OMA, Frank Gehry and HdeM). These individuals were considered as experts.

Some words with similar meaning were merged as synonyms to allow more links to appear among the responses. The results were visually presented in the following graphs generated by the UCINET social networks software. These graphs formulate the "brand DNA" of the architects, as understood by this specific group of people. They depict the similarities and differences among architectonic works, architects, and the characteristics of their work.

The Graphs

More specifically the graphs are of three types that render: 1) the relationships among architects and the characteristics of their work, 2) the relationships among architects that share common characteristics, and 3) clusters of characteristics that tend to link to each other based on frequency. For example one can see which are the keywords that characterize each architect the most, how strong the connections to these features are, which architects share the same words, and how these characteristics tend to cluster to each other.

Conclusions

Through the use of Picanico and ARCHITASTE tools, this research aims to generate the most salient features of architectural form and link them with preference, judgment and taste. Issues that emerge while developing this language are related to the taxonomy and classification of the characteristics, genotype to phenotype distinctions among traits, and also levels

of control over the audience's participation and interaction. Although participatory online platforms and social networks appear to be very democratic places, in reality many decisions are driven by the networked power practiced (Castells, 2009, 42) by the people that program or edit them. The next steps of this research are to play with this control/structure by conducting a number of experiments under different settings.

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