

Chapter 11

Effect of External Activate Factors Serving as Clue: Creating New Products or Services Ideas With Storytelling

Jun Nakamura

Chuo University, Japan

ABSTRACT

Why is there a demand for consultants and outside directors? That is because what they are asked for objective advice and the clue—this chapter describes them as external activate factors—is precious. This chapter focuses on how the external activate factor affects human creativity, especially the process of creating new products or services, and the author conducted an experiment to compare the effect of external activate factors at a lecture of graduate school. As a result, when the external activate factor is provided, the emergence of abduction and new rules was observed, and the effect of storytelling was confirmed. Further research is to find what kind of external activate factor is preferable.

INTRODUCTION

The describing of decisions made by a human being is often influenced by others (Asch, 1951). To drive innovation, IBM embedded a mechanism called FOAK, or First of A Kind (Frederich & Andrews, 2009), which is an innovative process to swiftly bridge technology to the market. In other words, it can be said to be a mechanism for developing the first service to be put in the market while exclusively collaborating with a specific external client for a specified period. The mechanism allows IBM to attain first-hand data from the client, and the client can also enjoy the upfront gains of the new service in the market. Furthermore, both IBM and clients can cooperate in terms of marketing strategies for a certain period of time. The author notes that IBM not only behaves individually as a leader in research but also employs the FOAK mechanism, which incorporates external input from the client in the innovation

DOI: 10.4018/978-1-7998-4864-6.ch011

process. From this viewpoint, the author has focused interest in the effect of external inputs on creative activities and innovation.

A creativity support system is crucial for innovation. Finke et al. (1992) suggests that such a support system is important so as to be able to rearrange components and rejoin existing shapes and concepts in order to explore new concepts, thus demonstrating that the Geneplore model could lead to the restructuring of discoveries (Finke et al., 1992). Also, the further the distance between two concepts is, the more effective would be the creativity in a concept that has been formed by the combining of concepts (Klahr & Dunbar, 1988; Wilkenfeld & Ward, 2001; Taura et al., 2005). Some studies found that creativity can be triggered by ambiguous ideas (Gaver et al., 2003) and accordingly examined external restricting conditions that motivate creativity (Bonnardel, 2000). An occupation of subjects in these articles was, however, nothing by design so that the topic of the effects of external input in the process of creating new ideas of products or services with storytelling would be ignored.

Given the above, the author sets the research question of this article as follows:

How external activate factors serving as a clue affect an individual's way of thinking when dealing with ill-defined creative ideas, including concept design with the storytelling?

The next section covers the concept creation model and the logic behind the analysis tool, followed by the analytical method. The outcome of the analysis is discussed, and the conclusion is presented next.

Concept Creation Model on the Basis of an External Activate Factor

The supplying of the idea to address the research question is referred to as the effect of combining different elements (Wilkenfeld & Ward, 2001; Costello & Keane, 2000). Considering previous works on creating novel ideas, the author's interest herein focuses on the power of analogy (Holyoak & Thagard, 1995). Teachers' use of analogy can provide students valuable words for better understanding of programming to students (Burstein, 1986). The function of programming know-how equates to the "base" in cognitive science since know-how determines what functions need to be realized and activated. The output of programming would be equal to the "target." This study gives some keywords as "base"; however, the "target" is unknown because it refers to the very stories that subjects create during experiments. Gick and Holyoak (1980) point out that the effect of analogical thought weakens except for obvious external activate factor. This paper expects that analogical thinking is brought about as a clue of storytelling, rather than a straightforward causal relation in which clue itself triggers analogical thinking. In forming such a novel idea, this author has focused on outlier items in statistics. Outlier items are the very factors that can trigger a value creation (Nakamura & Ohsawa, 2009).

See Figure 1 for the model, which is a series of simple flows. In the first stage, some items are already clustered based on the existing concept as default (left side in Figure 1). Later, the cluster is reconstructed, leaving no single item alone (right side in Figure 1). In most cases, the more items that are easily clustered together, the more "other groups" are left unclustered (in the middle of Figure 1). At this time, testees or subjects notice the simple rule of "no one left behind" and has no choice but reconsider the clusters that have been built halfway. They try to reconstruct items all over again. It is demanding for the testees of an experiment, yet, some new, more comprehensive stories are created after the completion of the whole process as a result of the expending of considerable effort and energy. Several attempts lead to better outcomes, after all.

Forcing concept reconstitution may not altogether remove the initial bias from one's mind (Cosejo et al., 2009). However, the hypothesis behind the concept creation model is that the experimental subjects

23 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/effect-of-external-activate-factors-serving-as-clue/261708

Related Content

Harnessing the Power of AI for Information Management and User Engagement in Next-Generation Libraries

Jaya K. Vijesh (2024). *Improving Library Systems with AI: Applications, Approaches, and Bibliometric Insights* (pp. 47-62).

www.irma-international.org/chapter/harnessing-the-power-of-ai-for-information-management-and-user-engagement-in-next-generation-libraries/347639

A Model for Monitoring and Enforcing Online Auction Ethics

Shouhong Wang and Diana Kao (2005). *International Journal of Intelligent Information Technologies* (pp. 56-72).

www.irma-international.org/article/model-monitoring-enforcing-online-auction/2389

The MobiFall Dataset: Fall Detection and Classification with a Smartphone

George Vavoulas, Matthew Padiaditis, Charikleia Chatzaki, Emmanouil G. Spanakis and Manolis Tsiknakis (2017). *Artificial Intelligence: Concepts, Methodologies, Tools, and Applications* (pp. 1218-1231).

www.irma-international.org/chapter/the-mobifall-dataset/173377

AI-Aided Data Analytics Tools and Applications for the Healthcare Sector

Alex Khang, Vugar Abdullayev, Abuzarova Vusala Alyar, Matlab Khalilov and Bagirli Murad (2023). *AI and IoT-Based Technologies for Precision Medicine* (pp. 295-313).

www.irma-international.org/chapter/ai-aided-data-analytics-tools-and-applications-for-the-healthcare-sector/332841

The Relationship Between Ontology and Modelling Concepts: Example Role Oriented Modelling

Mona von Rosing, Maxim Arzumanyan and John A. Zachman Sr. (2017). *International Journal of Conceptual Structures and Smart Applications* (pp. 25-47).

www.irma-international.org/article/the-relationship-between-ontology-and-modelling-concepts/188738