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A method for enhancing design concept creation by reconstructing others' ideas

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Abstract

In this thesis, I propose a novel technique for collaborative design-concept creation, named "BrainReskecthing." BrainReskecthing is an augmented method of "Brain Skecthing." In Brain Sketching, designers share all of their design ideas, and create new design ideas by refferring to other designers' ideas as stimulus of idea creation. It is confirmed that Brain Sketching can lead "wild leap" in idea generation. However, it is also reported that the others'ideas are not so frequently referred in the newly created ideas. I think this is because Brain Sketching cannot sufficiently make the designers step into other designers' viewpoints. If a designer cannot intuitively understand another designer's idea, he/she could quickly reject it. Thus, Brain Skecthing lacks mechanisms that let them deeply consider the others' ideas. Therefore, BrainResketching includes "reconstruction of other's ideas" process. The designers have to delete some elements from the others' concept designs and to add some new elements to them while preserving the basic concepts. In this reconstruction process, it is expected that the designers would deeply consider the others' viewpoints and notice overlooked and/or unknown aspects of design. I conducted user studies where I compare the differences of the ways of concept design creationbetween in Brain Sketching and in BrainResketching. The focul points are (1) whether subjects can step into others' viewpoints by the reconstruction process and (2) whether some new viewpoints and/or

ideas can be found as a result of (1). From the experimental results, we found three advantages of the reconstruction process. First, the designers can find some favorite ideas. Second, the designers can be aware of what they really want to express by comparing their viewpoints. Third, they can refine their concepts through the reconstruction process. Thus, I can conclude that BrainResketching is an effective method for collaborative concept creation.