• Paper / Proposal Title:
   CATEGORYIZATION IN SUPPORT OF A STRUCTURED IDEATION PROCESS

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• Abstract:
   In cognitive psychology, the process of categorization is the result of mental mechanisms working at the cognitive level which allow the human mind to interpret and classify sensory information and experiences into entities structured according to specific qualities. People use categorization for the purposes of efficiently grouping, retrieving and using knowledge. As such, categorization is an analytical decision-making tool which helps grouping concepts, experiences, and all kind of stimuli in categories at appropriate levels of abstraction. By studying and classifying existing products into categories, designers must examine their characteristics and bring to the fore their distinctive qualities and commonalities. Hence, it helps designers to document existing solutions or trends, study their distinctions attributes, and identify novel design opportunities.

   Such a classification can be enriched by including specific product information and visuals thus transforming the categorization tool into a structured index according to analytical and organizational principles. Once established, these categorizations can be helpful during the subsequent ideation process, especially when combined with other techniques such as forced morphology. Elaborate categorization systems can provide a synthetic overview of a myriad of existing solutions represented by prototypes, stimulate the creative process and support the emergence of innovation.
This paper demonstrates the potential of Rosch’s categorization as an analytical tool that supports design thinking and idea generation, which allows to organize and visualize information according to a structured semantic logic, to compare it and to identify missing or non-existent solutions. Examples provided in this research validate its innovation potential for a set design problem, for instance by merging functions or imagining unique and unexpected configurations.

• Author(s) Biography :
Tatjana Leblanc has graduate in industrial design from the Kunsthochschule Berlin-Weissensee (Germany) and The Ohio State University (USA) and pursued afterwards a professional career, working for several internationally renowned design firms in the USA and in France. After fifteen years of professional practice she developed an expertise in the fields of consumer electronics design, office furniture design, urban furniture design, user interface design, medical and industrial equipment design. As a designer, project manager and director, she contributed to the development of many innovative products design strategies for many of her clients. After an accomplished professional career, she joined the academic community where she works as a professor and Chair of the School of Design at the University of Montreal (Canada), teaching industrial design, semiotics, and research-driven design approaches. She founded the GRAD research lab, where she and her team work on government-funded research program for the urban environment and technology-driven design innovation. Several award-winning projects that she directed over the last years have been studying challenges of urban development and elaborating innovative alternatives for urban equipment, urban furniture and urban infrastructures. Many of them received prestigious recognitions, including four Red Dot International Design Awards, of which three were honored as the “Best of the Best”.

Maxime Leblanc is a Ph.D. student at McGill University’s School of Architecture. He holds a Bachelor’s and Master’s degree in Architecture from the University of Montreal and McGill University, respectively. His research examines the critical and creative possibilities for spatial design and mobility that emerge from the friction between built architecture and its digital overlays. Through this research, he is investigating the dependency of simulated environments on physical environments from a historical, theoretical, and technical perspective.