

Creativity and fixation in engineering design

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The development of new products requires creative work to be done by engineers, designers and technologists. Design processes, whether systematic or intuitive, are often claimed to unlock this creativity by discouraging premature commitment to a particular representation of the design problem or to possible solutions to that problem. Despite this, it is often stated that designers do, in fact, become 'set', 'blinkered' or 'blinded' when developing ideas. The term 'design fixation' is often used to refer to this broad set of phenomena, or is used more narrowly to refer to the way in which designers inadvertently carry over specific and unhelpful features from a previous example when they are designing something new. This talk introduces the concept of design fixation, summarises the experimental research that has been conducted and reports how that work relates to professional practice. Finally, fixation effects are not unique to design activities and there will be some discussion of how similar effects are relevant to other problem solving activities.