Prof. Kirti Trivedi  
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Professor at IIT, Bombay, involved in teaching courses in visual design, typography, and design traditions. Currently involved in product development based on emerging technology possibilities and development needs. Research projects include universal, language-independent learning and interactive group learning.

Born in 1948, Trivedi obtained a degree in Mechanical Engineering from the University of Indore (1970), and a postgraduate diploma in Industrial Design from the Indian Institute of Technology, Bombay (1972). Later he studied at the Royal College of Art, London for his Master of Design degree in Industrial Design, where he was awarded the Pye Design Award for the best student project.

In 1981, he worked in several design offices and design schools in Japan as a UNESCO Fellow, including the office of Kohei Sugiura, GK Industrial Design, and Corporate Design Centre, Sharp Corporation. He has been teaching courses in Product Design and Innovation Management, Graphic Design, Typography, Design Methods and Design History at IDC since 1976, and has been engaged in a project documenting the design traditions of India since 1981. In 1984, he initiated and started India’s first Master's degree program in Visual Communication at IDC.

Self-generated Data Patterns

Abstract:

Recurring events leave their mark on physical objects - creating visible data patterns which represent a processed summary of the event. The keyboard of a much used computer, the buttons in an elevator, the patterns left on the beach by recurring waves, the wearing out of the grass on a jogging track or a cricket pitch, the greening of the land mass after the monsoon rains: all have much to tell if observed and interpreted.

Such data patterns are self-evident, and they tell their story in a universally understood language. Study, observation and understanding of such self-generated, self-evident data patterns can be of great value to all involved in visual presentation of information. The main advantage of self-evident data patterns is that they don’t need labels and legends to explain them; and are language-independent. Being visual they show the whole data pattern at a glance. Being directly created by the event, they also have great density of detail, as contributed by the various parameters of the event.

Existing both as static marks, and as dynamic data taking shape and unfolding naturally in real time, self-generating data patterns are a direct result of the data creating event. They don’t go through the cycle of collecting verbal information about an event, classifying, processing and organizing it to show relevant data patterns, creating a visual representation of the data by assigning meanings to visual elements, and then labeling it in a chosen language of communication: reducing events to charts and diagrams, and parameters to circles, squares, triangles and visual icons. A processing which often results in distancing or increased complexity of interpretation.

It is proposed to elaborate in the presentation on the nature of self-generating data patterns through selected examples examined in detail, and also explain their relevance for information design and the activity of visual data-based decision making.