

chapter

4

*INNOVATION IMPULSE*

*BY MARIATULQABTIAH ABDUL RAZAK*

A perfect blend of design and innovation could serve as catalysts for future change. Designers offer knowledge and competencies to enable innovators envisage new ideas, with the ultimate aim of finding better and long-lasting solutions, by pushing boundaries and changing the norm. Inordinate power of good design will lead to invention of products or services with greater value and encouraging demand. Such action can be fostered via exploration of natural-driven subjects for example, our own multifaceted brain. This biomimicry strategy has been developed since the 1950s, with the more recent advancement on brain-inspired or “neuromorphic” chips that process visual, auditory and other sensory information. Such chips can allow robots to be smarter and even accelerate data processing of conventional Artificial Neural Network (ANN), a computational model to imitate the input and output process of the standard brain function. ANN has its own decision boundary capabilities which are able to adapt to different types of nonlinear data, dependent and independent variables. This ANN model demonstrates the intelligence a human possesses via the connectivity of numerous biological neurones.

Our brain has a split side with divided functions. Right brain receives instruction given and performs task by initiating body movements while left brain justifies the reasoning of the action taken. The information transfer to the left side happens unconsciously and simultaneously. A mobile digital application called ArtCodes is created by scientists and artists to rationalise conscious intellectual interpretations on the decision-making from the unconscious behaviour.

Both conscious and unconscious behaviours may also be influenced by natural environments. Children’s brain would see green areas with fear but fun to play while teenagers would see it as adventurous. Although positive impact of natural surroundings to the recovery of patients in hospitals has been observed, studies on how our brains and bodies react to virtual stimulation of green sceneries through virtual-reality gear, video or static images are yet to be fully established. Precision discovery will allow patients to expedite recovery at the comfort of their beds.

The conscious cognitive ability is related to the physical condition of our brain. A study on rat’s brain condition has shown that rats supplemented with Omega-3 fatty acid emulate best cognitive ability when compared to rats with brain degenerative diseases as well as the control group.

The connections between how we perceive things and how it actually works in our brain are unrevealed in mind-catching ways, via verbiage itself and in visual illustrations. Derived from the study of arts and theories of rhetoric, a series of words as horizontal sequences creates a paradox and delusions between the eyes, the brain, and the consciousness of perception versus reality.

As the saying goes “art begins with imitation and ends with innovation”, NYAWA’16 may act as an impulse to convergent theorists, who may exercise their mind to potentially reach explicit conclusions of daily dilemmas.