Nitte Management Review, *Vol 11(1), DOI: 10.18311/nmr/2017/v11i1/21537, 49–51, July 2017*

ISSN (Print) : 2231-6043
ISSN (Online) : 2395-1907

Book Review

The Fuzzy and the Techie. Why the Liberal Arts Will Rule the Digital World

H. Nidhish*

Justice K. S. Hegde Institute of Management, Nitte, India; nidish@nitte.edu.in

Author: Scott Hartley
Publisher: Houghton Mifflin Harcourt
Year: 2017

In the fast-evolving economy, technology is at the forefront and leading major changes. Development of artificial intelligence, machine learning, robotics, automation etc. should help humanity. If we want these new technologies to emerge in the right direction we need to ask the question as to who creates and develops new technologies? The default answer is 'the techie'.

Who is a techie? Techie is a person who acquires knowledge in STEM (Science, Technology, Engineering, and Mathematics) and uses it to create new technology. Common wisdom says that development of technology is due to the ability of techies to think and create products and services through their learned vocational skills. Consequently there is an increase in the number of people who are enrolling to learn STEM skills and neglecting other subjects that fall under the realm of humanity, psychology, social science etc. The thinking is that it is the techies who are the champions of technology disruption. 'The Fuzzy and the Techie: Why the Liberal Arts Will Rule the World' book argues otherwise. It avers that digital disruption is not in the hands of the techie but it is in hands of the fuzzy with their creativity, critical thinking, logical argumentation, and complex problem-solving skills.

'The Fuzzy and the Techie: Why the Liberal Arts Will Rule the World' is written by Scott Hartley with numerous narratives on the integration of the techie and the fuzzy cogenerating innovations across the globe. With a liberal arts background and technical experience, having worked with technological giants like Google, Facebook and Harvard's Berkman Centre for Internet and Society, currently serving as VC and start-up advisor, Hartley stands at a vantage point to tell "innovation" stories from a close angle.

Hartley argues that the it is STEM (Science, Technology, Engineering, and Mathematics) that really interests most students. But there is a requirement for the fuzzy who study in the liberal arts area. He describes fuzzy as those who study humanity, soft skills, philosophy and social science etc. while techies as people who study the STEM or pure science as their major. The relative value of each college degree is linked to the direct appeal of applying the vocational skill on the appropriate tasks.

Hartley says majoring in computer science is not a requirement to join the second machine age. Rather it would be those skills that liberals arts people possess. He also argues that society and education system has failed to appreciate the role of liberal arts education which teaches many skills that are not only valuable

to the general business but are in fact vital to innovations in the next wave of breakthrough technological products and services. The author entreats society's institutions such as the university not to treat the fuzzy and the techie differentially but to create a coherent environment for the two to work in mutuality.

The central theme of the book is to create awareness of liberal arts education and promote it as a part of mainstream of education for people who select STEM as their major. The present higher education system has created tech centricity which created an atmosphere to shrink in enrolling for fuzzy education. The author gives numerous examples of how fuzzies are getting recognized and the relevance of the fuzzies in technology changes and overall, in business organizations.

Hartley has eight chapters which examine things from diverse viewpoints. These eight chapters route us through aspects such as how human factors are added to big data; democratisation of technological tools, how to reach technology to all without any bias etc. He advocates development of algorithms which serve human rather than rule us, ethical issues in the use of technology and enhancement of learning ability through technology. He suggests ways to build a better world through liberal art education and describes the future life for liberal arts experts in terms of careers and jobs. The domains he describes range from Healthcare, Military Technology, Transportation, Solar Energy, Public School pedagogy, Fashion E-commerce etc. He convincingly demonstrates the relation between techie-led behind-the-scenes research and development and the real-world implementations being put in place by fuzzies. Technologies may have the potential to impact big time, but the author asserts the need for technology innovation is to invent products and services with more human qualities and greater sensitivity to human needs and desires.

Hartley argues that technology cannot be considered as an absolute means of human advancement. It is the fusion between technology with liberal arts and humanities that yield the results which address the true needs of the society. By leveraging technology with liberal arts and humanities, there is greater scope for new opportunity identification, innovation of socially relevant products, and application of technology to address immediate global challenges. The author questions those who advocate less funding for liberal education.

He also argues that one should not treat machine and human as identical subjects. They need separate focus. Through liberal arts education, one understands the human aspect of life, soft skills, human behavior etc. Liberal arts teach us the nuances of life, skills, and various inquiring methods etc. which is very essential for an individual to develop and lead a fuller life. The way currently STEM education is viewed by society, it would seem, puts the major focus on use of scientific methods which provide less room for intellectual passions or simple curiosity. With focused approach in the STEM education, it dissociates a person from life itself and makes him or her a slave of technology. Liberal art's main aim is to allow a person to pursue his or her passion, and also enable the individual to discover new passions. The present world needs innovative approaches, creative thinking and logical reasoning to solve global problems, and not become technology slaves.

Hartley is of the view that while we need a good number of tools to collate the data and store them we also need better human interventions to analyze the data to meet the realistic human requirements in a purposeful way. To use data and information for human progress the author says "we must put social science and humanities on equal footing with math and computer science" (p:56). Hartley also says that technology tools should be democratized and be accessible to every individual. Creating open access will generate more lasting solutions. The author gives the example of SPIRE, a startup which provides space to send the

mini-satellites to space which is very cost effective. This company has democratized the technology and is helping others to use their platform to send the satellites to space.

Harley lays a foundation for generation of algorithms and their effective uses and shows how there is possibility for combining the best of both large-scale machine learning and expert human judgment. The author further takes the position that ethical aspect of technology can only be enhanced when the fuzzy interface is involved. Technological driven products should be meaningful, beneficial and more life-enhancing rather than creating disarray to humans. According to the author product design is a process of storytelling which translates the concept from "analogy state" to the "digital universe".

The author points out some of the best commercial and educational institutions are hiring anthropologists, sociologist, psychologist etc. to develop new and innovative technologies which are new, simple to use and more meaningful that solve complex human problems. A recent survey conducted at Google, found that 78% of the people who got promotions in the previous years were not due to their technical knowledge rather than the soft skills, leadership, empathy, self-confidence with fuzzy education qualification. The new trend is the evidence that the recognition for the fuzzy is increasing in all types of institutions.

To conclude, the author points out that the fuzzie-techie differentiation should not be considered as oppositional. Instead, they should be considered as concurrently important. Hartley's view of the world is consistently post-political: powerful technologies can fix the world's biggest problems if only well-meaning people design the right kind of algorithms. He says as the new tools allow greater access to the power of technology there should be greater engagement of humanity. Hartley believes that the fuzzies, not the techies, are the key talent responsible for creating the most successful new business ideas wherein they could develop the ethics of artificial intelligence, question bias in algorithms and bring contextual relevance to the code that are generated.

Hartley's timely book is relevant for the present that are full of cyber opportunities and threats. Those who are heralding the bold new world of IoT, Big Data need to go beyond technical virtuosity and be driven by the finest human passions.

1. Reference

1. Scott H. The Fuzzy and the Techie. Why the Liberal Arts Will Rule the Digital World. New York: Houghton Mifflin Harcourt Publishing Company; 2017.