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**Vital Role of Training and Education in Big Data Applications**

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In the 2010's Big Data's incursion into society has been pervasive and daunting and revolutionary. Its rapid ascent has been accompanied by other disruptive movements, such as University overhaul of degrees based on credits, Medical transformation and artificial intelligence with profound implications for our students. Today with few exceptions in the US, universities and colleges around the world are ill-prepared to meet the rising demands of students outside computer science, who are eager to get part of the profitable returns from some education and training of Big Data. We will argue here the dire need for establishing special training courses at different levels for Big Data education in order to train a new generation of Big Data users. We propose courses in application areas, such as bioinformatics, geosciences, economics humanities, mass media and linguistics. These training courses will go hand in hand with software-hardware wired data-analytic machines, which will be acquired by Big Data institutes in municipal, and state and federal agencies, educational and research institutes or industrial and medical facilities around the world. Our foci are now primarily in China and USA.