Developing Creativity as a Scientific Literacy among IT Engineers towards Sustainability

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Abstract : The growing issues of sustainability have increased the discussions on how to foster "green engineers" from diverse perspectives in both contexts of education and organizations. As creativity has been considered as the first stage of innovation process that can also be regarded as a path to sustainability, this paper will particularly propose creativity as a scientific literacy meaning a collection of awareness, ability, and skills about sustainability. From this sense, creativity should be an element in IT engineering education and organizational learning programmes, since IT engineers are one group of key actors in designing, researching and developing social media products that are most important channels of improving public awareness of sustainability. This further leads this paper to discuss by which pedagogical strategies and by which training methods in organizations, creativity and sustainability can be integrated into IT engineering education and IT enterprise innovation process in order to meeting the needs of 'creative engineers' in the society changes towards sustainability. Accordingly, this paper contributes to future work on the links between creativity, innovation, sustainability, and IT engineering development both theoretically and practically.

Keywords: creativity, innovation, IT engineers, sustainability

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