

Bridging the Digital Divide: Exploring the Role of Residential Collegiate Learning in the AI Era

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Abstract

The rapid advancement of technology, particularly with the proliferation of Artificial Intelligence (AI) and various software products flooding the markets, has significantly impacted the educational landscape. In this dynamic environment, both educators and students, traditionally uphold the value of interpersonal relationships, communication, team spirit, and other soft skills, are now facing challenges with respect as to how and what to proceed to overcome the digital divide, thus enabling the valued soft skills to be definitively learned. The prevailing belief centers around the importance of people being sociable, participating in groups that engage in activities such as work, travel, play, chat, and dine together in physical presence.

Amidst the prevalence of virtual and meta-worlds, which often introduce inaccuracies, misguided images, and fake information, there is a pressing need to preserve the authentic ways of human interaction. As an individual committed to facing these challenges, I aim to reintroduce the concept of living and learning in the Residential Colleges (RCs), which I played a pivotal role in establishing at the University of Macau between 2012 and 2017.

During my tenure as the inaugural Vice Rector for Student Affairs, I spearheaded the creation of an office encompassing the Student Affairs Office, Office for Sports Affairs, the Alumni and Development Office, and, most notably, ten Residential Colleges along with a comprehensive RC system. My responsibilities included assembling the right team to conceive, design, implement, and operate the RCs, resulting in the successful establishment of 10 RCs within a span of three years.

The evolution of technology, especially since the early 2000s, has witnessed faster computers, algorithmic advancements, and increased access to vast amounts of data, leading to significant progress in machine learning, perception, and data-intensive deep learning methods. The proliferation of affordable neural networks, coupled with the surge in cloud computing infrastructure and improved research tools and datasets, has catapulted AI research into becoming a focal point for future Metaverse development.

As we navigate through this transformative era marked by AI, big data analytics, ChatGPT, and other visual, audio, and animation software, the educational landscape faces an unprecedented challenge. Soft skills, in particular, are becoming more elusive in a climate of rapid technological change. This article aims to address the following key points:

1. The development of the 20th century has shaped the skill requirements of the 21st century.
2. The purpose of education/learning is not only to cultivate professional hard skills but also to foster versatile soft skills.
3. The convergence of semiconductors, hardware, algorithms, software, wireless technology, and carrier media has given rise to smart machines, influencing the realms of AI and the Metaverse. ICT, VR, AR, AI, and other digital transformations are enhancing the landscape of teaching and learning.
4. Envisioning a future life and socio-cultural model where virtual and reality seamlessly coexist.
5. The abundance of unknowns is inevitably reshaping the definition, content, and teaching methods of general and community education.