

Editorial

This issue of the Global Journal of Engineering Education (GJEE), Vol.18, No.2, comes out at a critical time for academia. The Covid-19 pandemic has shaken up the educational system, which needs to revert to its core mission, to stay relevant. There will be no more, at least for the time being, millions of prospective and continuing students flocking to a few, selective countries for education, and the business of education by dubious educational institutions offering questionable degrees is over.

Over the latest months, we have heard many complaints concerning on-line education, where many unprepared lecturers have been caught up with the need to provide education in this mode, while they had their lectures defined and developed 20 or more years ago with lecture notes on paper. It looks that most of them are surviving, and undoubtedly many colleagues have acquired new skills, but others struggle providing education in the technological *terra incognita* to the detriment of their students. Looking at this through a sceptical, some may say cynical, lens, several large and well-financed institutions could be more than happy with this situation. They will exploit this opportunity to dismiss some academic staff and hire casuals to run their on-line education business, as ultimately it is less expensive. This will create a golden opportunity to establish more top management positions, and more bureaucracy in academia, with hefty salaries and perks at the expense of the taxpayers, as well as their junior academic colleagues employed on a casual basis, who can be hired and fired at will. But what is going to happen to the fundamental responsibility of academic institutions to educate and prepare future members of the community? Without real, as opposed to virtual, contact between teachers, tutors and students, including group-work covering all levels of professional expertise and academic authority asserted in the teaching, there is very little chance that an exclusively virtual approach to education will be successful. The responsibility of academia is not only the transmission of knowledge and information, but equally important is bringing forth future professionals, academics and leaders, well prepared for the changing needs of society.

Another aspect of higher education that has been highlighted through the pandemic is the relevance of provided education. So far, the only important drive has been to create large, and ever larger, institutions by admitting more students to *Mickey-Mouse* undergraduate programmes, with little concern about graduates' employability. This cynical institutional behaviour is justified by the idea that every person needs a university or college degree! This policy has contributed significantly to the destruction of technical and trade education in several places. The outcome of this destruction created, to put it metaphorically, a society with too many officers and too few soldiers. In more concrete terms, and as an example, it is hard to find a good tradesman to fix a leaking tap, but there are many unemployable *managers* with degrees.

The aging society adds a new dimension to this picture. Thanks to excellent achievements in medical and allied sciences our lives have been extended by many years. At the same time, the services for the elderly are not well designed and delivered, and, in some cases, these services are in disarray leading to an undignified and distressing existence for the elderly. The Covid-19 pandemic has exposed and magnified this problem further. The response from academia to the aging population has been less than satisfactory, because care for the elderly, such as geriatric nursing, is not a prestigious speciality, and there are no Nobel Prizes for achievement in this academic area.

It is my feeling that as publishers of research publications and higher education influencers we must revisit, and perhaps even reformulate, our role. I would certainly welcome useful discussion on this matter at our forthcoming conferences, once the coronavirus relaxes its grip. At times, I feel too old to revolutionise the system, but I am still young enough to give it a go along with others!

In the meantime, I am delighted to inform our readers that this issue of the GJEE, Vol.22, No.2, consists of nine research and development articles that have come from such countries as Botswana, Columbia, Poland, Russia, Spain, the United Arab Emirates and the United States of America.

Finally, I wish to express my sincere gratitude to the authors of these articles for their willingness to share their achievements with other international colleagues. My heartfelt thanks go to the international referees who read and reviewed the articles, and the members of the WIETE editorial team that consist of colleagues, such as Dr Dianne Q. Nguyen, Mrs Dorota I. Pudlowski, Mrs Krystyna Wareing, Mr Nial Wareing and Professor Robert Špaček for their invaluable assistance in the preparation of this issue.