


## Chapter 12

# Educating for “Buoyancy”: Professional Skills for a New Generation of Digital Natives

**Francisco José B. S. Leandro**

 <https://orcid.org/0000-0002-1443-5828>  
City University of Macau, China

### ABSTRACT

*The future of education matters to all of us. This chapter presents a theoretical-inductive construction of the future of education, inspired by the advancements envisaged in the Fourth Industrial Revolution (also abbreviated to Industry 4.0 or IR4.0). Recent developments in the technological field make it imperative that university syllabi foster and grow technological and non-cognitive soft skills in tandem. The latter—socio-emotional skills—are considered crucial skills that endow “buoyancy” and resilience to the workforce. Empathy, cultural sensitivity, and tolerance are the key professional skills that should be nurtured among the upcoming generation of digital natives. The chapter builds on a previous publication and aims at advancing concrete proposals for the future of university education.*

### INTRODUCTION

*Even with his four legs, the animal slips;  
Even with all his knowledge, the scholar makes mistakes.*  
Lao Proverb

DOI: 10.4018/978-1-7998-4861-5.ch012

Educating for the future is as relevant as it is challenging, simply because we cannot afford to pay the price of failing to anticipate the upcoming reality. In planning for the future of education, we have to accept that we may be wrong in our choices and decisions because the future is unpredictable. This research begins with a fact: the 19th-century educational model of rote learning and “remembering facts”, which to a certain extent is still in practice, will be easily replaced by ordinary robots in future. All current educational models are based on emulations of past experiences adapted to sectorial perceptions of reality. Nowadays, robots are able to backflip<sup>1</sup> and to reproduce large quantities of recorded data that most humans cannot. Thinking about the future of education is a vital concern of all responsible educators, academics, entrepreneurs and policy-makers. In the discussion of the future of education, we must answer the following question clearly: what are we all looking for? To put it simply, we are anticipating a higher value of human skills in a world of speed, inequality, uncertainty and technology. Consequently, I argue in favour of a concept of education designed to prepare citizens to face the current Fourth Industrial Revolution (IR4.0) and the upcoming IR5.0. This paper presents a methodological theoretical-inductive and constructivist perspective, combining qualitative, participant observation and further developing previous insights on education published in 2018.

## **Analysis**

*“Universities will remain vital places for the development of global citizens; a university thinks internationally, is based in the local economy, but works for the purpose of national and regional development.” Dawn Freshwater, Vice-Chancellor, University of Western Australia*

In 2009, I was invited to attend an international intensive, two-week-long course in Germany. The course dealt with advancements in technology, and it was delivered by a multidisciplinary team of instructors with different academic and professional backgrounds. The core subject comprised several themes (role-plays), from which participants were free to choose one. Each role play had a theoretical background, further readings, and a fictional and contingency scenario. Participants were challenged to come up with solutions and roles. They were free to research and interact with each other and with members of the local society, inside and outside the teaching venue, before presenting their case. This was one of the best learning experiences in my life. Indeed, real-life experiences do not come neatly packed in boxes, and such experiences are part of an ever-changing endless reality. After this course, it became clear in my mind that education is a transformational instrument, one that is interdisciplinary and capable of developing a set of balanced skills in tandem.

13 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: [www.igi-global.com/chapter/educating-for-buoyancy/260667](http://www.igi-global.com/chapter/educating-for-buoyancy/260667)

## Related Content

---

### Agent Banking and Financial Inclusion: The Case of Bangladesh

Nabila Nisha, Kashfiya Nawrin and Anika Bushra (2020). *International Journal of Asian Business and Information Management* (pp. 127-141).

[www.irma-international.org/article/agent-banking-and-financial-inclusion/241931](http://www.irma-international.org/article/agent-banking-and-financial-inclusion/241931)

### National Innovation System Dynamics in East Central Europe, the Baltic Countries, and Russia

Teemu Makkonen (2014). *Geo-Regional Competitiveness in Central and Eastern Europe, the Baltic Countries, and Russia* (pp. 32-56).

[www.irma-international.org/chapter/national-innovation-system-dynamics-in-east-central-europe-the-baltic-countries-and-russia/109141](http://www.irma-international.org/chapter/national-innovation-system-dynamics-in-east-central-europe-the-baltic-countries-and-russia/109141)

### Designing Digital Marketplaces for Competitive Advantage

Dinesh Rathi and Lisa M. Given (2011). *Global Business: Concepts, Methodologies, Tools and Applications* (pp. 468-486).

[www.irma-international.org/chapter/designing-digital-marketplaces-competitive-advantage/54784](http://www.irma-international.org/chapter/designing-digital-marketplaces-competitive-advantage/54784)

### Halal-Tayyiban and Sustainable Development Goals: A SWOT Analysis

Pg Siti Rozaidah Pg Hj Idris, Siti Fatimahwati Pehin Dato Musa and Wardah Hakimah Hj Sumardi (2022). *International Journal of Asian Business and Information Management* (pp. 1-16).

[www.irma-international.org/article/halal-tayyiban-and-sustainable-development-goals/281265](http://www.irma-international.org/article/halal-tayyiban-and-sustainable-development-goals/281265)

### Intellectual Capital in Knowledge-Intensive Firms: Exploring the Concept and Main Components in Boston's Route 128

Pedro López Sáez, José Emilio Navas López and Gregorio Martín de Castro (2009). *Knowledge Ecology in Global Business: Managing Intellectual Capital* (pp. 224-235).

[www.irma-international.org/chapter/intellectual-capital-knowledge-intensive-firms/24924](http://www.irma-international.org/chapter/intellectual-capital-knowledge-intensive-firms/24924)