



Education Towards Society 5.0: Humanizing Digitalized Learning Through Multicultural Literature and Emphatic Technology

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Abstract. This article was inspired by the research we conducted towards English and Non-English Department students in Indonesia and Taiwan regarding the role of multicultural literature in cultivating empathy and Cultural Competence (CQ) to successfully navigate diversity in today's network society. The goal of this article is to reflect and elaborate the role of Multicultural Literature (ML) in today's smart cyber physical system and super smart human-centered society. Textual analysis of two poems on diversity were done and questionnaires related to the poems were also distributed to both Indonesian and Taiwanese students to be analyzed. The result of the research shows that 96.66% of Indonesian students approve that ML helps them develop their CQ, while 86.66% of Taiwanese students are certain of the same, meaning that multicultural literature has its potential in cultivating empathy and cultural competence among students that will make digital learning more humanized and still give the students agency to utilize the advanced yet emphatic technology for their benefit in their future profession.

Keywords: cultural competence · humanized learning · Indonesia · multicultural literature · society 5.0 · Taiwan

1 Introduction

The advancement of technology in assisting human life has been proven in the existence of Industry 4.0 revolution with its hyper-connected smart factories, with its positive and negative impacts. Industry 4.0 is needed to “dramatically increase the overall level of industrialisation, informatisation and manufacturing digitisation to achieve greater efficiency, competency, and competitiveness” [1]. For a developing country such as Indonesia, understanding and appropriating itself to the revolution is a must. Primi and Toselli [2] (2020) have emphasized that “Understanding the potential of Industry 4.0 is an imperative for developing countries” (p. 2) as to reduce the yawning gaps of wealth distribution, to catch up with the advancement, to have better policies, and to be well prepared to enter the global competition. To enter and be accepted in the global competitive market students need to equip themselves with cultural competence, one among many other competencies.

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Japan has reacted to digital transformation of Industry 4.0 by promoting its Society 5.0, “a new human-centered society” with “the key guiding principle is to realize peace and prosperity for all people and the planet, by responding to the challenges with an inclusiveness that leaves no one behind... The goal of Society 5.0 is to realize a society where people enjoy life to the fullest. Economic growth and technological development exist for that purpose, and not for the prosperity of a select few.” (Fukuyama, 2018: 47, 50) [3]. We can see that digital transformation and its super smart society must be fair and may not marginalize others both inside and outside Japan. This is a very challenging responsibility in the face of global capitalism and domination. Yet, idealism is traced in the Society 5.0 concept where human beings are placed first before the technology, giving space for humans to still gain their agency and to remain humanized.

This article is developed out of our inspirations on education world that we have got from the research on the role multicultural literature in navigating diversity towards English and Non-English Department students in Indonesia and Taiwan. This study employed a mixed method using textual poems and questionnaire to get the data. The respondents are from English Department and Non-English Department students. 115 students are involved in the study. There are 63 English Department and 20 Non-English Department students from Bina Nusantara University, Jakarta, Indonesia and 15 English Department students of Aletheia University, New Taipei, Taiwan and 17 Non-English Department students of Oriental Institute of Technology, Taiwan. They are given questionnaire on their opinions about the role of multicultural literature and cultural competence to prepare their future profession and life. Two poems are included to trace their empathy, attitudes toward diversity, and multiculturalism. The first poem is *Aku Melihat Indonesia* (“I See Indonesia”) by Soekarno, Indonesian 1st President and the second poem is from a Taiwanese poet Chen Li entitled “Song of the Island”. We use literature to elaborate the topic because literature has inspired technology since the beginning for technology, just as literature, begins with imagination. Long time ago, in 1977, before computer operating system, internet, and today’s advanced and super smart computer technology was invented, a science fiction writer and a biochemistry professor Isaac Asimov, for instance, wrote a short story entitled *True Love* about Milton, a computer programmer, and Joe, Milton’s powerful computer that helps him in Milton’s search for a perfect date using the data of all women in the world, just to finally find that Joe has manipulated and developed the personality of Milton for its own benefit to have the matched girl for its own, and arranges to have Milton arrested for malfeasance. This is an irony of how human is overpowered by technology.

2 Society 5.0 and Cultural Competence

2.1 Technology, Isolation, Empathy, and Engagement

Society 5.0 is a society that attempts to balance between digital competence and cultural competence by positioning human first and technology second. The concern of dramatic changes in technology development in our day-to-day life has triggered the promotion of Society 5.0 to cope with the agency of human beings over their own technological creation. Intensive uses of technology in education and every day needs have unavoidably isolated learners and teachers from social interactions and have sadly alienated them

from caring and emphatic learning communication, of which actually constitutes the essence of human existence as social beings. Quoting Charlie Chaplin's true statement, "we, humans, are meant to live by each other's happiness and not by each other's misery," Saxena (2017) [4] and Chugh and Gupta (2020) [5] have elaborated how technology in this super modern society has ironically alienated humans with humans, where WhatsApp, Facebook, Instagram, and other social media have distanced people contrary to their claim to bring people together, because these media have presented people just as they wish (through editing, deleting, retouching, etc.) not the real and genuine individuals. The idea that humans must have control and increased happiness as the impacts of technology advancement—not the other way around—is a serious matter, especially in education. We believe that human relation with technology and other human fellows must be balanced and may not fade or erase humanity. We know that technology use in education, especially during this Covid-19 pandemic time, has to some extent alienated learners and teachers into their private encounters with learning experiences where human social interaction has been put into the minimum or zero. Therefore, an effort to balance the technology advancement and humanized usage of it is significant to have a sustainable growth of both technology and humanity. This is not an easy task because good and advanced learning technology may not always bring good learning outcome, as highlighted by Kabiljo (2019) [6] that "In the case of *The Enemy*—a work aiming to educate and evoke empathy among participants—relating heavily on the emerging technologies results at times in lesser learning outcomes" (p. 318). This also means that empathy is not easily evoked through digital learning.

We are certain that empathy is the core of humanized digital learning that can be cultivated through studying multicultural literature in the context of English Department. It is important to note that English Department graduates in Indonesian and Taiwanese context have their agile and open-ended characteristic where they can enter so many fields and professions. Thus, in today's era of multidisciplinary, they need to equip themselves with the ability to navigate diversity by having cultural competence to successfully adapt themselves to various fields, people and opportunities. Further, we also believe that empathy cultivated through studying multicultural literature can help educators and learners to have more genuine engagements, where educative learners-teachers communications still involve real conversation, not merely robotic humanoid talking.

Ang (2011) [7] has stressed this point, "That the world is terribly complex is now a vital part of global cultural experience, a structure of feeling which has grown more pervasive in the twenty-first century... For better or worse, we cannot escape the escalating complexity of the contemporary world... organizations which manage to capitalize in complexity with their capacity of creativity are the most successful ones" (pp. 788- 789). Here, we can be convinced that Cultural Competence (CQ, or sometimes closely associated with multicultural intelligence, or pluricultural competence, see Piccardo, North, and Goodier, 2019) [8] is a must-have competence to navigate the complexity of today's world. Simply defined, CQ is "the process by which individuals and systems respond respectfully and effectively to people of all cultures, languages, classes, races, ethnic backgrounds, religions, spiritual traditions, immigration status, and other diversity factors in a manner that recognizes, affirms, and values the worth of individuals, families, and communities and protects and preserves the dignity of each" (Gallegos, Tindall, &

Gallegos, 2008: 54) [9]. Some advantages of CQ as Ortega (2018) [10] has summarized based on Beacco et al. (2010), putting forward “some of the benefits of the acquisition of this competence: This pluricultural competence, acquired from analyzing this experience, helps individuals to understand cultural difference better, establishes cognitive and affective links between past and future experiences of that difference, mediates between members of two (or more) social groups and their cultures, and questions the assumptions of their own cultural group and milieu” (p. 20).

2.2 Diversity, Technology and Multicultural Literature

Our research was based on the concern about how to navigate the undeniable diversity both in Indonesian and Taiwanese context for positive results among English Department students. We specially chose poetry as a medium to trace empathy and potential cultural competence gained through the teaching and learning of multicultural literature in coping with challenges due to advancements in technology. Multicultural Literature (ML) is “a body of literature that spans all literary genres but generally focuses on primary characters who are members of underrepresented groups whose racial, ethnic, religious, sexual orientation, or culture historically has been marginalized or misrepresented by the dominant culture” (Lawson, 2013: 3) [11]. Literature enables students to “empathize with children from underrepresented cultures” (Colby & Lyon, 2004: 2) [12] and “good literature is good literature, regardless of the ethnicity of the characters” (p. 4). Multicultural literature also has the capability to empower learners to be social agents that may potentially promote social change (Hseu & Hetzel, 2000:4) [13]. Goh (2012) [14] has listed possible multicultural understandings across the curriculum, and for language and literary understandings (English language, literature, and arts), he listed “Stories—which are shared across time, space, and culture—give meaning to our lives by providing diverse perspectives” (p. 407). The same principle also applies to poetry, songs, and other modern literary forms. He stated under Performing arts: “The performing arts can provide many pathways to foster the understanding of one’s self in relation to diverse cultures” (p. 409). Literature, more specifically poetry, may potentially contribute in producing empathy, as described by Veprinska, (2020) [15]: “Empathy is a journey you travel, if you pay attention, if you care, if you desire to do so... This imaginative entry or journey of the self into other parallels the work of literature, much of which... predicated on the reader’s ability to imaginatively and affectively enter and inhabit fictional worlds, ideas, and/or characters” (p. 3). Further, Furman (2014) [16] has reviewed the growing uses of poetry beyond its literary uses. Poetry may function as a tool of change, growth, and transformation in health-care settings, international development, and business. Thus, we believe that poetry may also potentially be used in education to generate empathy for gaining cultural competence.

The results of our previous research show that the two poems show and create empathy both in the authors and the readers. We also conclude that poetry can be utilized beyond its literary function to navigate diversity through cultivating empathy in studying process as our study has shown that most of our respondents demonstrate empathy when they were asked how they feel when their ethnic groups are mentioned and not mentioned in both the Indonesian and Taiwanese poems (see Akun, Yang, Retnowati, and Ayuningtyas, 2021) [17]. Based on this, we believe that literature may help people

to have better empathy towards others so that digital learning may remain humanized and engaging.

3 Towards Humanized Learning with Empathic Technology

Presumably, when Covid-19 pandemic has gone or become familiarized just as flu, virtual digital learning culture may partially continue for good. Education world must be strongly challenged to keep the learning humanized where learners and educators feel engaged and not alienated from one another as the prime goal true education is to humanize learners and everyone involving in the process. We offer two ways of realizing this idea: having multicultural literature as a medium to cultivate empathy and to promote empathic technology as a medium of learning.

3.1 The Role of ML to Cultivate CQ in Navigating Diverse Human-System Interactions

In our research in Indonesian and Taiwanese university students regarding the role of ML in cultivating CQ, almost all (96.66%) of Indonesian students approve that ML helps them develop their CQ, while 86.66% of Taiwanese students approve and are certain of the same. Most students also realize that the future jobs need CQ. 61.66% of Indonesian students say the future job need CQ for 100%, 23.33% need for 75% degree, and 13.33% need for 50% degree. While Taiwanese students believe that 46.66% need CQ for 50%, 20% need CQ for 100% and 13.33% need CQ for 75%. Overall, Indonesian students are much more assured than Taiwanese that the future professions suggestively need CQ. Generally, 91.66% of Indonesian students accept that multicultural literature helps them understand other fellow human beings in their every day's diversity and 66.66% Taiwanese students are certain of the same degree (see Akun, Yang, Retnowati, and Ayuningtyas, 2021) [18].

Based on the above result, we are convinced that ML is a prospective medium to produce empathy, thus CQ, among students. By having CQ students will be much readier to enter the global arena where diversity in human-system interaction colors the competition.

3.2 Towards Empathic Technology with Still Controlling Agency

Empathic technology, this seemingly oxymoronic name, is a proposed medium of learning and solution to maintain human agency in the face of dominating technology where education can still be pleasing and humanized experience although everything is presented and attended virtually. Seiler and Craig (2016) [19] have summarized the danger if people interact intensively with computers or machines without emotion and empathy because "there is a real danger that we might begin to communicate with other human beings the same way we communicate with our computers... nurses becoming less empathetic when using increasing amounts of technology in intensive care units...and students becoming dehumanized when teachers rely excessively on computers" (p. 58).

Having empathetic virtual companions and virtual agents is one way suggested to cope with the problems.

Our virtual presence in online learning should include teaching, cognitive, and social presence (Khan, Atta, Sajjad, and Jawaid, 2021: 2) [20]. Perceiving learners and teachers as real human beings is very important to the success of learning and humanizing is considered as key to the future of learning, “Improving the quality of interactions in an online course is what promotes social presence -- the degree to which a person is perceived as “real” in mediated communications” [21] where social presence is one of the characteristics. Social presence may ignite empathy since it reflects genuine expressions and presentation of oneself. This may for instance cover opening both teachers’ and students’ webcam, having live chat, having background and real issues or experiences sharing. Further, Pelz (2010) [22] has outlined three principles of effective online pedagogy, i.e. (1) Let the students do (most of) the work; (2) Interactivity is the heart and soul of effective asynchronous learning; (3) Strive for presence. In the last principle, interestingly he proposed three forms of social presence:

“Affective — The expression of emotion, feelings, and mood; Interactive — Evidence of reading, attending, understanding, thinking about other’s responses; Cohesive — Responses that build and sustain a sense of ‘belongingness’, group commitment, more common goals and objectives” (p. 111). These social presences strengthen the idea that everyone involved in the learning process presents him or herself as a real human individual with emotions and empathy although everyone is physically away from one another.

The empathy and social presence may provide teachers and learners more control of their agency in the face of dominating technology use. The empathy and social presence are very important because if we stop having them, we also stop being full human beings as humans are characterized by them. Therefore, a good alternative is to have empathic technology in the learning process.

Looking at technology from the brighter side, Poppy Crum has emphasized the idea of how to technology can still be humanized, “I’m looking to create a world where we can care about each other more effectively, we can know more about when someone is feeling something that we ought to pay attention to, and we can have richer experiences from our technology” (<https://www.poppycrum.com/who-is-poppy>) [23]. Crum has also stated clearly in *The Wall Street Journal*, “Empathetic technology combines AI and quantifiable measures of our physical and mental state to begin dabbling in quintessentially human territory, reading a situation and addressing what really matters to people” [24]. She has then stressed that empathic technology can support people connect to one another and to ourselves still in the most human ways.

Finally, to have empathic technology towards humanized online learning, Pacansky-Brock, Smedshammer, and Vincent-Layton (2020) [25] have proposed interesting and useful six key strategies with examples that support humanized online instruction to successfully equitize higher education through humanized online teaching, by having:

1. A Liquid Syllabus
2. Adaptive Teaching
3. Visually Appealing and Dynamic Homepage
4. Asynchronous Video Communications

5. Asynchronous Video Discussions

6. Wisdom Wall (pp. 6–14)

By these strategies, both learners and teachers will remain humanized and have appropriate control over the application of technology in the process.

4 Conclusion

Studying in a college or university is more than just to get knowledge and practical skills. We go to schools and colleges to also learn how to better live now and then as social human beings with real empathy, companions, and compassion. Thus, education and technology should grow together and nurture each other well for the benefit of humans as agents of technology and education advancements.

ML has been proven to cultivate empathy and CQ that can assist learners to navigate diversity in their future professions. The use of ML to cultivate CQ will also help learners face the advanced technology applications to remain humanized with the help of empathic technology. This way, based on the study in Indonesian and Taiwanese students on ML and CQ, it is concluded that learners and teachers may be well accepted into Society 5.0 where they make use Industry 4.0 revolution to their best without fear of losing agency over the dominating technology, and can still maintain a balanced human-system interaction in a humanized learning atmosphere.

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