

DIGITAL MARKETING EDUCATION BRAND MANAGEMENT FOR ORGANIZATIONAL STRATEGIZING IN THE PRESENT- & POST-COVID-19 ERA

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DOI: 10.5958/2249-877X.2021.00100.4

ABSTRACT

The study is an examination of the digital marketing environment demands in Asian tertiary educational institutions due to the advancements and commitments to educational reform in the current and post-Covid-19 era, with the goal of assessing current efficiency for digital learning and the future of those needs. A case study approach was used to assess current conditions of digital marketing from the users' (student) perspective to provide recommendations Asian tertiary education institutions can utilize in their marketing curriculum revision and development efforts. Findings showed a basic level of knowledge and awareness of digital marketing platforms' usefulness and applicability among participants, but a disconnected view on preferences or suggestions for improvement. Conclusions suggest findings serve as a baseline for future research that addresses deficiencies existing in user knowledge and awareness of digital educational platforms purpose and design that will specifically improve their digital marketing curriculum revision and development efforts.

KEYWORDS: *Brand Management Case Study Methodology, Covid-19 Pandemic, Digital Education, Digital Marketing, Organizational Management*

INTRODUCTION

The Covid-19 virus pandemic has brought digital marketing to the forefront of higher education curriculum and instructional development like never before since the adoption of digital technology usage in learning environments. Adequate awareness of the use of digital learning platforms is not only a significant issue for maintaining “customer” (students and their parents or guardians) satisfaction amid growing demand for online and digital learning necessities, but is fast becoming a mandatory component of branding strategy development due to increasing competition in the tertiary education market (Benedek et al., 2016; Boulton, Kent, & Williams, 2018; Hanafi, Said, Wahab, & Samsuddin, 2017). As the pandemic continues, tertiary education will face permanent changes to the overall learning environment in both curriculum design and teaching methodology that monumentally impacts the development of marketing curricula to meet these demands. The inherent focus then is whether the digital education platforms are adequate in their present configuration and availability, or if there are changes needed by tertiary institutions to remain competitive (Adzovie et al., 2020; Alawamleh, Al-Twait, & Al-Saht, 2020; Dwivedi et al., 2020).

The study centered on digital marketing as a course/degree program, since marketing subjects utilize digital learning in the form social media and digital advertising more readily and often

than other tertiary subjects (Crittenden, & Peterson, 2019; Langan, Cowley, & Nguyen, 2019; Schiele, & Chen, 2018; Zahay et al., 2019). The main objective is determining if digital marketing education is prepared sufficiently for the demanding, changing learning environment from the current and post-pandemic perspective of the users of digital learning platforms, namely the students and professors.

The study's aim is to assess customer perception of digital learning platforms for marketing curriculum revision and development efforts affected by the increasing difficulties in the adaptation to online, digital learning mediums for tertiary education institutions in the Asian/east-Asian region (Alawamleh, Al-Twait, & Al-Saht, 2020; Dwivedi et al., 2020; Williamson, Eynon, & Potter, 2020). A case study method was selected using a qualitative questionnaire collecting opinions from participants in China (Mandarin/mainland), China (Cantonese/Macanese), Thailand, Cambodia, and Myanmar. Students and teachers are queried on their collective perspectives of digital learning and digital marketing platforms utilized not only in their immediate learning environment, but also of the specific functionality and practical integration into a tertiary learning environment. The results are expected to reveal tangible suggestions on digital platform utilization by tertiary institutions in Asian/east-Asian nations, and thereby fill the deficiency gap in existing literature on the region for digital marketing platforms utilization in tertiary education institutions.

Background

Digital marketing education is at the forefront of the technological hardware (i.e. laptops, PCs, mobile phones) and software (i.e. web-based applications [apps], mobile apps) development. Advances in such technologies comes a need to assess the impact developments have on the usefulness of existing hardware and software in tertiary learning environments (Adzovie et al., 2020; Alawamleh, Al-Twait, & Al-Saht, 2020; Dwivedi et al., 2020). The issue is dominant in the existing and post-pandemic (Covid-19) learning environment that has irrevocably changed tertiary education in favor of digital technological resources that strives to meet the demand of student engagement and learning environments (Alawamleh, Al-Twait, & Al-Saht, 2020; Dwivedi et al., 2020; Williamson, Eynon, & Potter, 2020). This is a critical consideration since the learners of today and tomorrow are keenly attuned and proficient to technological resources in their respective learning environments (Dwivedi et al., 2020; Pillai et al., 2020; Rodrigues, Franco, & Silva, 2020; Williamson, Eynon, & Potter, 2020). Compounding this issue is the developing economies in Asian/east-Asian that see increasing calls for technological usage outside and inside the classroom (Ali, 2020; Crawford et al., 2020; Handayani, & Handayani, 2020; Zhou et al., 2020).

Enhancing the digital marketing curriculum and instruction in Asian/east-Asian tertiary institutions is due to the increasing demand from international business operations that puts increasing numbers of firms in contact with global markets (Liu et al., 2019; Plungpongpan, Tiangsoongnern, & Speece, 2016; Palvia et al., 2018; Zhuang, Zhou, & Lin, 2017). The advancements in technology connecting producers to consumers, producers to retailers/wholesalers, and consumers to consumers carries the inherent need for a knowledgeable workforce capable of handling digital marketing efforts for successful results (Fierro, Cardona Arbelaez, & Gavilanez, 2017; Kusumawati, 2019; Lui, & Au, 2017; Zahay et al., 2019). The study identifies a deficiency gap in studies identifying the specific methods or techniques for digital marketing demands in tertiary education that generate digital technologically competent workers post-graduation. The study aims to recognize digital learning mediums from a hardware

and software perspective that are lacking in adequate empirical outcomes in the existing literature (Franceschini, & Nesossi, 2018; Lee, 2018; Skoric, Zhu, & Pang, 2016; Sinpeng, 2020; Suh, Vasi, & Chang, 2017; Xia, 2017) that serves as a foundational baseline for tertiary institutions can utilize to improve their curriculum revision and development efforts.

Research Methodology

A case study method was selected due to the relevancy in the changing environment of tertiary learning during the pandemic situation, and is therefore seen as an unprecedented circumstance (Alawamleh, Al-Twait, & Al-Saht, 2020; Ali, 2020; Crawford et al., 2020; Dwivedi et al., 2020; Handayani, & Handayani, 2020; Williamson, Eynon, & Potter, 2020; Zhou et al., 2020). A case study approach collects opinions and experiences by the dominant users of the said medium, and then compiles everything into common themes that clarify the more dominant themes usable in selecting optimal courses of action for a deeper understanding (Alawamleh, Al-Twait, & Al-Saht, 2020; Assunção Flores, & Gago, 2020; Crawford et al., 2020; Dhawan, 2020; Izumi et al., 2020) of the digital marketing learning usefulness and whether or not to keep progressing unimpeded, or to enact changes for enhancement.

Data collection was obtained with a questionnaire designed and distributed using SurveyPlanet.com® containing four questions between 19 August 2020 and 19 September 2020, and then disseminated via the researcher's professional email account, Facebook account, LinkedIn portal, and WeChat mobile interface to current and former students, as well as current and former colleague lecturers and professors, throughout China (Mandarin/mainland), China (Cantonese/Macanese), Thailand, Cambodia, and Myanmar. The targeted total population (N) of 305 participant candidates obtained a sample (n) collected 32 responses, with a 10.49% response rate, and when compared with the rule of a five multiplier per number of questions (Abbas, 2018; Berkowitz, 2019), the resulting 20 recommended responses is well under the $n = 32$ responses actually collected, and validates the participant response rate.

The n responses were analyzed collectively, ignoring any varying demographics between participants due to the aforementioned unprecedented nature of the phenomena and increased demand for digital platform(s) implementation insisting on a homogenous case perspective from both students and professors, lecturers, instructors, and teachers. An explorative approach determined the similarities of n that exist by relative association with the aim of enhancing digital marketing curriculum revision and development that does not hold a mutually exclusive association. This factor gives the analysis a deeper comprehension aspect of participant perspectives digital marketing current and future states that can be assessed for practical recommendations. Results establish a baseline for continuing studies to work with when targeting specific demographic groups for outcomes in future quantitative studies.

Research Questions

Considering the gap in available studies and literature focusing on digital marketing platforms in Asian/east-Asian tertiary learning, the resulting overarching hypothesis query is therefore: Are the current digital marketing technological platforms in east-Asian tertiary digital marketing education adequate for meeting the needs of students as customers, or are changes necessary to meet the goals of student engagement leading to greater satisfaction and greater student enrollment, and what are the recommended model(s)?

The questionnaire was designed with four open-ended questions posed. Each questionnaire encouraged more descriptive responses, but left this optional in order to prevent bias avoidance

in participating. All questionnaires were distributed with the proviso of complete autonomy and any personal data would be kept confidential by this researcher. The four questions are thusly:

RQ1: Do you think existing online/digital learning platforms like MS Teams, DingTalk, etc. are adequate to meet digital learning? Why or why not?

RQ2: What are your preferred online/digital platforms for learning? (e.g. social media such as LinkedIn or Facebook, mobile apps such as WeChat or WhatsApp, etc.) Why?

RQ3: What type of digital marketing messaging platforms do you consider acceptable or engaging? (e.g. email, social media, mobile media, etc.)

RQ4: If there are no acceptable or engaging digital marketing platforms and messaging suitable to marketing education currently in existence, which recommendations do you have for future learning needs?

FINDINGS & DISCUSSION

RQ1 Results and Selected Participant Transcriptions

RQ1 was a two-part query assessing a confirmation of existing online/digital learning platforms posed with suggestive models like MS Teams, DingTalk, etc. as a query into whether or not such digital applications are adequate to meet digital learning, and then providing an opportunity for explanation of this confirmation opinion. Of the responses received, 16 (50%) of the answers were *yes* current platforms are adequate, and of those 16 responses 4 of them provided explanations that were variations of a positive response confirmation and no real insight was provided.

An unexpected 16 (50%) responses were *no* that current platforms were adequate, but good insight was provided with 7 of the 16 negative responses providing further explanation, for which most were quite different. Participant 5 (P5) stated, *“I think the learning platforms are lacking in examination supervision functions,”* and participant 14 (P14) similarly stated, *“Some functions like make some examinations have not been added in these APP.”* P8 had a similar view aligned to the effectiveness of the interaction between student and teacher rather than exam supervision: *“Not so adequate. I think the interaction between teachers and students may not be so prompt and effective.”* P13 seemed to agree with P8 on student-teacher interaction, though with the concession that the software is adequate regardless of a poor student-teacher interaction: *“Those software meet basic teaching needs, but needs to be improved in terms of classroom interaction and student supervision.”* As the participant’s response began with a confirmed ‘no’ answer, this is still categorized as a negative despite the affirmative view of the software applicability to the learning environment.

P21 focused on the pandemic impacts as significant to the learning environment effectiveness: *“Not with the new ‘normal’ post Pandemic as More people will work from home.”* This was a similar response with a more extensive explanation from P24 and reiterated the student-teacher interaction that is comparing to be a major factor from overall responses: *“These platforms were doing well in past few months when the covid19 broke and everyone was in quarantine. But i don't think they are well enough. Set aside the problem of internet is up and down sometimes, i think the interacions between teachers and students are far less than in real class. And there can just be a single person talk at one time, otherwise nobody else can clearly hear what's going on, which somehow restrains the potential debate occur.”* P23 provided the negative response, but without personal experience that suggests a slightly less-than-reliable response: *“No, however let*

me qualify. Have not used either. My experience with online learning is that when a team is trying to do something, if something is a project and everyone should participate, things can move forward without someone getting an opportunity for input before a given time.” While the opinion is welcomed, use as a reliable view can be negated since the participant has no real experience with digital learning.

RQ2 Results and Selected Participant Transcriptions

RQ2 was a query into the preferences digital platforms of the users for whatever reason they might have for these opinions. Of the responses, 17 (53.125%) showed the greatest rate of preference with the Chinese Tencent platform of WeChat. Of those responses, only participant P14 provided an explanation: *“WeChat or some other Apps like it. They can be used on both mobile phone and computer at the same time. By the way, I don't need to spend more time to prevent the terrible internet speed.”* Other applications included the LinkedIn Learning platform that was nominated three times, and the MS Teams, Coursera, and YouTube applications were nominated twice. Single nominations were received for Zoom, Dingding, Edx, Facebook, Facebook Messenger, MarcoPolo, Line, Codecademy, Freecodecamp, Curiositystream, Nebula, Moodle, and Repl.it. A generalized call for mobile apps was offered three times, sometimes alongside specific platforms and sometimes not, and only one participant failed to respond to RQ2. The preliminary indication is that the WeChat platform is most preferred when it concurs with the predilection that younger generations have with technology-based platforms utilizing standard PC and mobile connectivity, as outlined in several studies in other regions (Dwivedi et al., 2020; Pillai et al., 2020; Rodrigues, Franco, & Silva, 2020; Williamson, Eynon, & Potter, 2020).

RQ3 Results and Selected Participant Transcriptions

RQ3 was a strictly qualitative response mechanism that queried the type of digital marketing messaging platforms participants consider acceptable or engaging. A greater share of participants focused on social media as the primary concern, with mobile media as the secondary, but for which both social and mobile media were not mutually exclusive and some of those responses included other nominations, while others were only for one or the other. This outcome prompted another categorization based on the variations:

- a. **Mobile Media Only:** Four participants indicated mobile media as their sole preference for the digital platform learning medium.
- b. **Email and Mobile Media:** Only one participant indicated the preference for email communication and mobility as the sole response.
- c. **Social Media and Mobile Media:** The combination of social media and mobile media was expressed only twice.
- d. **Three or More Nominations:** Combinations of email, social media, and print press was nominated once, while the triple combination of email, social media, and TikTok was also expressed once.
- e. **Email Only:** The nomination of email as a digital marketing learning platform was expressed only once.
- f. **Social Media Only:** The social media preference received the greatest number of participant nominations at 6 of the 32 responses.

Viewed separately, social media received the highest nominations with 37.5% of participant responses, mobile media received the second highest nominations at 21.875%, email receiving the third highest nominations at 18.75%, and with print press and TikTok both coming in equally at 3.125% of responses. But, of all the responses for RQ3, none of them gave any clarifying explanations as to why those nominated preferences were chosen. The result of RQ3 and the lack of clarification of *n* could very well suggest future studies could explore this specific issue in greater detail for the criteria or influencing factors that digital marketers in general could utilize not only for education but for other aspects of the digital marketing and education research paradigm.

RQ4 Results and Selected Participant Transcriptions

RQ4 determined any recommendations from participants if there are no acceptable or engaging digital marketing platforms and messaging suitable to marketing education currently in existence, of which 5 failed to answer RQ4 entirely. But, from the answers that were received for RQ4, the responses resulted in the most diverse and informative of all four questions on how the digital marketing learning could or should progress. At 15.625% of *n*, the preference for offline learning and expressing a dislike of online learning in general was most significant. After that, the responses had significantly fewer similarities negating a collective percentage impact on the response body whole. P2 expressed the preference of learning via prerecorded videos: *“making videos to teach.”* P5 expressed improving the available technology used for digital platforms: *“My ideal learning platform is that many people can share online real-time video without freezing and there will be regular learning or review reminders and programs that can self-test knowledge points.”* P30 also agreed with these sentiments: *“live streaming”* and P4 stated that the current platform arrangement was *“acceptable”* and gave no further alliteration on improvements could be made. P6 points to further enhancing the interaction between teacher and students: *“a platform that allows more immediate interaction between teachers and students.”* But, there does not seem to be any suggestive response on how to improve communication, whether it be process or methodology centric, or be it hard or software focused. This sentiment was shared by P10 that stated, *“interaction is the most important thing, and it also need to be easy and stable to use”* and P14 reiterated these sentiments: *“The teacher and students will need more chance to communicate and talk about these topics. In this way, the students may learn more.”* P7 expressed, *“I hope there will be more convenient online teaching”* but again as with P6, there does not seem to be any suggestion on what is needed or how to address the issue. P17 seemed to have a similar view: *“Be able to launch more user-friendly features”* but, yet again, without any specific suggestions what is needed or how to address it. This is also a similar expression from P19, *“I hope there has a platform which can make it easier to get the resource of knowledge.”*

P8 came up with a unique take by stating, *“Build the foundation of the marketing course and share internal and external resources by using other acceptable platforms with each other after class.”* This suggests that whatever improvements are made to the foundational marketing course and/or instruction, the key variable is the sharing of teaching processes or resources outside of the learning environment. This is a particular comment that deserves greater exploration in further studies to determine what type, method, environment, etc. the respondent is referring to for *“after class”* sharing mentioned.

While P15's response was more focused on stepping outside of the traditional classroom environment, it is nevertheless more relevant to the post-class sharing suggestion offered by P8:

“i assume that we can go outside and do something with our professor's help. because this way we can learn it better. otherwise we learn business in the class, may be feel bored and don't know how to use it in social.” P9 stated: *“Learning from the real lives. By other experienced people or good quality of data.”* The implication is that the subject should be augmented by industry professionals and/or anecdotal experiential cases that enhance the unit's lesson objective. P27 states, *“I think the digital education of marketing needs to be carried out in combination with the current reality. Maybe some e-commerce related content can be added.”* The message is clear; the curriculum content needs to be updated and inclusive of digital environments of the modern world, for which future graduates undoubtedly will be face with in greater consideration than previous generations of marketing graduates.

CONCLUSIONS & RECOMMENDATIONS

The goal of this study was to ascertain the role of digital marketing education in light of the increased demand of digital learning mediums from increasing technology usage and demand by the target customer (*N*), the students, as well as the radical changes in learning mediums due to the Covid-19 pandemic impacts. In that regard, the evidence from the participants reveals two clear outcomes deficiencies in knowledge and awareness of digital marketing for Southeast/East Asian tertiary institutions: One, the comprehension of the usefulness and context of digital marketing is lacking a cohesive, homogenic understanding among educational customers (i.e. students) and practitioners (i.e. professors) for digital learning and digital marketing; and two, the ideas and suggestions on improving the digital learning/marketing environment is also lacking a cohesive and homogenous understanding on what and how to improve anything due to their unfamiliarity of the topic mentioned in the first deficiency.

Yet, the results of the participant responses, while being consistent in recognizing the need for improvement despite the lack of consistency in precisely how and what needs to be improved, nevertheless provided valuable insights into the problem. The recommendations for tertiary institutions in the Asian/east-Asian region for digital marketing curriculum revision and development are detailed below.

In RQ1, half of the responses agreed with existing digital formats while the other half did not agree, but still gave no consistent responses on what or how to improve. Such lacking in consistency reinforces the notion that not enough knowledge or information is readily available in Southeast/East Asia regional learning about the extent and capabilities of digital learning environments, and less on digital marketing. This outcome emphasizes the need for tertiary institutions in the Asian/east-Asian region to use studies such as this one as a baseline from which to focus more specific research initiatives in how to increase the knowledge and awareness of digital marketing and online learning environments to the average user of the target population (*N*). Community outreach programs older generations, i.e. parents or guardians, are advisable, as well as increasing exposure of digital marketing capabilities and necessities to educate the public using social media and mobile app platforms are recommended for younger generations, i.e. students, that comprise the primary *N* targeted for this study and tertiary institutional branding efforts.

RQ2 focused on the specific digital platforms recommended or preferred for enhancing digital marketing and learning environments. Of the four research questions, RQ2 provided a slightly more consistent view with the greater share of Southeast/East Asian learners and instructors, as well as the minor participating western respondents, into the mediums relevant and/or useful to digital learning. The outcomes of RQ2 give a specific recommendation for Southeast/East Asian

learners' preference for Tencent platforms in digital marketing contexts, and thereby offer the greatest suggestive improvement efforts that institutional and regional learning goals can utilize in their curriculum revision and development initiatives. The challenge to such focus on the Tencent/WeChat platform is the whether or not this would be an applicable platform outside of the mainland Chinese user, a platform that apparently is rarely used by the other targeted participants in Southeast Asia such as Thailand, Cambodia, Myanmar, etc. (Luo, & Yang, 2016; Plantin, & de Seta, 2019; Ruan et al., 2016). The outcome of RQ2, therefore, has the greatest need of all the research questions for further study by tertiary institutions in the Asian/east-Asian region that quantitatively differentiates the suggested platforms throughout the region for specific applicability to targeted locations' preferences *and* technological relevance for the WeChat application in both digital learning subject context and reliability of service.

RQ3 was inconsistent in suggestive responses usable for curriculum revision and development efforts of either digital marketing or generalized digital learning environments. The identification of social media and mobile media as the preference for the type of digital marketing messaging platforms participants consider acceptable or engaging does reinforce the outcomes of RQ1 and RQ2 that is digital platforms for educational purposes should be inclusive of appropriate hardware and digital accessibility, but the lack of mutual exclusivity with various differing responses for specific or generic apps makes the usefulness of RQ3 outcomes strained by institutional efforts in enhancing digital marketing and learning curriculum revision and development goals. Such concerns are the focal point for many other studies seeking to understand how to integrate and/or improve digital platforms in tertiary education (Hayashi, Garcia, & Maddawin, 2020; Hinings, Gegenhuber, & Greenwood, 2018; Oravec, 2019; Teräs et al., 2020; Tulinayo, Ssentume, & Najjuma, 2018; Williamson, Bayne, & Shay, 2020; Wong, & Chu, 2020). What is needed from this study's base understanding for tertiary institutions in the Asian/east-Asian region is further studies determining more exact and precise suggestions in applications that are directly relatable to social media platforms to compare with applications for mobile media, and querying whether or not such results would have differences that can contribute to higher costs in revision and development goals, or similarities that help to decrease such concerns surrounding the vast array of studies for the rest of the world (Chugh, & Ruhi, 2019; de Reuver, Sørensen, & Basole, 2018; Kleis-Nielsen, & Ganter, 2018; Gomber, Koch, & Siering, 2017; Graham, Hjorth, & Lehdonvirta, 2017).

RQ4 was anticipated to reveal the most recommendations for improvements, applications, and general feedback of participants on the nature of digital marketing and education curriculum revision and development efforts that tertiary institutions in the Southeast/East Asia region could utilize in their enhancement goals (Assunção Flores, & Gago, 2020; Berchin et al., 2018; Li, Wong, & Ye, 2018; Wong, & Chu, 2020). For this purpose, RQ4 can be considered successful since the respondents gave clear and concise responses that any tertiary in the region can use in their improvement goals. Conversely, the lack of consistency and homogeneity in responses for suggestive improvements make RQ4 another definable topic for future studies determining precisely how tertiary institutions in tertiary institutions in the Asian/east-Asian region can revise and develop their digital marketing curriculum to be more relevant to digital marketing demands of any industry.

The preferences of the targeted *N* showed the anticipated preference types for offline learning, greater technological reliability, increased communication and interaction between student and instructor, and a variety of specific applications, but all from a heterogeneous perspective. The lack of clarity in responses towards each of the question topics on what it is or how to use it

implies the region as a whole does not possess enough precise recognition of digital marketing even is, let alone how to use in a learning environment. To reiterate, the focus for tertiary institutions in the Asian/east-Asian region is to increase the level of awareness of digital marketing and digital learning platforms in recognition of how vital the digital platforms are becoming to tertiary institutional efficiency of learning objectives, regardless of the lacking in cohesive voice of what it is or how to use it for learning objectives. That outcome is the driving ambition future studies in the region should focus on so as to clarify the components tertiary institutions can utilize with more efficiency in their revision and development efforts.

REFERENCES

- Abbas, J. How many respondents are required for conducting a research paper?, ResearchGate, 2018; Online forum post: [https://www.researchgate.net/post/How_many_respondents_are_required_for_conducting_a_research_paper#:~:text=As%20a%20rule%20of%20thumb,%3D%20150%20responses%20\(minimum\)](https://www.researchgate.net/post/How_many_respondents_are_required_for_conducting_a_research_paper#:~:text=As%20a%20rule%20of%20thumb,%3D%20150%20responses%20(minimum))
- Adzovie, D. E., Jibril, A. B., Adzovie, R. H., & Nyieku, I. E. E-learning resulting from Covid-19 pandemic: A conceptual study from a developing country perspective. In 7th European Conference on Social Media ECSM, 2020; 19
- Alawamleh, M., Al-Twait, L. M., & Al-Saht, G. R. The effect of online learning on communication between instructors and students during Covid-19 pandemic, Asian Education and Development Studies, 2020
- Ali, W. Online and remote learning in higher education institutes: A necessity in light of COVID-19 pandemic, Higher Education, 2020; 10(3), 16-25
- Alsheikhidris, M. A. A. Challenges for moving Chinese language courses online, Education and Quarterly Reviews, 2020; 3(3)
- Assunção Flores, M., & Gago, M. Teacher education in times of COVID-19 pandemic in Portugal: National, institutional and pedagogical responses, Journal of Education for Teaching, 2020; 1-10
- Benedek, A., Horváth, C. J., Teixeira, A. M., Szűcs, A., & Mázár, I. New methods in the digital learning environment: Micro contents and visual case studies, In Re-Imaging Learning Environments: Proceedings of the European Distance and E-Learning Network 2016 Annual Conference. Budapest: European Distance and E-Learning Network, 2016; 27-34
- Berkowitz, J. Sampling and sample size: Sample size estimation. [Online lecture notes], Columbia University, 2019
- Boulton, C. A., Kent, C., & Williams, H. T. Virtual learning environment engagement and learning outcomes at a 'brick-and-mortar' university, Computers & Education, 2018; 126(1), 129-142
- Berchin, I. I., Sima, M., de Lima, M. A., Biesel, S., dos Santos, L. P., Ferreira, R. V., ... & Ceci, F. The importance of international conferences on sustainable development as higher education institutions' strategies to promote sustainability: A case study in Brazil, Journal of Cleaner Production, 2018; 171(1), 756-772
- Chugh, R., & Ruhi, U. Social Media for Tertiary Education, Encyclopedia of Education and Information Technologies, 2019
-

Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., ... & Lam, S. COVID-19: 20 countries' higher education intra-period digital pedagogy responses, *Journal of Applied Learning & Teaching*, 2020; 3(1), 1-20

Crittenden, V., Peterson, R. A. Digital disruption: The transdisciplinary future of marketing education, *Journal of Marketing Education*, 2019; 41(1), 3-4

de Reuver, M., Sørensen, C., & Basole, R. C. The digital platform: A research agenda, *Journal of Information Technology*, 2018; 33(2), 124-135

Dhawan, S. 8 Ways to create a digital strategy that attracts & engages students, *DMIBlog*, 2020

Dwivedi, Y. K., Hughes, D. L., Coombs, C., Constantiou, I., Duan, Y., Edwards, J. S., ... & Raman, R. Impact of COVID-19 pandemic on information management research and practice: Transforming education, work and life, *International Journal of Information Management*, 2020; 10(2), 211

Fierro, I., Cardona Arbelaez, D. A., & Gavilanez, J. Digital marketing: A new tool for international education, *Pensamiento & Gestión*, 2017; (42), 241-260

Franceschini, I., & Nesossi, E. State repression of Chinese labor NGOs: A chilling effect?, *The China Journal*, 2018; 80(1), 111-129

Gomber, P., Koch, J. A., & Siering, M. Digital Finance and FinTech: current research and future research directions, *Journal of Business Economics*, 2017; 87(5), 537-580

Graham, M., Hjorth, I., & Lehdonvirta, V. Digital labour and development: impacts of global digital labour platforms and the gig economy on worker livelihoods, *Transfer: European Review of Labour and Research*, 2017; 23(2), 135-162

Hanafí, H. F., Said, C. S., Wahab, M. H., & Samsuddin, K. Improving students' motivation in learning ICT course with the use of a mobile augmented reality learning environment, *IOP Conference on Service Materials & Scientific Engineering*, 2017; 226(1), 12-114

Handayani, F., & Handayani, N. D. The potential of online writing tools for EFL university students during the Covid-19 pandemic, *JEE (Journal of English Education)*, 2020; 6(1), 9-9

Hayashi, R., Garcia, M., & Maddawin, A. Online Learning in Sri Lanka's Higher Education Institutions during the COVID-19 Pandemic, *Asian Development Bank*, 2020

Hinings, B., Gegenhuber, T., & Greenwood, R. Digital innovation and transformation: An institutional perspective, *Information and Organization*, 2018; 28(1), 52-61

Izumi, T., Sukhwani, V., Surjan, A., & Shaw, R. Managing and responding to pandemics in higher educational institutions: Initial learning from COVID-19, *International Journal of Disaster Resilience in the Built Environment*, 2020

Kleis-Nielsen, R., & Ganter, S. A. Dealing with digital intermediaries: A case study of the relations between publishers and platforms, *New Media & Society*, 2018; 20(4), 1600-1617

Kusumawati, A. Impact of digital marketing on student decision-making process of higher education institution: A case of Indonesia, *Journal of e-Learning and Higher Education*, 2019

Langan, R., Cowley, S., & Nguyen, C. The state of digital marketing in academia: An examination of marketing curriculum's response to digital disruption, *Journal of Marketing Education*, 2019; 41(1), 32-46

- Lee, A. Invisible networked publics and hidden contention: Youth activism and social media tactics under repression, *New Media & Society*, 2018; 20(11), 4095-4115
- Li, K. C., Wong, B. T. M., & Ye, C. J. Implementing learning analytics in higher education: the case of Asia, *International Journal of Services and Standards*, 2018; 12(3-4), 293-308
- Liu, Q., Allard, B., Lo, P., Zhou, Q., Jiang, T., & Itsumura, H. Library user education as a window to understand inquiry-based learning in the context of higher education in Asia: A comparative study between Peking University and the University of Tsukuba, *College & Research Libraries*, 2019; 80(1), 8
- Lui, R. W., & Au, C. H. Designing simulation games for information systems education – A case study in teaching for digital marketing, 2017 IEEE 6th International Conference on Teaching, Assessment, and Learning for Engineering (TALE), 2017; 290-295
- Luo, H., & Yang, C. Using WeChat in teaching L2 Chinese: An exploratory study, *Journal of Technology and Chinese Language Teaching*, 2016; 7(2), 82-96
- Oravec, J. A. Academic metrics and the community engagement of tertiary education institutions: Emerging issues in gaming, manipulation, and trust, *Tertiary Education and Management*, 2019; 1-13
- Palvia, S., Aeron, P., Gupta, P., Mahapatra, D., Parida, R., Rosner, R., & Sindhi, S. Online education: Worldwide status, challenges, trends, and implications, *Journal of Global Information Technology Management*, 2018; 21(4), 233-241
- Pillai, S. V., Mathew, L. S., Daniel, A., & Abhilash, V. S. Technology enabled online learning in a digital age, *Asian Journal of Management*, 2020; 11(3), 266-274
- Plantin, J. C., & de Seta, G. WeChat as infrastructure: The techno-nationalist shaping of Chinese digital platforms, *Chinese Journal of Communication*, 2019; 12(3), 257-273
- Plungpongpan, J., Tiangsoongnern, L., & Speece, M. University social responsibility and brand image of private universities in Bangkok, *The International Journal of Educational Management*, 2016; 30(4), 571-591
- Rodrigues, M., Franco, M., & Silva, R. COVID-19 and disruption in management and education academics: Bibliometric mapping and analysis, *Sustainability*, 2020; 12(18), 7362
- Ruan, L., Knockel, J., Ng, J. Q., & Crete-Nishihata, M. One App, Two Systems: How WeChat uses one censorship policy in China and another internationally, *Citizen Lab Research Report No.84*, University of Toronto, 2016
- Schiele, K., & Chen, S. Design thinking and digital marketing skills in marketing education: A module on building mobile applications, *Marketing Education Review*, 2018; 28(3), 150-154
- Sinpeng, A. Digital media, political authoritarianism, and internet controls in Southeast Asia, *Media, Culture & Society*, 2020; 42(1), 25-39
- Skoric, M. M., Zhu, Q., & Pang, N. Social media, political expression, and participation in Confucian Asia, *Chinese Journal of Communication*, 2016; 9(4), 331-347
- Suh, C. S., Vasi, I. B., & Chang, P. Y. How social media matter: Repression and the diffusion of the Occupy Wall Street movement, *Social Science Research*, 2017; 65, 282-293

Teräs, M., Suoranta, J., Teräs, H., & Curcher, M. Post-Covid-19 education and education technology ‘solutionism’: A seller’s market, *Postdigital Science and Education*, 2020; 1-16

Tulinayo, F. P., Ssentume, P., & Najjuma, R. Digital technologies in resource constrained higher institutions of learning: a study on students’ acceptance and usability, *International Journal of Educational Technology in Higher Education*, 2018; 15(1), 36

Williamson, B., Bayne, S., & Shay, S. The datafication of teaching in higher education: Critical issues and perspectives, *Teaching in Higher Education*, 2020; 25(4), 351-365

Williamson, B., Eynon, R., & Potter, J. Pandemic politics, pedagogies and practices: Digital technologies and distance education during the coronavirus emergency, *Learning, Media and Technology*, 2020; 45(2), 107-114

Wong, W., & Chu, M. Digital Governance as Institutional Adaptation and Development, *China Review*, 2020; 20(3), 43-70

Xia, S. E-governance and political modernization: An empirical study based on Asia from 2003 to 2014, *Administrative Sciences*, 2017; 7(3), 25

Zahay, D., Altounian, D., Pollitte, W., & James, J. Effective resource deployment in digital marketing education, *Marketing Education Review*, 2019; 29(3), 182-192

Zhou, L., Wu, S., Wu, Z., Fangmei, M., & Ming, L. School’s out, but class on: The largest online education in the world today: Taking China’s practical exploration during the COVID-19 epidemic prevention and control as an example, *Best Evidence on Chinese Education*, 2020; 4(2), 501-519

Zhuang, C., Zhou, Y., & Lin, F. Analysis of digital marketing strategies of overseas universities in China with University of the West of Scotland as an example, *International Conference on Transformations and Innovations in Management*, 2017; 1002-1008