

Designing a Dual-track Drive Teaching System for Training Data Thinking of Digital Marketing Talents

Li Li ^{1,*}, Ziyang Peng ¹, Jianjun Wang ²

¹ School of Economics and Management, Beijing Information Science & Technology University, Beijing, 100192, China

² School of Economics and Management, North China Electric Power University, Beijing, 102206, China

* Corresponding author: Li Li

Abstract: Under the current higher education environment in China, digital marketing professionals have faced a huge challenge. The biggest problem is how to distinguish between it with the computer science professionals, as well as advertising. Cultivating data thinking will be a very promising development direction. Focusing on this problem, this paper designed a curriculum system for cultivating the data thinking of digital marketing talents, emphasizing the improvement of capabilities of digital planning, data analysis, and data interpretation ability through the dual-track drive in theory and practice so as to provide a reference for the training of digital marketing talents for college teaching.

Keywords: dual-track drive teaching; digital marketing; data thinking; course designing

1. Introduction

Under the current large-scale enrollment model, the marketing majors are almost the most affected major in colleges and universities in China. While on the other hand, the proposal of the Internet Economy and “New Business” has brought new transformation opportunities for marketing majors [1]. Looking at the transformation process of marketing majors in China’s leading universities, it is not difficult to find that the majority of them are transformed toward the digital direction. Still, in regards to its curriculum system, it is nothing more than adding more computer-related courses, or multimedia design courses [2-3]. Under this guidance, the boundaries between the majors of marketing, computer science, advertising are getting more and more blurred, and the professionalism of marketing is becoming increasingly difficult. Highlighting the data thinking will be a promising development direction [4-5].

This article will start from training the digital marketing talents’ data thinking and reorganize the theoretical courses in modules. Next, from the perspective of data thinking cultivation, we will clarify the organizational relationship between the modules. At the same time, the “dual-track” synchronous driving mechanism that can run through the theoretical and practical courses is designed. Finally, the theoretical and practical “dual-track drive”

teaching system framework for cultivating data thinking of digital marketing talents is established.

2. Problems in Curriculum System of Digital Marketing Major in China

2.1. Lack of Integration among Marketing Courses

It is undeniable that although many universities’ marketing majors are transforming to digital marketing, many of our teachings still remain in the traditional marketing teaching mode. In the past, in order to enable students to grasp the knowledge of each theoretical course, we set up a separate practice course for each one, resulting that the connection between courses is not strong. Some knowledge is frequently repeated in the teaching process of each courses. The student hand over the homework of one course to the teacher, then gives it to another course, which also fully meets the requirements. Such fragmented teaching makes students unable to understand the content and lacks systematization.

2.2. Overemphasis on Tools and Lack Cultivation of Students’ Ability to Interpret Marketing Data

In order to enhance students’ data thinking ability, the course with computer classes and data analysis classes is a must for the transformation of many colleges’ marketing majors, but many data analysis courses are focused on the method. It makes students only understand the data analysis method, and have superficial knowledge about the data, they cannot see the marketing principle behind the data, they cannot make a professional interpretation of the data. While the data interpretation ability is the core that makes the digital marketing talents to be different from other similar professional courses.

2.3. Lack of Practical System Training

Data thinking and the professional data interpretation ability of marketing do need not only enough professional knowledge reserves, but also a lot of practice training. Therefore, it is necessary to reform from the dual-track of theory and practice to cultivate the marketing system engineering thinking and professional marketing data interpretation ability of digital marketing talents.

3. Design of Dual-Track Teaching System

Research shows that learners who engaged in experiential learning were able to retain the knowledge that they had acquired for a long time, while those in the non-experiential learning group could not [6-7]. However, this does not mean that all knowledge should be adopted in the experiential teaching method or practice because students need to have a certain knowledge reserve before experiencing learning, and only in this way can the experiential teaching be guaranteed to follow the law. Therefore, the teaching and experiential teaching need to be carried out simultaneously, which is the main design concept of the dual-track drive teaching in colleges and universities. For the needs of cultivating the systematic

engineering thinking and data interpretation ability of digital marketing talents, the “dual-track drive” teaching can achieve an excellent teaching effect.

Focusing on this idea, this paper believes that in the cultivation of digital marketing talents, data thinking should be mainly followed by the teaching system design idea shown in Figure 1. Data thinking of digital marketing talent is ultimately reflected from professional data analysis capabilities, profound data interpretation capabilities, and professional digital marketing planning capabilities. The cultivation of these capabilities is based on the perfect theoretical courses and the dual-track teaching system.

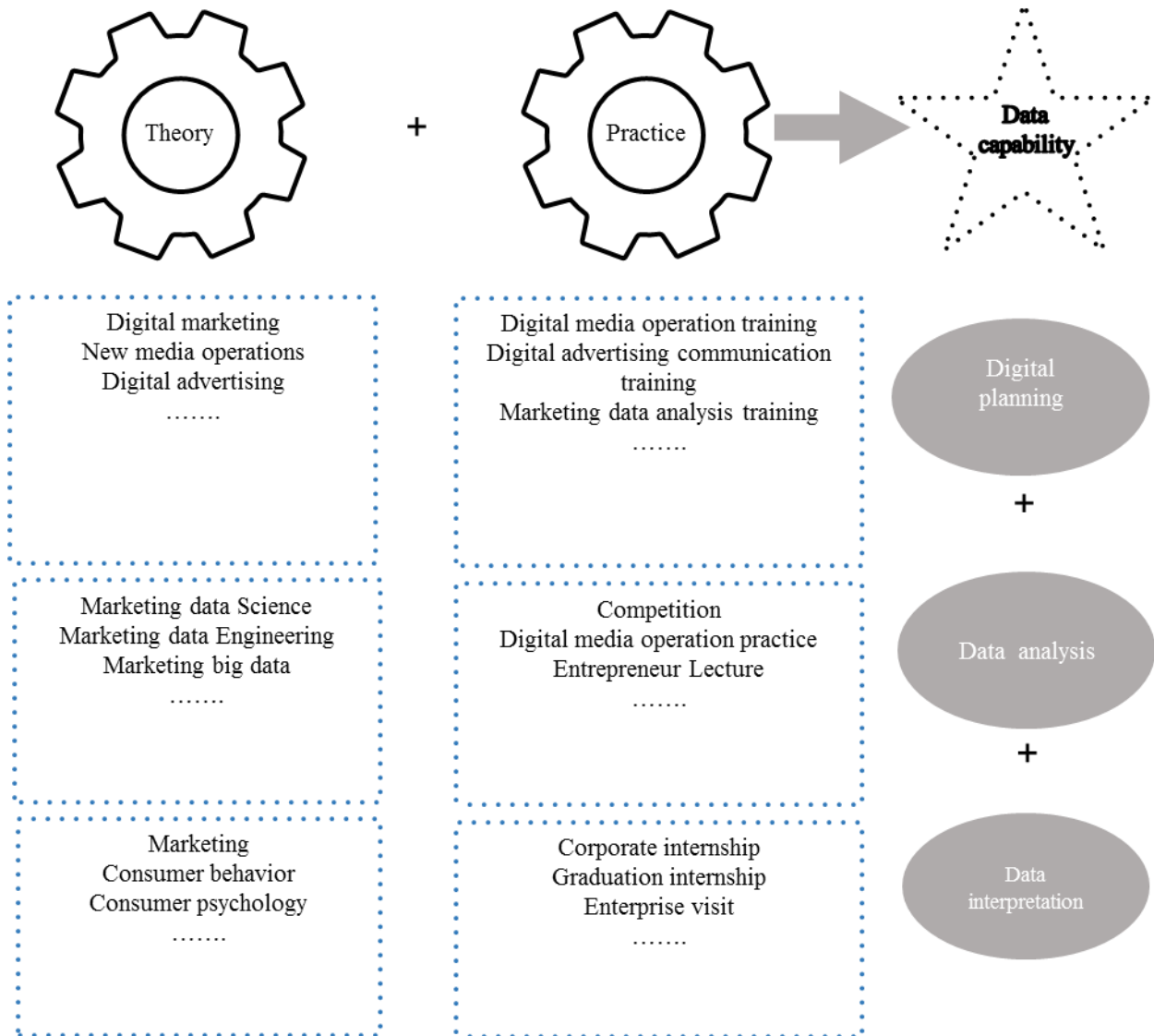


Figure 1. The dual-track teaching system framework for data thinking training of digital marketing talents

In the design of the marketing theoretical curriculum system, the cultivation and integration of these three abilities should also be emphasized. In terms of digital planning, the compulsory courses for marketing students should focus on digital marketing courses developed around the foundation of marketing, such as digital marketing, new media operations and digital advertising. The digital media design courses should mainly appear in the form of elective courses to achieve the effect of

distinguishing from the training of advertising and new media majors. Typical courses include web design and production, web art design and photography. In the design of data analysis courses, the necessity of computer software courses should appear in the form of compulsory courses, such as Python, SPSS application statistical software, but corresponding courses need to be added to cultivate students' ability to use computing software to solve practical problems in marketing management, such

as marketing data science, marketing data engineering, and marketing big data. The training of data interpretation ability should focus on the traditional basic marketing courses, and the compulsory courses should focus on marketing, consumer behavior, and consumer psychology, so as to cultivate students to understand the underlying logic of marketing operations. Only in this way, when faced with the results of data analysis, can they clarify the marketing laws reflected by the data.

In the design of the practical curriculum system, on the one hand, we should focus on the practical training and application of theoretical curriculum knowledge, on the other hand, we should focus on the process of creating new knowledge through practice. In the design of practical training for theoretical courses, we should focus on cultivating cross-curricular knowledge integration. For example, for theoretical courses on digital marketing and new media operations, practical courses on digital media operation training can be offered, and for courses on market research and analysis marketing big data, comprehensive training courses on marketing data analysis can be offered. At the same time, it is also necessary to make full use of social resources to improve students' learning awareness of real knowledge from practice. On the one hand, students can participate in various competitions organized by social organizations, such as Market Research Competitions and E-commerce Competitions, to train students' teamwork and practical problem-solving skills. On the other hand, students can do internships at the company, experience the actual development status of marketing operations, update the relevant knowledge base, and improve their data thinking.

4. The Design Principles of the 'Dual-Track' Teaching System for the Cultivation of Data Thinking for Digital Marketing Talents

4.1. Consolidate the Theoretical Teaching of Basic Marketing Courses

There is no doubt that no matter how the marketing practice evolves, one thing that never changes is a commitment to meeting the needs of consumers. Some basic courses, such as marketing, consumer behavior and consumer psychology, explain why and how to understand the market and consumers. Therefore, the importance of these courses should not be ignored due to the evolution of disciplines. Furthermore, we need to strengthen theoretical teaching, which is the key to determining the depth of digital marketing talent data interpretation.

4.2. Data Analysis Courses Should Strengthen the Label of Marketing

In order to improve students' data analysis ability, it is vital to set up professional data analysis tool teaching, but it is necessary to avoid the situation that students will not use the tools after learning. To this end, it is possible to encourage competent teachers in marketing majors to teach data analysis tools courses in this major, and incorporate more marketing data science and engineering concepts into the teaching courses. In addition, by leading

students to participate in practical competitions or scientific research projects, students can deepen their ability to exercise the data analysis tools they have learned and improve their ability to interpret data.

4.3. Orderly Design the Course Starting Semester

The essence of dual-track drive teaching is not just walking on the two wheels of theory and practice but driving synchronously, which requires us to figure out when and which step to take. The cultivation of talents is a gradual process. In which semester, what theoretical courses are offered, what knowledge needs to be reserved by students, what practical courses are offered at the same time, and what practical abilities are trained, so as to allow students to integrate the knowledge they have learned now and in the past, and think systematically.

5. Conclusion

In order to enhance the marketing students' real data analysis ability, this paper designed a curriculum system for cultivating the data thinking of digital marketing talents, emphasizing the improvement of capabilities of digital planning, data analysis and data interpretation ability through the dual-track drive theory, so as to provide a reference for the training of digital marketing talents for college teaching.

Acknowledgment

This project is funded by the teaching reform projects of Beijing Information Science & Technology University (2020JGYB27): Research on the design of 'dual-track drive' teaching system for cultivating the large-scale systematic thinking of digital marketing talents.

References

- [1] Cliff, W. Digital Marketing: The Time for a New "Academic Major" Has Arrived. *Journal of Marketing Education*, 2011; Vol. 33, No. 1, PP. 93-106.
- [2] Zhang, M. Discussion on the Reform of Marketing Courses and Teaching Methods in the Digital Marketing Era. *Education Modernization*, 2019; Vol. 6, No. 13, PP. 45-48.
- [3] Ren, B.H. Guan Songtao, Jin Jing, Exploring the path of teaching reform in the course of apparel marketing in higher vocational colleges under the background of digital marketing. *Marketing*, 2021; No. 3, PP. 68-69.
- [4] Xia, L.; Alvin, C. B.; Hou, Y.J. An investigation of brand-related user-generated content on Twitter. *Journal of Advertising*, 2017; Vol. 46, No. 2, PP. 236-247.
- [5] Kristen, S.; Steven, C. Design thinking and digital marketing skills in marketing education: a module on building mobile applications. *Marketing Education Review*, 2018; Vol. 28 No. 3, PP. 150-154.
- [6] Raymond, F.; Akbar, S.N.; Neda, T.; Sima, S.N.; Keith, S. J. Using experiential learning to teach and learn digital forensics: Educator and student perspectives. *Computers and Education Open*, 2021; Vol. 2, article no. 100045.
- [7] Kosuke, K.; Yoshitatsu, B.; Koji, O. A Study on Effective Instructional Design for IoT Security Education Focusing on Experiential Learning. *International Journal of Learning Technologies and Learning Environment*, 2019; Vol. 2, No. 1, PP. 1-18.