

ORIGINAL ARTICLE

Discourse analysis of Chinese vocational universities based on multimodal framework of social semiotics

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ABSTRACT

Due to the development of higher-education marketization, colleges and universities in China's provinces, cities, and regions are facing fierce competition and significant challenges, and vocational universities are no exception. In order to further enhance their visibility and social recognition, vocational universities have adopted various publicity strategies, especially utilizing social media platforms such as WeChat, Weibo, TikTok, and XiaoHongShu. Using the framework of visual grammar analysis, this paper investigates the identity construction in the discourse of vocational universities on social media by analyzing images posted on social media platforms by 33 vocational universities in China. The research findings show that vocational universities use visual content on social media to construct their identities as being skilled, service-oriented, regional, international, employment practice-oriented higher-education institutions that are equal to those in general higher education. This reflects the value of vocational education in today's Chinese society and the realistic difficulties and development challenges faced by higher-vocational colleges and universities.

Key words: higher-vocational education, visual grammar, multimodal discourse analysis, identity construction

INTRODUCTION

Institutions of higher education have always been regarded as the highest halls for the dissemination of ideas, the pursuit of learning, and the search for truth, and it is believed that they should not be swayed by socio-economic forces.^[1,2] However, in the past few decades, market forces and public opinion have increasingly influenced higher education around the world, and universities have been forced to develop a more commercial and entrepreneurial outlook.^[3,4] As part of the marketization process of education, universities around the world are facing fierce competition and huge challenges, and vocational universities are no exception. In order to further

enhance their image, social status, and international competitiveness, China's higher-vocational colleges and universities have adopted various publicity strategies, especially on social media and other new media platforms. Social media companies aim to promote social interaction among users of their platforms, and their content (such as text, comments, pictures, and audio and video clips) is predominantly created by these users.^[5] Its rich multi-modal symbol resources have become crucial in the identity construction and image communication of colleges and universities.

Social media's potential in marketing is evident in that it allows users to deliver precise promotions, manage impressions, enable interactive communication, and

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utilize innovative tools. Platforms like WeChat, XiaoHongShu, and Weibo exemplify these capabilities. Thus, this study analyses multimodal strategies employed by university managers in promoting business-to-customer communications for the promotion of vocational university brands on WeChat. The findings provide a comprehensive understanding of how to improve vocational universities' branding and enhance their institutions' public image. Academically, this study aims to refine social media marketing theories and offer valuable insights for researchers interested in the potential of social media for promoting university brands, particularly on the WeChat platform.^[1] In this study, we focus on WeChat as the primary platform for data collection and analysis due to its overwhelming prominence in China as a social media tool for both personal and institutional communication. With over 1.2 billion monthly active users as of 2023, WeChat serves not only as a messaging app but also as a multifunctional platform for payments, marketing, content sharing, and more. It has become an essential channel for Chinese vocational universities (CVU) to engage with their audience. Given its unparalleled reach, especially in education marketing, WeChat is ideal for analyzing how vocational institutions construct their identities in the digital age.

As of June 2024, there are 1611 higher-vocational colleges and universities in China. The dataset used in the current research is comprised of the 33 most representative vocational universities in terms of institutions listed by the Chinese Ministry of Education.^[6] Based on the theoretical framework of visual grammar proposed by Kress and van Leeuwen,^[7] this paper focuses on 3003 original visual images released by these 33 CVU on social media platforms from April 30, 2023 to April 30, 2024 as the research database and conducts a content analysis by combining quantitative and qualitative methods. To investigate the identity construction of CVU in social media discourse, this study aims to answer the following three questions: (1) How do CVU construct their institutional identity through visual images on social media? (2) What kind of institutional identities do these visual images construct? (3) To what extent do these visual identities reflect the social, cultural, and economic challenges facing vocational universities?

LITERATURE REVIEW

Definition of key concepts

Identity is a dynamic concept often defined as the "social positioning of self and others".^[8] It serves as a critical research subject across various disciplines, including linguistics, communication studies, sociology, and psychology. In the context of higher education,

institutional identity refers to the "self-presentation to the public" by educational institutions.^[9] This identity is constructed through social symbols such as language and images, which appear in the discourse produced by these institutions. Social media can be defined as digital platforms that allow users to create and share content, engage in social networking, and interact with a wide audience. For higher-education institutions, social media have become an important tool for expanding public identity, offering a visual-oriented medium that can enhance their appeal to potential students, staff, and the broader community.

Discourse analysis in higher education

Discourse analysis, particularly critical discourse analysis (CDA), has been a predominant method for studying how higher-education institutions construct their identities. Fairclough's seminal work on CDA examined the marketization of public discourse in British universities by analyzing recruitment advertisements,^[10] conference materials, admissions brochures, and academic resumes. Fairclough found that universities' discourse increasingly exhibited characteristics of commercial promotion, akin to "ordinary enterprises competing to sell products to consumers". This analysis highlighted the interplay between text and the broader socio-cultural context, demonstrating how discourse practices in higher education are shaped by market forces.

Building on Fairclough's framework, subsequent studies have explored universities' discourse across various countries. For example, Xu used CDA to compare Peking University's undergraduate enrollment brochures from 1983 to 2000,^[11] revealing how a promotional culture has permeated academic discourse over time. Similarly, Askehave^[12] analyzed the stylistic features of international student recruitment brochures from universities in Finland, Scotland, Australia, and Japan and found that these texts reflected the values of the free market. Teo^[13] compared the enrollment prospectuses of Nanyang Technological University and Singapore Management University to explore how global competition influences discourse practices and the relationship between discourse and social structure.

Genre analysis in higher education

Genre analysis is another common approach to studying university discourse. Osman conducted a genre analysis of brochures from 11 public universities in Malaysia,^[1] discussing how these institutions have rebranded themselves in alignment with corporate practices. This study concluded that university brochures primarily serve a promotional function rather than merely conveying information. Xiong analyzed newspaper recruitment advertisements from 48 Chinese universities

using a genre analysis model.^[14] This uncovered rhetorical devices and discourse strategies that reflect the marketization of Chinese higher education. Deng took a multidimensional approach and conducted a diachronic analysis of the annual reports of Hong Kong universities.^[15] His study examined the intertextuality and genre structure of these reports, with a particular focus on the multimodal characteristics of market-oriented university discourse.

Social media and institutional identity construction

In recent years, the focus of institutional identity research has expanded to social media platforms, which offer new opportunities for universities to shape their public identities. Social media's visual orientation makes these a powerful tool for attracting potential students and new staff. While traditional discourse studies have focused on printed materials and verbal communication, there is growing recognition of the importance of non-verbal symbols, such as images and videos, in constructing institutional identity. Zhang and O'Halloran conducted a comparative study of the homepages of the National University of Singapore and Tsinghua University,^[16] which used social semiotics to investigate how texts, images, and hyperlinks interact to construct institutional identity. Similarly, Sun and Zhang analyzed the introduction sections of Peking University's website,^[17] utilizing CDA to explore the discourse strategies employed in constructing the university's public identity. Chen proposed a comprehensive research framework for institutional identity discourse that integrates macro, meso, and micro dimensions.^[18] Using this framework, Chen conducted a comparative analysis of the discourse strategies used by Peking University,^[19] Oxford University, and the University of Chicago and highlighted the differences in institutional identity construction across these contexts. Zhang further contributed to this field by building a corpus of profile texts from 184 Chinese universities and conducted an analysis of the discourse strategies they employed, and the institutional identities constructed through these strategies.^[20]

Social semiotic analysis

Social semiotics is an interdisciplinary discipline that integrates elements of sociology, semiotics, and linguistics. It emerged in the 1980s and mainly refers to the theory of social meaning derived from Halliday's functional grammar.^[21,22] It aims to explore "the social meaning constructed through symbolic texts, symbolic practices and other symbolic forms in social activities in various periods of human history".^[23] From the perspective of social semiotics, symbols are resources that people can use and design to generate meaning,^[24] which exist in various forms such as visual, auditory, and

tactile. Drawing on Halliday's view of social semiotics and the theory of the three meta-functions of language,^[25,26] Kress and van Leeuwen extended language analysis to the level of visual symbols and proposed a visual grammar framework.^[7,27] It holds that visual symbols have three dimensions of meaning, namely representational, interactive, and compositional. Therefore, this paper will analyze the visual images of social media in CVU within the framework of social semiotics theory based on visual grammar.^[7]

Gaps and future directions

Despite the growing body of research on education discourse, there remains a gap in the study of vocational universities and their use of social media. Much of the existing research has focused on traditional universities and media, with limited attention given to the discourse practices of vocational institutions and the potential of social media as a platform for identity construction. Additionally, the role of visual and multimodal elements in shaping institutional identity, particularly in the context of social media, has not been sufficiently explored. In light of these gaps, this study aims to investigate the construction of institutional identity in CVU through their visual presence on WeChat. By adopting a social semiotic perspective, the research will explore how these institutions utilize visual images to craft their public identities, thereby offering insights into the broader discourse practices of higher-education institutions in a digital age.

METHODOLOGY

This study aimed to analyze 3003 WeChat pictures from 33 prominent CVU's official platforms. PyCharm (a Python integrated development environment launched by JetBrains) and Anaconda (a data collection and analysis platform based on Python) were used for data collection. Due to the vast amount of content, for example, Shenzhen Polytechnic University, alone, had over 1000 posts in the specified period, the study used sampling to manage the volume for the qualitative analysis. In addition, given the cyclical nature of educational content (admission, examination, internship, graduation, employment), a stratified sampling method was employed.^[28] From each university's corpus of WeChat posts, 10 pictures were randomly selected, resulting in a total of 330 pictures. The selection process involved numbering posts chronologically and using a random number generator. Exclusion criteria included video posts and those pictures lacking textual captions. If a selected post did not meet these criteria, a new selection round was conducted until 10 suitable images were obtained for each university.

Two coders handled the multimodal coding. Inter-coder

reliability was assessed using Cohen's Kappa, with a threshold of 0.8.^[29] Chi-square tests were used for comparative analyses due to the binary nature of the data. Both coders independently analyzed the visual language of images from official WeChat accounts. After ensuring the reliability of their coding results, Coder A's results were used for the statistical analysis.

RESULTS AND FINDINGS

The representational meaning of visual images

Representational meaning refers to the ability of visual symbol resources to reproduce the experiential world outside their symbol system, which is mainly realized by three basic elements: participants, processes, and circumstances.^[7]

Every visual image contains two kinds of participants: narrative participants and conceptual participants. The former refers to "participants who talk about, view, or make images in the act of communication"^[7] while the latter refers to "the participants who constitute the subject of the communication, *i.e.*, the people, places, and things (including abstract 'things') represented by language, words, or images".^[7] The judgment of conceptual participants is an important means of exploring the construction of discourse identity in colleges and universities. Based on the research corpus, this paper divides them into human participants and non-human participants (inanimate objects).

As shown in Table 1, there is a high frequency of human participants (2437, 81.18%), which indicates that these universities adhere to a people-oriented education concept and attach great importance to human participants closely related to the development of the university. In contrast, non-human participants appear less frequently (1509, 50.28%) but still account for a large proportion and play a very important role in the identity construction of CVU. By observing the visual images of non-human participants, it can be seen that they are closely related to university activities, such as practical training, equipment, buildings for teaching, medals, trophies, competitions, venues, and campus scenery. It also indicates that these universities pay special attention to human participants and how they relate to such items, their activities, and achievements.

Considering the high frequency of human participants in the visual images, it is necessary to analyze their role in the identity construction of vocational universities in China. This paper classifies human participants according to their group size and identity (Table 2). According to group-size classification, human participants can be divided into individual participants

and group participants, the latter referring to two or more people. As seen from Table 2, the frequency of group participants (1876, 76.98%) is much higher than that of individual participants (561, 23.02%), indicating that these universities pay great attention to groups and have an obvious tendency towards collectivism, but this does not mean that individuals are ignored. Individual abilities and achievements are also reflected in the visual images.

In the identity category, the human participants in the visual images are divided into students, teachers, management staff, government officials, business representatives, and the public. As shown in Table 2, students (1014, 41.62%) and teachers (1061, 43.55%) appear most frequently, unsurprisingly indicating that students and teachers enjoy a dominant position in China's vocational universities, which are committed to developing into student-centered and teaching-oriented organizations (Figures 1 and 2). Management staff, including secretaries, presidents, vice presidents, and other staff members, also appear relatively frequently (645, 26.48%). Careful examination of these participants' photographs reveals that, in most cases, management staff appear in discussions, inspections, opening ceremonies, and other great occasions, rather than in the similar scenarios as teachers and students (Figure 3). Interestingly, these universities often invite business representatives from different fields to participate in various activities (597, 24.51%), such as well-known alumni, representatives of local high-tech enterprises, artists, athletes, and cooperative mentors outside the campus, with the aim of strengthening the vocational education orientation of school-enterprise collaborations in various ways (Figure 4). In addition, government officials also participate in important activities organized by the universities, which reflects the government's support for these institutions, while public participation reflects society's interest in higher education (Figure 5).

Processes are another aspect of realizing the meaning of representation, including both narrative and conceptual processes.^[7] There are five subcategories of narrative process—actional, reactional, verbal, mental, and conversion, and conceptual process includes three subcategories—classification, analytical, and symbolic. Actional, reactional, classification, analytical, and symbolic processes of the social media visual images produced by CVU play a key role in realizing their representational meanings.

Actional and reactional processes refer to the actions and reactions of the relevant participants in the images. In Figure 6, the lecturer is smiling (reactional process) and is answering the students' questions with hand gestures (actional process). In Figure 7, the teacher is guiding some students during a visit to a laboratory

Table 1: Participants in social media visual images of CVU

| Participants in the representational meaning | Frequency | Percentage (%) |
|--|-----------|----------------|
| Human participants | 2437 | 81.18 |
| Non-human participants | 1509 | 50.28 |

CVU, Chinese vocational universities.

Table 2: Human participants in social media visual images of CVU

| Human participants | | Frequency | Percentage (%) |
|--------------------|--------------------------|-----------|----------------|
| Group size | Individual participants | 561 | 23.02 |
| | Group participants | 1876 | 76.98 |
| Identity | Students | 1014 | 41.62 |
| | Teachers | 1061 | 43.55 |
| | Management staff | 645 | 26.48 |
| | Government officials | 210 | 8.63 |
| | Business representatives | 597 | 24.51 |
| | The public | 293 | 12.06 |

CVU, Chinese vocational universities.



Figure 1. Sample picture of students.

(actional process) and is showing joy (reactional process). These two images clearly show the interaction between the speaker and the audience, and between the teacher and the students, aiming to bring the participants closer together. The classification process "connects participants in a 'class' relationship",^[7] and the



Figure 2. Sample picture of teachers.



Figure 3. Sample picture of management staff

participants in Figure 8, the university leaders, teachers,



Figure 4. Sample picture of business representatives.



Figure 6. Sample picture of actional process and reactional process between teacher and students.



Figure 5. Sample picture of the public.



Figure 7. Sample picture of actional process and reactional process between speaker and audience.

and students, are all playing the same role, meaning that they are striving to create equal and harmonious relationships. The analytical process connects the participants through the part to the whole structure,^[7] the non-human participant equipment (part) and the training room (whole) in Figure 9 jointly realize the analytical process, demonstrating the importance of practical training facilities in the process of constructing an employment practice-oriented identity of CVU. Figure 10 reflects the symbolic process. Among the participants in the image are foreign students of different backgrounds and ethnicities from different countries and regions, symbolizing the university's open and international educational philosophy.

In addition to the participants and the processes, the circumstance component is also one of the basic elements for realizing the meaning of visual image representations. Circumstance refers to "the participant whose deletion does not affect the basic proposition realized by the narrative mode",^[7] which can be



Figure 8. Sample picture of classification process.

specifically divided into three categories: locative, means, and accompaniments. The relevant circumstance components found in this study fall into two categories: locative and means. Locative generally refers to the "positional environment that connects other participants



Figure 9. Sample picture of analytical process.



Figure 11. Sample picture of means from circumstances.



Figure 10. Sample picture of symbolic process.



Figure 12. Sample picture of circumstances within stadium.

to a particular participant"^[7] The backgrounds in Figures 11, 12, and 13 include stadiums, lecture halls, and laboratory buildings, indicating that CVU strives to promote and display their advanced hardware facilities to the viewers in order to enhance their own image. Means, on the other hand, refers to "the tools used in the action".^[7] The gestures and research record used by the speaker in the lecture in Figure 6 belong to the means category, while the group photo in Figure 11 was taken with the help of aerial photography. The use of different means helps participants to better complete the actional process, so as to achieve good communication with the viewers.

The interactive meaning of visual images

Interactive meaning refers to the interactive relationship between participants and viewers represented in visual images, which is mainly realized by contact, social distance, and attitude.^[7]

Contact is concerned with whether the representational participant has direct eye contact with the viewer. Accordingly, images can perform two distinct functions: "demand" (with direct gaze) and "offer" (with indirect gaze). In this paper, contact types are further divided into animate contact and inanimate contact: the former



Figure 13. Sample picture of circumstances within laboratory building.

involves whether the viewer makes eye contact with the

participant when the participant is represented as an animate entity, the latter refers to when the participant is represented as an inanimate object, and there is no eye contact between the participant and the viewer. The image then assumes the function of "offer".

As can be seen from Table 3, among the contact types, the proportion of non-eye contact with living objects (1766, 58.82%) is higher than that with eye contact (515, 17.12%), while the inanimate objects (722, 24.06%) do not have eye contact, indicating that most visual images have the function of "offer". The proportion of images with the function of "demand" is relatively small. For example, Figure 14 belongs to the non-eye contact images with animate participants. The participants who objectively present visual images to the viewer participate in academic activities and serve the function of providing information; although the object in Figure 15 is inanimate, the two images also perform the function of "offer". Figure 16 belongs to the category of images with eye contact with living beings. Participants hope to obtain the attention of the viewer through eye contact and establish an interactive relationship with them, and the image performs the function of "demand". Whether providing information to viewers or seeking their attention, China's vocational universities are striving to create a two-way communication mode in order to better realize their own identity positioning and carry out effective image communication.



Figure 14. Sample picture of non-eye contact with living body.

Social distance refers to the close and distant relationship between the participant(s) and the viewer of the image, which is mainly reflected by the distance of the lens. Generally speaking, an intimate distance (close-up shot) constructs a relatively close personal relationship between the participants and the viewer, while a personal distance (medium shot) reveals a relatively equal social relationship, and an impersonal distance (long shot) shows a distant public relationship.



Figure 15. Sample picture of inanimate object to "offer".



Figure 16. Sample picture of eye contact with living body.

Specifically in this study, the middle distance appears most frequently (1284, 42.77%), indicating that visual images on social media posted by CVU mainly represent the equal social relationship between participants and viewers, as shown in Figure 17. The frequency of near distance (1129, 37.62%) is slightly lower than that of the

Table 3: Interactive meaning of social media visual images in CVU

| Interactive meaning | | Frequency | Percentage (%) |
|---------------------|---------------------------|-----------|----------------|
| Contact | Demand | 515 | 17.12 |
| | Offer | 1766 | 58.82 |
| | Inanimate objects | 722 | 24.06 |
| Social distance | Intimate | 1129 | 37.62 |
| | Personal | 1284 | 42.77 |
| | Impersonal | 590 | 19.61 |
| Attitude | High angle (looking down) | 649 | 21.64 |
| | Eye-level (horizontal) | 2149 | 71.58 |
| | Low angle (looking up) | 205 | 6.78 |

CVU, Chinese vocational universities.

middle distance, indicating that universities are eager to establish a closer relationship with viewers and narrow the distance between the institution and the audience, as shown in the close-up of students in Figure 18. In contrast, the frequency of long-distance images (590, 19.61%) is the lowest. Due to the alienating effect of the social distance created by long lenses (Figure 19), China's vocational universities tend to release fewer of these images.



Figure 17. Sample picture of medium-range shot.



Figure 18. Sample picture of close-up shot.

Attitude is the third aspect to realizing interactive



Figure 19. Sample picture of long-range shot.

meaning, which mainly embodies and characterizes the power relationship between participants and viewers through perspective. Eye-level (horizontal) reflects an equal relationship between the representation participant and the viewer; high angle (looking down) indicates that the viewer of the visual image is in a higher position and has more power, whereas, a low angle (looking up), in contrast to a high viewing angle, indicates a lower status of the viewer and a more powerful representation of the image participant. According to Table 3, among the visual images put on social media by CVU, images reflecting equal power appear the most frequent (2149, 71.58%), indicating that CVU actively attempt to construct an equal power relationship with viewers, as shown in Figure 20. Compared with eye-level, high angle (649, 21.64%) and low angle (205, 6.78%) appear less frequently. Figure 21 and Figure 22, respectively, reflect the power of the audience and the power of the representative participant. Therefore, these universities are more inclined to establish an equal power relationship with the audience by releasing flat-view images, which is consistent with the analysis results of social distance.

The compositional meaning of visual images

Compositional meaning refers to how visual elements



Figure 20. Sample picture of horizontal sight.



Figure 21. Sample picture of high-angle sight.



Figure 22. Sample picture of low-angle sight.

are arranged and organized within an image to convey particular messages or meanings. This involves understanding how the placement, size, and relationship of elements within an image affect the viewer's interpretation of it. It is articulated through three primary systems: information value, salience, and framing.^[7]

Information values are constructed through the placement of elements and are arranged into three positional relationships: center and margin, left and right, and top and bottom. Different elements in a visual image are located in the middle or the margin, placed to the left or right, or at the top or bottom of the picture, and play different roles in transmitting information. Center versus margin deals with the importance of that information, with left and right being assigned known and new information values, respectively, while top and bottom are assigned ideal and realistic information values, respectively.

As shown in Table 4, among the social media visual images from China's vocational universities, the images reflecting the relationship between center and margin have the highest frequency (2094, 69.74%), while the frequencies of left and right (461, 15.38%), and top and bottom (448, 14.88%) are much lower. In terms of the positional relationship between center and margin, placing an element in the center can highlight its importance, while the surrounding elements are mostly secondary in terms of their importance.^[7] In order to judge the significance of an element in a visual image, it is necessary to analyze it in conjunction with the representative participants. The previous analysis showed that human participants accounted for the highest proportion of all images, and non-human participants were often closely related to the human participants, so the human participants were emphasized here by being in the center. As shown in Table 5, management staff (627, 97.20%) and government officials (201, 95.71%) among the human participants are often in the central positions, which indicates that these universities attach great importance to educational management, policy makers, and authorities. This emphasis may stem from a number of aspects, such as the desire to ensure the effective implementation of education policies and strengthen the links between universities and government departments to obtain more resources. Other human participants at the center are teachers (551, 51.93%) and students (482, 47.53%), who, although not as high as management staff and government officials, are still important players that cannot be ignored. This partly reflects universities' concern about teaching quality and their learning environment. Business representatives (129, 21.60%) and the public (104, 35.49%) are less central because they appear less frequently in general.

The fact that management staff and government officials occupy a high proportion of central positions can be further interpreted by Hofstede's power distance concept.^[30] Power distance refers to "the degree to which people with low status in a society accept the unequal distribution of power in the society or organization",^[30] which is reflected by the power distance index. A country or region with a larger power distance index has

Table 4: Compositional meaning of social media visual images in CVU

| Compositional meaning | | Frequency | Percentage (%) |
|-----------------------|-------------------|-----------|----------------|
| Information values | Center and margin | 2094 | 69.74 |
| | Left and right | 461 | 15.38 |
| | Top and bottom | 448 | 14.88 |
| Framing | Connected | 2464 | 82.06 |
| | Separated | 539 | 17.94 |

CVU, Chinese vocational universities.

Table 5: Human participants at the center of social media visual images of CVU

| Human participants at the center | Frequency | Percentage (%) |
|----------------------------------|-----------|----------------|
| Students | 482 | 47.53 |
| Teachers | 551 | 51.93 |
| Management staff | 627 | 97.20 |
| Government officials | 201 | 95.71 |
| Business representatives | 129 | 21.60 |
| The public | 104 | 35.49 |

CVU, Chinese vocational universities.

a higher acceptance of an unequal distribution of power; on the contrary, in some cultures, the acceptability of unequal power is lower. The power distance index of the United Kingdom is 35, indicating that it values a more equal balance of power. The general Chinese view on power is partly reflected in the attention paid by CVU to participants such as management staff and government officials in social media visual images.

Salience refers to the different degrees to which various elements in a visual image attract the attention of the viewer, which can be realized through size, placement in the foreground or background, overlap with other elements, contrast of tonal values, and difference in vividness.^[7] Due to their predominantly being human participants located in the center of most of the visual images, mainly the significant human participants in the visual images are examined here (Table 6). The research data show that corporate representatives (86, 66.66%), government officials (117, 58.20%), and management staff (349, 55.66%) are the three most prominent human participants, which is largely consistent with the previous analysis results. It is worth noting that the significance of business representatives is relatively high, indicating that the cooperation between corporate entities and vocational universities is increasingly close, and this close cooperation may be reflected in many aspects, such as industry-university-research cooperation, technological innovation, and talent training.

Framing is the third dimension of compositional meaning analysis, which mainly examines whether the visual elements in the image are connected. It refers to the use of visual boundaries to connect or separate

elements within an image. Whether frames are used or not can indicate if an element belongs (or not) to a whole and has some influence on the overall layout of the image. As shown in Table 4, the frequency of connected images (2464, 82.06%) is much higher than that of separated images (539, 17.94%). In other words, the vast majority of visual images are connected without using abstract frames. This indicates that the images used by CVU in social media are generally coordinated, and all kinds of representation participants are integrated, which helps to convey relatively complete and coherent information to the viewers.

DISCUSSION ON CHINESE VOCATIONAL UNIVERSITIES' IDENTITY CONSTRUCTION ON SOCIAL MEDIA

How do Chinese vocational colleges and universities construct their institutional identity through visual images on social media?

Chinese vocational colleges and universities construct their institutional identity on social media through the strategic use of visual images that highlight both human and non-human participants. According to Kress and van Leeuwen,^[7] representational meaning in visual images is achieved through the participants, processes, and circumstances depicted. In the visual content analyzed, human participants dominate (81.18%), with students and teachers appearing most frequently. This emphasizes the people-oriented education philosophy prevalent in these institutions. The emphasis on group

Table 6: Significant human participants in social media visual images of CVU

| Significant human participants | Frequency | Percentage (%) |
|--------------------------------|-----------|----------------|
| Students | 71 | 14.73 |
| Teachers | 126 | 22.86 |
| Management staff | 349 | 55.66 |
| Government officials | 117 | 58.20 |
| Business representatives | 86 | 66.66 |
| The public | 24 | 23.07 |

CVU, Chinese vocational universities.

participants (76.98%) over individual participants (23.02%) indicates a strong collectivist culture within these universities, a characteristic often associated with Chinese society.^[30] By showcasing groups in activities such as competitions and collaborative projects, these institutions highlight their commitment to teamwork and community, which are integral to vocational education. Furthermore, the portrayal of management staff and government officials in central positions within these images suggests a top-down approach to governance and institutional identity, where leadership plays a critical role in shaping the university's public image. This is consistent with the concept of power distance in Chinese culture, where hierarchical relationships are accepted and even expected.^[30] The visual emphasis on non-human participants, such as practical training equipment and campus facilities, also reflects the vocational focus of these institutions. These images signal the importance of practical skills and hands-on experience, which are central to the mission of vocational education in China.

What kind of institutional identity do these visual images construct?

The institutional identity constructed by these visual images is one that emphasizes a balance between academic rigor and practical training, a commitment to collectivism, and the integration of traditional hierarchical structures. The frequent depiction of students and teachers (41.62% and 43.55%, respectively) indicates that these universities are centered around teaching and learning, aligning with the broader educational goals of vocational institutions in China. The presence of business representatives and government officials in the visual narratives further underscores the importance of external collaboration and governmental support in the identity of these institutions. This aligns with the vocational education model that emphasizes industry-university partnerships and the role of education in supporting economic development.^[31] By integrating these figures into their visual identity, the universities are positioning themselves as key players in China's socio-economic landscape. Moreover, the analysis of process types in these images—such as action

and reaction processes—reveals an emphasis on interaction and active participation, further supporting the identity of these institutions as dynamic and student-centered. The symbolic processes, particularly those depicting international students, suggest an openness to global influences, reflecting China's broader educational and cultural diplomacy goals.^[32]

To what extent do these visual identities reflect the social, cultural, and economic challenges for vocational universities?

The visual identities of Chinese vocational colleges and universities, as constructed through social media images, reflect the broader social, cultural, and economic challenges these institutions face. The strong emphasis on human participants, particularly in group settings, aligns with the collectivist nature of Chinese society. This collectivism is not only a cultural reality but also a necessary strategy in the face of economic pressures, where teamwork and collaboration are essential for success in the vocational field. The prominence of management staff and government officials in these images highlights the significant role of governance and policy in shaping the identity and operations of these institutions. In a country where education is closely tied to state policies, the visual representation of these figures serves to reinforce the alignment of these institutions with national priorities, such as economic development and social stability.^[33] Additionally, the focus on practical training facilities and non-human participants reflects the economic imperative for these institutions to produce job-ready graduates. In a rapidly changing economic environment, where skills and vocational training are increasingly valued, these images serve to reassure stakeholders that these institutions are equipped to meet the demands of the job market.^[34] However, the limited representation of individual achievements, as opposed to group accomplishments, may suggest a potential under-emphasis on personal innovation and leadership, which could be seen as a limitation in a globalized economy that increasingly values individual creativity and entrepreneurial skills. This tension reflects broader social and cultural realities in China, where the balance between collectivism and

individualism is still being navigated in various sectors, including education. The visual identities constructed by these institutions also reveal a dual narrative: one that embraces modernity and global engagement, as seen in the inclusion of international students and advanced facilities, and one that maintains traditional hierarchical and collectivist values. This duality is indicative of the broader cultural shifts in China, where there is a growing tension between embracing global influences and preserving cultural heritage.

CONCLUSION

Summary of implications

This paper has analyzed the representation, interaction, and compositional significance of visual images used by CVU on social media within the framework of visual grammar analysis. The findings suggest that these three dimensions—representation, interaction, and composition—are not isolated but function together to construct the institutional identity of vocational universities. The visual images employed by these universities are not merely a collection of visual elements; they serve as carriers of deeper meaning, reflecting and reinforcing the identity of vocational universities in China. Through these visual images, vocational universities project themselves as institutions centered around skill development, regional and international integration, and employment-oriented education. The portrayal of technical skills through training equipment, the visibility of government officials, the integration of local and international elements, and the strategic use of words and slogans all contribute to a complex identity narrative. This identity construction aligns with the values of vocational education in modern Chinese society, addressing both the challenges and development goals of vocational institutions. However, vocational universities face ongoing difficulties, such as limited resources, uneven teaching quality, and societal biases. Despite these challenges, their visual identities increasingly reflect an aspiration to elevate vocational education to be on par with general higher education.

Recommendations

Based on the findings, this paper offers several recommendations for different stakeholders in the educational ecosystem. These recommendations aim to enhance the use of social media and visual content to better shape and communicate the institutional identity of vocational universities.

Policy recommendations for policymakers and higher education authorities

National and local education authorities should encourage vocational institutions to use social media as a strategic tool to promote the value of vocational

education. This can be done by highlighting the success stories of students and alumni and focusing on their contribution to local and national economic development. Policymakers are advised to provide greater financial and technical resources to vocational universities to help them create high-quality visual content that accurately represents their identity. This will not only enhance their public image but also help bridge the gap between vocational and general higher education. Authorities ought to facilitate international collaboration by funding programs that help vocational institutions showcase their international partnerships and global relevance through visual media.

Practical suggestions for university managers, academics, and management staff

University administrators should invest in the development of visually appealing materials that highlights their institutions' strengths, such as technical training, industry partnership, and the employability of their graduates. Vocational universities may accentuate their distinct characteristics by emphasizing hands-on training, government relations, and international cooperation. Management staff should use social media to communicate with a wide range of stakeholders, including students, parents, local businesses, and government authorities. Personalized content that represents the institution's principles, such as skill development and community involvement, can help to strengthen connections and boost their public reputation. Academics and content providers should bring a variety of components into their visual content, such as international students and cooperations with businesses, to portray an image of inclusivity and global competency. This might assist vocational institutions in recruiting a more diversified student body and boost their presence internationally.

Recommendations for further research

This study offers a basic investigation into how CVU develop their institutional identity using social media, though it has limitations. Future studies should cover the following topics. (1) As the current study concentrates on visual pictures, future research should include a larger corpus of multimodal materials, such as movies and interactive media, to gain a more thorough knowledge of identity development. (2) Investigate a greater variety of institutions: future study should look beyond vocational universities and encompass a broader spectrum of higher-education institutions. This would enable a comparison analysis and help ascertain whether comparable identity creation processes are applicable to different types of organizations. (3) Investigate longitudinal impact: future research should look at the long-term effects of these visual identity methods on public perceptions of vocational education and student enrolment in vocational programs. This would provide

greater insight into the effectiveness of visual identity development in shaping institutional reputations over time. Recommendations derived from such further research could help vocational universities and stakeholders to better use social media to present a consistent and compelling institutional identity.

DECLARATION

Author contributions

Yang C: Conceptualization, Writing—Original draft. Yang K and Huang QY: Data Curation, Data Coding, and Analysis of Case Studies. Fleischer M: Writing—Review and Editing. All authors have read and approved the final version.

Ethics approval

Not applicable.

Informed Consent

All figures in the article are from Shenzhen Polytechnic University and used with permission. The authors declare that they have obtained appropriate informed consent from persons, or their guardians, who appeared in the figures published in this article. They have given their consent for their images to be published in the journal.

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Data availability statement

Derived data and pictures supporting the findings of this study are available from the corresponding author on request.

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