# Representation of international students on Australian university websites: A critical multimodal discourse analysis

## **Zuocheng Zhang and Wenchao Tu**

University of New England (Australia) and University of Sydney (Australia) zzhang26@une.edu.au

## **Abstract**

University websites play a pivotal role in the recruitment of international students for Australian universities, in particular at a time of fierce global competition. These websites make an interesting specialised genre for discourse analysis. This article conceptualises university websites as multimodal texts employing language and other semiotic resources such as images to represent international students in the context of shifting conceptualisations of international students on the official websites of three Australian universities, the article shows how the universities categorise international students and represent them in perceived activities and interpersonal relations through language and other modalities. The discursive representation of international students by the three Australian universities is discussed in relation to conceptual shifts in international student education, diversity management and multimodal discourse analysis. The article concludes with implications for international student representation and university webpage design.

**Keywords:** university websites, multimodal discourse analysis, international students, interplay between modalities, webpage design.

## Resumen

La representación de los estudiantes internacionales en las páginas web de las universidades australianas: Un análisis crítico del discurso multimodal

Las páginas web universitarias desempeñan un papel esencial en la captación de estudiantes internacionales en las universidades australianas, especialmente en un contexto de gran competencia global. Estas páginas web constituyen un género

especializado de interés para el análisis del discurso. En el presente artículo se conciben las páginas web universitarias como textos multimodales que emplean el lenguaje y otros recursos semióticos, como las imágenes, para representar a los estudiantes internacionales en un contexto cambiante sobre el concepto de la educación de estudiantes extranjeros. Basándonos en una investigación cualitativa de las secciones para estudiantes internacionales en las páginas web oficiales de tres universidades australianas, el artículo muestra cómo las universidades categorizan a estos estudiantes y los representan en actividades y en relaciones interpersonales percibidas a través del lenguaje y de otros modos semióticos. Además, se examina la representación discursiva de este grupo de alumnos en las tres universidades australianas en relación con los cambios conceptuales en la educación de los estudiantes internacionales, la gestión de la diversidad y el análisis multimodal del discurso. El artículo concluye con algunas implicaciones para la representación de los estudiantes internacionales y para el diseño de las páginas web universitarias.

Palabras clave: páginas web universitarias, análisis del discurso multimodal, estudiantes internacionales, interacción entre modalidades, diseño web.

### 1. Introduction

Websites are an important genre of technology-mediated discourses in institutional, organisational and interpersonal communication. They are multimodal as they typically draw on a variety of semiotic resources (Jewitt, 2009) or communicative modes (Norris, 2004) such as linguistic text, image, sound, video, colour and spacing. Just as linguistic texts are generally acknowledged to be able to construct various social meanings, so are websites frequently used by government agencies, commercial or noncommercial organisations to give expression to their purposes, intentions and goals and help "create and maintain a distinct identity" (Saichaie, 2011: 160). For example, Chiew (2004) analysed the Ministry of Education of Singapore's website, showing how the "institution and its objectives become translated, transmitted and received through the hypertext medium" (2004: 131).

University websites are no exception. As they are typically the first port of call for prospective students in their selection of universities to apply to and for current students who rely on them for their participation in university life, university websites are a key specialised discourse in contemporary tertiary education. Research has shed valuable light on university websites, in particular web design, usability and marketing of universities to international students (e.g., Baldry & O'Halloran, 2019; Cerdá Suárez, 2016; Tomášková, 2015). What seems to be under-researched is university websites as a crucial type of "cultural expressions" (Pauwels, 2012: 247) in the sense that such multimodal texts construct discursive representations of educational practices in specific geographical and sociocultural milieus today. In the era of internationalisation of education and mobility of students on a global scale, the discursive representation of international students on university websites is an important undertaking.

An investigation of Australian universities' construction of international students on their websites may contribute to the unpacking of the cultural expressions in some unique ways. As one of the most popular destinations for international students from across the world, Australian universities have been experiencing increasing diversity on their campuses and in their classrooms. Managing diversity is an on-going challenge for Australian universities. There have been continuing discussions of attending to diversity through inclusivity to engender a positive and productive learning experience for international students (e.g., Arkoudis, Baik, Marginson & Cassidy, 2012; Arkoudis & Doughney, 2014; Ziguras & Harwood, 2011). Australian researchers and educators are also critically reviewing the conceptualisations of international education over time and working to develop new concepts in response to the changing reality. For example, Rizvi (2011: 700) argues,

If the neo-liberal market view of international education was largely about recruiting students, enabling them to experience international education, then the emphasis on transnational collaborations implies rethinking the nature and scope of that education itself.

This important critique raises the issue of how we define and understand international students in contemporary Australia and indeed in the world as a whole. As diversity is a recognised fact of life on university campuses and in the classrooms, an education that assists international students and their domestic peers in their academic study and personal growth becomes highly relevant to research. While it is important to investigate how international students are engaged in day to day educational practice (e.g., Kettle, 2017), it would also be useful to look into the texts that are produced in the processes, in particular university websites, which are understandably an important venue for diversity management and engagement. This article aims to work in this direction by conceptualising university websites as a genre involving multimodal discourses, and by exploring how international students are

represented by Australian universities via their websites. It is guided by the following two questions:

- 1. How do Australian universities view international students as shown through the linguistic texts and other modalities on their university website?
- 2. To what extent have these universities demonstrated application of research insights into engaging international students on their website?

Findings from this research will contribute to multimodal discourse studies and international student education by generating insights into multimodal representation of international students through the complex genre of university websites.

#### 2. Literature review

The rapid development and widespread use of modern technology in commercial and non-commercial sectors has prompted research that goes beyond analysing language on its own to investigating language in connection with other modalities such as images, sounds and spatial layout to entertain, engage and/or persuade target audiences. This is referred to as multimodal discourse analysis (e.g., Kress & van Leeuwen, 2006). Similar to the interest in meaning making in traditional "monomodal" print texts, researchers have been unveiling how multimodal texts make meaning. For example, Bateman (2009, 2011, 2014) emphasises the importance of exploring how different modes of semiotics interplay to present meanings. Websites as a multimodal genre are considerably different from print genres as information is no longer presented in a linear way, but is typically modularised (Bezemer & Kress, 2016; Kress, 2015) and there are more connections and reading pathways than in plain texts or other print genres (Askehave & Nielsen, 2005; Hirsch & Jenstad, 2016). A critical slant in research on multimodal texts has also occurred to explore sociocultural factors behind choices made in discourses (e.g., van Leeuwen, 2013, 2014). There has been a call for merging parts of Systemic Functional Linguistics, multimodal analysis and critical discourse analysis (Jancsary, Höllerer & Meyer, 2016; Machin, 2013).

As an important component of the multimodal discourse studies landscape, research for university websites has generated useful insights into the discursive practices of universities by using Internet technology. For example, university websites in different cultural contexts are likely to differ in interesting ways. Through comparing two university homepages, Tsinghua University's Chinese homepage and the National University of Singapore's English homepage, Zhang and O'Halloran (2012) showed how the two universities employ multimodal resources to create a gateway for web users to access and browse the websites and project their university's identity. While Tsinghua University took a more university-centred position in designing its homepage, the National University of Singapore's website evolved to present more appealing images and highlight a more vibrant community with the effect of looking more global, promotion-oriented than Tsinghua University's homepage.

Images are found to be an important semiotic resource in multimodal discourses. Kress and van Leeuwen (2006) demonstrate that analysing images can help researchers to understand the interactive relationship between image producer and the viewer of the images. They provide researchers powerful tools to identify interactive meanings in images. For example, the social distance that the image producer wants to keep from the viewer can be assessed by analysing the proximity of shots such as close shot, medium shot, or long shot; the power relationship between the image producer and the viewer can be evaluated by examining the vertical angles of the images such as high angle, eye-level angle, or low angle; the extent to which the image viewer is designed to be involved with the represented participant(s) of the images can be weighed by the horizontal angles of the images such as frontal angle and oblique angle; the way in which an image producer addresses the viewer(s) can be evaluated by whether direct eye contact (gaze) is established in the image that "demands" a direct contact, or whether the image producer is just intending to "offer" information. Following this framework, Harvey (2013) analysed eight commercial hair-loss websites with the finding that the images of balding men were presented as "offer" pictures, and the images of hirsute men were presented as "demanding" images. Tu's (2016) analysis of 40 Chinese university introduction webpages showed that eye-level and low angle images were presented far more than high angle images. The images of university architecture which were taken and presented from a low angle made the architecture appear more imposing and remarkable and the university authoritative and noble.

By its very nature, multimodal discourses presuppose the co-occurrence of multiple semiotic resources (e.g., Zhang, 2015; Norris, 2007). The interplay between the modalities may take the form of enhancement, complementarity or contradiction (Xing, 2014). There are several interesting findings concerning the interplay between modalities on university websites. Tomášková's (2015) study of university homepages and prospective students' pages indicates that the visual resources presented on the webpages correlated with written texts and illustrated written messages. Tu's (2016) analysis of university introduction webpages demonstrates the connection between the organisational structures of written texts, various modes of visual design, evaluative meanings and interpersonal positioning in achieving each university's communication purposes and the cross-cultural adaptation necessary to ensure the appropriate transmission of information to different target audiences.

These insights into the features of various modalities in multimodal texts and the interplay between them to express a range of social meanings are useful for understanding the construction of international students through multimodality. Research in Systemic Functional Linguistics is also relevant to this end. Texts in discourse studies, in particular studies with a critical orientation, are often treated as social practice which may be unpacked through linguistic analysis (Fairclough, 1992). Systemic Functional Linguistics provides the model of language and descriptive tools suitable for this unpacking process (Eggins, 2004). For example, a human experience may be construed as a material process, relational process, mental process, behavioural process, verbal process or existential process where the humans, objects, time, place and manner may be presented as actors or goals or circumstances in the clause. The resultant clauses provide particular takes on the same human experience to the reader. These clauses may take the form of a statement which offers information, or a question which invites a response, or an imperative which commands action. Clauses, and by extension texts, offer "reading positions" (Kress, 1989: 37) readers/viewers are persuaded to take. These linguistic tools and perspectives are useful for studying the representation of international students on university websites. For example, examining what experiences are perceived for international students, what roles are assigned to them in the clauses, and how universities set up the interaction between them and international students through speech functions in the webpage texts would help researchers to decipher the university's approach to portraying international students.

It is useful to extend Peirce's discussion of sign in terms of icon and index in understanding the relations between the different blocks or clusters of texts on webpages. An icon mirrors the object that it denotes (e.g., a photo mirrors a specific person), while an index points to the object through invoking the association that is established between itself and the object, for example, smoke indexing fire (Peirce, 1931-1958). When one linguistic or multimodal text imparts the same message as another linguistic or multimodal text in the same composition, for example, a webpage, the two texts may be viewed as in an iconic relationship. An indexical relationship holds when association between the two texts needs to be actively worked out by invoking life experience or background knowledge of the viewer. Such intertextual relationships are helpful for understanding the design of compositional meaning on university websites to position international students in their reading/viewing.

## 3. Methods

#### 3.1. Data collection

Of all 37 public universities in Australia, three were selected for this preliminary study, including one prestigious metropolitan university (hereinafter UA), one prestigious university in the nation's capital (hereinafter UB), and one reasonably well-known university located in the country's regional and rural area (hereinafter UC). In addition to the consideration of location and prestige, these three universities were selected due to their respective initial feel, which is argued as an important factor in website analysis (Pauwels, 2012). For example, a first encounter with UB's website impressed the authors as more academically oriented, efficient and functional, while UA appeared to be more dynamic, modern and less offputting, and UC looked different from UA and UB, featuring more maturelooking students and a somewhat cluttered webpage. The official websites of the three universities were sourced for data in the analysis of their way of representing international students.

As this research concerns the information on international students, the university websites were browsed to locate such information, from the homepage to the pages that were hyperlinked to the homepage to target at international students. This search led to the finding that there was a similar webpage designated for international students on the websites of UA, UB

and UC. The pathways leading from the homepages to the international student webpages, however, differed across the three universities. Table 1 is a summary of the reading pathways leading from the homepage of each university to its webpage designated for international students. We would refrain from suggesting that these would be the reading pathways international students would actually follow in their browsing of the webpages for relevant information given the possibly multiple starting and ending points when viewing a multimodal text (Askehave & Nielsen, 2005; Hirsch & Jenstad, 2016).

Universities	Reading pathways
UA	Homepage^Study(top menu)^Admissions^Why study in Australia     Homepage^Current students(top menu)^Administration^International students^Support for international students*
	<ul> <li>Homepage^Study(top menu)^Admissions^Academic support^Support for international students**</li> </ul>
UB	<ul> <li>Homepage^Study(top menu)^Information for international students</li> </ul>
	<ul> <li>Middle block of the homepage with a sub-block for international students<sup>^</sup> Information for international students</li> </ul>
	<ul> <li>Homepage^Admission(bottom menu)^International^Information for international students</li> </ul>
UC	<ul> <li>Homepage^Study(top menu)^International</li> </ul>
	<ul> <li>Middle of the homepage with a block for international students<sup>^</sup></li> <li>International</li> </ul>
	Homepage^Study(bottom menu)^International

Table 1. Summary of reading pathways for UA, UB and UC.1

As Table 1 shows, each university provided three pathways destined for the webpage for international students. One common pathway started from the "Study" menu on each university's homepage. UA and UB also had a pathway leading from the "Current students" menu and "Admissions" menu on their homepage respectively to the international student webpage. It is interesting to note that for UB and UC, each had a separate sub-block for international students in the middle block of its homepage. The sub-block for international students at UC's homepage was located along with three university functions such as student accommodation, research and study mode. UB's webpage featuring various study information listed international students among "Undergraduate students", "Postgraduate students", "Postgrad research students", "Parents & guardians", "Career advisors" and "Agents representatives". The significance of these features to international student representation will be discussed in Section 4.

As each university had more than one webpage directed to international students, only the webpage that was directly hyperlinked from the homepage's "Study" menu was selected in this research to facilitate across-case comparison. For UA, this page included a big photo taken from the university building looking onto the CBD which was placed at the top of the page, followed by a tripartite layout: A list of menus along with hyperlinks such as "International student stories", "Our ties with your region" and "Contact our regional experts" on the left-hand side, a series of multimodal text blocks in the middle explaining "Why study in Australia?", and news about the university's external ranking, hyperlinks to various support available to international students and student stories on the right-hand side. The middle column had, from top to bottom, a linguistic text block introducing benefits to studying in Australia, a video depicting the natural scenery of the university campus and various activities for university students including a graduation ceremony and celebration, the specific reasons for choosing to study in Australia, and a video showing the application procedures. The bottom of the whole webpage included three related articles, which were three blocks of multimodal texts about dealing with homesickness, essential learning at university and making friends at university.

UB's webpage for international students was composed of a multimodal text block at the top, inviting viewers to learn about applying to study at UB, followed by nine multimodal text blocks including rationale for choosing UB, various programmes, entry requirements, application procedures, financial support information, alternative pathways, agent and representative, publications and guides for international students and student visa requirements. The bottom section of the webpage provided hyperlinks to related websites in ten foreign languages in both English and the foreign language script in addition to contact information.

UC's designated webpage for international students had the title "International" which was followed by a multimodal text block featuring a chat facility for international students and a male in medium shot smiling brightly at the viewer. Below this text block were 12 self-contained textimage sub-blocks, four in a row and three rows in total. The sub-blocks provided information on application, choices of available academic programmes, research, financial matters, social networks for international students, opportunities for mobility experiences, agents of the university, sources of information for international students, English language support, services the university provides for international students, policies and rules the university complies with in its business operations, and contact information on international staff.

All the webpages described above were captured through the Uniform Resource Locator on 13 June 2018 and stored in the computer for close coding and analysis.

## 3.2. Data processing

The two authors organised themselves to view and code the captured webpages at the same time and communicate their viewing via WeChat (a mobile app enabling sharing viewing and oral interaction). The coding focused on the representation of international students in light of their "roles" in clauses, the "speech functions" of the clauses and the "use of images" to create the dyad between the university and international students and the interplay between texts.

The coding of the linguistic texts in relation to participant roles in clauses and speech functions was informed by Halliday's (1994) Functional Grammar. Clauses were identified from the webpage text and the process type each clause exemplifies was determined, i.e., whether the clause was a material, relational, mental, verbal, behavioural or existential process. The focus was on the "role" international students and the university under question were assigned in each clause, i.e., as actor, carrier, senser, sayer, behaver, existent, or goal, beneficiary, phenomenon, recipient, verbiage, or circumstances. The "speech function" of each clause was also determined, i.e., as a statement, a question or imperative. These results indicate how each university portrayed international students by presenting their activities, their roles in the activities and the interactional relationship between the university and the students in the activities.

The "analysis of the images" in this study focused on how the universities position their webpage viewers from four dimensions: "Social distance", "power relationship", "level of involvement", and "visual address". Following Tomášková (2015) and Zhang and O'Halloran (2012, 2013), we put the images into two groups: "Personal images" (which feature people or contain people as part of the image) and "non-personal images" (which are images without people present) in order to investigate the university's approach to constructing social distance with the viewer. We also coded the visual power established by the university in relation to its webpage viewers by examining the "angles of the images", that is, the angle from which a photo is taken or a picture is composed visually, or in other words, the angle from which viewers are invited to view the image. The angles of images

imply a situation of visual power (Feng, 2011) and reveal how the universities position themselves in relation to international students. In addition, we coded the way universities visually address the webpage viewers according to whether the eye-contact between represented participants and viewers is direct, which addresses the viewer as "you" and demands a response or action, or indirect, which does not require strong viewer involvement (Kress & van Leeuwen, 2006).

We also attended to the "compositional meaning". Each text block was related to other text blocks on the same webpage to help understand the construction of the interplay between the text blocks, including between linguistic texts and other linguistic texts and between linguistic texts and multimodal texts. For example, on UA's "Admissions" webpage, there were two linguistic text blocks (linguistic captions under their images)

[UA] has been ranked in the top 50 universities in the world for the 14th year in a row.

[UA] has been ranked number one in Australia and 28 globally in the new Thomson Reuters' innovation ranking - 'Top 75: Asia's Most Innovative Universities'.

which were placed in the third column to the right of the following linguistic text, located in the middle column of the webpage:

Deciding to study in Australia secures you a globally recognised education, access to world-class facilities, and memorable student experiences

Clearly, the first two texts are in an evidence-claim relationship with the third text: The externally assigned ranking of UA supports the claims UA makes about its quality education, superb facilities and student experiences. It is also more or less an iconic relationship as the claim text (third text) is mirrored in the evidence texts (first two texts) and would require little effort to associate one with the other.

## 3.3. Inter-rater reliability and trustworthiness of the study

Qualitative research is often judged for its trustworthiness and reliability (Bryman, 2012). The two authors coded the collected webpages independently and then compared their coding through telephone or

WeChat until they agreed on the results of coding and analysis. This process of securing inter-rater reliability assisted in achieving reliability for this study. We also made the data collection and processing procedures explicit to make the results verifiable and thus to reach a substantial trustworthiness in our research. The next section reports on the results of the analysis. For the sake of anonymity and copyright concerns, no image captured from the university websites will be reproduced in this article. What there is in the original image is described in considerable detail to facilitate understanding for readers of this article.

#### 4. Results and discussion

This section reports the results of the data analysis and relates them, where appropriate, to theoretical discussions and practical issues in international student education.

## 4.1. Categorisation of international students

The analysis of the presentation of international students on the reading pathways on the websites of UA, UB and UC indicates that international students were categorised differently across the universities. All three universities had a designated international student webpage and unsurprisingly, this designated webpage was among the series of hyperlinks starting from the "Study" menu on the university's homepage. As studying is the main business of students at universities, it would be normal to have international students channelled through the Study reading pathway. What was intriguing in the analysis of the presentation of international students is the way they were channelled in other ways and signposted on the webpages. For example, UA had two other reading pathways, including through the "Current students" menu and "Admissions" menu. It seems that international students were just another group of subjects to be managed through the university's administration or admissions procedures. UB had its link to the designated international student webpage conspicuously signposted on its homepage. International students were also listed along with other student or people groups as if for UB, international students were different types of students or people from the other groups at the university. Similar to UB, UC had its designated international student webpage conspicuously signposted on its homepage and straightforwardly

hyperlinked. UC also put the link to its international student webpage among the links to university functions. International students appear to be the 'odd man in' at UC as the other three links were not groupings of students or university personnel. When the channelling and juxtaposition practices were considered together and across UA, UB and UC, it led to the argument that international students are represented in three distinct ways. Given UA's deep embedding of international students in its operational procedures, the university seems to treat international students as undifferentiable and weaves them seamlessly into the university fabric. For UB, international students make a patch that is added to the university fabric, while at UC, international students, in the form of a patch, do not seem to find an easy fit in the university fabric. International students thus appear to be an ambivalent group, similar to other groups on campus (e.g., domestic students) but also different enough to be given an umbrella sub-heading on its own. UA, UB and UC seem to be aware of the diversity of their student population, and were responding to it, knowingly or unknowingly, by applying different "grids of specification" (Foucault, 1972: 19): Diversity is acknowledged and represented in a matter-of-fact manner, as in UB and UC, and backgrounded, not to be represented as salient, as in UA. These different approaches may be a reflection of the difficulty in discussions of diversity: a colourful stance where differences are noted and a colour-blind stance where differences are viewed as invisible or non-existent (e.g., Stevens, Plaut & Sanchez-Burks, 2008). UA's approach would have the danger of overlooking international students' unique needs. The approach taken by UB and UC, on the other hand, may run the risk of continuing the othering of international students.

There have been several concepts developed to manage diversity, including equity and inclusivity. Inclusivity in education is associated with equal access to opportunity and participation and equitable outcomes for students (e.g., Hyde, 2017). Understandings of diversity and inclusivity seem to be undergoing a change from the universalist perspective and business model on diversity towards a diversity leveraging perspective, at least in the commercial sector (e.g., Wallace, Hoover & Pepper, 2014). There seems to be a similar change in current research in international student education. Engagement, as understood to mean catering to international students' needs such as their English language needs, integrating with domestic students, participating in academic practices in the classroom and achieving personal growth (Kettle, 2017), would be a way of diversity management

which contributes to the drive for internationalisation of education at Australian universities with a view to integrating their student groups to enrich learning experiences for all (Arkoudis et al., 2012). In this light, it would be less productive to avoid viewing international students as a distinct group, or being "international student-blind" by treating them as a group "equal" to dominant groups on campus. It would be more productive to explore ways of representing them along with domestic students in both academic studies and personal growth to achieve the outcome of transformation for both.

## 4.2. Role assignment for international students in class

International students were assigned a variety of roles in the clauses of the webpage texts that target them. Table 2 summarises the represented roles of international students in the material, mental, relational and verbal processes identified in the data. It is clear that international students were represented as participating in a range of experiences at university and more importantly were assigned agentive roles in a sizable number of clauses as the actor, senser, carrier and sayer in the processes. UA appears to be the most generous in assigning the agentive roles to its prospective international students, seconded by UB. UC seems to assign the least opportunities to its prospective international students to initiate an experience.

Name of university	UA	UB	UC
Number of text blocks	11	12	14
Number of clauses	72	28	31
International student vs. uni. as "actor" in material process	17/5	6/4	4/6
International student vs. uni. as "senser" in mental process	10/1	10/1	3/0
International student vs. uni. as "carrier" in relational process	6/4	1/0	0/3
International student vs. uni. as "sayer" in verbal process	2/4	4/0	3/1
International student vs. uni. as "circumstance", "goal", "beneficiary" or in "no explicit role" in the clause	37/58	7/23	21/21

Table 2. Representation of international student versus the university in the clauses.<sup>2</sup>

# 4.3. Dyads between the university and international students through speech functions and images

The tasks involved in application and admission of international students create a dyad between universities and international students. The three universities constructed different dynamics of the dyad, which can be attested by the speech functions and the images deployed on the webpages. The linguistic texts were found to include statements, questions and imperatives that indicate the interpersonal relationship the universities were constructing with their prospective international students. Table 3 is a summary of the analysis of speech functions of the clauses on the webpages of UA, UB and UC.

Name of university	UA	UB	UC
Number of statements	64	13	26
Number of questions	5	1	1
Number of imperatives	3	14	4

Table 3. Summary of speech function of clauses for UA, UB and UC.

What can be seen in Table 3 is that the largest number of clauses goes to statements for UA and UC while UB tends to have a much higher number of imperatives in its webpage text. As statements offer information, while questions and imperatives command response or action, the three universities seem to hail their (prospective) international students differently: As "patient provider of information", for UA and UC, and "keen recruiter" for UB. In marketing terms, UA and UC adopted the "soft sell" approach by offering information for informed decision on the part of the viewer/prospective international students who were enticed to seek membership, whereas UB opted for the "hard sell" approach by commanding their viewer to act and respond.

Images and other modalities contribute to the different dyads that were identified through the linguistic text analysis. Table 4 provides the summary of the analysis of the images from social distance, visual power, visual address and involvement to show how the three universities constructed an interpersonal relationship with their international students.

Table 4 shows that compared with non-personal images, personal images were preferred by the universities on their webpages. UB, particularly, chose to present only personal images. It should be added that the participants represented in these personal images appear to be university students of different ethnic backgrounds. According to Tomášková (2015) and Zhang and O'Halloran (2012, 2013), presenting the image of students on the webpage creates a more emotional sense of the university: welcoming, multicultural and inviting to potential students.

Categories of interpersonal meanings	Features displayed in the images	Meanings made through the deployment of features
Social distance	personal (UA7/9; UB9/9; UC10/14) non-personal (UA2/9; UB0/9; UC4/14)	personal & emotional impersonal
Social distance	close shot (UA1/9; UB4/9; UC6/14) medium shot (UA5/9; UB4/9; UC5/14)	personal/intimate social
	long shot (UA3/9; UB1/9; UC3/14)	impersonal
Visual power	high angle (UA3/9; UB1/9; UC1/14) eye-level angle (UA5/9; UB8/9; UC13/14) low angle (UA1/9; UB0/9; UC0/14)	represents viewer power equality represents participant power
Visual address	gaze (UA2/9; UB5/9; UC3/14) absence of gaze (UA7/9; UB4/9; UC11/14)	demand (contact)
Involvement	frontal angle (UA3/9; UB5/9; UC3/14) oblique angle (UA6/9; UB4/9; UC11/14)	involvement detachment

Table 4. Constructing interpersonal relationship through images.3

Regarding the proximity of the shot of the images, UB and UC presented more close shots of images, which establish a more personal space between the university and its viewers. In contrast, UA seems to keep a certain distance through its lower use of close shots (Another reason could be that UA's webpage did not have as many images as on UB's and UC's webpage). This result seems to align with that from the analysis of the "frontal" versus "oblique" angles of images. While UA's and UC's webpages were mostly of images taken from an oblique angle, more than half of the images shown on UB's international student webpage were taken from a frontal angle. Following Kress and van Leeuwen (2006), UA and UC gave the impression of keeping a certain distance and being detached from the participants represented in the images, whereas UB seems to be more involved with their participants.

The images of the three universities were taken predominantly at eye-level, with only a small number of high angle images and occasional low angle images. What this shows is that all three universities seem to be trying to build an equal relationship with international students and even allowing a slightly more powerful position to them than to the universities themselves (Feng, 2011; Kress & van Leeuwen, 2006).

Concerning visual address, UA and UC images stood out for their absence of gaze, while UB made more use of gaze in its images, with nearly half of them having the represented participants looking directly at viewers, as if inviting or even demanding a personal contact and involvement.

Tables 3 and 4 show the workings of modalities in their own terms. When the two tables are read together, two findings can be generated. First, the messages imparted through the linguistic texts and the images largely align with each other. For example, by using a large number of statements in their linguistic texts, UA and UC were found to be providing information that was reflected or enhanced through the absence of gaze in their images, which means that no contact was explicitly required to be made. UB, on the other hand, shows a more demanding position both visually (large number of demand gaze) and linguistically (large number of imperative clauses) to invite/demand direct contact with the web users and their response and action.

The differences that have been noted between the dyads the three Australian universities were constructing may derive from the basic premise each university seems to be playing with. UB builds on its claim as the leading university of the country and does not seem to find much need to promote itself while the other two universities devote many of their respective linguistic and visual resources to providing the evidence to win the favour of their viewers (prospective students). On the external rankings of Australian universities over the years, UB has had better rankings than the other two universities. From a sociolinguistic point of view (e.g., Sarangi & Roberts, 1999), UB's discourse seems to be reflecting its status in the tertiary education sector (discourse construes reality) and brings it into being through the discourse (discourse constructs reality).

## 4.4. Compositional meanings

The analysis of the webpages reveals very interesting patterns of composition involving linguistic texts in relation to other linguistic texts and to the images. Two most striking findings include: 1) UA's and UC's use of blocks of linguistic texts or blocks of images to set up a claim and evidence relationship, and 2) the frequent use of images as indexical, particularly on UB's webpage.

The designated international student webpages of UA and UC feature a number of examples of linguistic or multimodal texts in a claim-evidence relationship. For example, one of UC's images is an event photo in which its international office was offering assistance to international students through colourful posters and face-face consultation. This image is placed above the linguistic text, providing evidence for the claim in the text's punch line "International Services can help!". The extensive use of the claim-evidence sequence in composition may well reflect the Western tradition of evidencebased argument (Wang, 2004) in academia. The discursive practice resonates with UA's and UC's basic premise in their respective argument for being a university of choice for international students: long tradition, heritage and educational values. Together with this emphasis on academic tradition, UA's and UB's inclusion of hyperlinks to regional ties and representatives of international students and websites in international students' home language on their respective webpage may indicate an awareness on the side of Australian universities of the need to return to traditional educational values in providing international education and to enact the transition from the neo-liberalist conceptualisation of international education as an entrepreneurial undertaking to some signs of transnational collaboration (Rizvi, 2011).

The analysis of the interplay between linguistic texts and multimodal texts (mainly images in the data) yields other interesting insights. UB and UC both make extensive use of images on their webpages for international students. For every linguistic text block, there is an image. What is worth noting is that UC's images are more often iconic than indexical while the exact opposite is true of UB. For example, UC's images are often photos of its campus indicating the natural environment of the university or the location of the university personnel responsible for international student affairs. The messages through the images are often congruent with the messages of the accompanying linguistic texts. A good example of this iconic relationship is the image including a microscope and stethoscope suggesting the disciplines that are studied at the university, and the linguistic text with the title "Research". UB's images are frequently indexical in the sense that the connection between the messages through the image and the linguistic text needs to be worked out by invoking the viewer's life experience. For example, the image chosen to accompany the linguistic text about entry requirements is a medium shot of an international student standing in front of the lawn, holding a folder, smiling at the viewer. While the linguistic text is explicitly about the message "Find out about the entry requirements for international students", what the image is imparting is less immediate. The viewer needs to infer that the folder contains print information on entry requirements and that such information is for international students. UC's images seem to be more candid in being informational and functional while UB's images tend to have a more inspirational and motivational intention (OWL at Purdue, 2013). Although UA does not couple each linguistic text with an image, the two videos located at the top and bottom of the international student

webpage are in an ideal (top) and real (bottom) semantic structure (Kress & van Leeuwen, 2006). Viewers are visually persuaded to do the real (making the application) to achieve the ideal (dynamic university life and graduation). The image-linguistic text relation on UA's webpage would also be described as iconic. It may be inferred that the choice of an iconic or indexical relationship between linguistic texts and images aligns with the conceptualisation of international student education that underlies the discursive practices. In other words, when marketing is the overt goal, go for indexical.

#### 5. Conclusions

This article sought answers to the questions of how Australian universities represent international students on their websites through multimodality and whether current thinking in international student education has made inroads into the universities' discursive practices. Although the nature of this qualitative inquiry restrains us from providing any conclusive answers, we would argue that Australian universities seem to be struggling with a uniform representation of international students. Through linguistic texts, multimodal texts, and the intertextual relations between them on the university websites, international students are portrayed either as a group of students equal to other student groups, studying and growing on the same campus, being informed of and gently socialised into the same (Western) academic tradition, in a somewhat egalitarian relationship with the university (e.g., informed decision-making, equality in social interaction), as exemplified by UA. Or as in the example of UB, they are represented as part of a composite, being different from but equal to all other groups of people on campus, and more saliently, the group earnestly approached. And somewhere in between these two polar representations, as shown in the case of UC, international students are recognised as a real existence that is, nonetheless, not comfortably engageable (e.g., limited interaction between international students and the university in both the linguistic texts and images). These distinct discursive practices prompt us to link the multimodal representation of international students to bigger issues that are being attended to in the literature, in particular the changing trend in conceptualisation of international student education in the era of globalisation and perhaps the apparent uncertainty in globalisation in the last two years. As an institutional discourse, university websites are motivated.

They seem to be informed by current research and in a sense, are also contributing to shaping the transitional status in thinking about international education (e.g., international education as an entrepreneurial undertaking for people's development versus as transnational collaboration) and the management of diversity (e.g., colour-blindness versus colourful approach).

This study has provided further evidence for the power of critical multimodal approaches to understanding meaning-making. The interplay between images and linguistic texts assists in achieving a mitigating effect in human communication. Some of the apparently strong linguistic speech functions, e.g., imperatives, may be tempered by the use of images that are welcoming and inviting. It is also useful to note the alignment of iconic versus indexical relations between clusters of texts with the overall goal of discursive practices. These insights should have considerable value for education in languages for specific purposes and webpage design.

For further research, a corpus linguistics approach (e.g., Baldry & O'Halloran, 2019) may be usefully adopted to validate the findings reported in this article. Our analysis focused on the international student webpage, without including the further hyperlinked pages which elaborate the different text blocks on the international student webpage. It would be interesting to examine the more detailed texts to see if the patterns reported would still apply. It would be useful to investigate prospective and current international students' real experience of viewing the webpages by tracking their reading pathways, for example, through eye-tracking research, and inviting them to comment on the indexical rather than iconic images in relation to clarity and persuasive effect. University personnel may also be interviewed to seek their perception of representing international students on their university websites to validate the claims in this study. It would be most interesting to compare the webpages for international students in varied geographical and sociocultural settings to develop a deeper understanding of multimodal representation of international students and internationalisation of education in a rapidly transforming world.

> Article history: Received 15 August 2018 Received in revised form 8 November 2018 Accepted 19 November 2018

## References

Arkoudis, S., C. Baik, S. Marginson & E. Cassidy (2012). Internationalising the Student Experience in Australian Tertiary Education: Developing Criteria and Indicators. URL: http://www.cshe.unimelb.edu.au [20/07/2018]

Arkoudis, S. & L. Doughney (2014). Good Practice Report - English Language Proficiency. URL: https://melbourne-

cshe.unimelb.edu.au/ data/assets/pdf file/0004 /1489162/GPR\_English\_language\_2014.pdf [15/08/2018]

Askehave, I. & A. E. Nielsen (2005), "Digital genres: A challenge to traditional genre theory". Information Technology & People 18,2: 120-141.

Baldry, A. & K. O'Halloran (2019). Multimodal Corpus-based Approaches to Website Analysis. Sheffield, UK: Equinox.

Bateman, J. (2009). "Discourse across semiotic modes" in J. Rellkema (ed.), Discourse, of Course: An Overview of Research, 55-66. Amsterdam: John Benjamins.

Bateman, J. (2011). "The decomposability of semiotic modes" in K. O'Halloran & B. Smith (eds.), Multimodal Studies: Exploring Issues and Domains, 17-38. New York: Routledge.

Bateman, J. (2014). Text and Image: A Critical Introduction to the Visual/Verbal Divide. New York: Routledge.

Bezemer, J. & G. Kress (2016). Multimodality, Learning and Communication: A Social Semiotic Frame. New York: Routledge.

Bryman, A. (2012). Social Research Methods (4th ed.). Oxford: Oxford University Press.

Cerdá Suárez, L. M. (2016). "Investigating website appearance and usability effects on student satisfaction with the website: A descriptive analysis in three countries". International Review on Public and Nonprofit Marketing 13,3: 223-238.

Chiew, A. K. K. (2004). "Multisemiotic mediation in hypertext" in K. L. O'Hallowran (ed.), Multimodal Discourse Analysis: Systemic Functional Pperspectives, 131-159. London: Continuum.

Eggins, S. (2004). An Introduction to Systemic Functional Linguistics (2nd ed.). London: Bloomsbury.

Fairclough, N. (1992). Discourse and Social Change. Cambridge: Polity Press.

Feng, D. (2011). "Visual space and ideology: A critical cognitive analysis of spatial orientations in advertising" in K. O'Halloran & B. Smith (eds.), Multimodal Studies: Exploring Issues and Domains, 55-74. New York: Routledge.

Foucault, M. (1972). The Archaeology of Knowledge. New York, NY: Routledge.

Halliday, M.A.K. (1994). An Introduction to Functional Grammar (2nd ed.). London: Edward Arnold.

Harvey, K. (2013). "Medicalisation, pharmaceutical promotion and the Internet: A critical multimodal discourse analysis of hair loss websites". Social Semiotics 23,5: 691-714.

Hirsch, B. D. & J. Jenstad (2016). "Beyond the text: Digital editions and performance". Shakespeare Bulletin 34, 1: 107-127.

Hyde, M. (2017). "Understanding diversity, inclusion and engagement" in M. Hyde, L. Carpenter & S. Dole (eds.), Diversity, Inclusion and Engagement (3rd ed.), 3-13. Sydney: Oxford University Press.

Jancsary, D., M.A. Höllerer & R. E. Meyer (2016). "Critical analysis of visual and multimodal texts" in R. Wodak & R. Meyer (ed.), Methods of Critical Discourse Studies, 180-204. London: Sage.

Jewitt, C. (Ed.) (2009). The Routledge Handbook of Multimodal Analysis. London: Routledge.

M. (2017). International Student Kettle. Engagement in Higher Education: Transforming Practices, Pedagogies and Participation. Bristol: Multilingual Matters.

Kress, G. (1989). Linguistic Processes in Sociocultural Practice (2nd ed.). Oxford: Oxford University Press.

Kress, G. (2015). "Semiotic work: Applied linguistics and a social semiotic account of multimodality". AILA Review 28: 49-71.

Kress, G. & T. van Leeuwen (2006). Reading Images: The Grammar of Visual Design (2nd ed.). London: Routledge.

Machin, D. (2013). "What is multimodal critical discourse studies? ". Critical Discourse Studies 10.4: 347-355.

Norris, S. (2004). Analyzing Multimodal Interaction: A Methodological Framework. London: Routledge.

Norris, S. (2007). "The micropolitics of personal national and ethnicity identity". Discourse and Society 18,5: 653-674.

OWL at Purdue. (2013). Visual Rhetoric: Analyzing Visual Documents. URL: https://owl.purdue.edu/ owl/general\_writing/visual\_rhetoric/analyzing\_visu al documents/index.html [20/07/2018]

Pauwels, L. (2012). "A multimodal framework for analyzing websites as cultural expressions". Journal of Computer-Mediated Communication 17: 247-265.

Peirce, C. S. (1931-58). Collected Papers. Cambridge, MA: Harvard University Press.

Rizvi, F. (2011). "Theorizing student mobility in an era of globalization". Teachers and Teaching: Theory and Practice 17,6: 693-701.

Saichaie, K. (2011). Representation on College and University Websites: An Approach Using Critical Discourse Analysis (Unpublished doctoral dissertation). Iowa City, IA: University of Iowa.

Sarangi, S. & C. Roberts (eds.). (1999). Talk, Work and Institutional Order: Discourse in Medical, Mediation and Management Settings. Berlin, Germany: Mouton de Gruyter.

Stevens, F. G., V.C. Plaut & J. Sanchez-Burks (2008). "Unlocking the benefits of diversity: Allinclusive multiculturalism and positive organizational change". The Journal of Applied Behavioral Science 44,1: 116-133.

Tomášková, R. (2015). "A walk through the multimodal landscape of university websites". Brno Studies in English 41,1: 77-100.

Tu, W. (2016). How Universities Introduce Themselves on the Internet: A Critical Multimodal Comparative Genre Study (Doctoral thesis). Sydney: The University of Sidney.

van Leeuwen, T. (2013). "Critical analysis of multimodal discourse" in C. A. Chapelle (ed.), The Encyclopedia of Applied Linguistics, 1416-1421. Oxford: Blackwell.

van Leeuwen, T. (2014). "Critical discourse analysis and multimodality" in C. Hart & P. Cap (eds.), Contemporary Critical Discourse Studies, 281-296. London: Bloomsbury.

Wallace, H. M. L., K.F. Hoover & M. B. Pepper (2014). "Multicultural ethics and diversity discourse". Equality, Diversity and Inclusion: An International Journal 33.4: 318-333.

Wang, W. (2004). "A contrastive analysis of letters to the editor in Chinese and English". Australian Review of Applied Linguistics 27: 72-88.

Xing, J. Y. (2014). "The mechanism of complementarity between modalities in situated discourses" in Z.C. Zhang, J. Y. Xing, Y. Wang, M. H. Zhu, J. Q. Sun & J. X. Liu, duomotai jixihuayu yanjiu (Multimodal Study of Situated Discourses), 39-48. Guangzhou: World Publishing Corporation.

Zhang, Y. & K. L. O'Halloran (2012). "The gate of the gateway: A hypermodal approach to university homepages". Semiotica 190: 87-109.

Zhang, Y. & K. L. O'Halloran (2013). "Toward a global knowledge enterprise: University websites as portals to the ongoing marketization of higher education". Critical Discourse Studies 10,4: 468-485

Zhang, Z. C. (2015). "Disagreements in plenary addresses as multimodal action" in B.C. Camiciottoli & I. Fortanet-Gómez (eds.), Multimodal Analysis in Academic Settings: From Research to Teaching, 17-38. London: Routledge.

Ziguras, C. & A. Harwood (2011). Principles of Good Practice for Enhancing International Student Experience Outside the Classroom. URL: http://pandora.nla.gov.au/pan/130672/20120131-1750/www.isana.org.au/images/file/isana%20goo d%20practice%20guide.pdf [12/08/2018]

**Zuocheng Zhang** is a senior lecturer at the University of New England, Australia. He has published four scholarly books and around 50 articles on English for Specific Purposes, Multimodality, and Literacy Education, including his recent books Multimodal Study of Situated Discourses (2014, with World Publishing Corporation) and Learning Business English in China: The Construction of Professional Identity (2017, with Palgrave Macmillan). His current projects concern university websites as multimodal discourses and international students' study-abroad experiences.

Wenchao Tu has recently graduated from the University of Sydney. Her PhD thesis investigated universities promoting themselves through their websites.

#### NOTES

- <sup>1</sup> ^ indicates sequence of the hyperlinks. \* and \*\* are named the same but have different content information. They seem to be different versions with one being the revised and the other being the old
- <sup>2</sup> Clauses include finite and non-finite clauses as well as phrases presented as a self-contained unit of information in the webpage texts. "/" in the statistics indicates comparison between the number of the role assigned to the student versus to the university.
- <sup>5</sup> The first digit shows the number of images that have the particular feature out of the total number of images (indicated by the second digit following "/") on the university's webpage for international students.