



Deposited via The University of Sheffield.

White Rose Research Online URL for this paper:

<https://eprints.whiterose.ac.uk/id/eprint/186224/>

Version: Accepted Version

Proceedings Paper:

Alsuhaibani, A., Cox, A., Hopfgartner, F. et al. (2022) International students' movement to the UK and their digital transition on social media. In: iConference 2022 Posters. iConference 2022, 28 Feb - 04 Mar 2022, Virtual conference. IDEALS.

© 2022 The Author(s). For reuse permissions please contact the author(s).

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.

International Students' Movement to the UK and their Digital Transition on Social Media

Anas Alsuhaibani^{1,2}, Andrew Cox¹, Frank Hopfgartner¹ and Xin Zhao¹

¹ Information School, University of Sheffield, UK
{ahalsuhaibani1}, {a.m.cox}, {f.hopfgartner}, {xin.zhao}@Sheffield.ac.uk

² Information Systems Department, Prince Sattam Bin Abdulaziz University, Al-Kharj, Saudi Arabia
ah.alsuhaibani@psau.edu.sa

Abstract. This study examines the relationship between international students' movement and their digital transition on Twitter. By using the Twitter API, timelines for 17 Saudi students studying in the UK were retrieved. An in-depth qualitative content analysis for these accounts was conducted for a two year period, before and after their move. The study identified a transition in the students' timelines on Twitter in terms of what they post. This was usually characterized by an increase in posts related to (1) the UK and international contexts and (2) academic and language topics. The analysis also revealed that social media can play a positive role by providing students with needed information and supporting them to develop their English language. This study successfully identified a form of digital transition on Twitter that students go through and highlighted the positive role of social media in the students' overall transition experience. This research serves as a good foundation for future researchers interested in the transition and digital technologies or social media.

Keywords: International Students, International Students' Transition, Social Media, Social Media Analysis, Saudi Arabia, UK.

1 Introduction

For many international students, their transition to studying abroad is a major life event that involves multiple social, cultural and personal changes [1,2]. A number of previous studies have highlighted the importance of social media in international students' life abroad. Some researchers [3–5] have focused on social media and social connections and communications, others have been more concerned with the social media and its role in the cultural adjustment for students [6,7]. However, the relationship between students' physical movement and changes in digital habits is not fully understood.

In this context, by applying an in-depth qualitative content analysis to the Twitter timelines of Saudi students coming to the UK, this study aims to contribute to knowledge by exploring the digital transition of international students.

2 Literature review

Moving up to a new level of study, e.g. to undergraduate or postgraduate level, is a challenging experience. However, for international students, it is more complex because they have to adapt to a new society, environment and culture in addition to adapting to new academic expectations [1,2,8–10]. During their transition, international students may have the experience of feeling depressed, anxious, lonely and lost [11,12]. It is a multi-dimensional movement involving a range of changes, psychological, educational, social and cultural [1].

Due to their increased need of social support and communication [13], international students tend to spend more time than home students on social media [14]. They find social media very helpful in seeking academic and information about day-to-day affairs. They also find it useful in maintaining ties with their home country and creating new ones in the host country. Positive impact has also been reported about social media's role in facilitating cultural and academic integration with the new society and academic environment [15–17]. However, although most researchers in this field have identified positive roles for social media, other negative affects also need to be acknowledged. Li and Ito [18] claimed that in international students' experience of study abroad, social media can distract them and isolate them from the new society. Furthermore, students' academic achievement can be negatively affected by its uncontrolled use [19].

Digital transition on social media can involve various forms of changes, such as change in the posted content, frequency of posting, sentiment of posting or even change of platform. Various studies have been conducted in the area of international students and social media [e.g.13,15,16,18–20]. However, the research reported here makes a distinctive contribution by investigating the relationship between students' physical movement and their use of social media. It goes beyond investigating the pros and cons of social media during transition to investigating whether there is a digital transition on Twitter associated with their physical movement. It achieves this aim by applying qualitative content analysis on Saudi international students' timelines on Twitter.

Thus, this study seeks to contribute to the existing body of knowledge by (1) examining whether students have a digital transition on Twitter, and (2) exploring the shift in content that they post on Twitter and (3) investigating the role of social media in the students' transition experience. It seeks to answer the following questions:

1. Do international students make a transition in their posted content on Twitter during their transition?
2. What types of change in posts do international students make during their transition?
3. Does Twitter help international students in their overall transition to study abroad?

3 Methodology

This work is part of a larger research project combining interviews of Saudi students coming to the UK with a qualitative content analysis of their Twitter timelines [20–22]. Participants were selected randomly and asked to provide their Twitter usernames. This paper will make a focus on the second of these.¹ Three main steps were followed in this method: (1) collection of usernames, (2) tweets collection and (3) data analysis.

The corpus analysed in this study was the timelines of posted tweets of 17 Saudi international students in the UK. Twitter is one of the most frequently used platforms in Saudi Arabia [23]. Tweets were collected from one year before students move to the UK until one year after their arrival. The reasons for including tweets at the stage before they arrived were (1) because students' transition may start before they physically move and (2) to be able to make a comparison between the before and after periods. The reason for restricting tweets to one year after arrival is that different students have different periods after their arrival, therefore, restricting the time to one year after arrival ensured consistency between participants.

Since the data was to be manually coded, a data sampling technique was needed. A formula for data sampling called Slovin's Formula was used. This formula is commonly used by researchers to estimate random sampling size with a countable population [24]. It was applied for each student individually and the size of sampled tweets for all students was 3459 tweets.

Content analysis is an effective analysis technique that can be applied as a research method in quantitative and qualitative studies [25,26]. Eight steps recommended by Zhang and Wildemuth [27] to apply a qualitative content analysis were followed. The analysis focused on the subject of the messages (tweets). It was carried out by the first author of this study. An intercoder reliability test with another coder was applied and resulted in 88.9% agreement, which is a reliable percentage [28].

4 Findings

The qualitative content analysis of the students' timelines resulted in identifying the following ten types of posts: (1) academic related topics, (2) social and cultural topics, (3) everyday life arrangements, (4) language related topics, (5) Saudi news and trends, (6) UK news and trends, (7) international news and trends, (8) religious expressions and prayers, (9) maxims and quotes and (10) emotional expressions.²

As regards identifying a shift in posted content, which is the focus of this study, it was found that most students have a shift in their Twitter content after they go to the host country. Two general patterns were noticed in the tweet analysis: (1) a shift to

¹ However, data from the interviews will be used to explain some findings from Twitter.

² Only some codes which generated the shift in content were considered in this study, other codes will be useful to answer other digital transition questions in future studies.

posting about the UK and international topics and (2) a shift to academic and language topics.

Shifting to posting about the UK and international topics

One of the main patterns emerging from the analysis of the tweets was the shift towards posting about topics related to the host country and also the wider international world (Tables 1 and 2). Based on many students' tweets, it was interesting that the students leaving their home country has not only exposed them to material about the host country but also to those about the wider world. According to the interview data, some students are motivated to study abroad because they want to expand their global awareness. A way of increasing this awareness is to become involved in online discussion about global topics, such as international political or economic issues. The increase in tweets on these topics was also associated with a decrease in the Saudi topics, examples of this are shown in Table 3.

Table 1. Shifting to UK news

Code	Period	Participant						
		M1	F3	F4	F5	M4	M5	M6
UK news and trends	Before (%)	2.4	0.9	0.0	0.0	0.0	0.0	0.0
	After (%)	4.0	3.0	4.2	1.0	3.8	7.5	8.0

Table 2. Shifting to international news

Code	Period	Participant						
		M1	F2	F5	F6	F8	M6	M8
International news and trends	Before (%)	7.1	1.7	17.9	1.4	1.3	2.2	0.0
	After (%)	12.0	3.3	24.5	3.0	6.7	6.9	8.0

Table 3. Shifting from Saudi news

Code	Period	Participant							
		F1	F2	M3	F4	F6	F7	M6	M8
Saudi news and trends	Before (%)	41.9	48.3	22.7	34.0	28.4	50.5	33.6	73.5
	After (%)	5.3	3.3	5.9	18.3	16.0	39.3	26.4	62.7

Interestingly, although Table 3 indicates a decrease in tweets related to Saudi topics for some students, the percentage of tweets after arrival is still relatively high (e.g. F7, M6, M8). According to the tweets content, the reasons behind this are, first, this code was a very dominant before students' arrival, therefore, a decrease means a reduce in the percentage but it may still high. Second, many students, after their arrival, were noticed to share information about Saudi Arabia, such as, historical information, popular places, Saudis' achievements. Interview data shows that students tend to share material about

their country and culture after arrival as a way of expressing their emotions towards their country, for instance, during important events in their home country (e.g. national day).

Shifting to the academic and language topics

Another pattern of transition on Twitter was related to an increase in activity around academic and language topics (Table 4 and 5).

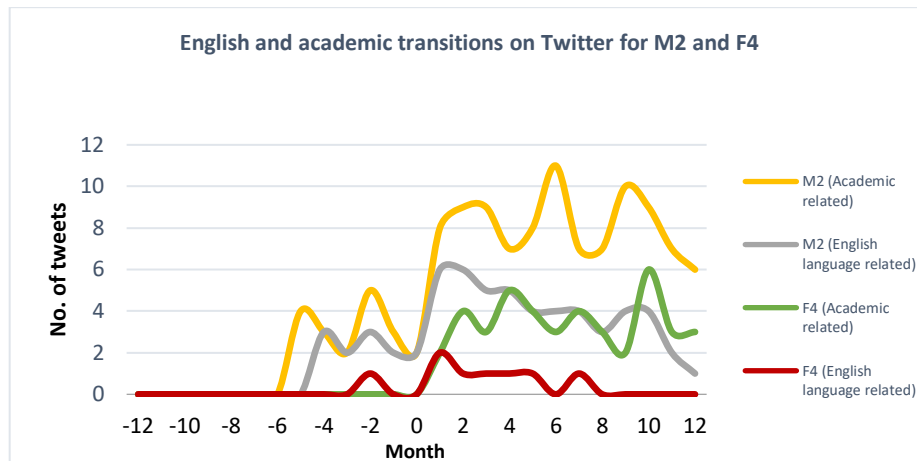
Table 4. Shifting to academic related topics

Code	Period	Participant									
		F1	M2	F2	F3	F4	F6	M5	F7	M6	M8
Academic related	Before (%)	19.4	17.6	5.0	0.0	0.0	3.4	2.8	1.1	20.1	0.0
	After (%)	31.6	53.0	13.3	14.5	59.2	7.0	11.8	16.9	29.9	8.0

Table 5. Shifting to language related topics

Code	Period	Participant					
		M1	F1	M2	F4	M4	M6
Language related	Before (%)	0.0	3.2	11.1	2.0	0.0	0.0
	After (%)	4.0	10.5	25.9	8.5	9.6	13.8

Tweets in the academic code were related to (1) academic queries and questions, (2) sharing academic information and (3) discussion about academic events (e.g. academic conferences and scientific meetings). Tweets in the language code were usually related to (1) processes to speed up language acquisition (2) English language centres and (3) accent difficulties and challenges. Figure 1 provides an example and visualises the increase of these two codes for two students, M2 and F4, over the investigated period:



This figure shows that interestingly the academic and language codes were already increasing before the physical move. According to the content of these codes, this is motivated by pre-arrival preparation that students make. Therefore, this figure shows that the digital transition on Twitter can start prior to students' arrival.

No shift

There was only one individual who had no noticeable shift in content. This student had the 'Saudi news and trends' as a dominant code and this was consistent for the whole investigated period, before and after arrival. However, two points should be acknowledged, first, the wider findings of this project show that this student did not have a shift in content, but he had a shift in language of tweeting. There was an increase in the student's tweets written in English after his arrival to the UK. Second, this study only focuses on Twitter, however, the student may have experienced transitions in other social media platforms (e.g. WhatsApp, Facebook, Snapchat).

5 Discussion and conclusion

Findings of this study lead back to Haimson et al. [24 p.3] who report that '*many life transitions involve both physical and digital movements*'. Students in this study show a change in their Twitter posts during their transition experience. A shift to UK and international topics and trends was noticed in their posts. Such increasing international awareness on social media was also reported by Fujita et al. [30]. Another form of change was related to the academic and language topics where the data showed an increase in tweets related to these matters. This study supports other studies [31–34] that individuals facing transition in their life usually have an associated digital movement in their social media practice. This study also adds that the digital transition on Twitter can start before the students' arrival to the host country, which highlights that it is perhaps more complex than simply something happening after arrival.

The content of tweets in this study is suggestive of how social media might play a positive role in transition. It suggests that students (1) gain information about their new life experience, and (2) develop their English language. For example, many tweets in the academic code, which is reported to have an increase for many students prior and after arrival, were to gain information related to students' new academic system and environment. This is consistent with Forbush and Foucault-Welles [35], who suggested that social media helps to facilitate students' academic engagement. The same positive case was also noticed in the language category of messaging where students ask questions and share information about English language. The positive impact on language was also noticed on the language of tweeting as a whole, where students had more tweets written in English, in all codes, after their arrival. Students may do this as a way of practising their English. It has been argued by previous authors [17,36] that social media can support the '*language adjustment*' of students. Students may find themselves more confident in digital spaces to practice the new language by making English posts and communicating with others in English [36–38]. Therefore, this study supports previous literature [3–5,15,16] that social media can play a positive role in the international students' life abroad. This study also adds that the positive role can also extend to the pre-arrival phases where social media can help students in their academic and language preparation. However, it needs to be acknowledged that data from other parts of this research project qualified this picture. Interview data, also collected for the study suggested that social media can have a negative impact on students social and cultural adjustment to the host country. Social media was noticed to isolate some students on their online home content and this can hinder their social cultural adjustment to the host country. This was particularly noticed for students who spend more time on social media.

References

1. indal-Snape D, Rienties B. Understanding multiple and multi-dimensional transitions of international higher education students. In: Multi-dimensional Transitions of International Students to Higher Education: New Perspectives on Learning and Instruction.. vol.12 pp.1-6 Routledge, London (2016)
2. Winstone, N., Hulme, J.. 'Duck to water', or 'fish out of water'? Diversity in the experience of negotiating the transition to university. In Engaging Student Voices in Higher Education. (2019)
3. Park, N., Kee, K. F., Valenzuela, S. Being Immersed in Social Networking Environment: Facebook Groups, Uses and Gratifications, and Social Outcomes. *CyberPsychology & Behavior*, 12(6), 729–733. (2009)
4. Park, L.. WeChat Red Bags: How International Students from China Use Social Media While Attending a Public University in California. University of Clifornia, Los Angeles. (2016)
5. Olding, A. L. An Investigation of the Social Relationships and Social Interactions Amongst International Students Studying in Australia : A Case

- Study Using Facebook (2013)
6. Shao, Y., Crook, C. The Potential of a Mobile Group Blog to Support Cultural Learning Among Overseas Students. *Journal of Studies in International Education*, 19(5), 399–422. (2015)
 7. Sandel, T. L. “Oh, I’m Here!”: Social Media’s Impact on the Cross-cultural Adaptation of Students Studying Abroad. *Journal of Intercultural Communication Research*, 43(1), 1–29 (2014)
 8. Arthur, N. Preparing International Students for the Re-Entry Transition. *Canadian Journal of Counselling*, 37(3), 173–185 (2003)
 9. Burns, R. B. Study and stress among first year overseas students in an Australian university. *Higher Education Research & Development*, 10(1), 61–77 (1991)
 10. McLachlan, D. A., Justice, J. A Grounded Theory of International Student Well-being. *The Journal of Theory Construction & Testing*, 13(1), 27–32 (2009)
 11. Zapf, M. K.. Cross-cultural transitions and wellness: Dealing with culture shock. *International Journal for the Advancement of Counselling*, 14(2), 105–119 (1991)
 12. Brown, L. The Incidence of Study-Related Stress in International Students in the Initial Stage of the International Sojourn. *Journal of Studies in International Education*, 12(1), 5–28 (2008)
 13. Hossain, M. D., Veenstra, A. S. Online maintenance of life domains: Uses of social network sites during graduate education among the US and international students. *Computers in Human Behavior*, 29(6), 2697–2702 (2013)
 14. Gray, K., Chang, S., Kennedy, G.. Use of social web technologies by international and domestic undergraduate students: implications for internationalising learning and teaching in Australian universities. *Technology, Pedagogy and Education*, 19(1), 31–46 (2010)
 15. Shao, Y., Crook, C. The Potential of a Mobile Group Blog to Support Cultural Learning Among Overseas Students. *Journal of Studies in International Education*, 19(5), 399–422. (2015)
 16. Sleeman, J., Lang, C., Lemon, N. Social Media Challenges and Affordances for International Students: Bridges, Boundaries, and Hybrid Spaces. *Journal of Studies in International Education*, 20(5), 391–415 (2016)
 17. Ali, A. S. M., and Ahmad, R.. The impact of social media on international students: Cultural and academic adaptation. *Journal of Engineering and Applied Sciences*. (2018)
 18. Guo, Y., Li, Y., Ito, N. Exploring the Predicted Effect of Social Networking Site Use on Perceived Social Capital and Psychological Well-Being of Chinese International Students in Japan. In *Cyberpsychology, Behavior, and Social Networking* (Vol. 17, pp. 52–58). (2014)
 19. Al-Rahmi, W. M., Othman, M. S. The Impact of Social Media use on Academic Performance among university students : A Pilot Study. *Journal of Information Systems Research and Innovation*, 1–10. (2016)
 20. Alsuhaibani, A., Cox, A., Hopfgartner, F., Zhao, X. Saudi international students’ perceptions of their transition to the UK and the impact of social

- media. In *Sustainable Digital Communities*. Vol. 12051 LNCS, pp. 198–208. Springer International Publishing. (2020)
21. Alsuhaibani, A., Cox, A., Hopfgartner, F. Investigating the role of social media during the transition of international students to the UK. *iConference 2019 Proceedings*. (2019)
 22. Alsuhaibani, A., Cox, A., Hopfgartner, F., Zhao, X.. An investigation of the physical and digital transitions of Saudi students coming to the UK. In *Proceedings of the Workshop on Life Transitions and Social Technologies: Research and Design for Times of Life Change (co-located with CSCW'20)*. Austin, TX, USA.: Association for Computing Machinery (ACM). (2019)
 23. Statista. <https://www.statista.com/statistics/1202771/saudi-arabia-share-of-social-network-users-by-platform/>, last accessed 2021/12/6
 24. Etikan, I., Babatope, O. A Basic Approach in Sampling Methodology and Sample Size Calculation. In *MedLife Clinics*. Vol. 1, pp. 1006. (2019)
 25. Payne, G., Payne, J. *Key Concepts in Social Research*. SAGE Publications. (2004)
 26. Krippendorff, K.. *Content Analysis: An Introduction to its Methodology*. (2nd ed.). Sage Publications. (2004)
 27. Zhang, Y., Wildemuth, B. M. *Qualitative Analysis of Content*. In *Forum: Qualitative Social Research* Vol. 1, pp. 1–12 (2016)
 28. Mary, J. Picking the best intercoder reliability statistic for your digital activism content analysis. *Digital Activism Research Project: Investigating the Global Impact of Digital Media on Political Contention*, (i), 1–10 (2013).
 29. Haimson, O. L., Semaan, B., Dym, B., Hsiao, J. C.-Y., Herron, D., Moncur, W. Life Transitions and Social Technologies. In *Conference Companion Publication of the 2019 on Computer Supported Cooperative Work and Social Computing* (pp. 480–486). New York, USA: ACM. (2019).
 30. Fujita, M., Harrigan, P., Norman Soutar, G. International students' engagement in their university's social media. *Journal of Advances in Management Research*, 11, 232–256 (2017)
 31. Haimson, O. L., Andalibi, N., De Choudhury, M., Hayes, G. R. Relationship breakup disclosures and media ideologies on Facebook. *New Media and Society*, 20(5), 1931–1952 (2018).
 32. Moncur, W., Gibson, L., Herron, D. The role of digital technologies during relationship breakdowns. *Proceedings of the ACM Conference on Computer Supported Cooperative Work, CSCW*, 27, 371–382 (2016).
 33. Herron, D., Moncur, W., Van Den Hoven, E.. Digital possessions after a romantic break Up. *ACM International Conference Proceeding Series*, 23-27 (2016)
 34. DeAndrea, D. C., Ellison, N. B., LaRose, R., Steinfield, C., and Fiore, A. Serious social media: On the use of social media for improving students' adjustment to college. *The Internet and Higher Education*, 15(1), 15–23. (2012).
 35. Forbush, E., Foucault-Welles, B. Social media use and adaptation among Chinese students beginning to study in the United States. *International Journal*

- of Intercultural Relations, 50, 1–12 (2016)
36. Raymond, J., Wang, H. Computers in Human Behavior Social network sites and international students ' cross-cultural adaptation. *Computers in Human Behavior*, 49, 400–411. (2015).
 37. Qiu, W. Language Adjustment of International Students in the US : a Social Network Analysis on the Effects of Language Resources , Language Norm and Technology. Michigan State University. (2011).
 38. Alshehab, H. M.. Female Saudi International Students Daily Practices on Social Media in Australia. *International Journal for Innovation Education and Research*, 5(12), 39–77 (2017)