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**Personalising Twitter communication: an evaluation of 'rotation-curation' for enhancing social media engagement within Higher Education**

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## **Abstract**

Social media content generated by learning communities within universities is serving both pedagogical and marketing purposes. There is currently a dearth of literature related to social media use at the departmental level within Higher Education Institutions (HEIs). This study explores the multi-voiced interactions of a UK Psychology department's 'rotation curation' approach to using Twitter. An in-depth analysis of a corpus of 4342 tweets by 58 curators (14 staff, 41 students, and 3 guest curators) was carried out using a combination of computer-assisted and manual techniques to generate a quantitative content analysis. The interactions received (e.g. retweets and favourites) and type of content posted (e.g. original tweets, retweets and replies) varied by curator type. Student curators were more likely to gain interactions from other students in comparison to staff. This paper discusses the benefits and potential limitations of a multi-voiced 'rotation curation' approach to social media management.

**Keywords:** social media; Twitter; learning; higher education; engagement; marketing

## Introduction

Maintaining a successful presence across the web within social media spaces is an increasingly important component of the ‘business’ of Higher Education Institutions (HEIs). Social media platforms make universities more visible and accessible to new and existing stakeholders, as well as provide “*a potentially good measure of how institutions position themselves to maximize prestige within a globally competitive field*” (Shields, 2015, p. 2). The emergence of league tables upon which universities are ranked for their use of social media exemplifies this point such as theunipod Social Media Rankings (theunipod, 2013) and Top 100 UK Universities on Social Media (Rise, 2015) for example. Rankings on such league tables have been acknowledged by HEIs and promoted by those highly positioned for their online ‘influence’ (see University of Salford, 2015, for example). As such, there is an emerging literature around how HEIs are using social media to market themselves using a new set of rules for engaging with different stakeholder groups (e.g. Constantinides & Zinck Stagno, 2011; Fagerstrøm & Ghinea, 2013; Rutter, Roper, & Lettice, 2016). This paper contributes an analysis of ‘rotation curation’ to the emergent literature around the use of social media platforms for university marketing and engagement activities. Made popular by Twitter accounts such as @Sweden, ‘rotation curation’ offers a co-produced, multi-voiced approach to the management of a social media account/presence (Christensen, 2013; VandenBroek, 2015). This paper focuses on the use ‘rotation curation’ on Twitter by staff and students within a UK Psychology department.

Many academics and educators have embraced ‘the participatory web’ to engage in a plethora of scholarly activities online (Costa, 2014a; Weller, 2011). The use of social media, generally defined as “*a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content*” (Kaplan & Haenlein, 2010, p. 61), is a prominent feature of contemporary academic practices (Graham, 2014). For research purposes, academics are using social media to create online ‘communities of practice’ (Lewis & Rush, 2013), to produce knowledge collaboratively (Cooper & Condie, 2016), to network outside of their own universities with interested individuals and groups (Lupton, 2014), and to disseminate research findings and publications (Rowlands, Nicholas, & Russell, 2011). Although digital forms of scholarship enable academics to do their work differently, using social media for research purposes is far from straightforward (Costa, 2014b); the adoption and application of new

technologies varies widely in relation to dynamic social and cultural processes (Lewis, Marginson, & Snyder, 2005; Snyder, Marginson, & Lewis, 2007).

Within teaching, academics are using social media platforms to extend learning dialogues beyond traditional educational contexts (see Dabbagh & Kitsantas, 2012; Dhir, Buragga, & Boreqqah, 2013, for reviews). Social media can offer ways to immerse students in deeper learning experiences (Graham, 2014), particularly mainstream platforms such as Facebook and Twitter which act as commonplace sites for everyday social interactions and social support during university study (DeAndrea, Ellison, LaRose, Steinfield, & Fiore, 2012). While some educators are focused on ‘e-professionalism’, emphasising the risks and misuses of social media platforms for both students and staff, Fenwick (2016) notes that social media opens up new possibilities for student professionalism, which may be harnessed for students’ future employability. Academics and students are therefore operating within, and navigating through “*a kaleidoscope of interconnected digital, open and social practices*” (Atenas, Havemann, & Priego, 2014, p. 40).

From an organisation perspective, the potential of social media communications for marketing and engagement with a wider range of stakeholders is being recognised (Kuzma & Wright, 2013; Rutter et al., 2016) as HEIs continue to ‘experiment’ with social media marketing (Constantinides and Zinck Stagno, 2011). A key area of focus has been student recruitment and how social media marketing might impact student choices of university study and institution. When compared to traditional communication tools such as a course brochure, social media has been found to play only a minor role in university choices and was ranked last by students in a list of informational resources (Constantinides and Zinck Stagno (2011). Constantinides and Zinck Stagno (2011) attribute this low ranking to a lack of relevant content, arguing that a “*simple presence in the social media space is not enough*” and “*two-way communication, dialog and engagement*” (p. 21) with prospective students should be sought. Indeed, recent research indicates that more interaction with social media followers has a positive impact on student recruitment performance (Rutter et al., 2016).

Within an increasingly competitive higher education sector, online content generated by users engaged in scholarly activities on social media platforms can be considered as multi-purposed in meeting both marketing and pedagogical objectives (Fagerstrøm & Ghinea, 2013; Krachenberg, 1972). As boyd (2014) notes, social media creates a ‘context collapse’ where the audiences engaged, and the purposes of use are more blurred than previously experienced.

Currently, much of the literature evaluating social media use in teaching and learning within Higher Education Institutions (HEIs) does not consider who else might be engaging with such user generated content and how marketing and pedagogical objectives overlap. When analysed, Sewell (2013) found that the followers of the Texas A&M University medical library Twitter account went beyond affiliated staff (7.64%) and students (21.61%) to include external organisations (19.68%), alumni (11.57%), and libraries and librarians from other institutions (7.64%). When teaching and learning occurs on more open and accessible platforms, interactions amongst the immediate learning community of staff and students can potentially be viewed by others thus serving wider engagement purposes and contributing to the institution's brand 'identity' (Mirzaei, Siuki, Gray, & Johnson, 2016) or 'personality' (Neier & Zayer, 2015). Learning communities on social media may also answer calls for more two-way, dialogical interactions within university social media marketing activities (Constantinides & Zinck Stagno, 2011; Rutter et al., 2016).

### *Curating an engaged department*

Research on how academics use social media platforms has steadily increased at the individual level (e.g. Costa, 2014b; Lupton, 2014; Mewburn & Thomson, 2013; Veletsianos & Kimmons, 2016) yet there is currently a dearth of published research at a departmental level around the use of social media within HEIs. Within departments, there is a need to decide upon which new technologies to adopt to engage with key stakeholders and to develop online communities for learning and knowledge sharing. Such decisions are also relative to wider organisational policies and procedures for social media use by individuals and groups within and across the university; the institutional stance on the management, protection and production of broader brand identity (Mirzaei et al., 2016) and university reputation (Erskine, Fustos, McDaniel, & Watkins, 2014; McNeill, 2012).

Twitter is a seemingly prevalent social media platform for academic departments to build an online presence and a way in which to take ownership of a department's 'brand' or 'identity' (Palmer, 2014). Junco, Elavsky, and Heiberger (2013) attribute Twitter's popularity amongst academics to its microblogging format, which enables public dialogue to be both ongoing and ubiquitous. Academics can also be 'more willing' to engage with Twitter for professional scholarship than Facebook, which is reportedly reserved for more personal and private networking purposes (Junco et al., 2013). Indeed, Knight and Kaye (2014) found that Twitter was a particularly successful platform for increasing conversations and interactions between

staff and students. However, in research on UK engineering departments' use of Twitter, Palmer (2014) found that a 'megaphone' style of tweeting was common, where information is broadcast in a one-way style of communication. Engineering departments that interacted more with their Twitter followers had a larger follow base and were mentioned more by other Twitter users (Palmer, 2014). Palmer's (2014) conclusions align with those researching social media marketing for student recruitment (e.g. Constantinides & Zinck Stagno, 2011; Rutter et al., 2016), that HEIs should move towards an interactional, two-way use of social media to facilitate discussion amongst the learning community and to sustain an active presence online. As a general rule, Kaplan and Haenlein (2010) advise that social media use should be active, interesting and honest.

To maintain an active presence, encourage two-way interactions and build engaged communities on Twitter, some departments (e.g. *(deleted to maintain the integrity of the review process)*, @NursingSUni) have adopted the 'rotation curation' approach, where different people curate the account, representing the department's online presence and contributing to its brand identity and community in their own way. In terms of how collaborative, co-produced approaches to Twitter management play out in practice, one of the most well-known examples of 'rotation curation' is the Swedish tourism board's account @Sweden. Although co-curation enables a range of voices to be heard and provides a snapshot of different people's views and perspectives, it also presents significant challenges. Christensen (2013) highlights issues of representation and whether curators are representative of community members (everyday Swedes/Swedishness) and what the account then represents to the wider audience. The @Sweden account also engages in commercial nationalism (Christiansen, 2013), which may echo the issues of commercialisation in higher education, and the appropriation of learning communities for marketing purposes. For VandenBroek (2015), the various attempts at 'rotation curation' are an example of 'technological solutionism' and that the success of the @sweden account is situated within the country's historical, cultural, and nation branding practices. In other words, what works for one country may not work for another. Similarly, 'rotation curation' may work for one academic department but not for another, particularly when broader institutional communication policies impact upon academic autonomy and social media innovation (Erskine et al., 2014; McNeill, 2012).

Co-curation of Twitter accounts, which aim to facilitate multi-voicedness and dialogue, arguably capture how digital scholarship encourages "*individuals to question established*

*norms and adopt new philosophies of practice that challenge conventions implicit in academic work*” (Costa, 2014a, p. 3) and reflect how social media represents a breakdown of the traditional conventions, hierarchies and norms of scholarly communication. Research on how an active, interactional social media presence at departmental level can be achieved and sustained would therefore be useful. Indeed, a number of questions arise in relation to academic departments’ uses of Twitter such as what kind of voices are developed for departmental accounts and how are networks of learners and interested communities formed. Building a Twitter presence and network requires significant resources, particularly in terms of time, and thus ways to encourage engagement with key audiences (e.g. current and prospective students, industry and community partners and organisations) and use the platform more effectively are required. Attempts to engage HEI audiences in social media spaces also need evaluating to guide current and future engagement efforts (Constantinides & Zinck Stagno, 2011).

To further understand the impact of such investment in social media engagement on the platform, this paper focuses on the multi-voiced ‘rotation curation’ example of Twitter use by an academic department from the *(deleted to maintain the integrity of the review process)*, which is in the Rise (2015) Top 10 for social media engagement for universities in the UK. In March 2013, the Psychology department at the *(deleted to maintain the integrity of the review process)* started a Twitter account *(deleted to maintain the integrity of the review process)*. The department opted for a ‘rotation curation’ approach where a different person every week – students, lecturers, and researchers – represents the department and runs the Twitter account in their own way. ‘Rotation curation’ was also adopted as an opportunity for staff and students to interact in new, meaningful ways in online spaces (*(deleted to maintain the integrity of the review process)* 2014). The account therefore presents an opportunity to understand how both marketing and pedagogical objectives are being aligned in social media spaces. The *(deleted to maintain the integrity of the review process)* account continues to operate a multi-voiced approach and curators are identified by their personal Twitter username referenced in the accounts’ ‘bio’ section. This multi-voiced approach, where students also represent their departments’ Twitter presence, stands apart from many departmental and institutional accounts in its dialogical, multi-voiced style.

### ***Aims of the current study***

This paper aims to contribute to the growing body of research on social media use within Higher Education contexts. It contributes specifically to efforts around co-produced and multi-



voiced approaches to social media management, specifically the use of ‘rotation curation’. The research objectives are as follows:

- To explore the relationships between types of curator (student, staff, guest) and interactions gained across different stakeholder groups;
- To understand how different staff and students approach their curation of a departmental Twitter account.

## **Methodology**

This research is situated within the emerging turn towards ‘big data’ approaches for analysing user-generated content from social media platforms. However, ‘big data’ functions as an umbrella term and “*remains a loosely defined often nebulous term for large datasets that require complex technologies for the capture, storage and analysis procedures*” (Murphy & Burman, 2014). Like other recent studies (e.g. Sewell, 2013; Stephansen & Couldry, 2014), this research uses the concepts of ‘big data’ on a ‘small scale’ in analysing a singular Twitter account linked to the Psychology department at the (*deleted to maintain the integrity of the review process*).

This project was set up to explore the first year of a departmental Twitter account, to help understand any impact and how the account was being used. As the (*deleted to maintain the integrity of the review process*) Twitter account is active most days throughout the year, a ‘cut off point’ for data generation was from the initial tweet (March 2013) to June 2014 in order to create a static, finalised dataset suitable for analysis. To obtain the dataset, the Twitter archive was downloaded directly from the Twitter account into an MS Excel file, which provides the following information: tweet ID; in reply to status ID; in reply to user ID; tweet time stamp; content of tweet and expanded URL linked to tweet. Some of the initial data from the Twitter archive was modified to assist analysis. For example, the time stamp was segmented into year, month, day, hour, and minute to understand engagement levels at different times. Additionally, further data was generated through manual coding to understand the account’s audience, the interactions between curators and audiences, and the content, which received higher engagement levels. Manual coding was carried out by three researchers (*deleted to maintain the integrity of the review process*) to ensure inter-coder reliability and to manage the volume of data. The coding scheme was developed through pilot coding and group discussions around how best to define and code the data into suitable categories.

The downloaded Twitter archive does not indicate who ‘retweeted’ (shared) or ‘favourited’ content. Therefore, an online social tool called Tweet Tunnel was used to obtain this information. Tweet Tunnel shows which users have retweeted or favourited individual tweets sent from a Twitter account. However, there are some limitations to using Tweet Tunnel. For example, it is restricted in how far back in a Twitter account it can retrieve data (i.e., the last 3,200 tweets). Also, Tweet Tunnel is a live dashboard and is constantly updating its content in relation to tweets sent from the account under analysis. As such, manual coding was carried out by *(deleted to maintain the integrity of the review process)* for tweets that were unavailable in Tweet Tunnel so that ‘retweets’ and ‘favourites’ were available for the entire dataset.

### ***Overview of the rotation curation approach used on this account***

Account curators are provided with guidelines around how to use the account for the week that they are representing the department. The guidelines cover details around ‘what to tweet’, ‘managing mentions’, ‘participant recruitment’, ‘managing followers and following’, ‘profile’, and ‘password protocols’. The guidelines aim to ensure that curators feel supported to take their own approach and talk about their particular stance on psychology and university life. Curators are encouraged to use Twitter in a way that provides information but also encourages other to interact by contributing their personal views and experiences of what it is like to study/teach/research psychology). Staff and students are recruited as curators through a number of methods (e.g. Twitter, lectures, and word of mouth), and the allocation of weeks is random. Although there were no incentives or rewards offered to curate the account, it is seen as an important opportunity for students to gain social media work experience and develop their digital presence and professionalism in preparation for the graduate job market. The guests approached to curate the account were known to departmental staff, either as former students or colleagues at other institutions.

### ***Anonymity and other ethical considerations***

As Twitter is open and publicly available, the University ethics panel stated that no formal ethical approval was required as this is a large community dataset run by staff and students within a single department. However, it was important that throughout the analysis, the contextual integrity of the data was respected. Throughout this process, the ethical principles of the British Psychological Society (2009, 2013) were adhered to in relation to data protection, confidentiality, and anonymity. For example, by focusing on the data as a whole (in relation to *deleted to maintain the integrity of the review process*) via the quantitative coding procedure,

and only recording the type of person who was curating the account (in relation to broad categories of staff, student, and alumni), it is not possible to identify individual people who have curated the account from the coding even if they have included a name in their initial tweet. Furthermore, the (*deleted to maintain the integrity of the review process*) bio information only contains the current curators' username, which is not included in the analysis due to the cut-off date used to create a static dataset.

## **Analysis**

The main data analysis was carried out within MS Excel. A quantitative content analysis was conducted to identify frequencies between different variables e.g. type of curator compared to the type of tweet. In order to provide context to some of the results, a qualitative content analysis was carried out to provide examples that explicate the quantitative findings. All tweets used as examples have been anonymised to ensure the confidentiality of those curating and interacting with the account.

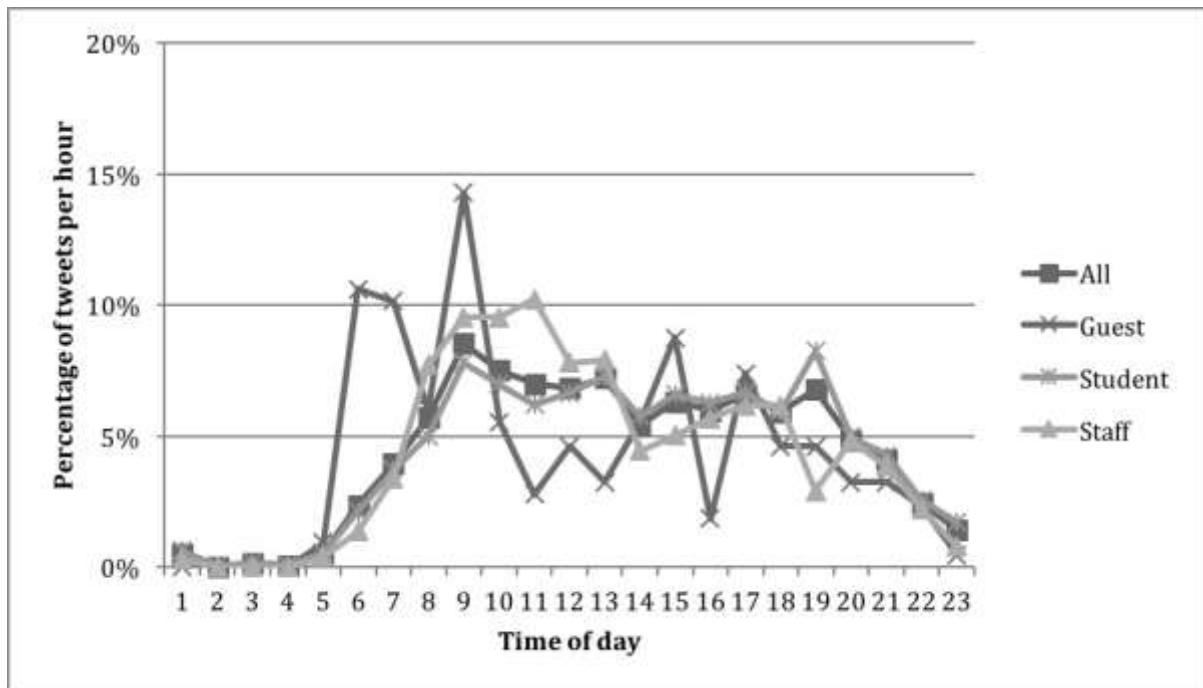
To understand 1) the relationship between the type of curator and the style of content curation and 2) the relationship between the type of curator and the audiences engaged, we categorised the data into type of tweet (i.e. retweet, reply, and original), type of curator (i.e. staff, student, guest) (see Table 1), and type of stakeholder group (e.g. external professional, professional bodies, alumni) to perform  $\chi^2$  analyses.

### **1. Overview of the data set**

Each curator was responsible for the account and its interactions for one calendar week throughout term time and the holiday period. Detailed demographics for curators are not collected in the management records of the account. However during the study period, there were 41 student curators (undergraduate and taught postgraduate), 15 staff (within the directorate and postgraduate research students) and 3 guests (external to the organisation). As such the main focus of the analysis is linked to student and staff curation but where relevant, the impact of guest curators is also highlighted.

As can be seen in Figure 1, across all curators, tweets began around 6am and then from 9am – 7pm the rate of percentage of tweets per hour ranged from 8.52% to 5.41% indicating a fairly consistent use of the account throughout the day across the whole study period. However, when this is broken down by curator type, staff and guests used the account to a greater extent in the morning than through the afternoon and evening. Students differed in that they tweeted more

consistently throughout the working day, which follows a similar pattern of the overall analysis of the account. One explanation is that some curators (i.e. students) may find it easier to integrate curation into their working day (e.g. when they already use Twitter on a regular basis) whereas for others, it may be more difficult to tweet during daily activities and thus they curate at other times (e.g. on the daily commute).



**Figure 1 Percentage of tweets per hour of the day in relation to overall and by type of curator**

For all activity of the account, the highest numbers of tweets were sent on Mondays (the ‘handover’ day when the curator changes for the week), with this gradually reducing over the working week. Although the number of original tweets reduced over the course of a week, the number of retweets remained stable, suggesting a change in how curators generated content to post on the account over the course of the week. When looking at staff and students separately, both groups had peaks of activity on Monday and Wednesday. To further understand the change in behaviour over the week, a qualitative inspection of tweets reveals that the first tweet of the week and the next few tweets are often original content. The first tweet, usually a hello and introduction linking to the curator’s own username on Twitter, gets a high level of engagement in terms of retweets and favourites. For this account, the level of engagement then decreases across the next few original tweets, which could explain the shift towards retweeting in the latter stages of the week over continuing with original tweets to encourage engagement.

Students tended to provide personal reflections on writing assignments and attending lectures, giving an insight into their experiences within higher education and prospective students an insight into the course. Whereas staff used the account to provide reflection on their week, but also as a way to try and engage the student population by discussing specific lecture content or linking to resources relevant to recent teaching experiences:

*“Thanks to this morning’s seminar I now understand the essay and feel less stressed about submitting my dissertation ethics form! #phew”* (Tweet by student)

*“Seem to have positive remarks for my poster, hope everyone is getting on alright #socialpsych”* (Tweet by student)

*“@[Twitter name] reading over lecture notes I tend to write possible exam questions, helps a lot! I like mind mapping too w/ pictures/colours :)”* (Tweet by student)

*“I’ve seen a few ‘stressed’ comments recently as deadlines loom, so just wanted to wish everyone good luck. #itllbeworthitintheend”* (Tweet by Directorate staff member)

*“Wish I’d seen this before my face perception lecture! Your brain thinks emoticons are real faces #mediapsych <http://t.co/2BkwTXpXoG>”* (Tweet by Directorate staff member)

Although fewer tweets were sent at the weekends (Sunday 11% and Saturday 7% of tweets), the account was often active outside of typical working week hours (i.e. Monday-Friday 9am-5pm). This reflects the continuous (non-time bound) style of Twitter (Junco, Elavsky, and Heiberger, 2013) and also how engagement is often beyond traditional learning contexts (e.g. long after a lecture or seminar).

In addition to examining the impact of weekdays and weekends, we also explored interactions during exam periods and holidays on the account. It seems from the current data that interactions with the account were not significantly influenced by exam periods or other holidays as favourites and retweets by staff and curators remained consistent. The use of guest curators occurred outside of teaching periods; during this time it was found that staff and students engaged less with the account. Using guest curators therefore appeared to have a limited impact upon the immediate learning community. However we should be aware that one

of the limitations of Twitter is the curator is not aware of who is simply 'listening' and not interacting with their tweets in terms of replies, retweets and favourites; but a feeling of no or limited interaction could potentially impact negatively upon curation behaviour.

Staff and students curators showed different levels of use during teaching and non-teaching weeks throughout the analysed period. When student curators were managing the account during teaching-time, weekly averages of 86.16 tweets were generated, whereas staff curators generated an average of 55.5 weekly tweets during teaching-time. Student curator's weekly average of tweets was 72.26 tweets/week during non-teaching time and staff curators generated a weekly average of 51.8 tweets during non-teaching times. As such it can be seen that students were, on the whole, more active in terms of generating tweets across all time periods in comparison to staff curators. Thus the rotation of curators helps to keep the account active during all periods within an academic year while enabling staff and students to navigate the impacts of social media on workload. It also demonstrates the added value of student curators in making the account more active and more diverse in terms of content.

Overall 4342 tweets were sent within the study period, of these 1992 were retweets (45.88%), 717 were replies (16.51%), and 1633 were original tweets (37.61%). Due to the higher number of student curators, the majority of the tweets were sent by students (3083 tweets), followed by staff (1042 tweets) and guests (217 tweets).

**Table 1 Frequencies and percentages of type of tweet posted by curator type**

	<b>Overall number in the sample</b> n= (%)	<b>Guest</b> n= (%)	<b>Staff</b> n= (%)	<b>Students</b> n= (%)
<b>Retweets</b>  (the exact version of the original tweet without comment or alteration)	1992 (45.88)	49 (22.58%)	388 (37.24)	1555 (50.44)
<b>Reply</b>  (Response to another person's tweet)	717 (16.51)	37 (17.05)	179 (17.18)	501 (16.25)
<b>Original tweet</b>  (Original thought or message sharing)	1633 (37.61)	131 (60.37%)	475 (45.60)	1027 (33.31)
<b>Total for each group</b>	4342 (100)	217 (100)	1042 (100)	3083 (100)

A 3 (curator: guest, staff, students) by 3 (tweet type: retweet, reply, original)  $\chi^2$  found a significant relationship between curator type and tweet type,  $\chi^2(4) = 119.71 p < 0.01$ . To further understand this relationship, we ran three separate 2x2  $\chi^2$  analyses focusing on student and staff curators, and grouping the data into two categories, 1) retweets and non-retweets (i.e. reply and original together), 2) original and non-original tweets, and 3) replies and non-replies. We found that students more heavily relied on retweets than staff did,  $\chi^2(1) = 54.48 p < 0.01$ , while staff were more likely to post original tweets than students,  $\chi^2(1) = 50.67 p < 0.01$ . Staff and students similarly utilised replies to other Twitter accounts,  $\chi^2(1) = 0.49 p = 0.49$ . One possible explanation for this finding is that students feel less expert than staff and therefore chose to share other people's content through retweets, whereas staff can more easily take up the role of 'expert' when sharing content on Twitter. To examine how these curatorial differences impact on the account's audiences (i.e. stakeholder groups), we now explore the interactions generated through the multi-voiced approach to Twitter curation. Unfortunately, it is difficult to investigate the impacts of type of curator on retweeted items because there is no way of distinguishing between the retweets from the original creator and this curated account.

## **2. How does the multi-voiced approach impact upon interaction?**

As previously noted, data generated from the (*deleted to maintain the integrity of the review process*) Twitter account offers a distinct opportunity to examine the varying impacts of student and staff curators on interactions within and beyond the immediate learning community of the department. While it is difficult to analyse interactions on retweets, what we can explore is the influence of curator type on interactions with non-retweeted content (i.e. original tweets and replies) posted by the account. In this section, we explore how student and staff curators generate interactions (i.e. retweets and favourites) by looking at raw frequencies. We next adjust the interactions to account for the curator tweet frequencies to explore how curator type influences who engages with the account (i.e. stakeholder groups).



**Table 2 Frequencies and percentages of stakeholder group interactions in terms of retweets and favourites by curator type**

Group	Stakeholder Group	Type of Curator			
		Staff		Student	
		Retweets n= (%)	Favourites n= (%)	Retweets n= (%)	Favourites n= (%)
Professionals	Directorate Staff	135 (34)	36 (29)	245 (26)	141 (22)
	University Staff	50 (13)	4 (3)	100 (11)	57 (9)
	External Professional	39 (10)	23 (18)	131 (14)	71 (11)
Students	[@twittername] Student	44 (11)	19 (15)	133 (14)	134 (21)
	[@twittername] Alumni	12 (3)	1 (1)	4 (0)	17 (3)
	Other Salford students	13 (3)	1 (1)	46 (5)	37 (6)
	Other university students	16 (4)	7 (6)	26 (3)	18 (3)
Organisations	Professional Bodies	2 (1)	1 (1)	12 (1)	2 (0.31)
	External Organisation	63 (17)	9 (7)	122 (13)	35 (5)
Other	Unidentified Individual	11 (3)	13 (10)	59 (6)	56 (9)
	Anonymous	12 (3)	12 (10)	51 (5)	72 (11)

Are students or staff more likely to generate interaction? For the purposes of inferential analysis, we binned the stakeholders into higher order groups for analysis<sup>1</sup> (see Table 2). Overall, students were more likely to generate interactions from professionals ( $n = 745$  tweets) in comparison to staff ( $n = 287$ ), external organisations ( $n = 171$ ) in comparison to staff ( $n = 75$ ), and other students ( $n = 415$ ) in comparison staff ( $n = 113$ ),  $\chi^2(2) = 9.98$   $p = 0.01$ . This finding is likely due to the greater volume of tweets posted by student curators than staff curators. Therefore, we adjust the data to account for differences in overall tweet frequencies by scaling the student interactions to the ratio of student-to-staff tweets.

A 2 (curator: staff, student) by 3 (stakeholder group: professionals, students and organisations)  $\chi^2$  showed a significant relationship between curator type and stakeholder groups,  $\chi^2(2) = 7.51$ ,

<sup>1</sup> In the higher order group analysis, 'other' was removed given the uncertainty around who belongs to the anonymous and unidentified stakeholder groups.

$p = 0.02$ . More specifically, student curators were gaining more interactions from student stakeholders ( $n = 177^2$ ) than staff ( $n = 113$ ). However, there was little difference in student curator interactions with professionals ( $n = 318$ ) and organisations ( $n = 73$ ) relative to staff interactions with these stakeholder groups ( $n = 287$ ,  $n = 75$  respectively). When students curate the departmental account, a main benefit is increased student interaction. Student curators may indeed be contributing to an increased sense of community and belonging among students around the brand identity of the department.

It is evident that students on the course are engaging with the account, which can help to create a sense of community across different cohorts and help students to feel part of the identity of *(deleted to maintain the integrity of the review process)*. Consequently, accounts that are solely curated by one group of people, or those with an unidentified voice, may have limitations in terms of the breadth of their reach (Palmer, 2014). Given that HEIs aim to engage with a variety of stakeholders, the multi-voiced approach offers potential to reach new audiences and interact with existing connections. What is not determinable from the analysis of this account is whether being part of *(deleted to maintain the integrity of the review process)* positively impacts students' employability in the future, either through raising their awareness of organisations that relate to psychology careers or through a stronger professional online network and presence.

### **3. What content is posted and how does it impact interaction? What does the content look like?**

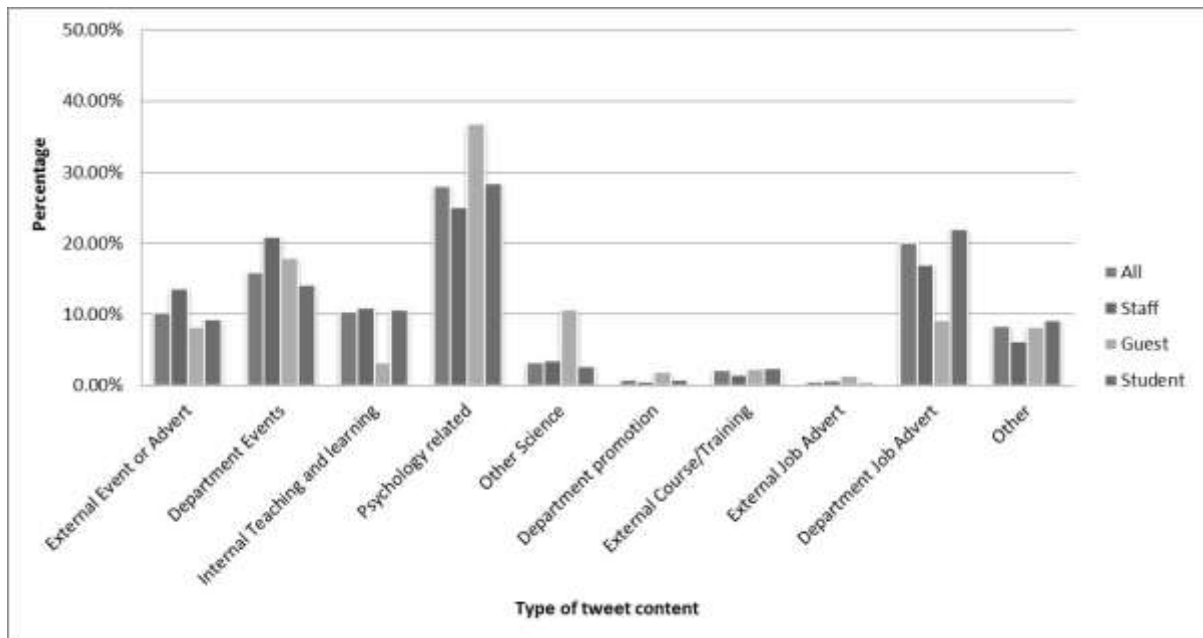
Student use of retweets and staff use of original content (see Table 1) could reflect that students (who on the whole were undergraduates) know less than staff when it comes to posting psychology and research-related content. There were only a small number of cases where students took a strong stance on psychology research; students tended to prefer to tweet psychology-related content that related to themselves and their learning experiences. Often their tweets sought to signpost followers to useful information sources:

*“BPS Research Digest is a great way of finding out about interesting new psych research. But you knew that already... <http://t.co/D80QD8JRG0>”*

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<sup>2</sup> Students received 745 interactions on non-retweeted content (i.e. original tweets and replies) but staff had only sent 42.7% as many tweets.  $745 \times 0.427 = 177$  tweets.

‘Rotation curation’ perhaps acts as scaffolding for students to develop their digital literacy skills in relation to professional conduct and presence online (Fenwick, 2016). In taking up the role of ‘information sharer’, students can learn how to portray themselves online and gain confidence to express their knowledge in a public arena.



**Figure 2 Percentage of the type of tweet content for the overall tweet corpus and by curator type**

Due to the nature of the account and the department it represents, it is not surprising that the highest proportion of tweets relate to psychology as a discipline (see Figure 2). Tweets related to current research in the news, existing concepts and theories that had been learned, activities/events occurring in and around the department, and humour (e.g. psychology-related memes).

*“What do you think about early childhood attachments? How do they influence our adult relationships? #attachment #devpsy2014”*

*“Preparing for our last recording for PsychologyFM today on 'Learning Difficulties and the Big Society' #ALLFM kindly funded by the BPS”*

Humorous tweets and those that contained images often generated more interactions in terms of retweets and favourites. Staff curators were more likely to tweet about both internal and external events than students, whereas students were more likely to post content related to promoting recruitment opportunities inside the university. Although not an explicit aim of the

account, across all curators, it is interesting to note there was little activity around external job adverts and external training courses, which may suggest that the account is not being used to raise awareness of ways to gain further training beyond university-provided initiatives. Nor is it being used as a potential way to remain in touch with alumni and support their continuing training needs.

In contrast to those affiliated with the department, guests were more likely to tweet research and policy content beyond Psychology, which may also help explain why they engaged with more external organisations than other curators. Having guests external to an organisation being part of a 'rotation curation' approach diversifies the account's content and reach, particularly as they shared their @[twitter name] content into their individual Twitter accounts and thus with their own networks. However, due to the small number of guest curators within the dataset, it is not possible to know the full impact of guest curation, or how curators found their @[twitter name] experience. On a closer inspection of the data, often guest curators would retweet their tweets using their personal accounts to encourage their wider followers to engage.

Two-way conversations on the account varied in relation to different curator groups. For the purposes of this analysis, the definition of a conversation on Twitter was taken as having at least three tweets creating at least a two-way conversation. Overall, there were 2101 tweets that aimed to begin a conversation. Conversations were most frequently generated through original tweets but also by replies to other peoples' tweets and by quoting a tweet.

*"I realise this could ruin any hope I have of being productive today, but...what is your fave study/piece of research? And why?"*

Within the dataset, 300 of the 2101 tweets aimed at beginning a conversation were curator-initiated tweets that lead to a conversation on Twitter and a further 34 tweets initiated by other students within the department. The conversation below also provides an example of how curators' plan to use the account, and how current students' tweets function as marketing information for prospective and future students:

*"#[department hashtag] interesting #enviropsych lecture with @[Twitter name]  
Critical thinking, realism and social constructionism WOW!*

*@[Twitter name] @[Twitter name] Cheers for posting [name removed]; nice for new students to hear about some interesting topics they can look forward to*

*@[Twitter name] No problem, next week when I take over they will get a feel of what it's like to be a [#\[department\]](#) student for a week!*

*@[Twitter name] Sounds great. Having followed this account for a while now, I wish it had been around when I was a new student. V helpful.*

*@[Twitter name] the future is now Twitter and [#socialmedia](#) as learning tools  
@[Twitter name]*

*@[Twitter name] @[Twitter name] I'm still working out the possible uses of social media (I've never posted a pic of a cat!), but I'll get there*

*@[Twitter name] @[Twitter name] the possibilities are only as endless as your imagination and invitation!"*

Despite staff generating greater original content it was found that students tried to instigate interactions and conversations with greater frequency but were often not successful in gaining responses. This may be an indication of some of the challenges of Twitter as a platform for conversations about topics and further research may be able to demonstrate if other social media platforms have greater success in relation to two-way interaction. Within this corpus of tweets, there were only a couple of instances where the curator tried to organise a tweetchat (e.g. using a hashtag - *deleted to maintain the integrity of the review process*) at a given time about a given subject.

*"There's lots of you thinking about or doing dissertations at the mo? Fancy a [#\[Twitter name\]](#) dissertation tweetchat on wed evening?"*

Through the analysis, it was found that these often led to only limitation discussion with those associated with the course and also external people. There are examples of other departmental and organisational accounts that appear to have greater activity in Tweet chats (e.g. [@nursingSUni](#) or [@NSMNSS](#)), which could be reflective of disciplinary differences in online scholarly communication (Holmberg & Thelwall, 2014) or that the 'macro' level of hashtag based tweeting is less relevant to the *@[Twitter name]* community (Bruns & Moe, 2014). However further research is needed around the differences between online communities to understand why some tweet chats succeed and others fail.

## **Conclusion**

This paper examines the use of Twitter within a Higher Education Institution (HEI) at the departmental level, specifically an account that adopts the ‘rotation-curation’ approach where different people (students, staff and guests) curate a departmental Twitter account each week. Within the analysis, we examined the levels of engagement and reach of the account in terms of key stakeholder groups (e.g. professionals, students, external organisations). Although social media interactions with different stakeholders are likely important to the immediate learning community of staff and current students, there is a need for engagement beyond the department and the university, given the competitive globalised field of higher education (Shields, 2015). While student curators reached many of the key stakeholder groups, interaction was most likely to be with other student groups. It is not possible to determine interest from non-interactive users; those who listen and read but do not engage openly with the account (e.g. through favourites, retweets or replies). Thus, further research would be a useful to examine relevant stakeholder perceptions of the department’s social media presence (including its content, curators and approach to social media management). For example, how are student curators interpreted by local industry and community organisations? How do prospective students interpret the content posted and its curators?

From a promotions perspective, the use of different curators diversifies the content posted and the stakeholder groups engaged. Given the range of stakeholder groups that HEI departments are encouraged to engage with, the use of multiple curators can result in a greater diversity of content for the account’s followers. When current students tweet about their experiences, it potentially offers prospective students peer insights into university study and life. In allowing different people to represent the department as well as different types of people (e.g. students, staff, and guests), the ‘brand identity’ of the account may be broadened resulting in ‘shared’ brand associations that contribute to a ‘healthy’ university, particularly in terms of student recruitment success and student identification with the department (Mirzaei et al., 2016). Further research focused specifically on measuring the impact that ‘rotation curation’ has on student recruitment and retention performance could be useful, particularly considering the resource implications of sustaining an active social media presence in terms of staff time.

When considered from a pedagogical perspective, ‘rotation curation’ has the potential to enhance student participation and encourage learning beyond traditional contexts. Although this research did not gain insights from curators about their experiences of tweeting for the department, handing over the social media reigns provides opportunities for students to engage in networked, participatory practices in online open spaces within a supportive learning

community. Trusting students to represent the department arguably shifts their identity from student to ‘colleague in training’. This is in contrast to other educational approaches that typify e-professionalism as risk and misuse avoidance related to social media use for both students and staff (see Fenwick, 2016). Becoming a ‘social’ professional takes time and by implementing a multi-voiced approach to Twitter, both students and staff have an opportunity to build confidence and an authoritative voice within their discipline by posting original content that engages various relevant stakeholder groups, and by participating in two-way interactions within and beyond their immediate learning communities.

Academics and students are participating, coincidentally and increasingly more strategically, in marketing practices on social media platforms by identifying with the institution and therefore representing the University’s brand. The department’s Twitter account in this paper was positioned primarily as a learning space, yet it functions as an important marketing tool to network new and existing stakeholders into the department’s core ‘business’ of learning, teaching and research. As marketing and pedagogical activities overlap (Krachenberg, 1972), academic and marketing staff within universities could work more closely to enhance social media marketing strategies through teaching, learning and research practices. However, the tensions around using social media for both learning and marketing does require consideration, particularly in terms of the potential appropriation of learning communities for the more commercial purposes of university branding.

As the analysed account and the multi-voiced approach remains active and flourishing, there is potential merit in this method of social media management. ‘Rotation curation’ could be extended beyond Twitter to other social media platforms used for pedagogical and marketing activities such as Facebook, Instagram and Snapchat for example. While Twitter may be popular with academics, students are less likely to be using the platform for professional and learning purposes (Knight & Kaye, 2014). Co-produced, multi-voiced approaches to social media management may generate more activity and interactivity when located in students’ social media spaces of choice, as well as having greater reach in terms of engaging and including prospective students. As the social media landscape evolves, HEIs and academics will need to evolve to engage with their key stakeholders, students included.

The ability to engage with new and emerging social media platforms, and experiment with co-produced forms of social media management such as ‘rotation curation’, can be further understood within the wider institutional culture and the university support mechanisms in

place that enable academic autonomy and innovation (McNeill, 2012). As outlined earlier, the analysed departmental account sits within a University rated within the top 10 for social media in the UK (Rise, 2015). In addition, two members of staff from the University within a different department have recently been named in the list of 50 most influential higher education professions (JISC, 2015b); demonstrating a commitment by many to use social media to enhance aspects of Higher Education within the University. Further research on how social media policies and practices within institutions play out at departmental and group levels is needed. The use of alternative social media practices such as the multi-voiced approach within this University is unlikely to be coincidence. Rather, its use more likely reflects the emphasis placed on the role of social media for both pedagogical and marketing purposes within the organisation.

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