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Editorial

Sarah Honeychurch (Lead Editor), Deb Baff, Mark Breslin, Sarah Hallam, Glenn Hurst, Laura Riella, Gabriella Rodolico and Nina Walker.

The 2021 Social Media in Higher Education Conference (SocMedHE22) was on the theme of cultivating mutually beneficial learning relationships using social media, with the conference taking place over one day on Tuesday, 14th December 2021 using the online platform GatherTown. It was an action-packed day, with our avatars learning to navigate the software (and realising we could not walk through walls or other avatars!) and we all ended the day smiling. We collected together slides from those who used them, and you can find them, and all the abstracts, in the full programme. In this special conference edition we are delighted to showcase four papers based on presentations at the conference.

First we have a paper by Sarah Honeychurch and Matt Offord entitled 'the co-creation of a digital escape room designed to develop students' digital confidence' where they expand their presentation from the conference to talk about the design of a digital escape room by one of their student interns, and feedback from students who used the game in class. This is especially noteworthy as this project was itself inspired by work presented at an earlier SocMedHE conference by Rachelle O'Brien and Scott Farrow, as they acknowledge in their paper.

The second paper in this edition is by Olivia Kelly. In a paper called 'Using qualitative content analysis of social presence indicators within the Community of Inquiry model', Olivia writes about some of the research she is undertaking as a doctoral student. She uses the model of Community of Inquiry in order to analyse both students' perceptions of their social presence as well as their interactions, showing that a content analysis of tweets gives a better picture than (just) a survey.

Third is a paper by Scott Turner and Sarah Honeychurch '#SocMedHE: more than a conference'. This paper is a walkthrough of some of the tools that can be used to conduct a Social Network Analysis (SNA). By using these to look at the SocMedHE tweets the authors show that, as the title of the paper suggests, SocMedHE is better characterised as a community than a conference. This paper will be of particular interest to those who are interested in finding out about how to use such tools in order to understand and analyse social media interactions, especially those taking place on Twitter.

Last, but by no means least, is a write-up of the Expert Panel Session. Sarah Honeychurch, chair of the session, reflects on the session and sets the questions answered by the four panellists: Deb Baff, Sue Beckingham, Suzanne Faulkner, Dawne Irving-Bell.

We hope you enjoy reading the papers in this special edition as much as we have.

The Journal of Social Media for Learning 2023

The co-creation of a digital escape room designed to develop students' digital confidence.

Sarah Honeychurch and Matt Offord
University of Glasgow, UK

Abstract

In this paper we set out the design and delivery of a digital, text-based escape room designed to provide a virtual induction and help to build students' digital confidence. We begin by briefly explaining the reasoning behind our choice of game and platform and describing the staff-student partnership that delivered the project. We then describe the game itself, providing examples of some of the tasks, and showing how we embedded this in a large undergraduate class. We talk through our experiences of the process and present the results of the student evaluation and feedback. We end by reflecting on our experience and giving some practical suggestions for practitioners wishing to adapt this game for use in their own teaching.

The co-creation of a digital escape room designed to develop students' digital confidence.

Introduction

As a group of colleagues at the University of Glasgow with a shared interest in Game-Based Learning (GBL), we had been inspired by the application of the escape room concept (O'Brien and Farrow, 2020) in student learning, and were keen to explore this in the context of our students. We were therefore excited when the Adam Smith Business School (ASBS), where four of us worked at the time, announced a funded student internship initiative for the summer of 2021, providing us with an opportunity to develop an escape room in close collaboration with a student. We formed a project group with two academics from our team (Sarah and Matt O) acting as project sponsors, and the student intern as development lead and content developer (as keen believers in the power of staff-student partnerships, we wanted the student intern to lead this project). At an initial briefing meeting to scope the project we agreed that an escape room was achievable in the time available, and we gave the intern free rein to develop this.

The intern chose OneNote as the platform for the game because she appreciated how useful this tool had been in organising her work during her honours years and wished she had been introduced to it at the beginning of her university studies. The use of OneNote also made sense to us – because it was a centrally provided service, we were confident that it would be a stable platform, would comply with all privacy regulations, and staff and students would be able to access institutional IT support if needed.

We decided that we would design the escape room specifically for Matt O's level 1, undergraduate Management course (Principles of Management), and build in course-specific tasks. Our intern also decided to incorporate tasks that she had found useful in her freshers' orientation and adapt them for online use - as the course would take place during pandemic lockdown restrictions, she was particularly keen to try to replicate the on-campus experience where possible.

The Escape Room

As a first stage our intern spent some time looking at resources and brainstorming ideas for challenges, which she shared with the project team. Here are some of the ideas from this initial exercise (see Table 1 Overleaf).

Using the map to answer a question

- Perhaps you are told that you have a class in a building and you have to figure out which subway station to get off at, based on what is closest
- This requires them to use the key in the map, use some judgement as to what is closest, and gives some idea of the layout of campus

Glasgow Uni themed crossword

- Crossword where the answers align to reveal the password to the next lock
- Clues will all be related to Glasgow University
- Some clues may require them to research the answers, but will ensure that all answers are relatively easily available upon a google search

Brainteaser

- Fourteen of the kids in the class are girls. Eight of the kids wear blue shirts. Two of the kids are neither girls or wear a blue shirt. If five of the kids are girls who wear blue shirts, how many kids are in the class? A.19
- This requires the students to use their problem solving skills and work together to find the answer

Belbin themed lock

- Think what could be a useful exercise here would be to provide the students with a summary of the Belbin team roles in their resource sheet
- Would then give them a profile of one or more character who fit into one of these roles
- They would have to match the character up to their team role, which would then be the password to the lock

Using the course Moodle to find an answer

- The answer to this lock will be contained within the course Moodle
- Thinking that the reading list would be a good place to put it, perhaps asking for the journal that an article on the reading list was published in
- Allows them to locate the reading list and familiarise themselves with it

An answer contained within Matt's welcome video

- As discussed, it would be good to have the students be required to watch Matt's course welcome video to obtain one of the solutions
- If Matt is redoing this for video for the academic year, perhaps he could provide the students with the answer verbally towards the end of the video, or could briefly hold up an item which would be the lock password

Table 1: Ideas for challenges

In the first challenge students were asked to navigate (virtually) from Glasgow city centre to the University of Glasgow's Gilmorehill campus (this was a common trip for anyone travelling by public transport to the campus and would likely be a journey that students would need to take offline). The James McCune Smith Learning Hub was given as the final destination point (see Figure 1 Overleaf).

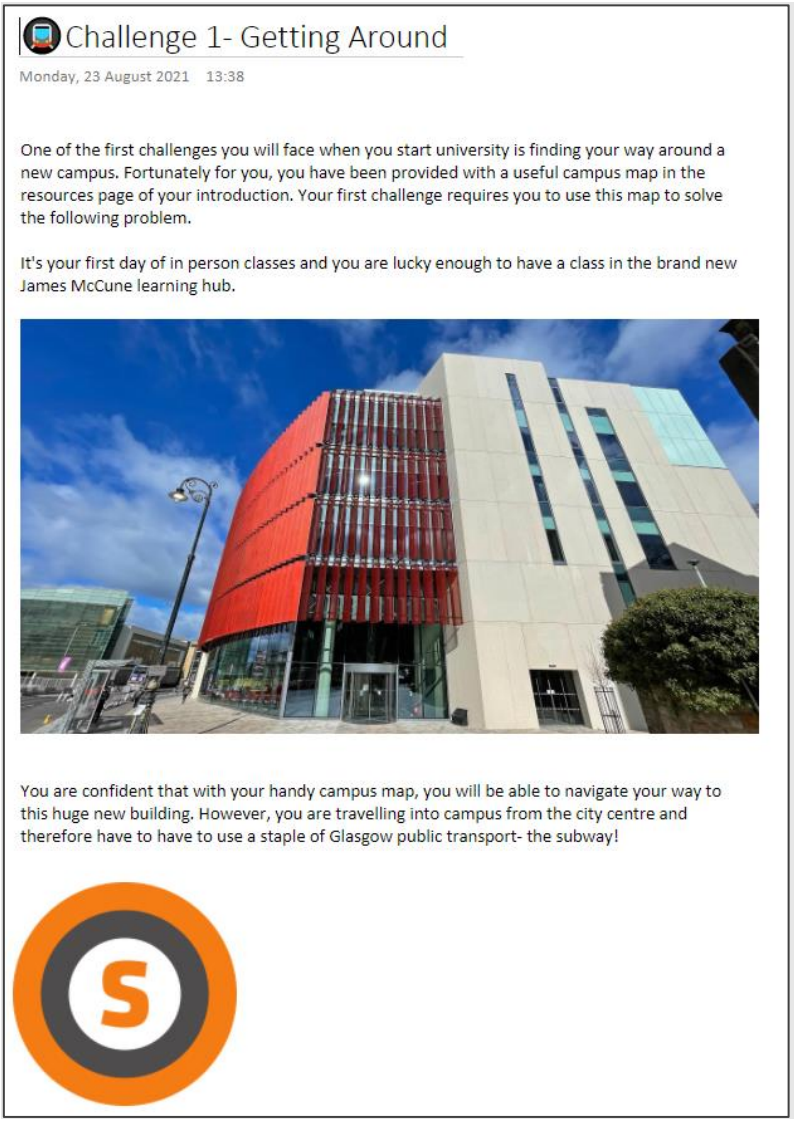

Figure 1: Screenshot of Challenge 1

The second challenge introduced students to Belbin team roles, which is a model of group roles used to support group work in ASBS. In order to complete this challenge students were asked to read through descriptions of fictional team members and assign each member of the team to the most suitable role.

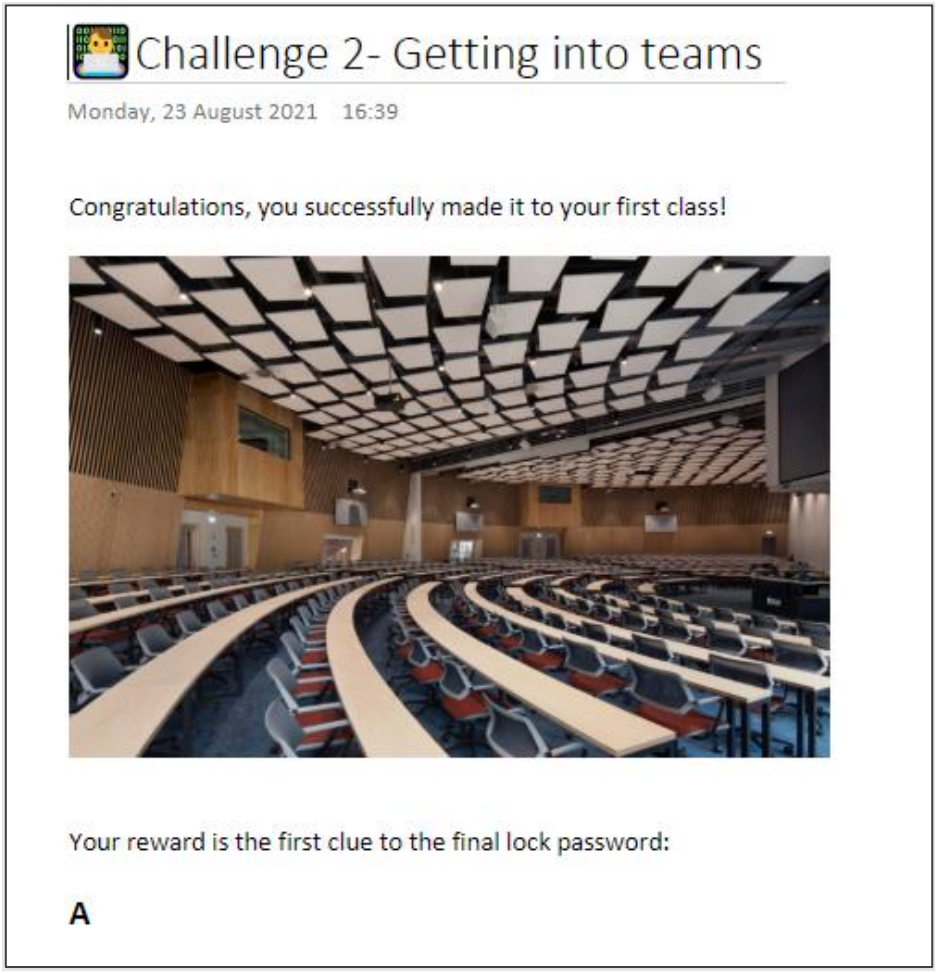

Figure 2: Screenshot of Challenge 2

In total there were eight challenges with each task relating either to the course or a familiarisation activity that a new first-year student could find useful. Each time a room was unlocked, players gained access to the next room and also received a letter, and the final challenge was to solve the puzzle of what these eight letters spelled out. Our intern also provided a full list of answers for staff (see Figure 3 Overleaf). You can also see a full version of the escape room if you are interested.

Challenge	Question	Lock Solution	Final Lock Clue
1. Getting Around	Which subway station would you get off at to go your class at the James McCune learning hub?	Hillhead	n/a
2. Getting into teams	Match up each student to the Belbin team role which they are most suited to.	Adjective	a
3. Brainteaser	Fourteen of the kids in the class are girls. Eight of the kids wear blue shirts. Two of the kids are neither girls or wear a blue shirt. If five of the kids are girls who wear blue shirts, how many kids are in the class?	19	g
4. Crossword	Solve the crossword to reveal the next password	world changers	d
5. Welcome Video			e
6. Using Moodle	Which journal was the 2008 article by Van Vugt, Hogan, & Kaiser published in?	American Psychologist	t
7. Team development	Find the stage names from the word puzzle then match put them into the correct order to reveal the password	form storm norm perform	r
8. Communication Skills	Decipher the morse code message as a team	Active listening	a
9. Final lock	Use the letters you have been collecting throughout to solve the anagram. Fill in the blank: These challenges have been helping you to develop _____ skills.	graduate	u

Belbin Team Role	Student
Resource Investigator	Alex
Teamworker	Dylan
Co-ordinator	Joyce
Plant	Ellie
Monitor Evaluator	Chris
Specialist	Tom
Shaper	Izzy
Implementer	Victoria
Completer Finisher	Evan

Figure 3: Screenshot of table of answers

We embedded a link to the escape room into the course VLE (which had a section for games and social activities) and also made it a core activity by setting it as a group task in an early synchronous lecture, thus emphasising to all students how important an activity it was (See Figure 4).

Figure 4: Screenshot of Moodle Course

Because of institutional guidance during the pandemic, the lecture took place over Zoom. The 377 students attending were allocated to groups and assigned to breakout rooms. At this point in the semester very few students had signed into the course Teams channels, so students were given a link to the course Teams to access the game rather than a direct link to OneNote. This meant that they were also introduced to the Teams channels that they would be using for communication throughout the course.

Evaluation

We also set up an online survey in order to collect feedback from students at the end of the game. In total 87 students responded, and we set out the responses below.

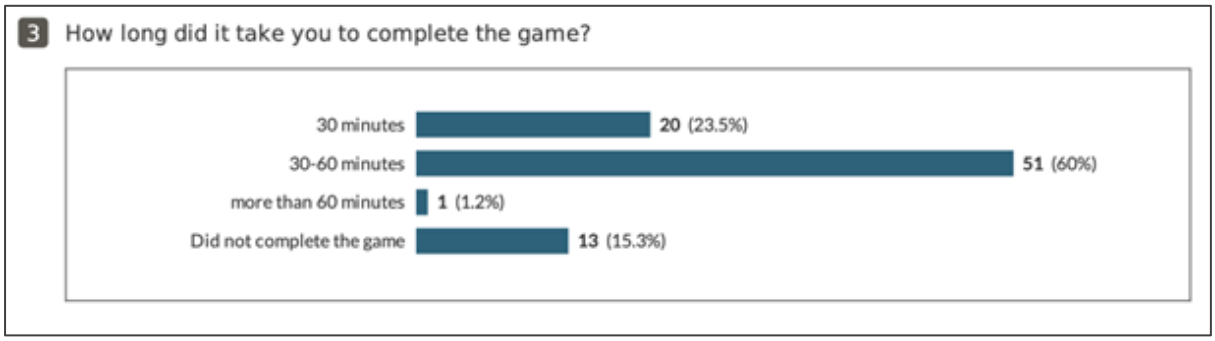

Figure 5: Responses to survey question – How long did it take you to complete the game?

Our intern had anticipated that the game would take about an hour to complete, and 61 respondents (83.5%) completed the game within this time.

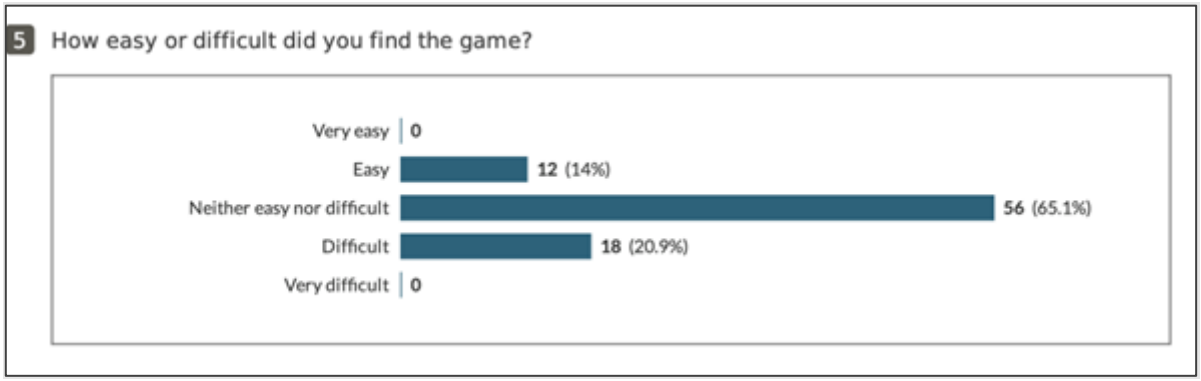

Figure 6: Responses to survey question – How easy or difficult did you find the game?

Close to two-thirds of students suggested that the game proved neither too difficult nor too easy, with a comparable proportion of students suggesting that the game was either easy (14%) or difficult (20.9%). This is a useful finding, given the challenge of designing a game that is well balanced. Game balance is a concept that designer Jesse Schell breaks down into a number of components, including the balance between challenge and success (2008, pp. 177-179). Recalling Csikszentmihalyi's theory of Flow (1991), Schell notes that successful games must offer a level of challenge that matches the player's skill, in order to avoid anxiety (where the challenge outstrips the player's ability) or boredom (where the challenge is insufficient to maintain the player's interest). The data here suggest that the design of the escape room game has achieved such a balance.

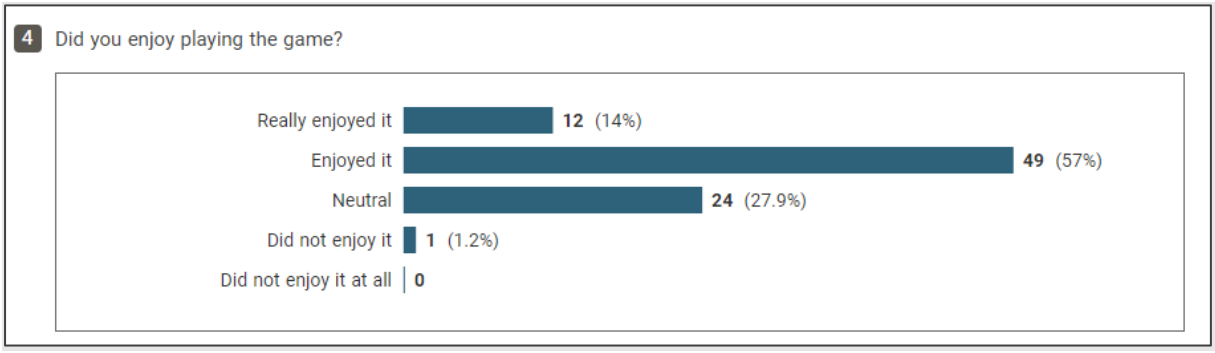

Figure 7: Responses to survey question – Did you enjoy playing the game?

A significant majority (71%) of students reported that they enjoyed playing the game, with a little over a quarter (27.9%) remaining neutral. Only one student reported that they did not enjoy the game. Clearly, this is an important finding, as a successful educational game must be fun to play. As noted by Habgood (2009), this is often not the case, with educational games often resembling 'chocolate-covered broccoli' wherein the fun does little to disguise - or sweeten - the learning experience. Indeed, this a issue that has hindered many previous attempts at marrying entertainment and learning, with the venerable Seymour Papert observing that such "edutainment" tends to "result in offspring that keep the bad features of each parent and lose the good ones" (1998). In other words, games that aim to educate either succeed at being enjoyable to play, or at being educationally worthy – but not both.

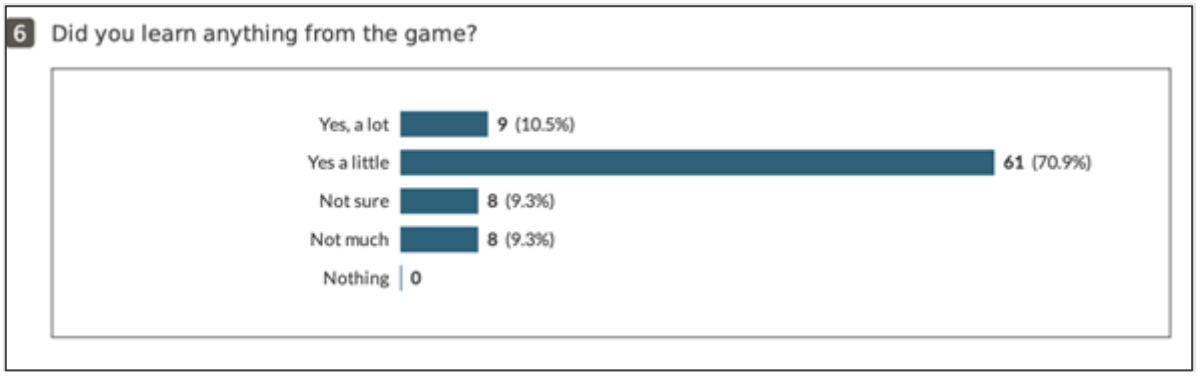

Figure 8: Responses to survey question – Did you learning anything from the game?

Taken in conjunction with the finding above, it is notable that a resounding majority (81.4%) of students reported that they had learned at least a little from playing the game. No students reported learning nothing. Thus, it appears that the escape room game described here has largely avoided falling into the trap of providing a fun experience at the expense of learning outcomes, or vice versa.

Each question also had space for open text responses so that respondents could explain their answers. We used an online word cloud generator in order to visualise the key words. As you can see, the words 'fun' and 'learn' occur in many of the responses, reinforcing our findings above (see Figure 9).

Figure 9: Word cloud of key words from responses

Many respondents commented that the escape room made an interesting change from other lectures:

> "Was something different than a normal lecture when you just listen to someone"

> "It is an interesting and interactive different way to learn"

Others commented that they appreciated the opportunity to work as part of a group:

> "It was a good way to make the online lectures more worthwhile and to get some teamwork done with people from the same course as me"

However, one respondent was not as enthusiastic as their peers:

> "I'm not sure if I want to spend my time on playing a game instead of working for the actual class"

Reflection

Although the use of escape rooms in HE is not new, this was a learning experience for the project team, as we had not included them in our teaching before. While we are encouraged by the feedback, we feel that we could have positioned this activity earlier in the timetable. As can be seen from the feedback, while the escape room was successful on the whole, our version had been designed as an induction activity, and running this slightly earlier in the semester would have been preferable. This is something that we will keep in mind for future iterations.

The escape room is a very simple idea, with a wealth of possibilities for use in HE learning and teaching. What made ours successful, in our opinion, was the student-led design. This ensured that the tasks included were written in student friendly language, and many of these were practical activities that our intern knew from her own experience to be relevant to new undergraduates at our university. However, we did not actually tell the students that this game had been designed by a former ASBS student. This is something that we should ensure that we convey to future students in order that they appreciate the potential relevance of the game to them.

Although our iteration of this game was successful, we would strongly recommend that anyone who implements this approach tests the finished escape room before implementing it in a live class as this will help to ensure that the game can be completed in the allotted time and also allow for troubleshooting of the sharing settings, if needed.

As we mentioned earlier, our choice of an Escape Room and OneNote was influenced by the fact that others in the SocMedHE community (O'Brien and Farrow, 2020), and knowing that we could reach out to friendly and experienced educators reassured us throughout the process. We are pleased that we are able to close the loop and reiterate how useful their earlier work has been to other educators.

Closing remarks

As we wrote above, this was a proof of concept for us a group - we are pleased with the results and we are already thinking about our next steps. Since the conference presentation (Honeychurch et al 2021), we have worked with colleagues in our School of Education, and they have used a modified version of our game in one of their courses. We also hope to design a version for use in a taught postgraduate course in ASBS in order to help students develop the research skills they will need for their dissertations and research projects. If you are interested in developing a version, and maybe in collaborating with us in some way, we would also love to hear from you.

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Disclosure statement

No potential conflict of interest was reported by the authors.

The Journal of Social Media for Learning 2023

Using qualitative content analysis of social presence indicators within the Community of Inquiry model.

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Using qualitative content analysis of social presence indicators within the Community of Inquiry model.

Introduction

In 2000, Garrison et al. developed the Community of Inquiry (CoI) framework with the aim of structuring the process of learning in an online environment. It consists of three interrelated presences:

- social presence – the degree to which participants present themselves as 'real' people in an online community,
- cognitive presence – the degree to which learners can create meaning through sustained communication, and
- teaching presence – the design of learning materials which facilitate the development of the above two presences (Garrison, et al., 2000).

Figure 1 shows how these three presences overlap and when all three presences are effective, students benefit from a positive educational experience. Within each presence, several categories have been created to show different aspects of each presence in action (Stenbom, 2018). For example, social presence can be demonstrated by open communication; cognitive presence by exploration by students and resolving issues; and finally teaching presence is shown through facilitating discourse or direct instruction.

Two approaches have been developed and applied to analyse data for the CoI framework: content analysis of Computer Mediated Communication (CMC) and the more regularly used CoI survey. However, these were developed just as social media was in its infancy. Twitter went live in 2006 and has since grown to be used by 396 million people (The Social Shepherd, 2022). The CoI framework has been used regularly for Twitter analysis, but this paper argues that more qualitative content analysis is required along with a more appropriate form of coding to coincide with the affordances of the Twitter platform and how users adapt their use of language to fit their needs and the restrictions of the platform. This paper is based on the literature review, planned methodology and early data collection for a Doctorate of Education thesis researching how distance learners at The Open University establish social presence on Twitter to build a Community of Inquiry. The scope of the thesis and this paper is only on social presence within the CoI framework rather than all three presences and therefore focuses on Open University student-to-student interaction on Twitter.

Literature Review

This section discusses social presence within the Community of Inquiry framework, its subsequent measurement tools and examples of content analysis of social presence indicators.

Social presence within the Community of Inquiry framework

Social Presence is considered a key factor in effective online communication and learning as shown in the yellow circle in Figure 1 including socialisation, interaction and community development. Social presence is recognised as crucial to engaging groups in interaction and communication (Rourke, et al., 2001) and particularly important in online learning (Conklin, et al., 2019).

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It has been heavily used, discussed, and examined since its introduction although Jézégou's (2010) critical analysis of the model highlights some weaknesses including the lack of connection to its theoretical foundations in socio-constructivism and the difficulties in applying the indicators of each form of presence. Choo et al. (2020) use the Community of Inquiry framework to explore students' perception of the three presences in online courses and how it relates to course satisfaction through a survey of 223 US business students. This study argued that the most important presences for student satisfaction of online courses were teaching and cognitive but felt that social presence was the least important (p.179).

Figure 1: Community of Inquiry Framework (Garrison et al., 2000)

However, Andrews & Tynan (2012) showed that informal student networks were most beneficial for students to develop a sense of community while it is also claimed that establishing social presence will reduce students' feelings of isolation (Phirangee & Malec, 2017). Gossain (2019) claims that students are very aware of their social presence and 'curate their own digital identity based on what they post, their preferences, likes and follows' (p.84). While Rourke et al. (2001) argue that the aim for students to develop social presence is only to allow for effective cognitive presence, if participants do not find the interaction enjoyable and fulfilling, they will not remain in the group (Garrison, et al., 2000).

Social Presence survey

The CoI survey was first developed by Arbaugh et al. (2008) with the aim of providing empirical evidence of the framework's effectiveness taking it in a more quantitative direction. It is considered a valid, reliable and efficient measure of the dimensions of social presence. Arbaugh et al. (2008) developed 34 statements using a Likert scale of 0=Strongly disagree to 4=Strongly agree which were then used to calculate mean scores for each statement and collectively for each presence.

The CoI survey is relatively easy for researchers to use in a variety of study settings. For example, Choo, et al. (2020) used the Likert scale survey to study the extent to which the CoI framework can predict students' satisfactory learning experiences in online undergraduate business courses (p.173). Conklin et al. (2019) used analysis of survey responses for their study focusing on social presence for online students using a closed social media platform known as Yellowdig within a module.

The findings concluded that use of the platform did not affect social presence for these students but recognised that using an unfamiliar platform may have affected the outcome of the study and suggest that using Twitter may have had a different result. Delello & Consalvo's (2019) study focused directly on synchronous Twitter chats and argued that they help to achieve social presence. However, none of these studies analysed the messages written and posted by the students.

According to Stenbom's (2018) systematic review of studies using the Community of Inquiry survey, it provides 'results that are valid and reliable' (p.22) but needs to be used in more varied settings to allow for more general claims about online learning. While this recognised CoI survey instrument has been established and tested (Stenbom, 2018), it is clear from Garrison et al.'s (2000) original explanation of the CoI framework that it should be used to analyse original posts made in an online setting rather than retrospective thoughts on the experience of the discussion (p. 88).

Content analysis of Social Presence

Social presence within the Community of Inquiry framework is defined as 'the extent to which people within a network are perceived as real people' (Garrison, et al., 2000). As outlined, a weakness in much of the research into how students establish this social presence on Twitter is basing analysis solely on survey responses rather than including content analysis of student messages. Analysing the interactions of people on these social media platforms gives a more realistic view of how people interact within their network rather than basing it solely on their perception of the interaction. Content analysis is a methodological framework where textual analysis is applied to pre-existing material defining strict, systematic 'procedures for the rigorous analysis, examination, replication, inference and verification of written data' (Cohen, et al., 2018). Twitter has high amounts of naturally occurring data requiring reduction to manageable and comprehensible proportions. This is a key element of qualitative analysis, facilitating the systematic coding analysis of written communication making it possible to identify and classify words or phrases in terms of their structure and semantics, focusing on drawing valid conclusions from data in relation to the context in which it is found (Einspanner, et al., 2014).

Rourke et al. (2001) developed criteria and measurement tools for content analysis of social presence demonstrated within CMC, including a coding table of categories and indicators of social presence. The three categories indicating the nature of communication are affective (relating to emotions, feelings and mood); interactive (referring to building and maintaining relationships through replies and discussion); and cohesive (relating to group commitment and greetings) (Chatterjee & Parra, 2021). Within each category, a range of indicators are suggested for the types of messages that demonstrate that category of social presence as shown in Table 1.

Social Presence	
Categories	Indicators
Affective	Emoticons, humour, self-disclosure
Interactive	Continuing a thread, complementing, asking questions, retweets (quoting), replies, likes
Cohesive	Vocatives (using names), inclusive pronouns (we, our), salutations (greetings)

Table 1: Social presence categories and indicators within the CoI framework

Due to the large sample sizes when collecting tweets, data analysis software often supports the coding process. There is a wide range of Computer-Assisted Qualitative Data Analysis (CADQAS) software available, such as NVivo, for tweet content analysis and coding. Each tweet should be coded based on the style of language used and may fall within more than one category or indicator.

Category	*Indicators*	*Definition*	*Example*
Affective	Expression of emotions	Conventional expressions of emotion, or unconventional expressions of emotion, includes repetitious punctuation, conspicuous capitalization, emoticons.	"I just can't stand it when ...!!!!" "ANYBODY OUT THERE!"
	Use of humor	Teasing, cajoling, irony, understatements, sarcasm.	The banana crop in Edmonton is looking good this year)
	Self-disclosure	Presents details of life outside of class, or expresses vulnerability.	"Where I work, this is what we do ..." "I just don't understand this question"
Interactive	Continuing a thread	Using reply feature of software, rather than starting a new thread.	Software dependent, e.g., "Subject: Re" or "Branch from"
	Quoting from others' messages	Using software features to quote others entire message or cutting and pasting selections of others' messages.	Software dependent, e.g., "Martha writes:" or text prefaced by less-than symbol <.
	Referring explicitly to others' messages	Direct references to contents of others' posts.	"In your message, you talked about Moore's distinction between ..."
	Asking questions	Students ask questions of other students or the moderator.	"Anyone else had experience with WEBCT?"
	Complimenting, expressing appreciation	Complimenting others or contents of others' messages.	"I really like your interpretation of the reading"
	Expressing agreement	Expressing agreement with others or content of others' messages.	"I was thinking the same thing. You really hit the nail on the head."
Cohesive	Vocatives	Addressing or referring to participants by name.	"I think John made a good point." "John, what do you think?"
	Addresses or refers to the group using inclusive pronouns	Addresses the group as *we, us, our, group.*	"Our textbook refers to ..." "I think we veered off track ..."
	Phatics, salutations	Communication that serves a purely social function; greetings, closures.	"Hi all" "That's it for now" "We're having

Figure 2: Rourke et al.'s 2001 Social Presence Coding System

Rourke et al.'s (2001) original coding system, shown in Figure 2, was developed from CMC data in an online forum room at a conference. This meant that the affordances of a forum discussion, such as no limit to length of messages and more formal use of greetings, affected how the indicators were developed and described.

Lomicka & Lord's (2012) research used both the CoI survey and Rourke et al.'s (2001) coding system to examine how student social presence develops over a semester on Twitter and found that participants quickly formed a collaborative community for learning, sharing and reflecting. Most tweets fell within the affective and interactive indicators with a low number of cohesive examples of tweets but overall, they argue that these results fit with Garrison et al.'s (2000) theory of what constitutes a community within the CoI framework. While this research does directly analyse student tweets, so deals with concerns raised in Section 2.2, it was a compulsory teacher led task which students had to participate in as part of the course. This raises concerns about participant freedom of choice to take part in the research. It also only had 13 participants (11 female, 2 male) which limits the generalisability of the results. The authors suggest that follow-up research would be useful to see if students continued to use Twitter after the compulsory task had ended (Lomicka & Lord, 2012, p.59).

As the Twitter platform became more widely used in education and further studies were carried out, some researchers began to adapt the social presence indicators. This development of the codes and how it led to the coding system for my research will be outlined in the next section.

Methodology & Adaptations to Social Presence Indicators

The Open University (OU) is a large UK-based distance learning institution with over 175,000 students (The Open University, 2020). The Open University has a presence on most social media sites and within Twitter, it has various accounts for different faculties, modules and regions. The main account, @OpenUniversity, had over 172,000 followers in August 2022 while the official OU Student account, @OUStudents, had 31,400 followers and OU students regularly use this platform to communicate with each other and the university. As part of a doctoral research thesis, the use of Twitter by OU students was studied to discover how they used the platform and whether the communication would demonstrate social presence within the Community of Inquiry Framework. To assess this, tweets that contained key OU hashtags (#OUStudents or #OpenUniversity) or tagged the Twitter accounts @OUStudents or @OpenUniversity were collected between 1st August 2021 and 31st December 2021. Twitter's usual search function only allows a search of tweets posted within the last 7 days. Therefore, a Twitter Archiving Google Sheet (TAGS) was used to collect tweets over this six-month period which collected 45,111 tweets. Four activity peaks within that six-month period were identified and the tweets which occurred within the week surrounding that activity peak were selected for content analysis. This study received ethical approval from the Open University's Human Research Ethics Committee (HREC) and Student Research Project Panel (SRPP) and was logged with the Data Protection Officer.

The content analysis used the social presence indicators within the Community of Inquiry framework to assess to what extent students are establishing social presence on Twitter. Rourke et al.'s (2001) coding system was used as a starting point with inductive adaptations as tweets were coded. This led to changes in the indicators of social presence to make it more suitable for content analysis of tweets, shown in Table 2. Raw numbers of indicators were tallied and converted to percentages to facilitate comparison.

Category	Indicators	Examples from study
Affective	Expressions of Emotion	Positive: Phew, heart emojis, xx
		Negative: 'I hate this'
	Use of humour	Lol, sarcasm, jokes, wink or laughing emojis
	Self-disclosure	Personal information, 'I'm a single Mum'
		OU related information, 'I'm studying law'
Interactive	Direct reply	@mention reply
	Quoting another's message	Retweet (only counted in this indicator)
		Quote Retweet (new text coded for other indicators)
	Support	Giving advice
		Mention previous tweet
	Asking questions	Contains a question or implies a question.
	Complimenting/ Appreciation	'Thanks', 'you'll do great', 'well done', 'Congratulations', 'You've got this'
	Agreeing	'Yes', 'same here'
Cohesive	Vocatives	Name used in tweet 'Thanks Sam' or adding @mention later in tweet
	Group pronouns	Our, we, us, thanks everyone, 'my fellow students'
	Greetings	Hi, Happy Birthday, see you soon
		Good luck

Table 2: Adapted Social Presence coding system for Twitter

Some important adaptations included the separation of retweets and quote retweets. An affordance of Twitter is the possibility to retweet a post which is often seen as a show of support for the tweet and helps to bring it to the attention of a user's followers. Retweeting was traditionally included under Rourke et al.'s (2001) 'Quoting another message'. However, the choice of how to code retweets and quote retweets is an important consideration. While it could be argued that a retweet is getting the same message out to more people and amplifying it, it was decided to only code a retweet once in the quote category and not code any other text within the tweet which helps to avoid double coding of the original tweet. However, when the user retweets the original tweet but also adds their own text to the post, known as a Quote retweet, the new text added in the quote retweet was coded for other indicators.

Instances of self-disclosure were further separated to indicate whether students disclosed information related to their OU studies or their personal lives outside of study. This would allow for further analysis of the types of self-disclosure that students demonstrated. For example, within OU study related self-disclosure, students discussed the courses or degree pathways they were on. Non-OU study related examples of self-disclosure were often very personal including hardships suffered during previous educational experiences and how they came to select OU study.

Rourke et al.'s (2001) original descriptors did not separate emotion into positive or negative while some later adaptions did (Zou, et al., 2021). During coding, tweets which indicated emotion were separated into negative and positive to see if this would give further insight into the type of communication taking place between OU students on Twitter and present a form of sentiment analysis.

With regards to the use of vocatives under the Cohesive category, my research has taken a different approach to Baisley-Nodine at el. (2018) which counted @mentions which automatically appear in Twitter when the reply button is used as indicative of a vocative within the tweet. This led to double counting and heavily skewed results for the use of vocatives in their research. To more accurately show when a user takes the conscious decision to refer directly to a person they are communicating with, the adapted coding only counted a vocative when the user added a name such as 'Thanks Melanie' or included an @mention later in their tweet. This is regularly used in tweets to alert someone to being included in the discussion as they will receive a push notification.

Greetings are forms of communication that serve a purely social function and include words like 'Hi', 'Enjoy' or 'see you soon'. Due to the short number of characters available in tweets (280) most users leave out these phrases and it provides a further reason why this framework needed to be adapted from Rourke et al.'s (2001) original purpose of analysing forum discussions where word limit is not an issue and replies are often in the style of emails. 'Good luck' was placed into this category as this is a general greeting rather than a distinct sign of belief in the other user and somewhat different to phrases like 'You've got this' or 'You'll do great'. However, to ensure this wasn't skewing results for greetings, 'Good luck' was placed into a single subcategory which could be moved later if necessary.

Discussion of preliminary research findings

A preliminary coding of 1142 tweets included 2862 instances of social presence giving an average of over 2.5 social presence indicators per tweet. Rourke et al. (2001) originally designed the social presence density measurement tool to equally weight each of the 12 indicators. Figure 3 shows a visual representation of the breakdown of indicators. The initial three categories: interactive, affective and cohesive are shown in the centre leading to the second level indicators and finally the third level, including my newly added subcategories of indicators to allow for deeper content analysis and understanding of what OU students are saying on Twitter.

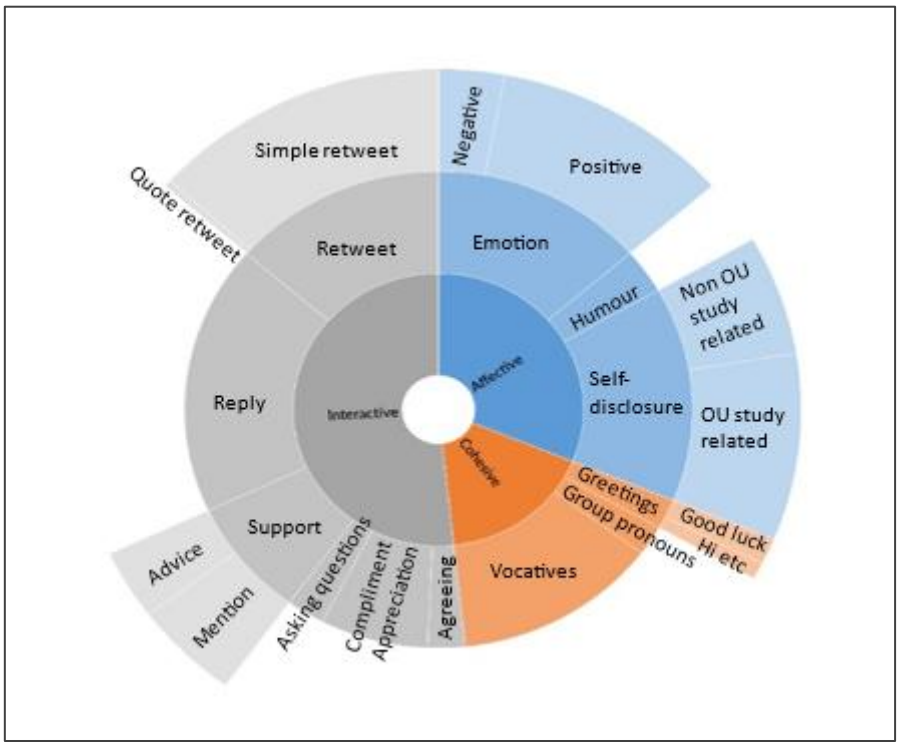

Figure 3: Visual representation of preliminary content analysis

At first glance, over half of the social presence indicators fell within the Interactive category including 523 replies. This is one of the many affordances of the Twitter platform that allows users to easily reply directly to any tweet. This automatically attaches the @username of the original tweet as well as anyone else mentioned in that tweet to the reply and Twitter uses push notifications to alert the original user that someone has replied to them, facilitating active discussion. A high number of replies suggests a community which gets involved in conversation and interaction with each other rather than mostly posting single tweets and is a good indicator of social presence when users want to initiate and respond to conversation within the group.

Perhaps more surprisingly for a public platform such as Twitter, the next two most prevalent indicators were 'expressing emotion' and 'self-disclosure'. For expressing emotion, examples included the use of emojis or phrases like 'I'm excited' or 'I'm nervous'. For self-disclosure, this included when students mentioned what course they were studying or some details about how they have found their OU journey or education so far. It is often assumed that students may be reluctant to share this information on a public platform due to privacy concerns (Tu, 2002). Tu (2002) argued that 'When one perceives an online learning environment to be less private, or they are unable to maintain their privacy online, they would naturally be less interactive' (p.94). However, the results from this research suggest otherwise and found that within the OU student community on Twitter, people often share information about their study progress and life experiences while keeping their profiles and tweets public. This can help to motivate and encourage others but also shows that students feel comfortable to share their personal stories and consider this a 'safe' space and links back to the original definition of social presence demonstrating that the people involved in this online community are 'real people'.

Within the emotion indicator, over 80% of tweets were of a positive nature with phrases such as 'very excited'; 'I loved studying' and 'can't wait to be back'. Therefore, less than 20% of tweets indicated a negative emotion with phrases such as 'I'm struggling really badly' and 'so much time wasted'. However, this would further demonstrate an issue with qualitative content analysis and the importance of 'units of meaning'. In some cases, a phrase such as 'I'm terrified' was used when students tweeted about starting a new module. At face value, this would suggest a strong negative emotion but in the context of tweets, this phrase is often used in an exaggerated comical way such as 'New module begins today, I'm terrified lol'. A phrase like 'I miss my student work' implies the student enjoyed studying and wishes they were doing more. This shows the importance of not depending on computer algorithms to calculate sentiment analysis where phrases like this can lead to false finds (Jackson & Bazeley, 2019).

There were 342 incidences of vocatives showing these are regularly used to build social presence. The regular use of names shows that users see others involved in the discussion as real people behind their username. The lowest incidences were Group Pronouns, involving the use of words like 'we' or 'us,' and Greetings at only 2% each.

Conclusion

This paper has argued that measuring social presence on Twitter within the Community of Inquiry framework requires more use of content analysis of tweets rather than basing analysis solely on the CoI survey results. Analysing the text of CMC on social media platforms rather than just how people perceive that interaction gives a more accurate picture of how the platforms are being used.

Alongside this, it has also been important to consider updating the original indicators of social presence for content analysis developed by Rourke et al. (2001) to ensure they are more suited to how Twitter is used. Affordances of Twitter such as keeping track of reply threads and quote retweets needed to be integrated. However, limitations of the platform, particularly character length have changed how users communicate on Twitter.

Other changes such as splitting emotion into positive and negative or self-disclosure into different topic areas allow for a fuller understanding of the manner of communication taking place within the online community.

This forms part of a doctoral research study which continues to develop the social presence indicators within the Community of Inquiry framework through further inductive coding of Open University student tweets to test if these students are demonstrating social presence through their interaction. Junko et al. (2013) argue that students need 'to improve their capacity to initiate self-directed, collaborative practices as a means to more effectively take ownership of their learning' (Junko, et al., 2013, p. 285). There is a growing requirement for further research into how students use social media to better develop self-directed learning and networking opportunities for them (Booth, 2015; Junko, et al., 2011). It also links closely with Contact North's (Peters, et al., 2018) suggestion of the importance of considering online support groups as an integral part of what online universities offer to replace similar student support systems in conventional universities and help to limit feelings of isolation.

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SocMedHE: More than a conference?

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Abstract

Using SocMedHE as a case study, in this paper we provide some examples of extracting and analysing information from tweets and we introduce some example tools for doing this. We also use these tools in order to explore some different ways in which we can play with this type of data. This paper is an extension of a conference presentation to SocMedHE21 (Turner 2021a).

SocMedHE: More than a conference?

Introduction

Social media provides us with a number of ways to work with our students. We can also use look at social media interactions as data and use tools in order to investigate and explore uses of social media. These tools also offer us creative ways of creating visualisations to represent social media use. Two central aims of this paper are:

- To highlight some of the tools that are available for looking at Twitter data and to show the reader that in most case no special programming or mathematics skills are needed;
- To use these tools to gain some insights about the community around the SocMedHE related hashtags.

Data Sets

Three data sets were used to explore hashtags around SocMedHE. We used TAGS in order to analyse interactions in data sets 1 and 2 and NodeXL in order to analyse data set 3.

(i) Data Set 1 covers the use of #SocMedHE or #SocMedHE19 from 27th March 2019 to 6th May 2021 containing 3041 unique tweets (Turner, 2021b).

(ii) Data Set 2 covers tweets from 6th December 2021 to 24th June 2022 using the hashtag #SocMedHE21 (Turner, 2022).

(iii) Data Set 3 represents a network of 146 Twitter users whose recent tweets contained "#SocMedHE20", or who were replied to or mentioned in those tweets, taken from a data set limited to a maximum of 18,000 tweets. This network was obtained from Twitter on Thursday, 17 December 2020 at 17:41 UTC. The tweets in the network were tweeted over the 8-day, 4-hour, 37-minute period from Wednesday, 09 December 2020 at 12:52 UTC to Thursday, 17 December 2020 at 17:29 UTC.

Tools and Approaches

In this section we briefly describe the tools and approaches that we use in this paper.

TAGS

The main tool used in this analysis is called TAGS, which is a tool developed by Martin Hawksey (Hawksey, 2022). TAGS is a way of capturing tweets for a particular hashtag, initially up to the previous 7 days of setting up TAGS and capturing them as an archive in Google Sheets. One of the great features is once you set it up, you can leave it to collect data every hour and add it automatically to the archive. This approach was used for all the data sets used in this paper.

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Setting up a TAGS sheet is relatively easy. All you need to do is to go to the website, follow the "Get TAGS" link and choose which version you want to use. It is worth reading and following the guidance on the page about the app not being verified. You will need a Twitter account that you can use in order to link to TAGS. In summary the steps are:

- Go to https://tags.hawksey.info/ Create a new spreadsheet via "Get TAGS". Select "TAGS v6.1"
- Make a copy
- In box 2 enter the search term or terms e.g. #SocMedHE21
- Use the TAGS pull down menu and select "Run Now!"
- Run through a whole load of authorization
- In TAGS menu select "Update Hourly"
- Change the settings on the share button so all can view it.

You can see our TAGS settings to see what is needed. Figure 1 shows the first page of the TAGS sheet after the hashtags you want to consider (box 2) have been running for a while.

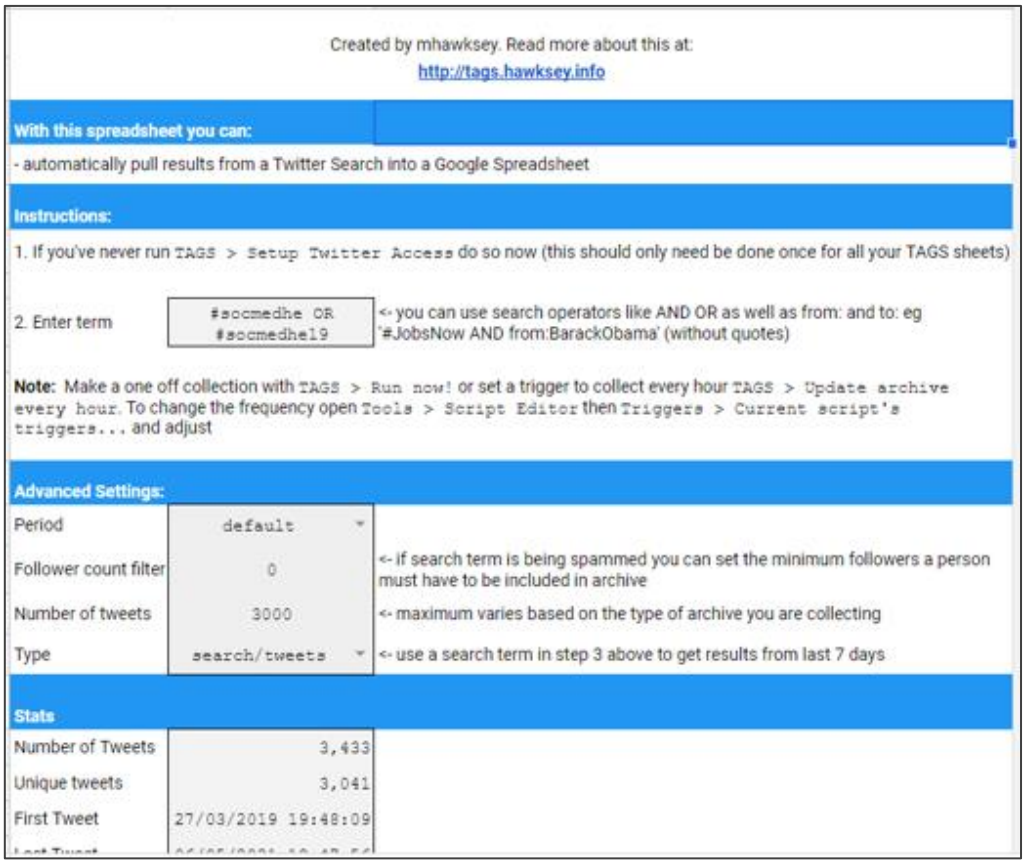

Figure 1 Screen shot of front TAGS page

There are further links (see Figure 2 Overleaf) that allow us to visualise the data a bit in particular TAGSExplorer.

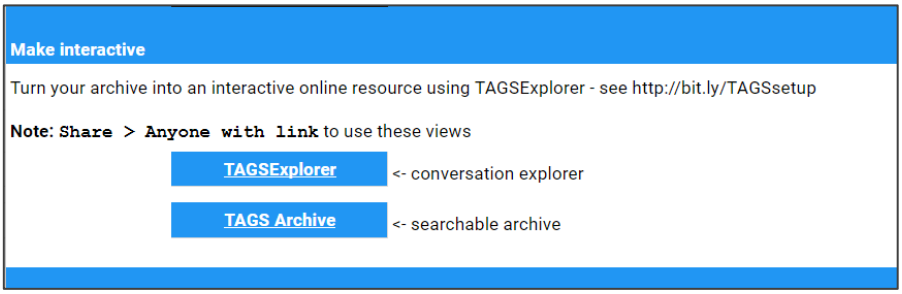

Figure 2 Making it interactive

Figure 3 shows all the Twitter accounts (these are called nodes) using the particular hashtag and connects those together where people have replied to each other.

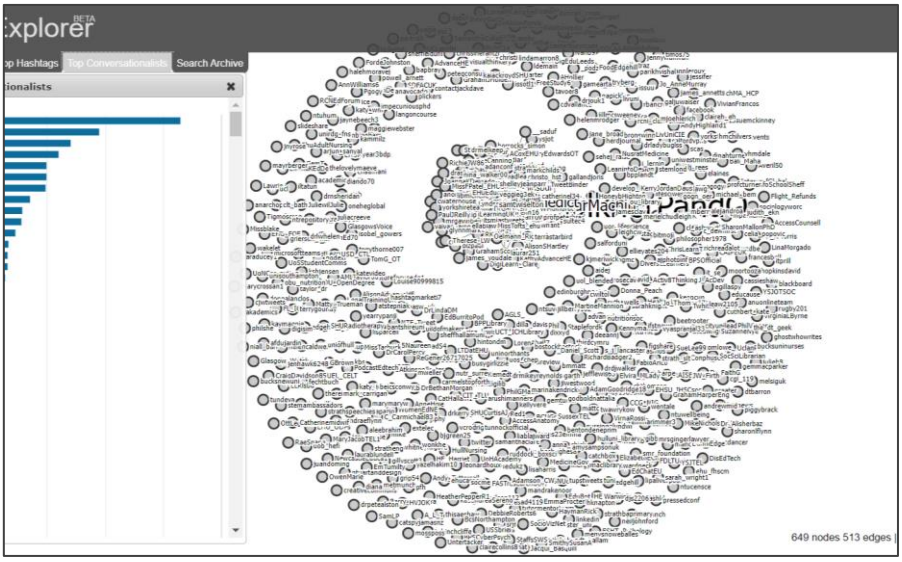

Figure 3 Dataset 1 with replies and nodes

Figure 4 shows the links are made the same data where the is a mention, reply or retweet.

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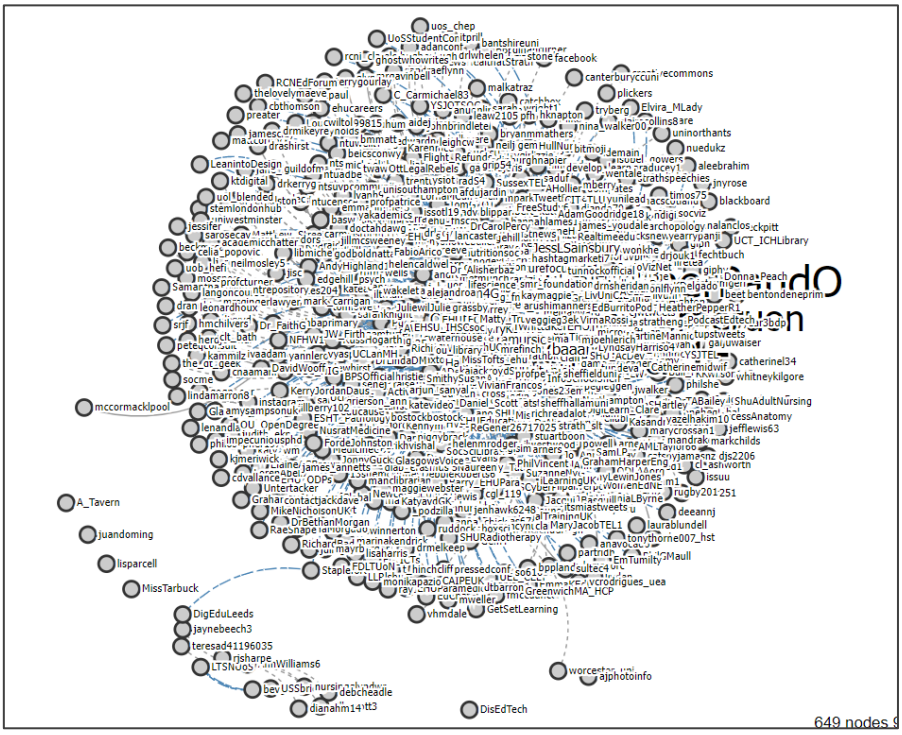

Figure 4 Dataset 1 with replies, tweets, mentions and retweets

Gephi

Gephi is a tool for analysing and visualising networks, rather than a tool solely for social media. It is available for free at https://gephi.org/ In this paper it is used to visualise and further process data collected from other tools.

Sentiment Analysis

Sentiment Analysis is a widely used approach of looking at data, usually textual, and categorizing words into positive, negative, and neutral words to gain a sense of how for a particular group a phrase or - as in this case a hashtag - is viewed. In this paper a piece of Python code, which is a modified version of one from Wintjen M (2020), is applied to a Comma Separated Variable (CSV) file of tweets in order to perform a basic sentiment analysis. The code is included as Appendix A.

NodeXL

Nodexl has free and paid version (Social Media Research Foundation, 2022a). The Pro/education (paid) version was used in this work. NodeXL is essentially an Excel add on that can capture data from a variety of different Social Media platforms. It also offers a repository to store the dataset and images the NodeXL Graph Gallery (Social Media Research Foundation, 2022a). Figure 5 shows some example graphs that can be found online when you search for #SocMedHE. Dataset 3 covers the actual conference specifically using NodeXL.

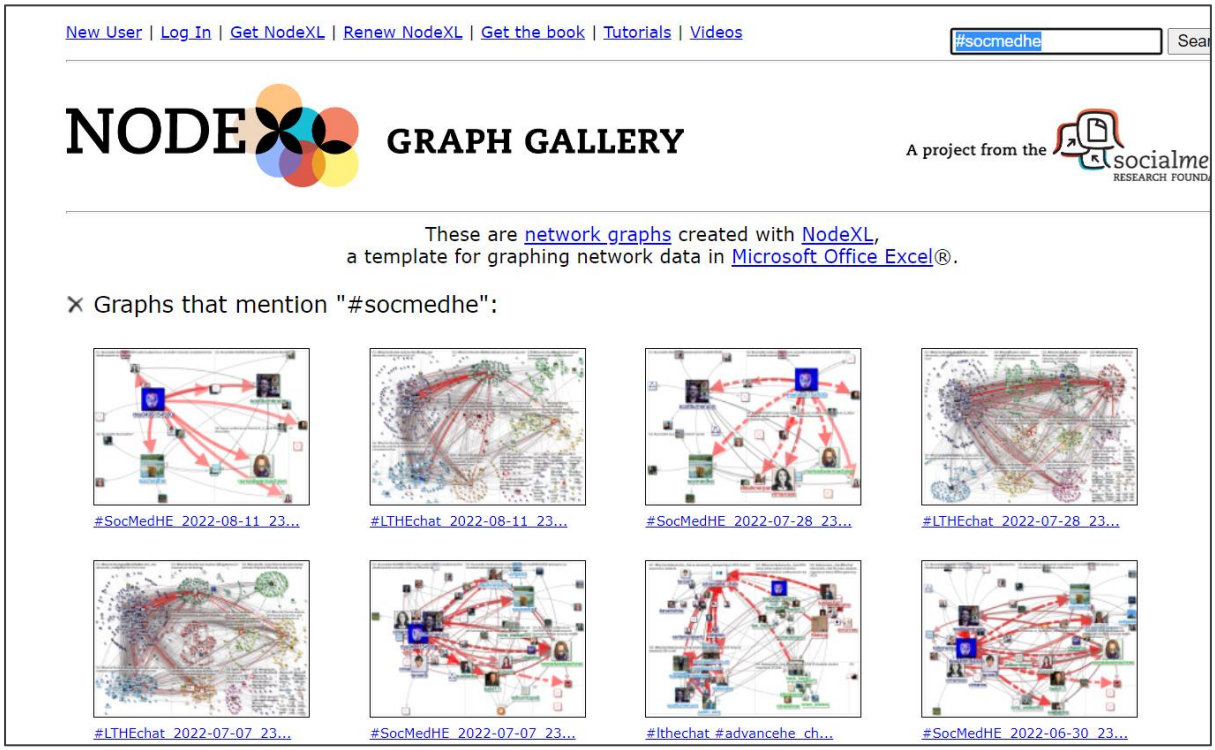

Figure 5 Examples of NodeXL graphs that use the hashtag #SocMedHE

Data Set 1: TAGS and basic sentiment analysis

This data set was used to explore TAGS as a tool and to apply a relatively simple form of sentiment analysis. Figure 1 and Figure 2 above show the settings for the TAGS search for covering the use of #SocMedHE or #SocMedHE19 from 27th March 2019 till 6th May 2021. This duration was selected to provide a relatively large collection of tweets and to cover one SocMedHE conference.

TAGS has many useful features including visualisations of the connections between people's tweets in terms of tweets and replies (figure 3) and with replies, tweets, mentions and retweets (Figure 4). In Figure 3 we can see that subgroup is formed of those replying to each other (linked with a solid line) and this does seem to move those to the centre of the graph. This can be seen as indicative of greater engagement, whether it can also be viewed as indicative of these nodes as having greater influence is less clear.

Another feature of TAGS is that it includes a second sheet which is an archive of all the collected tweets. If we just treat the content of the tweet as just text, we can collect them as a text file and perform a textual analysis on them in order to find out if the words used are considered to be positive, negative or neutral according to a standard repository classifying them. In this case we used the lexicon VADER (Valence Aware Dictionary and Sentiment Reasoner) which is believed by some authors (e.g. Lamberti, 2022) to be especially attuned to social media. The final output compares the number of positive, negative, and neutral words (see Figure 6 Overleaf).

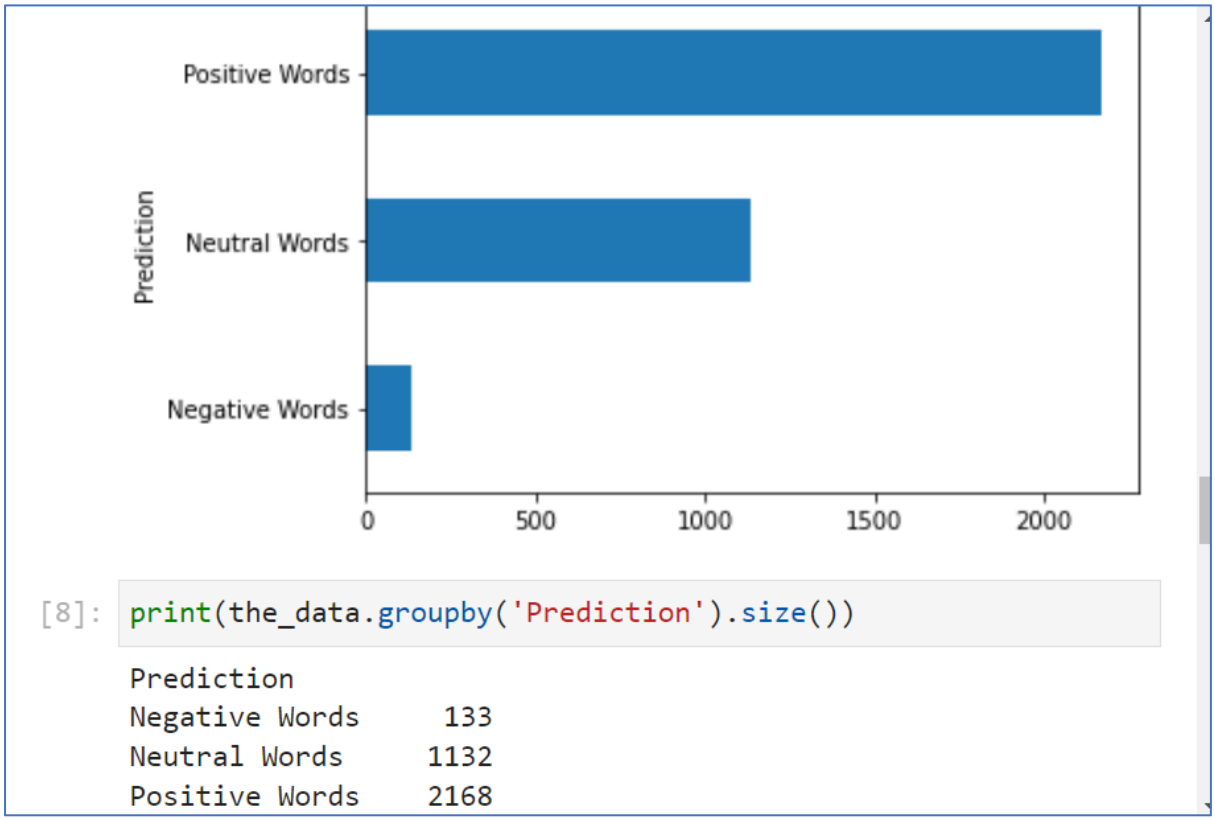

Figure 6 Results of sentiment analysis

So, for these tweets (and by implication the conference as #SocMedHE and #SocMedHE19 were the hashtags analysed), we can see that 2168 positive words were used compared with only 133 negative words. This would suggest that the overall tone of the tweets was positive.

Data Set 2

To produce the data, TAGS was used collect all uses of the #SocMedHE between 6th December 2021 and 24th June 2022, saved to the archive (the second sheet in TAGS) as a CSV file. To focus on just mentions in the tweets the CSV file was edited to include just the person mentioning and who they mentioned. The data was then imported into Gephi and analysed. Details of this procedure are available in the video at Turner (2020). The key point really is we have just sorted the data into just those connecting via mentions. Looking at mentions for SocMedHE (Figure 7 Overleaf) the number of links between individuals Is indicated by the thickness of the line (so the higher the number of tweets, the thicker the line).

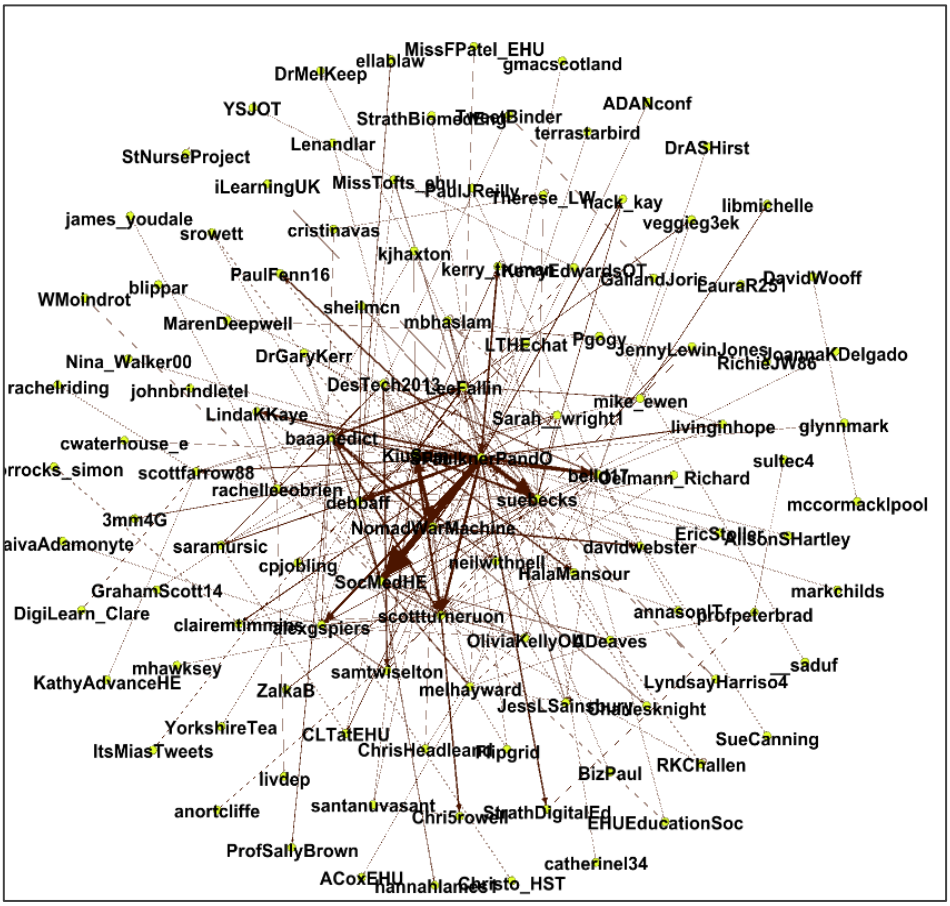

Figure 7 SocMedHE mentions

Figure 7 shows the mentions between 6th December 2021 to 24th June 2022 analysed in Gephi and displayed in a Fruchterman Reingold layout (Hansen, D. L. et al., 2019). One way of understanding these connections is think of them as being like lots of springs which are being pushed towards those they have more connections with and away from those with fewer connection with. So, the centre nodes are more likely to connected with each other, though not necessarily all of them to each other.

Applying a different layout (see Figure 8) we find there are a few groups that are unconnected but these are very small, so we can focus on the main group. Visually there seems to be a central 'hub' with most of the connections, followed by a few smaller hubs connected to the main hub. It implies that to get to anyone in the group it takes 6 or fewer hops and on average 3 (see Table 1). This means that this is a well-connected group.

Diameter: 6 Average Path length: 2.936280272748648

Table 1 Average path between nodes

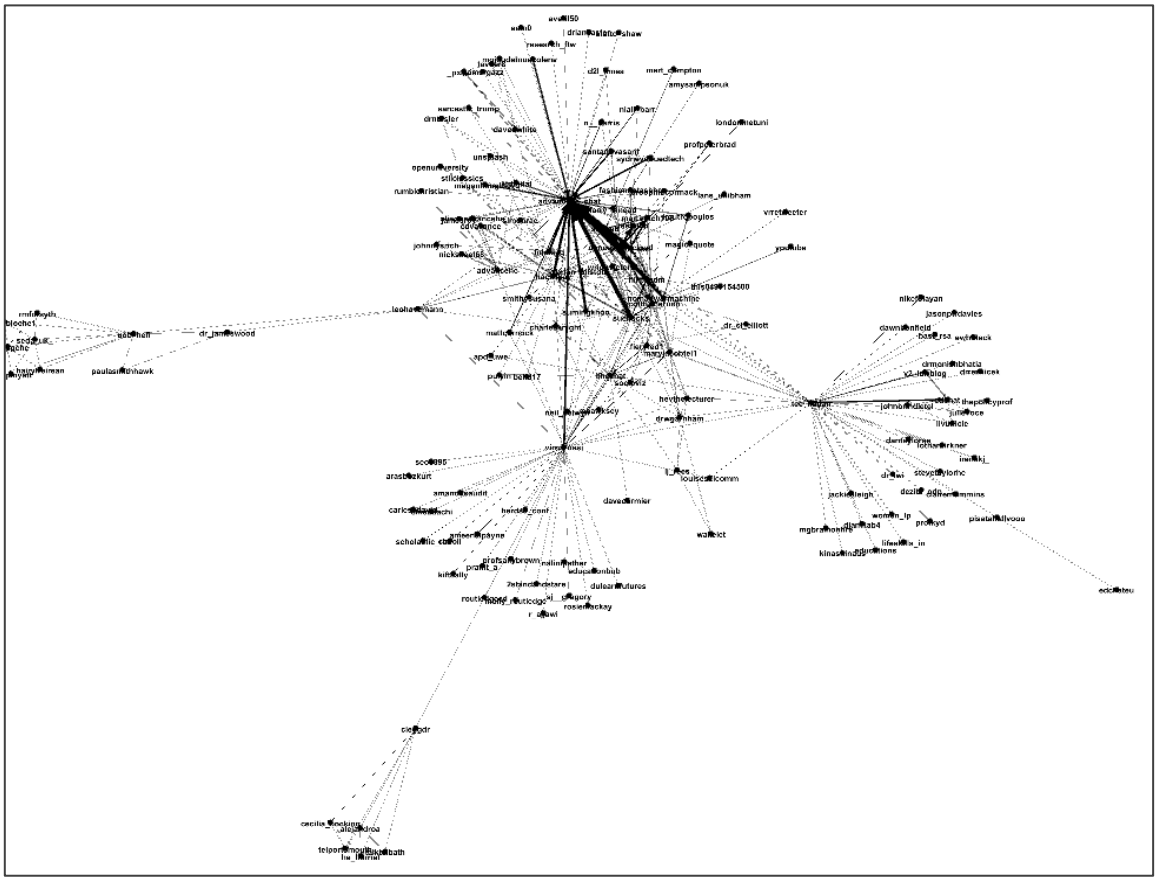

Figure 8 Fruchterman Reingold layout

Data Set 3

The last tool discussed in this paper is NodeXL. As mentioned earlier, there is both a free version and paid education version, and it is the the paid education version that is used here to produce both the visualization (for example Figure 9) and data about the network (e.g. Table 2).

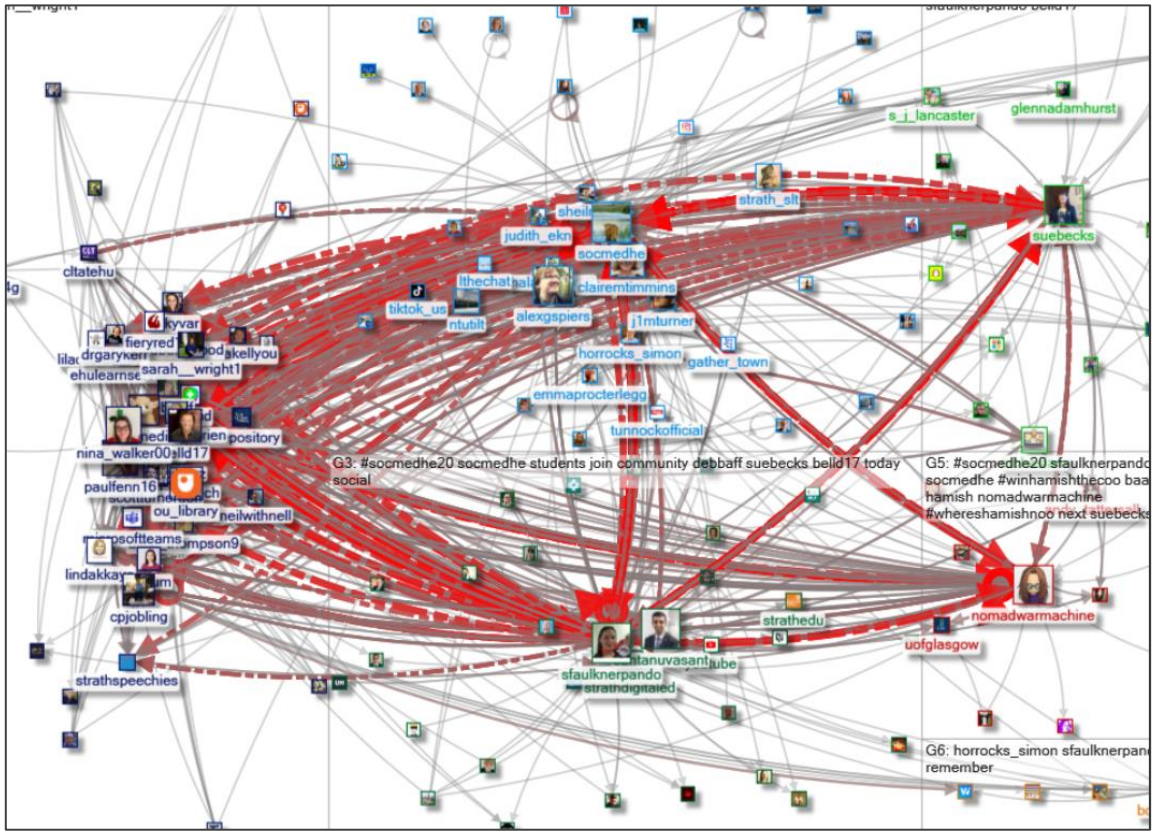

Figure 9 NodeXL network graph

NodeXL was applied to the hashtag "#SocMedHE20" over the 8-day, 4-hour, 37-minute period from Wednesday, 09 December 2020 at 12:52 UTC to Thursday, 17 December 2020 at 17:29 UTC, that is around the day of the conference itself.

Vertices : 146
Unique Edges : 468
Edges With Duplicates : 3411
Total Edges : 3879
Number of Edge Types : 5
Mentions : 1484
MentionsInRetweet : 1187
Replies to : 474
Retweet : 592
Tweet : 142
Self-Loops : 145

Maximum Vertices in a Connected Component : 146
Maximum Edges in a Connected Component : 3879
Maximum Geodesic Distance (Diameter) : 5

Table 2 Statistics NodeXL also produces alongside the network graph.

Visually it shows a lot of strong connections between people on Twitter (in Table 2 Vertices) and covers mentions, retweets and tweets without mentions. As in Table 1, in Table 2 we can see in most cases fewer than 5 hops are needed to go from one person to another. During this time period 146 people were using the hashtag or mentioned in the context of the hashtag producing 3879 tweets.

Conclusion

From the sentiment analysis that we conducted it can be seen that, at the very least, SocMedHE is a very positive conference, this is anecdotally backed up by the comments made verbally during and after the conferences days. The social network analysis that we have outlined, as represented by graphs both in TAGS and NodeXL, seems to show a tightly connected group of tweeters who use the various SocMedHE hashtags to share with each other both during the conference and outside it. In all the data sets there was generally large number of tweets of over 3000. Although most of those are on the days of the conference, there are tweets happening at other times, suggesting that SocMedHE is an active community.

Also, the mentions include a lot of people outside the conference group or being mentioned by people outside of the main group. This is a further potential indication of the community's active nature both sharing the tweets but also encouraging others to take part who not participants on the day.

Twitter data is not difficult to collect through tools such as TAGS and provides a good source of data for educational research and use. As another example, one of the authors has used data set 2 with their Data Intelligence students as a rich data set to investigate further. Because of the availability of tweets it can be argued that Twitter provides a good source for learning opportunities in Higher Education that are not just focused on Computing or Social Media specifically, but discussions around ethics, marketing, social sciences related areas and many more.

There is a lot more than can be investigated further such as how do the types of tweets vary with time, both in type and number, or a deeper textual analysis of tweets to identify themes and further insights.

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No potential conflict of interest was reported by the authors.

Appendix A

The file SocMedHE20.csv contains the tweets and the code is a modified example taken from Wintjen M (2020) "Practical Analysis Using Jupyter Notebook" pp 264

```
! pip install nltk

import nltk

import pandas as pd

import numpy as np

%matplotlib inlinefrom nltk.sentiment.vader import SentimentIntensityAnalyzer

anlysr=SentimentIntensityAnalyzer()

nltk.download('vader_lexicon')

from nltk.sentiment.vader import SentimentIntensityAnalyzer

anlysr=SentimentIntensityAnalyzer()

the_data=pd.read_csv('SocMedHE20.csv')

the_data.head()

score_compound=[]

score_positive=[]

score_negative=[]

score_neutral=[]

i=0

while (i<len(the_data)):

    my_anlysr=anlysr.polarity_scores(the_data.iloc[i]['text'])

    score_compound.append(my_anlysr['compound'])

    score_positive.append(my_anlysr['pos'])

    score_negative.append(my_anlysr['neg'])

    score_neutral.append(my_anlysr['neu'])

    i=i+1

the_data['Compound score']=score_compound

the_data['Positive score']=score_positive

the_data['Negative score']=score_negative

the_data['Neutral score']=score_neutral

loop=0

pred_sentiment=[]
```

```
while (loop<len(the_data)):
    if ((the_data.iloc[loop]['Compound score'])>0.3):
        pred_sentiment.append('Positive Words')
    elif ((the_data.iloc[loop]['Compound score']>=0) & (the_data.iloc[loop]['Compound score']<0.3)):
        pred_sentiment.append('Neutral Words')
    else:
        pred_sentiment.append('Negative Words')
    loop=loop+1
the_data['Prediction']=pred_sentiment
the_data.groupby('Prediction').size().plot(kind='barh')
```

The Journal of Social Media for Learning 2023

SocMedHE21 Expert Panel.

Sarah Honeychurch[1], Deb Baff[2], Sue Beckingham[3], Suzanne Faulkner[4] and Dawne Irving-Bell[5]
[1]Glasgow University, UK
[2]Joint Information Systems Committee (JISC), UK
[3]Sheffield Hallam University, UK
[4]University of Strathclyde, UK
[5]BPP University, UK

SocMedHE21 Expert Panel.

Introduction

At some point during the planning conversations for SocMedHE21, the idea of having an expert panel emerged. We decided that this was a good idea, and Sue, Suzanne, Dawne and Deb agreed to form the panel, with Sarah as the chair. We wanted this to be participant led, so we just suggested a few possible topics for an informal discussion rather than beginning with a presentation. This is how we announced it in the conference programme:

> *Join our panel of social media experts to find out how to make the most of social media for learning and teaching, for community building, for continued personal development and for professional recognition and advancement. Find us in the Student Union and join our informal conversation.*

We set up a Google Doc so that conference attendees could ask their questions in advance and linked that to the conference programme. We also encouraged people to tweet any questions, or to email them to Sarah if they preferred not to be named.

We all convened in the Student Union in Gather Town, as you can see from Figure 1.

Figure 1 – Tweet by @tavoer8

(https://twitter.com/tavoer8/status/1470878815299715073?s=20&t=8LgjHqMWOVLSxfjEOnRE9w)

Sarah Honeychurch[1], Deb Baff[2], Sue Beckingham[3], Suzanne Faulkner[4] and Dawne Irving-Bell[5]
[1]Glasgow University, UK, [2]Joint Information Systems Committee (JISC), UK,
[3]Sheffield Hallam University, UK, [4]University of Strathclyde, UK [5]BPP University, UK.

Question One

Sarah asked the first question:

> *How might educators use social media as a professional tool (and convince managers/ institutions that it was more than *just* sharing pics about what we ate for lunch)?*

Sarah chose this question because she had found during her own PhD research that people who do not use social media often think that it is only used for trivial interactions. As Joanne McNeil says: 'early criticism of Twitter could be distilled to a single (ironically tweet-like) sentence: "no-one cares what you had for breakfast"' (McNeil, 2019, p. 129).

The panellists took it in turn to answer each question:

Sue
The old saying "you don't know what you don't know" springs to mind! That's like saying a film or TV programme is rubbish when you have never watched it. Whilst it is true the quality or relevance of dialogue taking place within the many social media channels can vary, it is your choice who you follow or connect with!

As an educator to use social media as a professional tool it is important to consider what you want to achieve. A LinkedIn profile allows an educator to present a digital version of their achievements. By connecting with other educators they have the opportunity to read about items they share. This might include recent publications, the promotion of conferences, webinars or other CPD events, job openings, or interesting news in the sector. There is also an option to join a wide range of groups which allows for further discussion.

Twitter has long become my go to place for interesting information and discussions. My advice would be to follow educators you have shared interests with. Then look at who they are following, checking the bios to gain understanding of their role and interest. Look to see how they engage with others on Twitter and then decide if you would like to follow them too. Over time you will develop a personal learning network that is of value to you. Academic conferences often create a username and make use of a hashtag, for example @SocMedHE and #SocMedHE22. By following these, you can quickly keep abreast of information about the event, as tweets will take you to the relevant web pages. During the event attendees will share snippets of the sessions, utilising the hashtag. It provides a useful summary of the event and often a good way to revisit presentations where these are shared through SlideShare or the National Teaching Repository for example. In terms of CPD the weekly #LTHEchat is a fascinating and useful way to engage in discussions with other educators about topics relating to learning and teaching.

Dawne
This is a tough one but articulating the benefits of professional social media networks such as 'LinkedIn', that colleagues will be aware of and indeed may already use themselves, would be a good place to start - and to move forward from there.

Deb
I think for me, using twitter has been the most influential aspect of using social media as a professional tool as this has been instrumental in making connections and building my Personal Learning Network. I remember that before I started using it on a regular basis I just didn't 'get it' and couldn't see the point. It is definitely something that you need to experience for yourself. I think once colleagues can manage to get past the initial leap of faith that it takes to post that first tweet they would see the benefits. Granted there are of course a lot of downsides to twitter but for me the benefits far outweigh any negative aspects.

For example, I'm particularly interested in how educators experience social support and wellbeing within social networking sites and this is something I am looking at in my own PhD research.

Question Two

The second question was from Gustavo Espinoza-Ramos. He asked:

> *Is there a specific criterion to select the social media platform? How effective would it be to provide more than one social media platform? I can see an opportunity to use a non-traditional (for example, Snapchat, LinkedIn) and a traditional assessment method (report) so that students can reflect on that experience (for example in case of professional development).*

Sue
Context is key. Social media platforms are used in different ways. Start with asking what do you want your students to achieve? For example if you want to focus on them developing a professional online presence then you can commence with a discussion about what this might look like. Then you can consider who is the likely audience you wish to communicate with or learn from. What channels are professional organisations using? LinkedIn is used by individuals (profile) and companies (page) so understanding how these are used is important. In one of my first year modules which focuses very much on employability skills, I see LinkedIn and more recently adopted Handshake as an essential extension to the CV. It is also useful for students to identify if potential employers are using other social media channels to gain an understanding of the organisation, for example YouTube and Twitter. Twitter is often used to promote job opportunities.

If you are wanting to encourage students to collaborate outside of the classroom for a group project, then this is where you can suggest they choose an agreed space to communicate. This should be student-led but it can be helpful to say that past student groups have chosen to use a variety of tools such as WhatsApp, SnapChat, Facebook Messenger, Discord and email.

I also make use of YouTube to share short video clips produced by others. The discussion of these then take place either in class or through a privately shared Padlet board. I choose not to ask students to do this in public, for example using Twitter.

Suzanne
Primarily you need to think about where your audience are. For example, when I'm using social media with my students, I ask them - "What platform do you want me to communicate with you on?" For personal/professional use, I use Twitter however my students are not on Twitter therefore it would be futile to attempt to communicate with them on Twitter. Since 2018, when I began asking this question my students have selected Snapchat as the platform they would like to communicate with me on. I created a Snapchat group that only students in that year group can see, contribute too.

For professional use I use Twitter, as that is where the audience that I am interested in are active and reside.

Dawne
From my perspective I would say no, there isn't a specific criteria per se. The platform, or platforms I use differ depending upon whichever approach I think would be the best to meet the needs of my students. It all hinges on the task we are undertaking. As you suggest in your question, sometimes using a combination of platforms can work well. If appropriate - and it is feasible to do so - some of the very best outcomes have been when my students have decided the approach (which platforms) to use.

Deb
I think there are times that some platforms would be more appropriate than others, it depends on what you are trying to do and the intended audience. I think it also depends on how you use it. I suppose personal preference would also come into play as would previous interactions.

Question Three

The third question was from Edward Bolton. He asked:

> *How do you deal with designing a learning activity on social media and then a student does not want to use that platform?*

Sue
I encourage students to create a LinkedIn profile as an extension of their CV and outline the benefits. However if a student chose not to do this then that is their choice. With respect to other social media I think it is important for this to be optional. What can be very useful is having the conversations about how different channels might be used both in a social context and professionally; and what the implications of having a digital footprint might look like. I'd also remind students that university led social media led accounts, for example, Careers use of Twitter, can be very useful to follow as they are used to share information about careers fairs, CPD events, and job opportunities.

Suzanne
Whenever I use social media for learning and teaching it is optional, my students and I use it as a tutorial tool. This means that students can interact with me via traditional means, in class tutorials, after class or via e-mail. I respect the students' choice not to use, or limit their use of social media.

Dawne
In designing any learning activity it is always important to build in choice. So design the activity in such a way that it encourages your students to engage, but ensure that if they choose not to there will be no detriment impact on their experience and attainment.

Deb
For me I would probably want to think about designing the activity in such a way that alternative approaches would be built in from the start and that it didn't rest on a particular tool etc.

Edward also shared some resources with the conference, writing that:

I have created some basic guidance that I am presently developing which can be found here (this can be viewed as a guest without the need to login).

Question Four

Next we had a question from Nina Walker. She asked:

> *Just wondered if you have seen increases in confidence in students by using social media - thinking [about] helping to reduce impostor syndrome etc.....*

Sue
The affordances of social media through the chat function are evident in other social software such Zoom, MS teams and even Blackboard Collaborate. This option allows individuals to contribute and ask questions that seem to be less threatening to some then verbally doing so.

So, in that respect this can develop confidence. The use of social media in group work has without doubt helped students that use it to keep in touch outside of meeting in person, allowing them to plan, share ideas, follow up on actions etc. The benefits are that they can respond to the conversations when it is most convenient and can do so wherever they are. Relying just on in person meetings can exclude those with caring responsibilities, work commitments or because they have to commute to and and from university. The use of Zoom over the last two years has given students the confident to organise their own online meetings.

Suzanne
Absolutely. I outline very early on when using Snapchat as a tutorial tool that there is no such thing as a stupid question and that if studnets don't understand an aspect of the course, it's my job to explain it in a different way.

Year on year the students have commented that they find communicating on Snapchat much easier and less stressful than communicating via e-mail. By the very nature of the platform and Snapchat group, when one student asks a question the whole group benefits from the answer and the interaction. Due to the fact that communicating using Snapcchat is less formal, students who might not usually ask a question in a classroom setting feel comfortable to ask it on Snapchat.

Dawne
Yes. I've seen students grow in confidence, particularly those who tend to be quiet and reserved in traditional teaching situations, for example group work.

To begin, you must create a 'safe space' so the students can undertake their work using social media within a carefully created framework of support, that scaffolds the activity.

Deb
Completely agree with Dawne, creating a 'safe space' for students is really important. I also think it is important for educators to model practice through their own social media use.

Question Five

Next came questions sent in from the audience. Sarah asked Sue to answer the first one:

Has anyone involved students in developing the use of social media for learning?

Sue: SMASH
I co-facilitated with students as partners a special interest group to look at the use of social media for learning. The students renamed the group SMASH which is an acronym for Social Media for Academic Studies at Hallam. This ran for four years during which time, new students joined and others graduated. During this time the founding group co-developed a framework and this was expanded upon. The framework was created to consider the different ways social media can be used.

1. Helping staff to identify and use social media tools for communication and collaboration within and beyond the classroom (Learning Activities).
2. Helping students and staff to identify and use relevant social media tools to curate and organise information relating to learning (Organising Learning).
3. Helping students to prepare digital portfolios to openly share outcomes and projects to develop a professional online presence (Showcasing Learning).
4. Helping students to find resources online to support their wellbeing & academic studies whilst at University. (Supporting Learning)

The students went on to create a range of resources that were used in staff and student workshops to provoke discussions, and also at external conferences at the University of Winchester, Edge Hill University and the BETT conference. Other activities included writing blog posts aimed at students which included guidance on remote learning during the pandemic. Some of the students also went on to co-write a journal article reflecting on the skills they had developed being part of this students as partners project (Beckingham et al., 2019).

Sue also shared some links with the audience:

https://socialmediaforlearning.com/smash/smash-framework/

https://socialmediaforlearning.com/smash/7-ways-cards/

https://socialmediaforlearning.com/smash/reverse-social-media-card-set/

Question Six

Then a question for the whole panel:

> *What is your favourite social media app/tool and why?*

Sue
Considering this as an educator so from a professional perspective, I'd say my daily go to social media app would be Twitter. I have created a variety of Twitter groups which allow me to filter my view of the tweets I see. Having the app on my phone means I can quickly dip into different 'conversations' and I often come across useful resources that are shared by other educators or professionals relating to the subject areas I teach. In turn I can also share information that will be of value I hope to other educators. This could include links to articles, videos, publications or events. In other cases I might engage in a dialogue with other educators. This could be as a result of someone asking a question or wanting feedback. I choose the conversations I wish to engage in.

I personally make use of uploading my own conference presentations to SlideShare and the National teaching Repository and share links via Twitter (and LinkedIn). I also keep a list of both publications and presentations on my personal blog, highlighting where I have been invited as a keynote or guest speaker. This can be useful to draw on when preparing for annual professional development reviews.

Suzanne
Ooh, do we need to choose just one? I'm absolutely going to cheat here and give an answer for my favourite social media platform for working with students, my preferred social media platform for professional use and my favourite social media tool/app.

It may come as no surprise for me to declare that my favourite social media platform to use with my students is Snapchat. Not only do the students find this platform makes communication easier (and less stressful), this platform also allows me to communicate with many students at the one time. If one student asks a question on Snapchat the whole class benefits from the interaction. They can also answer each other's questions under my supervision.

With regards to my favourite social media app for professional use, it has to be Twitter. Twitter is a fantastic platform for expanding your personal learning network and finding your tribe! Actively participating in the weekly #LTHEchat has been the best way to expand my personal learning network with like minded individuals and has led to some fantastic opportunities professionally and lifelong friendships.

Moving on to my favourite app to use with my students, I would have to say Padlet. This was particularly true during lockdown teaching. As a teaching fellow, teaching a highly practical hands-on course we faced many significant challenges. Having previously created Padlets with demonstrations of patient assessment techniques, we were able to continue our clinical teaching with our students at home. They watched the patient assessment videos embedded in the Padlet and then recorded themselves undertaking the patient assessment procedures on family/flatmates they were then able to receive feedback on this via the Padlet.

Dawne
It depends upon the purpose. So, for example, with my design students if they don't use it already I would introduce them to using Pintrest. The uses a ten-fold, for example they can search for images to build research folios and go onto create 'moodboards' to organize their ideas that help to shape their thinking. They can then share their emergent concepts with their tutor(s) and peers and refine what they do based on feedback received.

Deb
I guess mine is twitter really. As I mentioned earlier I think on the whole it is a really great tool for connecting with others and building relationships. One of the key ways that I got involved in twitter in the first place was taking part in the weekly Learning and Teaching in Higher Education twitter chat (#LTHEchat), I would highly recommend this to others. It can be a bit daunting when you first enter the chat but people are so welcoming and you soon get the hang of it. I would also recommend taking a look at the Social Media for Learning blog by the lovely Sue Beckingham, I found that so helpful in the early days.

I also really like the idea of using TikTok within academia too so that is something I am hoping to experiment with. If anyone wants to join me on that journey do reach out !

Question Seven

The final question, again from the audience, asked about how people might make the move from practitioner to researcher:

> *How might people start the journey from idea to publication? What steps might they go through to build up to a full journal publication?*

Sue
I have seen many examples where educators have begun by presenting at a conference innovative ways they are using social media in learning and teaching. One of the stumbling blocks to then progress to publication is where you want to include the impact from the students perspective but have not sought ethical clearance. It can be useful to create notes or a private reflective blog on the experience whilst it is fresh in your mind. Then plan ahead to evaluate the use of innovation for the following year. Your notes could help you plan how you will approach this research and what information you'd like to find out.

Suzanne
For me, the idea of publishing was quite daunting and not something that I had a great deal of knowledge about. The blessing, for me, was being part of a really supportive small group of people who suggested a joint publication. This meant publishing wasn't a huge insurmountable task faced alone but instead was a process where the burden was shared with gentle guidance and encouragement.

Dawne
When I started out I found taking small steps helped to build my confidence. For example, sharing ideas with colleagues at a small, friendly conference via a poster presentation or round table style workshop. I used the feedback to shape my thinking and inform the next steps of my work. With more data, and more confidence, I ventured to present a conference paper and for me things snowballed from there. Sometimes, if appropriate, working collaboratively alongside colleagues can be a brilliant way to start out on your first research venture.

Then for publishing, find outputs where publication by new researchers is encouraged. For example our Journal of Social Media for Learning (JSML) would be an excellent place to start. If you have the opportunity, undertaking work as a peer-reviewer for a journal is invaluable. For Teaching and Learning an excellent place to share and publish your research and resources is the National Teaching Repository (NTR).

The National Teaching Repository (visit us on Twitter: @NTRepository), which is an Open Educational Resource (OER) hosted on a secure platform via Edge Hill University and Figshare. There are already a few resources in place so if you wanted to have a look please visit: https://figshare.edgehill.ac.uk/The_National_Teaching_Repository

Sharing is easy, please visit: https://figshare.edgehill.ac.uk/submit and select The National Teaching Repository. Work uploaded secures a DOI and citation, you can track engagement with your work via Altmetric data. you set the level of CC Licence permission you prefer and you work remains your intellectual property.

Good places to publish research articles and other outputs, useful links:

https://openjournals.ljmu.ac.uk/index.php/JSML/index

https://figshare.edgehill.ac.uk/articles/presentation/NTR_-_Welcome_pdf/12673016

https://figshare.edgehill.ac.uk/The_National_Teaching_Repository

https://twitter.com/NTRepository

Sarah
Deb mentioned #LTHEChat earlier, and tweetchats are a great way to gently put your opinions out there and get feedback on what others think about what you are saying. You can also think about longer social media forms such as blogs - maybe your institution as one like mine does for SoTL, or you could offer to write a post on your ‘specialist topic’ on a colleague’s blog. As well as that, I would really encourage educators to set up their own online space and start writing - it is daunting to begin with, but having your own, unique voice is a great way to make yourself known (and, of course, to ask for feedback by posting a link to social media).

Last, but by no means least, don’t forget to keep an eye on the @SocMedHE account and put in a submission to the annual conference so you can present to the friendliest audience in the whole wide world.

Final Remarks

We hope you find the advice in this article useful - and we’d love to hear from you all about your thoughts about what we have said. Please let us know, either by tweet, by email, or by whichever medium you prefer.

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