STUDENT EXPERIENCE OF UNIVERSITY EMAIL COMMUNICATION

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Abstract

Since email access has become almost universal, Universities have increasingly used email as a key communication channel. This project investigated the number and origin of email communications to students on three Open University first year undergraduate STEM (Science, Technology, Engineering and Mathematics) modules. The modules were: Topics in Science (S142), Introducing Health Sciences (SDK125) and Environment: Journeys through a changing World (U116). S142 and SDK125 are 30 credit modules amounting to about 8 hours study a week and U116 is 60 credits amounting to around 16 hours study per week and all three modules are run over 31 weeks. The number of students who started studying the modules in February 2015 was; S142 838, SDK125, 824 and U116, 494 which ran from February to October presentation in 2015.

Quantitative analysis of the number and type of emails sent to students on these modules revealed an average and maximum number of email communications per student on each module was S142: average 38, maximum 59, SDK125: average 67, maximum 82, U116: average 45, maximum 83. These figures are for students studying a single module over 31 weeks.

Qualitative analysis from interviews undertaken with 40 students from each module determined how they felt about the number and type of communications they were receiving. The outcome of this analysis revealed that students appreciated email as the main form of communication from the university, although they underestimated quite significantly the number of emails they had received.

Keywords: Student experience, email communications, STEM, distance learners.

1 PROJECT RATIONALE

The increasing penetration of the Internet across the World over the last few years and increased use of the internet has allowed growth of online courses and subsequent increased use of email as a form of communication with students. In 2011-12 116,535 international students were enrolled in some form of distance, flexible or distributed learning with a UK institution of higher education [1]. Consequently institutions have needed to adapt their communication and student support to build relationships with these remote students.

The aim of this project was to investigate the perception in the Open University (OU) that students may be receiving too many email communications from the university, which could potentially lead to the students feeling overwhelmed and confused. The Open University supports over 170,000 distance learning students each year across a range of over 450 undergraduate, postgraduate and professional modules. Teaching is delivered through module materials delivered both online and in hard copy and academic support is provided by tutors and faculty staff at a distance using electronic and telephone communications.

The literature is inconclusive regarding optimal levels of contact to manage email based remote relationships. In a commercial context, Kim *et al* [2] report that customers usually want less frequent Customer Relationship Management (CRM) contact than marketers think would be effective. However, they also found that customers are more forgiving of frequent communications if "the information communicated to them is perceived as valuable" [2, p90]. Floral *et al* in their comparative study of distance and classroom based delivery, highlight that on the distance programs "the volume of emails that faculty members and students receive can be overwhelming" [3, p8].

Hartman *et al* [4] discuss the problem of "Inbox Shock" from the perspective of teachers in a distance learning setting. They found 30% of email communications from students on the distance learning module they studied were related to course administration and recommended proactive communications from instructors to cover generic areas to reduce this. Within the OU there has been increasing use of group and cohort email with the aim of reducing the burden on teachers, and to ensure students receive relevant information when they need it. Several studies have indicated that such regular email contact can improve the student experience and levels of satisfaction.

Heinman [5] discovered that students receiving regular emails to support their distance learning programme "reported more positive perceptions of academic and social support and demonstrated a higher degree of satisfaction" [4, p245]. Robinson *et al* [6] found that email ranked second (to face to face communication) in a study of communication preferences to university students at two different institutions.

In two studies focusing on retention of students in online courses, Lee *et al* [7] highlight "identification with school" and "accessibility of services" amongst their list of student needs and Crooks and Jelfs [8] found that students value e-mails for personal support. Regular email contact, particularly which directly offers support, is one way to address these needs of identification with and access to a remote institution.

Godfrey *et al* [9] undertook research in relation to customer relationship management in a retail environment, they commented that "reciprocal action theory implies that increasing relational communication positively influences repurchase because customers perceive greater relationship investment by the firm. Conversely, reactance theory suggests that increasing relational communication has a negative influence on repurchase because customers perceive the communication as invasive or obtrusive" [8, p94] This research could be relevant to the student experience in terms of considering whether there is a maximum number of emails a student finds helpful but beyond which the student finds the email contact more annoying than helpful.

Students at the OU receive emails from a number of different functional areas including from their own personal tutor. Whilst standardizing some email communications to students has the benefits of ensuring that all students receive the same information on a module and reduces the burden from individual tutors it could also potentially result in individual students receiving unnecessary and overwhelming information and potentially "inbox shock".

2 METHOD

The initial research phase collected quantitative data, from the February 2014 presentation of nine level 1 modules from the Science, Technology, Engineering and Mathematics (STEM) curriculum. Three modules were then selected for further analysis. A sample of students from the three selected modules were interviewed at two points during the year.

2.1 Phase 1 - Preliminary quantitative data analysis

Quantitative data for the February 2014 presentation was obtained from university Customer Relationship Management (CRM) records. The number of emails and the origin of the emails sent to four individual students studying one of the nine STEM modules was determined. Data for this preliminary phase was obtained from students who completed each module.

This initial research informed the design of the phase 2 research.

2.2 Phase 2 – Qualitative data collection

Student volunteers were recruited from the February 2015 presentations of Topics in Science (S142), Introducing Health Sciences (SDK125) and Environment: Journeys through a changing World (U116) to be interviewed about their experience of university communications. Recruitment for interview was by email with students being asked to register their interest in being interviewed for the project and log their availability. A £25 gift voucher was offered for participation in the study.

This study complied with the Open University's Student Survey Research Panel requirements.

The interviews were carried out by three Associate Lecturers, employed to work on the project on a consultancy basis. The interview questions were designed by the project team and revised in light of feedback from the first round of interviews.

The first interviews were carried out in March 2015 and involved 20 students from each of the chosen modules. Second interviews were conducted near the end of the study period for each module, in September 2015, again involving 20 students from each module. Students who had been interviewed in the first cohort were eligible to be interviewed again.

Detailed notes of each of the interviews were recorded and returned to the project team for analysis.

2.3 Phase 3 - Data analysis

The quantitative data analysis carried out in phase 1, for nine modules presented in February 2014, was repeated for Topics in Science (S142), Introducing Health Sciences (SDK125) and Environment: Journeys through a changing World (U116) on the February 2015 presentation, to identify if there had been any significant change in university emails sent to students between the two presentations.

3 FINDINGS

3.1 Phase 1

Quantitative analysis of the number of emails (logged on the CRM system) sent to students studying one STEM module in 2014B (Table 1) revealed:

1. Significant variation in the number of emails sent to individual students studying the same module. The number of messages sent varied from 32 to 145 for individual students on S142.

2. Variation in the average number of emails sent to students on different modules. (55 emails on MU123: Discovering Mathematics and 124 on S142).

3. No correlation between the average number of emails sent and credit rating of the module.

4. No correlation between the February 2014 retention rate and average number of emails sent.

Further analysis of 4 students on S142, SDK125 and U116 (Table 2) showed that the majority of messages are sent by the Tutors office and the assignment system. The higher number of emails sent on S142 was mainly due to a greater number of emails sent from the faculty, and 'all other areas'.

Table 1: First year undergraduate STEM modules showing the total number of email communications sent to 4 students who completed their study of the module in February 2014. Messages sent from module start to result notification.

Module	Credit	Total number of emails sent (to 4 students)	Average (n=4)	Retention % completion
Introducing statistics M140	30	43,50,64,100	64	74
Essential mathematics MST124	30	37,54,62,90	61	42
Discovering mathematics MU123	30	30,57,60,75	55	70
Exploring science S104	60	76,87,107,112	71	45
Topics in Science S142	30	78,114,145,160	124	58
Introducing Health sciences SDK125	30	32,52,82,86	63	46
My digital life TU100	60	71,75,76,81	76	49
Engineering the future T174	30	44,46,49,61	50	58
Environment: Journeys through a changing world U116	60	42,47,57,84	58	72

Table 2: Number of email communications sent to 4 students on 3 STEM modules in 2014

Origin of message	Average number of emails per student		
	Environment: Journeys through a changing world U116	Introducing Health sciences SDK125	Topics in Science S142
TOTAL	58	77	119

Data only includes messages sent via the CRM system and excludes emails sent directly to the students from private mail addresses, such as from their personal tutors.
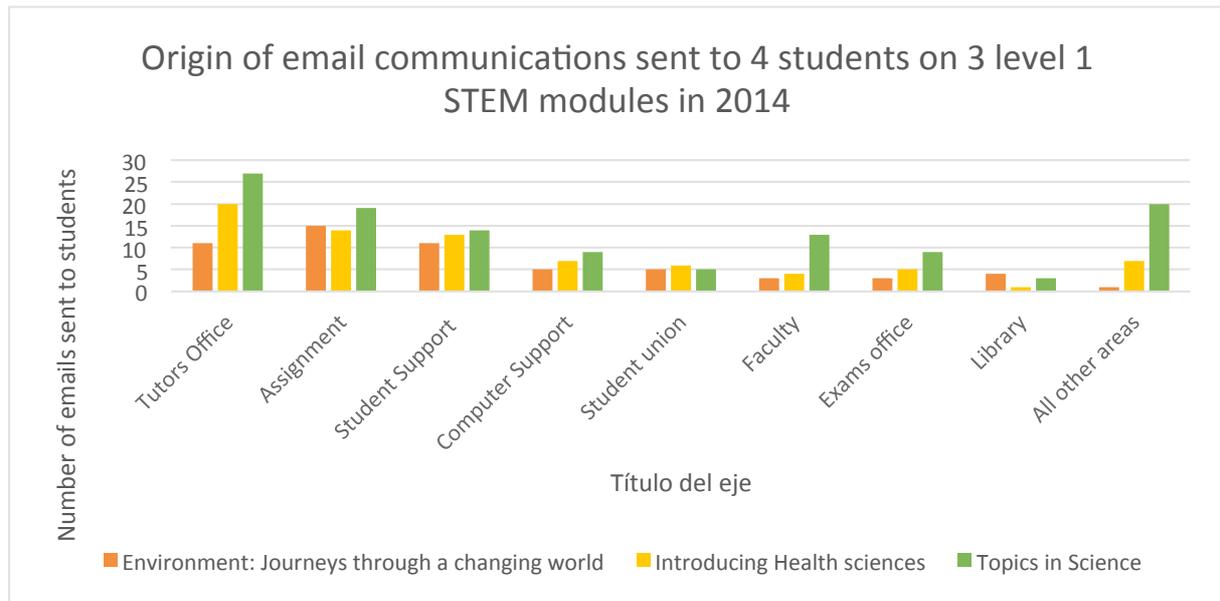

Figure 1: Origin of email communications sent to 4 students on 3 level 1 STEM modules in 2014

3.2 Phase 2

The qualitative phase of the project was carried out at two intervention points. A sample of 20 students from each of the three modules were interviewed in March and a second sample taken in September.

Very similar responses were received from across the three modules sampled.

Analysis of the interview responses revealed that:

- All students had received email communications from the university
- Email is the preferred form of communication, with those from a personal tutor being most useful
- The majority of messages were timely and useful but they could be improved by greater personalisation.
- Short messages with links to further information are preferred over longer messages
- Students keep emails in order to refer back to them when needed
- Students dislike receiving messages whilst waiting for module results
- 76% of students were happy with the volume of messages received, 24% felt there were too many generic messages.
- Messages from the student union were considered least useful, but students still wanted to receive them.

All the students were asked to estimate how many emails they thought they had received since the start of their module and the results are summarized in Figure 2. Students significantly underestimated the number of messages sent to them by the university on all three modules.
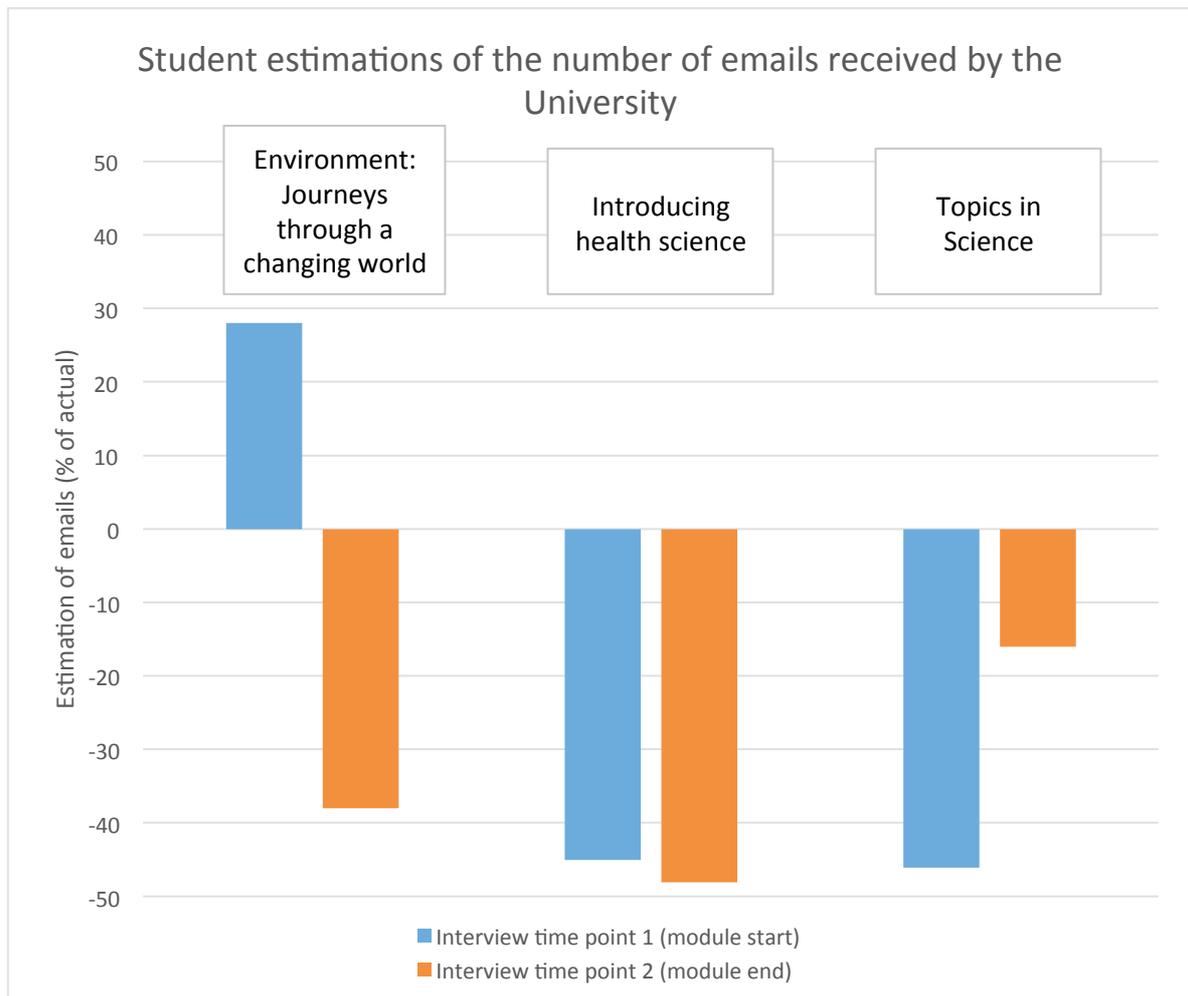

Figure 2: Student estimations of the number of emails sent from the University (as a percentage of emails actually sent)

3.3 Phase 3

The quantitative analysis of student record (CRM) data carried out in Phase 1 was repeated in Phase 3 for the three modules studied on the February 2015 presentation. This showed that there was consistency in practice between the two years, with students receiving roughly the same number of email communications from each area of the university in 2015 as in 2014.

Table 3: Origin of email communications sent to 4 students on 3 first year undergraduate modules in February 2015.

Origin of message	Number of emails per student (a) and average (b)					
	Environment: Journeys through a changing world U116		Introducing Health sciences SDK125		Topics in Science S142	
	a	b	a	b	a	b
Tutors Office	16,2,9,9	9	11,15,8,22	14	2,0,8,9	5
Assignment system	18,6,13,14	13	10,10,9,10	10	10,12,9,16	12
Student services	4,3,4,4	4	8,10,6,10	8	7,3,4,3	4
MSD Computer centre	10,2,0,1	3	3,4,2,3	3	0,0,3,2	1
Region & SST	9,3,1,5	5	2,12,16,13	11	2,2,3,6	3
Student union	4,4,3,2	3	2,3,5,6	4	3,2,4,2	3
Faculty	10,2,2,2	4	2,2,2,4	2	5,6,6,8	6
Exams	6,1,1,1	2	9,9,8,10	9	2,1,2,6	3
Library	1,0,1,1	1	2,2,2,1	2	1,1,1,1	1
All other areas	5,0,0,0	1	9,8,12,12	10	8,3,4,2	4

Data excludes emails sent directly to the students from private mail addresses, such as from their tutors

4   DISCUSSION

The project was initiated due to concerns that students could be overwhelmed by receiving too many emails from the university perhaps resulting in 'inbox shock' [4].

The quantitative research appeared to support these concerns that students may be being inundated with email communications from the university – and these email communications excluded any direct communications from student's personal tutors. However, the overall conclusion from conducting interviews with students at both the start and end of the module, indicated that students prefer email as the main form of communication. Moreover, students stated that they felt the majority of communications were appropriate. These findings were also supported by an asynchronous survey carried out by a parallel project within the Science Faculty, which found students studying science modules are content with the number of messages received. It is worth noting, however, the students interviewed significantly underestimate the number of messages they received from the university.

Messages sent by tutors are consistently seen as being the most useful and are most likely to be read. Some students find some messages too generic and would like more personalization – again, this was the outcome of the asynchronous study in Science. Some students reported that email communications made them feel part of the University community and for distance learners. This aligns with Lee *et al* [7] suggestion that student need to identify with their institution to be successful and it may be argued that email communications play an important role here.

This is not the place to debate the appropriateness of considering students as customers, but whilst it can be argued "non-traditional students view themselves as customers" [10, p2], it is worth considering the commercial experience of CRM communications to consider for the Higher Education sector - particularly with the current fee arrangements for England. The discomforts around applying commercial customer management principles in the academic context can potentially be addressed through minor modifications [11].

Sebor [12] discusses optimum frequency of CRM interventions in a commercial context highlighting that there isn't an optimum number. Companies have to make that judgement for themselves whilst

being aware that once the maximum number is exceeded the customer is likely to block the sender or divert messages to a spam/junk box, thus cutting off the communication channel.

This study tell us that students prefer to receive the majority of communications from the OU by email. This is in line with Robinson *et al* [6] who found that students' preferred electronic communication method for work and university communications was email.

Whilst some feel that there is a need for more personalization in the messages we send, students are happy to filter the messages themselves and select which are relevant.

Students in all three of our sample groups underestimated the number of email communications they receive from the university, despite the majority of them reporting that they actively check spam filters, giving a high level of confidence that messages are being received. Many students reported that they filter messages themselves which may account for the perception of receiving fewer messages. Despite the lack of awareness of the volume of messages being received, students are happy with both the method and number of communications.

The scope of this study was limited to investigating student feelings regarding the volume of messages they receive. Analysis of the data has highlighted that there is significant variation in the number of messages being sent to students studying the same module. Further work needs to be carried out to investigate why there is such variation.

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