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Reaching from the roots

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WHATSAPP: “GOING WHERE THE CONVERSATION IS”

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Summary

UNISA (University of South Africa), like other big correspondence institutions, tries to make better use of the interactive capabilities of digital technology. Like other distance teaching institutions UNISA found that students did not take to online discussions ‘like ducks to the water’ (Zemsky & Massey, 2004). On the other hand, we found that some students themselves had started to form WhatsApp groups for peer support. The initiative discussed in this paper was initially meant to support students rather than to do research. Nevertheless, our findings provide some valuable insights in using WhatsApp as compared to the UNISA online discussion forum.

We can confidently conclude that students, for reasons of ownership, immediacy and costs, show a certain preference for WhatsApp. We found that WhatsApp was used not only for organizational purposes but, albeit to a limited extent, was also used to address content related questions. Most importantly we observed a considerable measure of peer support through WhatsApp.

Nevertheless, there are some reasons not to regard WhatsApp as alternative to the threaded conference discussion forum available through the university’s LMS. There are limitations to WhatsApp as a platform for facilitated online discussions. However, even where institutions are able to overcome student reluctance to participate in online discussion forums, WhatsApp can contribute significantly to supporting students.

Introduction and research questions

UNISA (University of South Africa), like most mega correspondence institutions, wants to make better use of the affordances of digital technology. This is motivated by the intention to better support students and to ensure that students have the skills required for the modern labour market. In its change towards an online distance education university, UNISA has taken several steps: (a) It introduced myUnisa, a Sakai based LMS, creating an online discussion forum for each UNISA course; (b) it introduced e-tutors to support students; (c) it created the signature course model (Hülsmann & Shabalala, 2016) to explore what it means for UNISA to deliver high enrolment programs fully online.

The paper emerged from an initiative to support students; it was initially not primarily meant as a research paper. It hence can be best described as practitioners’ research, being first and foremost meant to improve student support by using WhatsApp, but also to critically reflect on what we found by doing so.

With hindsight, we can reconstruct our research questions as follows:

1. Can WhatsApp be used to support students?
2. How students make use of WhatsApp?

In a concluding section we point out limitations observed in using WhatsApp for student support.

Can WhatsApp be used to support students?

The first question can be answered affirmatively. Some of the reasons for this can be traced to the origin of the very initiative reported here. WhatsApp has been used for student support in the course under consideration (CGM1501, Invitation to Theology) since 2014. However, the data for this paper is drawn from the second semester of 2015. Our interest in using WhatsApp in this course was triggered by the observation that UNISA students themselves had started to form WhatsApp based peer support groups. On the other hand, e-tutors reported that students made little use of the online discussion forums now associated with most UNISA courses. Our hope was that by “going where the conversation is”, we could better support students. The lecturer and e-tutor made use of WhatsApp from a computer, which reduced the time needed for typing responses as compared to working from a cell phone.

92% of the South African adult population own a cell phone and 60% own a smartphone, compared with 18% owning a laptop or PC (Kemp, 2016; p.388). 75% of all internet page views in South Africa come from mobile phones (p.393). WhatsApp is the most popular social platform among South Africans (p.395). The large-scale investigation by Montag et al. (2015) indicated that WhatsApp accounts for almost 20% of time spent on smartphones (compared with just under 10% for Facebook). Within the group of UNISA students participating in the course under consideration, 75% already had WhatsApp connected to a cell phone number they provided to the university.

To manage their costs 84% of South African cell phone users opt for prepaid services (Kemp, 2016; p. 398). In a recent study on South African mobile data usage, Mathur et al. (2015) stress that all South African mobile data users, most particularly low-income users, are very conscious of costs. Mobile data costs range from ZAR 2.00 per MB (EUR 0.13) to ZAR 0.14 per MB (EUR 0.01) if a 500MB bundle is bought (Vermeulen, 2015). At least one South African mobile network supplies a WhatsApp bundle which allows for unlimited WhatsApp usage at a cost of ZAR 7.50 (EUR 0.45) per month (<https://www.cellc.co.za/cellc/bundles-contract-detail/Whatsapp-Bundles>). Should a student wish to access the online discussion forum set up for each course as part of myUnisa, the student would have to navigate through a minimum of five pages to drill down to a particular discussion, without any guarantee that

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new messages have been posted. A single opening of the myUnisa student platform, logging in, and navigating to a single discussion on the e-tutor page consumes almost 1MB of data. Glasswire, a network monitoring tool, was used to track data usage on the myUnisa platform in a single session in which these minimum steps were taken. 860KB of data was consumed by accessing the myUnisa platform and performing these steps.

The South African IT journalism website MyBroadband recently calculated data usage for WhatsApp using the WhatsApp network usage tool. According to this method, sending and receiving a total of 1705 messages over a period of 30 days consumed 14.4MB of data (MyBroadband, 2016). Using the same method, we found that a cell phone which was dedicated exclusively for the use of this course consumed only 14.6MB of data while sending and receiving a total of 1495 message during the course of a semester. So while WhatsApp is widely recognized as a cost saving device when compared to sms's or phone calls, it also can be considered a cost saving device when compared to the online forums. But WhatsApp not only reduces cost but by saving time it increases immediacy, since new messages generated within the WhatsApp group are automatically *pushed* to all the members of the group, rather than requiring students to *pull* (possibly non-existing) information from the course website.

WhatsApp is a technology literally at students' fingertips, which means that they are more conversant with WhatsApp than with computers or laptops. Almost every person in South Africa with a cell phone capable of using WhatsApp is connected to WhatsApp. For these reasons students are likely to have a greater sense of ownership of WhatsApp than of the online discussion forums.

At the beginning of the semester, July 2015, WhatsApp groups were created using the cell phone numbers of students registered for the course. Drawing from past experience of misuse, discussion rules were communicated to students explicitly requesting not to use the WhatsApp group platform for non-course related communication.

Altogether 190 students registered for the course in the second semester of 2015. These students were all added to an e-tutoring page on myUnisa which contained an online discussion forum. 142 of the 190 students could be identified as having cell phone numbers connected to WhatsApp. Since WhatsApp at the time had a group limit of 100, these students were divided into two equal WhatsApp groups. 29 students left the WhatsApp groups during the semester. 14 students actively participated in the online discussion forum and 74 students actively participated in the WhatsApp groups. Note that we do not compare behavior of different groups but usage of different platforms. As mentioned above, all 190 students had access to the online discussion form of the course; among them 142 participated in the WhatsApp groups organized by staff.

Hence, our findings suggest that, for reasons of ownership, competence and costs, students take more easily to using WhatsApp than to using the online discussion forums. WhatsApp can therefore be used for student support; the question remains how students use it, and what kind of student support this would make possible.

How students make use of WhatsApp?

While we were quite confident that students would take to WhatsApp for the reasons outlined above (including ownership, competence and costs), we were not sure how WhatsApp would and could be used in practice. In order to understand better how students use WhatsApp, we coded the transcripts for the two WhatsApp groups in the following way: Each message was categorized in two categories, Category A and Category B. Category A classified messages as either administrative, content related or social. Category B classified messages as questions, answers, comments or announcements. Moreover, all messages were marked as either staff messages (which included a lecturer and an e-tutor) or student messages. The message types within the two categories were defined in the following manner:

Table 1: Definitions of message types

Category A	
Administrative	Messages related to organizational or technical issues, including making sure about submission dates or finding material on the online student portal.
Content	Messages related to first or second order reflection on the prescribed material or assignments. Such messages ranged from fairly direct questions ("where do I find a definition for spirituality") to more complex reflections (discussions around the relation between different study units presented in different parts of the material). However, we do generally not observe argumentative sequences (i.e. sequences of arguments and counterarguments leading to a final resolution), but mostly questions which receive direct answers.
Social	Messages not directly related to either administrative or content aspects, but pertaining to the relation between students; for example, the brief "thank you" messages responding to assistance with other questions.
Category B	
Question	A message which contains an explicit request for support, requiring a particular response about some aspect of the course. We exclude from this type staff questions posted to trigger interaction; such messages have been marked as comments.
Answer	A message which directly responds to a question asked.
Announcement	A message which contains formal announcements to the group. Such messages were almost exclusively posted by the lecturer or the e-tutor
Comment	All messages which do not fit into the question, answer or announcement categories were marked as comments.

Since each answer was linked to the preceding question to which it was a response, we were able to trace if the question was asked or answered by staff or students, and which questions remained unanswered. This question-answer structure provides a lens through which we can analyse student and staff interaction. Note that beyond marking a message as mainly belonging to one of the three message types in Category A (administrative, content, social), we do not analyse the actual discourse. Using the above categories, the Table 2 presents the message and word count for the use of WhatsApp (integrating the two WhatsApp groups into one).

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Table 2: Message counts (M) and word counts (W) in WhatsApp conversations

		Total	Questions		Answers		Comments		Announcements	
			Staff	Students	Staff	Students	Staff	Students	Staff	Students
Social	M	388	0	3	0	4	6	375	0	0
	W	3050	0	40	0	16	33	2961	0	0
Admin	M	351	0	78	35	54	21	127	33	3
	W	7033	0	1660	943	747	675	1573	1384	51
Content	M	287	0	62	44	46	36	87	11	1
	W	10078	0	1523	2129	1031	2233	2312	804	46

Social messages constitute 38% of all messages, but only 15% of all words. The average length of a social message is 8 words. As mentioned above, students were actively discouraged from posting anything not directly course related. Yet in spite of this, students found ways of connecting socially. Messages of this type were mostly expressions of common courtesy such as thanking for assistance, particularly for helping in answering questions. Robinson et al. make use of a complex set of social indicators when analysing the conversation in a WhatsApp group of undergraduate students (Robinson et al., 2015; p.282). While many of such markers were also found in our WhatsApp conversations, the primary marker for social engagement consisted of expressions common courtesy (i.e. “thank you”). While there are slight variations between the two groups, they reveal a similar composition of message types.

Given that messages are generally *thumbed in* on the mobile phone and the WhatsApp communication space is not threaded, the expectation was that WhatsApp would be limited to organizational and administrative use. It is worth at this point underlining the importance of responsively dealing with administrative and organizational issues in distance education. While educators may attribute more importance to content, from the vantage point of the student seem crucial. The immediacy with which WhatsApp is able to address organizational and administrative issues suggest that it can play a significant role in supporting students.

While the table shows that there was indeed a high number of administrative messages, it also shows a sizable number of content related messages. In fact, messages related to content issues are on average longer (35 words) than messages related to administrative aspects of the course (20 words), reflected in the higher word count under Content as compared to Admin (10,078 to 7033). As expected, WhatsApp can be used for supporting students in administrative and organizational matters; but somewhat contrary to our expectations WhatsApp can also be used to some extent to support students in content related matters.

As Table 2 indicates, all the questions were asked by students. In terms of number of messages, 14% were marked as questions (143 out of 1026); in terms of number of words; 16% were marked as questions (3223 out of 20,161). 18% of the messages (183 out of 1026) and 24% of the words (4866 out of 20,161) were direct answers (excluding further follow up comments on the answers). This question/answer structure therefore accounts for a large part of the messages and words.

More important than the finding that WhatsApp can be used to address for dealing with content related issues is the way it lends itself to peer support. Table 3 compares the message use in the discussion forum and WhatsApp. Students post far more messages in the WhatsApp groups than in the online discussion forum. Most importantly, while no students answered any question using the online discussion forum in WhatsApp, they not only answered questions (including peer questions) but did that even more than the staff members involved.

Table 3: Message count of questions and answers

	# Questions	Staff answers	Student answers	Unanswered
In the online discussion forum				
Admin	3	3	0	0
Content	12	10	0	2
In WhatsApp				
Admin	78	30	37	18
Content	63	30	42	2

Table 4 summarises the uses of the two platforms, WhatsApp and the online discussion forum, focussing on the question-answer interactions, and specifically student questions and peer responses.

Table 4: Summary of participations and question-answer engagements

	Staff words	Student words	Students participating	Student questions	Staff answers	Student answers
WhatsApp	8201	11952	74	138	60	79
Online discussion forum	8224	4464	14	15	13	0

While using the same number of words typed by staff on both platforms, WhatsApp generated almost three times the number of words from the participation of five times the number of students. On the WhatsApp platform seven times the number of direct questions was asked by students. But while none of these questions were answered by peers on the online discussion forum, on WhatsApp groups almost 60% of student questions were directly responded to by fellow students.

The WhatsApp groups therefore led a greater number of students to actively participate; they asked more questions, and also responded to the questions of fellow students, providing for a much greater amount of peer support than on the online discussion forum.

Conclusions and limitations

Hence, our findings confirm that one can effectively use WhatsApp to support students. We can even, somewhat contrary to our initial expectations, use WhatsApp to support content related discussions. In fact, one could push the boundaries in this respect further by suggesting that students use WhatsApp from a computer/laptop rather than from their mobile

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phones, since this makes it easier to compose lengthier messages for more complex arguments. However, doing so is likely to come with significant trade-offs in terms of immediacy and – WhatsApp still being unthreaded – in terms of comprehensiveness, both much appreciated by students.

More significant than the potential for WhatsApp to support content related discussion, seems to us the potential of WhatsApp for peer support. Peer support is increasingly seen as an option to *wriggle out* of the contradiction between scale economies and the responsive interaction at a distance (Hülsmann, 2014; Daniel et al., 2009). Peer support allows making better use of the interactive capabilities of digital technology while steering clear off the cost implications associated with student-teacher interaction.

Our findings indicate that students in this course made little use of the online discussion forum. This is in line with the literature, which suggests that students do not take to online discussion as ducks to the water (Zemsky & Massey, 2004); on the contrary, the literature documents a considerable reluctance on the side of students to participate in online discussion (Ke, 2010; Liyanagunawardena et al., 2014; Hülsmann & Shabalala, 2016). While in theory the threaded nature of online discussion lends itself better to a *virtual seminar* type of online learning, institutions need to overcome this reluctance in order to effectively exploit the full potential of online learning. Without “the ducks coming to the water” the competitive advantage of threading in online discussion forums cannot be realized. Whatever the comprehensive and convincing solutions to this problem may be, our findings suggest that WhatsApp can be used effectively to support students and to elicit a considerable degree of peer support.

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