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# MULTITASKING WITH NEW MEDIA IN LARGE CLASSROOMS: FINDINGS FROM ONLINE SURVEY AND FOCUS GROUPS

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Information and communication technologies (ICTs) have been widely used for pedagogical purposes and their significance in facilitating learning is well recognised. As ICTs become a necessary component in classrooms, a range of new media are readily available to students. Although universities are mainly considered educational environments, ICTs have penetrated this environment as communication, entertainment and social tools as well. As such, students do not just limit their usage of new media to academic activities. It raises the concern whether using ICTs has any side effects on teaching and learning, for example, whether using multiple new media at the same time distracts students' attention from the learning materials. A recent Stanford study (Ophir, Nass & Wagner, 2009) showed that heavy multitaskers are worse at multitasking compared to light multitaskers in dividing their attention and handling multiple tasks. The finding suggests that multitasking with new media may have a negative impact on learning, even though the multitaskers themselves think that they are capable of learning effectively.

This article looks for answers to three questions: (1) To what extent is multitasking with new media present in classrooms? (2) Why do students want to multitask with new media in classrooms? (3) What are the students' opinions towards policy interventions to curb such activities? The data came from two cohorts of students who took an introductory module in the Communications and New Media Programme. The classroom setting is a large lecture hall and the number of students ranged from 100 to 150. Two methods, online survey and virtual focus groups, were used to obtain the data. 77 respondents completed the online questionnaire hosted on a survey website and 95 students participated in 11 virtual focus groups, which were supported by an online service provider.

## Using New Media in Classrooms

Scholars have found that multitasking with new media (e.g. mobile phones and laptops) in classrooms is becoming common among college students from Germany, Holland and the US (Vorderer & Hastall, 2009). The first question this article tries to answer is about the popularity of multitasking with new media in NUS classrooms. NUS is a fully wired campus where students can easily access the wireless Internet and mobile signals. We thus expect to see a huge amount and a wide range of new media usage on campus.

The survey results show that ownership of mobile phones and laptops among students is ubiquitous. 100% of our sample own both types of equipment, 91% own wireless Internet and 47% own mobile Internet. This very high penetration rate suggests that if students want, they can use new media almost all the time when they are on campus. Considering that they are involved in other activities as well, it seems inevitable that they multitask. The data also shows that 91% indicated that they multitask with computers or mobile phones at school (including indicating “sometimes”, “often” and “always” in the survey).

The focus group discussions confirmed that mobile phones and laptops are the two most utilised forms of new media in classrooms. The most utilised function on mobile phones is the short messaging service (SMS). Students often feel the urge to reply to such messages immediately, otherwise it may look rude to the senders. They also use SMS to plan activities (e.g. lunch) around their lectures. Laptops are also widely used in classrooms for both learning and non-learning purposes. Students use laptops to take notes, check emails, visit the IVLE, finish their assignments, search Wikipedia for information, google unfamiliar terms the lecturer just mentioned, and so on. Laptops are also used to do things which may not be relevant to the lectures. Facebook and MSN are the two most mentioned social functions—both are used by students to keep in touch with their friends. YouTube videos, news sites, online shopping, and even games are some of the other functions that appear in students’ answers. When explaining the use of non-learning functions during lectures, students often cite the need to keep awake when lectures are boring as a reason. However, the survey found that listening to MP3s is rare in classrooms because students tend to think that it makes attending the lecture meaningless if one cannot hear what the lecturer is talking about.

## Needs and Gratifications

In the focus groups, we asked students to explain how their needs and gratifications are satisfied through multitasking with new media in classrooms. Their answers can be classified into the following categories: instrumental needs, social needs, cognitive adjustment and habitual use.

### *Instrumental needs*

Instrumental needs include those such as convenience, urgency and usefulness. Students mentioned that compared to taking notes manually, they find it much more convenient to use their laptops for note taking. They find it faster to type than to write, and it is easy to type in the margins of the PowerPoint slides without running out of space. They also find it convenient during the lecture to pull out other relevant documents, such as guidelines for paper writing, to do cross references. When planning extracurricular activities, they find it more flexible to use Facebook's "status update" function to broadcast an event rather than to call each of their friends. A student concluded that it is "the availability of all these things to do at the click of a button" that makes all the new media multitasking happen. Urgent assignments and requests are dealt with immediately with the help of new media. Students also mentioned that with so many deadlines to meet, including projects, meetings, activities, appointments and so on, they sometimes have to complete an assignment for another module that is due soon, even during a lecture. One student pointed out that not all the deadlines are related to course work, citing the example of purchasing discounted air tickets online.

New media has afforded its users a level of speed and convenience that is unmatched by other means. The search behaviour cited earlier in this article is one good example. Students now use Google and frequently search Wikipedia when they hear the lecturer mention an unfamiliar term. A student said that he or she would open up teaching slides from another module to do a cross check if one term has already been taught by other teachers. Previously, it was unimaginable for students to bring all their notes from previous classes, which would have only been available in printed hard copy, but this is now possible with laptops.

### *Social needs*

Socials needs are the second most mentioned survey answers. A student pointed out that "(t)here's a need to constantly feel connected to the 'rest of the world' out there". The feeling that they have to catch up with their

friends and their activities is a very strong one. They want to know how their friends are doing, what cool things they can do after class, and so on. They also communicate with their friends in real time to get social support. For example, a student mentioned that he or she would complain to her friends on MSN if a lecture gets really boring and dry. By being connected to their friends constantly and immediately, they feel that they are not alone and therefore comfortable and socially secure. Interestingly, another student confessed that new media actually reduces the time he or she spends on personal meetings with friends. Instead, when they refer to social interaction, they often mean a short chit-chat with friends on MSN or Facebook. It suggests that when most social interactions among students take place via new media and their social needs are strong and constant, it is not surprising that they rely on new media to satisfy their social needs, regardless of the setting.

### *Cognitive adjustment*

Students also talked about their short attention span and their constant need for arousals. Boredom, killing time or keeping awake are often cited as reasons for using new media during lectures. On the one hand, students blame the quality of lectures being too dry, boring or unimportant. On the other hand, they recognise that their attention spans are too short to concentrate through a two-hour lecture, regardless of the content. They are also very used to arousing stimuli due to their heavy exposure to media. They feel that sometimes, pure talking cannot catch their attention. In contrast, they would direct their attention quickly to the lecture when the teacher is showing videos.

### *Habitual use*

Last but not least, multitasking has become a habit and new media a part of their lives that they cannot be detached from. According to one student, “we try our best to multitask whenever possible. It seems to be integrated into our lives such that if we don’t MT (i.e. multitasking), we’re not feeling comfortable.” Another student names his/her peers as “digital natives”, a generation who grew up surrounded by all types of new media. One student mentioned not being able to resist using the laptop if it is lying in front of him or her, while another student commented that it shows a heavy reliance on new media.

## Student Opinions Regarding Policy Intervention

It is interesting to see that although students do acknowledge the negative effects that multitasking with new media in classrooms may bring, they are in consensus about opposing any university-level policy interventions to curb such practices. The first reason students cite is that they should be responsible for and in charge of their personal behaviours. Whatever the loss incurred, it is the student himself or herself who should bear the cost. The second reason is that it would be very hard to implement the policy even if the university decides to ban new media in lecture halls. Students pointed out that mobile Internet still allows access, especially when mobile devices such as the iPhone fully embrace such connections. The third point raises the possibility of leaving control to the lecturer because different modules may have different requirements for new media access. If a class coordinates students' participation through new media (e.g. sending in SMSes to answer questions in real time), it actually limits the learning if mobile signals are completely blocked. In addition, students think that as long as the lecturer establishes clear ground rules regarding the usage of new media in their classes, most students would respect the rules and follow them. Finally, a few students suggested that the university consider banning websites that are irrelevant to learning while allowing access to necessary links such as the IVLE and email.

## Conclusion and Limitations of the Study

In conclusion, this study finds that multitasking with laptops and mobile phones is prominent in NUS classrooms, especially in large-sized lecture halls. Students use new media while listening to the lecture for both learning and non-learning purposes. They multitask with new media to fulfill their various needs, including for instrumental use, social interaction, cognitive adjustment and habitual use. Although students are aware of the up- and downsides of multitasking with new media in classrooms, they unanimously oppose any university-level policy interventions to curb such activities.

There are some limitations of this study if we want to generalise the findings to the whole NUS student population. First, this study was conducted among a group of students majoring in communications and new media. These students are particularly active and experienced with new media. We had to consider the fact that the popularity of multitasking with new media among students from other majors may not be as high as what this study has discovered in this group. Second, the default classroom setting was the lecture hall because the module was taught in this type of

physical environment. We have students mention that they do not multitask as much during tutorials because the room is too small for such activities to go unnoticed by the tutor. The findings reported here may apply more to large classrooms than small ones. Third, the teaching content may influence multitasking behaviours as well. One student mentioned that some modules are so lab-oriented and practice-heavy that one cannot divide their attention to multitask. Hence, we can also conclude that this study applies mainly to the examination of lecture-style teaching methods in large classrooms, where the students are heavy new media users.

## References

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