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All Class Communication, Public
The Impact of Using Twitter in Lieu of LMS

IJLM

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Introduction

This missive presents an instructor's personal account of using the open participative media platform Twitter as a substitute for a learning management system (LMS) such as Blackboard for a series of undergraduate classes at his institution. While the following observations were made over several classes from 2010 to 2011, the quoted examples relate solely to the class BTMM274 ("Introduction to Cybermedia") held spring 2010 on the Japan campus of Temple University. In the class, students were tasked to use the virtual world of *Second Life* to produce a music video for an independent hip-hop musician, Legrand (hence the hashtag #linsl, Legrand in *Second Life*, which became shorthand for the class). For the duration of the class, students and instructor worked from Tokyo, Japan, while the musician was in Philadelphia, Pennsylvania (see Shamrock 2010).

"What Happens in Blackboard Stays in Blackboard"

LMSs such as Moodle or Blackboard (the LMS used at Temple University Japan) are now a commodity in higher education. These systems typically let instructors create class pages that are then shared with enrolled students. On a course's page, instructors can post material such as slides and lecture notes, send class announcements to the students, and even handle evaluation and administration (fig. 1).

While I have used Blackboard for more-traditional classes, I have found that the system is not well suited to classes like #linsl. First, current LMS systems enforce a one-to-many view of education: each student accesses information from a unique instructor and contributes coursework via an individual, private channel. Individual students can email the instructor but
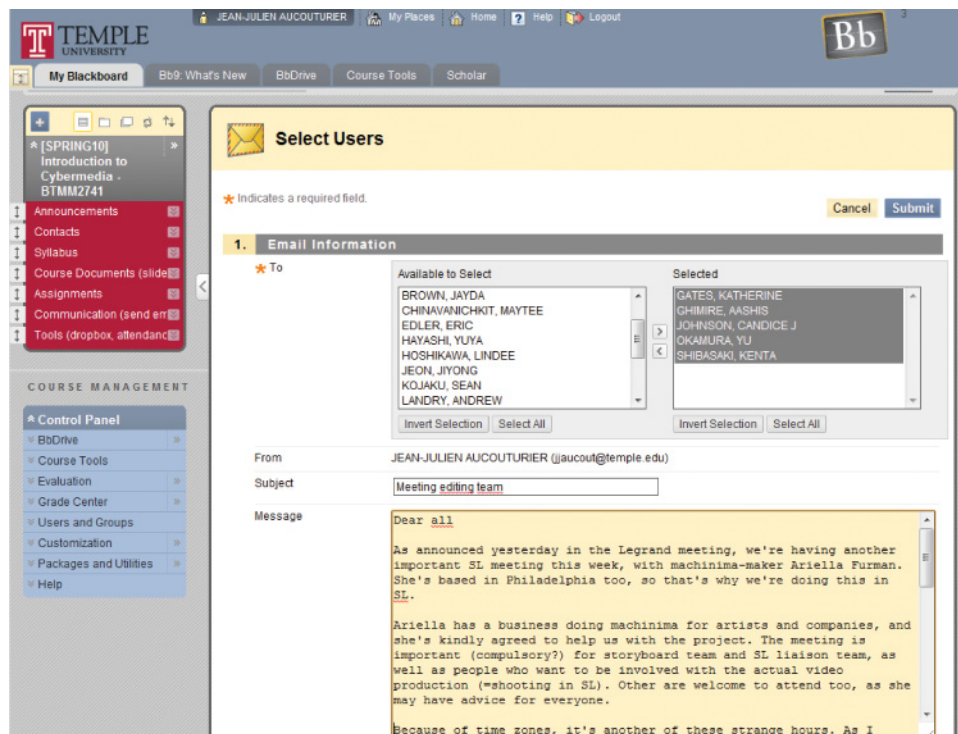
Fig. 1 Sending an email to students in the class from Blackboard requires logging in to the course webpage, using appropriate credentials, and filling in a form hiding the actual email addresses of the participants. Addresses of non-Temple-affiliated people cannot be added. While the instructor can email all students in the class, individual students cannot email one another. Blackboard will not even let them see each other's names.

cannot email one another other from within the system. By design, all communication is kept confidential. Workarounds within Blackboard do exist (e.g., "chat room" and "discussion boards"), but they are rarely used (Heaton-Shrestha 2007).

Second, LMSs such as Blackboard are built on the assumption that what is happening in the classroom should be shielded from other tools used in everyday life. User profiles must be created anew instead of being linked to existing student accounts on social networks such as Facebook; email addresses are carefully hidden from view (fig. 1); documents posted within the LMS cannot be shared with non-LMS users; and access is tightly controlled to those users identified by a university-wide registration system (alumni cannot be users, for instance; nor—heaven forbid—an unrelated rapper from the U.S. East Coast). What happens in Blackboard stays in Blackboard.

The assumptions made by such systems are easily understood: they correspond to a classic and common schema of magisterial teaching. They aim to protect student privacy and prevent academic misconduct such as plagiarism (which *is* made easier by social networks such as Facebook and Twitter; see Dyer 2010).

My point is not to debate whether these concepts should be generally reformed, nor to suggest that students and teachers should simply befriend each other on Facebook at each new class (Mathews 2006). However, I contend that LMSs like Blackboard get in the way of what my students and I intend to achieve with classes such as #linsl. First, we want to communicate with each other in a many-to-many architecture. Second, we want to be able to include key interlocutors beyond the class and the university. Third, we want to do so on a public platform so that anyone can join—openly.

Many-to-Many Communication

The first of these requirements, the ability for everyone in the group to be within easy electronic reach of any other participant—student or teacher—is barely a surprise from the point of view of modern project management. As in any creative or industrial project, it would be extremely cumbersome if each of the two or three students working on, say, the design of Legrand's *Second Life* avatar had to report individually to the instructor, who in turn had the responsibility to

@jjtokyo
jjtokyo

@Jayda_b @katygates4 and #linsl class: don't lose time. if you got a swf file with jing, your job's done with. I'll handle conversion.

1 Feb via Twitterrific ☆ Favorite ↰ Reply 🗑 Delete

Fig. 2 A tweet by @jjtokyo (the instructor) addressed to two participants (Jayda and Katy) about video file conversion problems. The hashtag #linsl identifies the message as related to the project, and anyone interested (including other participants) can see the timeline of recent messages.

make the information flow back to the other two and then on to the rest of the group. Yet this constraint is the default setting in higher education information systems: an LMS like Blackboard barely lets a student consult the names, let alone email addresses, of fellow students in a class.

Replacing Blackboard with Twitter solved this issue. The project name was turned into a hashtag (Messina 2007), which made our messages searchable and visible. Everyone in class was required to use their personal account (many had one already) or to create one if needed, and all class communications were made through the platform, replacing Blackboard quasi-exclusively. Communications that could be made publicly were made by "mentioning" participants' screen names as appropriate (fig. 2) or simply by including the class hashtag if the communication (e.g., an urgent announcement such as class cancellation; Skiba 2008) was addressed to the whole group. Private communications on "sensitive" matters (e.g., grades) were made from within Twitter, too, using the service's "direct message" function (a special mode of messaging where only the addressee sees the message, much in the manner of an email, neither safer nor riskier).

Difficult access (because of, e.g., slow connection) is one important factor in student (dis)-satisfaction with LMSs and distance learning systems (Gaddis et al. 2000). Twitter has an additional advantage over state-of-the-art LMSs: it is easily accessed, whether from a Web browser on the desktop; while working in the classroom, in the lab, or at home; and from just about anywhere using a mobile phone. This meant that whenever ideas came to mind they could be shared—no matter the time of the day (most of which

was outside class time anyway). Over the course of three months, the group exchanged more that 1,200 Twitter messages with the #linsl hashtag (an average of 15 tweets per day, or 35 following each class meeting). Topics included links or news related to the project, reporting on task progress, publishing work for all to see and comment on, and submitting formal assignments and asking one another for advice on issues (fig. 3, left). This not only allowed a vast amount of information to be circulated between class meetings, in a timely and ad hoc manner (Jaworowski 2010; White et al. 2011), but also created a strong feeling of community during the meetings themselves: the class convened as a group that already had a sizable existence on the network between meetings (Young 2008).

Integrate Interlocutors beyond the Class

Twitter also allowed us to communicate with collaborators beyond the class. The importance of integrating alumni, librarians, or colleagues within the institution into the "intellectual community" of the classroom has already been noted as a way to enrich courses and bring real life into the university curriculum (Fulkerth 2010). A critical aspect of a project like #linsl is being able to go beyond the university's internal resources, to include, for example, the artist (Legrand) in class discussions when appropriate and to ensure that each participant can reach him directly without having to go through the instructor. Twitter allowed this naturally. For instance, by mentioning @legrand4790 (Legrand's username on the network) in a tweet, a student working on a webpage for the project could quickly request a high-resolution picture of the artist's latest album cover. Similar interactions occurred between the students and other project collaborators; for example, with professional filmmaker Ariella Furman (fig. 3, right).

All Class Communications, Public

A third, and perhaps the most important, aspect of using Twitter in such projects is that all communication within the class group or with external collaborators is public. Everything posted to Twitter appears in everybody's public timeline. People searching for the hashtag #linsl from January to April 2010 could read every message we sent. So could anyone who was monitoring Twitter for keywords such as *Second Life* or "hip-hop." Further, because all student assignments
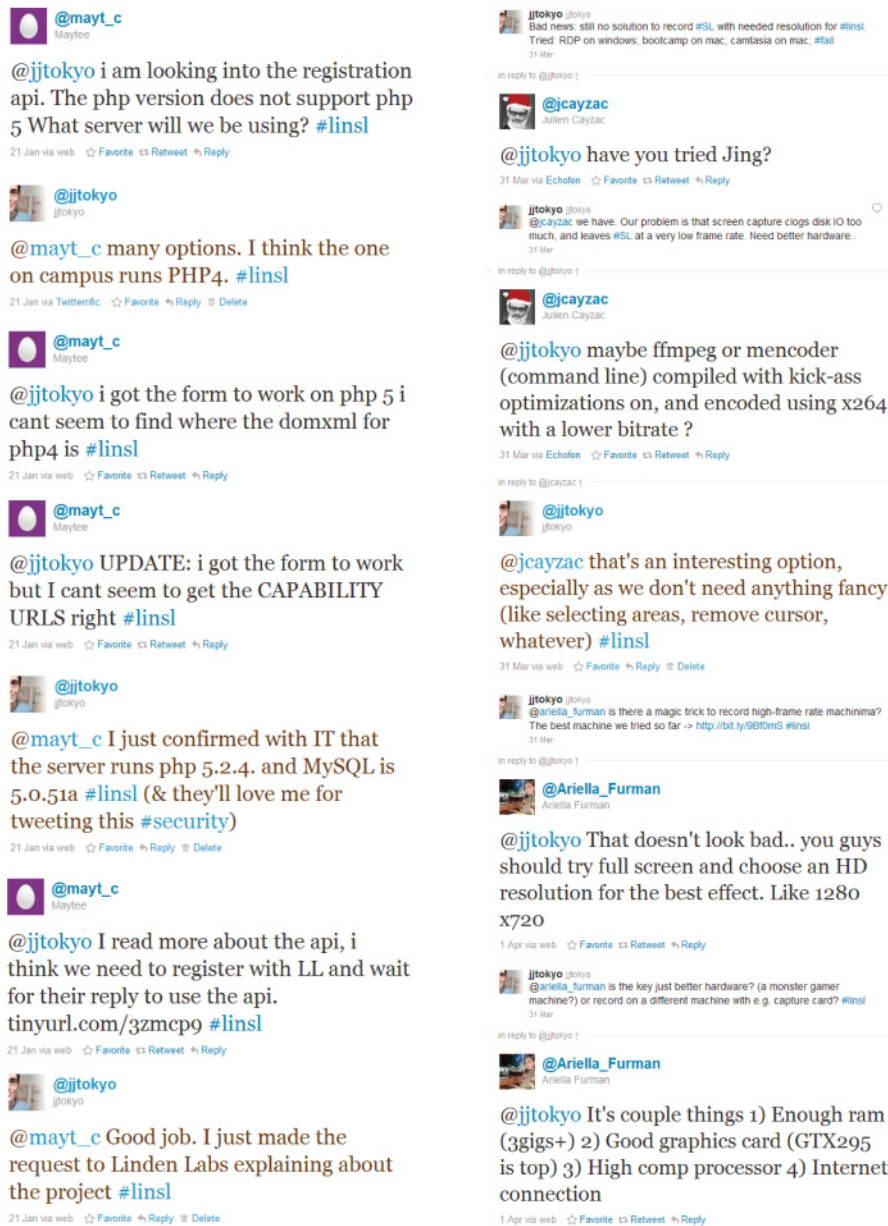
Fig. 3 Two examples of Twitter streams in the #linsl project. Left: Student @mayt_c reports to the instructor on his assigned task (building an automated tool to register many users to *Second Life* using the PHP scripting language and *Second Life*'s "registration" Web application programming interface), and a problem-solving discussion ensues. Right: a status update addressed to the class attracts spontaneous attention from one external observer (@jcayzac, an IT professional living in Tokyo) and triggers a follow-up with another external "consultant" (@ariella_furman, a Temple alumna living in Philadelphia). Both outsiders to the class contribute their expertise to the project and spontaneously help students with their ongoing work.

were submitted on Twitter, anyone following the class could, for example, download a student's pencil drawing or retweet and comment on a student's essay.

One immediate advantage of having all the project's communications on a public platform is the implicit and constant marketing of the group to the general community. Because each participant in the project typically had a few hundred followers, each conversation between two or more participants had a potential audience of hundreds or thousands. Not all followers paid attention, but hundreds of messages being sent back and forth with the same topics (say, about a music video in *Second Life*) eventually created the impression that *something* was going on and

encouraged a variety of people to take a look: students in our own university ("wow, this sounds like an great class"), prospective students ("wow, this sounds like a great university"), other faculty who shared links and ideas, curious outsiders wanting more information, people expressing approval and encouragement, even professionals willing to share key expertise (fig. 3, right) or journalists motivated to write about the class.

To my surprise, this had profound psychological effects on my students and myself. First, the particular way of using hashtags in Twitter quickly led people to use the tag as an identifier for the group ("hey #linsl, you should have a look at this: [link]"). This granted a shared identity to the group ("we are #linsl"), which was reinforced each time someone addressed it. The class became a gang of like-minded people ("busy doing cool stuff," as one student put it), as well as an outlet of news and reports that participants contributed to with excitement and that outsiders started to monitor and quote.

Second, the difference between submitting work to one individual (the instructor) and publishing work on the Web, for all to see (including, *maybe*, the instructor), is profound. Each time a student hits the "send" button on an LMS like Blackboard, he experiences a feeling of fate—*alea jacta est*. Each time a participant shared her latest pencil sketch for Legrand's avatar on Twitter, she felt the chill of possibility—who will watch this? Who will react this time? Suddenly coursework became exciting. Students did it even without being asked.

Third, having all student work submitted and evaluated publicly had a radical impact on how I evaluated the work, compared to how I would usually do so in the one-to-one anonymity of Blackboard's "My-Grade Center." First, because I had to report on classwork on a public forum, I was compelled to voice my opinions more professionally and to worry explicitly about fairness. Second, my criteria for evaluating the work subtly changed from satisfying my own internal expectations of what good work is (Blackboard) to assessing how much of a contribution the work made to the project; that is, for the other students watching the exchange (Twitter). The same has been observed with academic forums for open peer review: comments in, for example, the *Shakespeare Quarterly* project (Rowe 2010) were found to be more varied and also more constructive than comments received via the usual anonymous peer-review system (but see *Nature* 2006).

Fig. 4 Students in a Freinet classroom preparing the press to print the class's weekly journal. (Photograph by Jean Suquet, copyright INRP, France, 1957.)

The many ways in which Twitter redefined the dynamics in my classes reminded me of experimental schooling movements such as the democratic classroom of Célestin Freinet in 1970s France (Temple and Rodero 1995). A primary school teacher, Freinet placed a printing machine at the (physical and symbolic) center of the classroom (fig. 4). Everything was to be done—lessons designed, drawings sketched, people interviewed, essays written—in support of publishing a weekly journal that was then proudly circulated to the parents and community *outside* the school. Freinet viewed this practice as a useful technique (to bring real life into the curriculum and to motivate students) but also as a work ethic for the school as a social institution (doing meaningful work that contributes to the community).

Academia has a responsibility to the community too. Education at Temple University, a public university, is partly publicly funded. Higher education loosely gives back to society—by, for example, empowering people with more knowledge and capacities or by furthering human knowledge through research—but how much of this is apparent in the daily classroom business? How much of this is made possible by closed-world information platforms and private, anonymous assignments of exercises with well-known solutions (which students are increasingly skilled at finding online and then rewording so as not to be caught for plagiarism)? If anything valuable

is produced in the classroom, why not share it publicly? If nothing valuable is produced, then why not ask for "valuable" instead, for assignments that matter, that multiply rather than pile up, that—brave thought—change the world, even in a small way, even for a single person who gets inspired by a particularly fine piece of pencil art or who highlights the connection between two articles about the music business?

Can This Scale?

So, should we all be doing classes like this? Should all class conversation everywhere move to open-media platforms? I do not know.

Obvious issues of individual privacy and copyright are raised. Opening up class communication on a public platform produces situations that are never quite encountered in traditional classrooms, and the university as an institution is often not prepared to react well and flexibly to them. For instance, while my university's communications office thought #linsl was a good public relations opportunity, the process of redacting a single press release about the class lingered two months past the closing date of the class, running into infinite problems of copyright and fear of litigation (Who owns work published on Twitter? What if students claim authorship? What if it becomes extraordinary successful? What is the name of the class, and why is it not the same as on our other campuses? and so on). (My point is not to denounce inefficiencies in the system, just to note the cultural disconnection; for more, see McDonald and Thomas 2006).

Beyond institutional resistance, this approach has intrinsic downsides, which we discovered with time and practice. Because our classes were the exception rather than the norm, we decided we could live with these issues. Whether they would be sustainable should the practice generalize is unclear. They may do no less than disrupt our very notions of class, degree, and university.

First, opening class communication to the public creates the possibility of external interventions that cannot be controlled. Problems that are assigned to students might be solved using resources that the instructor had not anticipated, and new appetites for learning might emerge that cannot be resisted but deviate significantly from the course's syllabus. The instructor may be able to ensure that learning will occur, but what will be learned may grow beyond her or his control. For instance, while I had intended a large part of the #linsl class to teach students skills in digital imaging (e.g., developing 3D avatars using software such as Adobe Photoshop), this objective was soon abandoned in favor of an exercise in pencil drawing because of a series of unexpected student conversations with 3D professionals online. While this teaching experiment was exhilarating, how can any type of department curriculum or degree accreditation be maintained over the long term with such "rogue" classes? Second, opening up class communication challenges the traditional vision of the university as a place of retirement from the world, a place where learning can happen with all its trials and errors without suffering from social or professional consequences—a place to practice and make mistakes. Although the students in #linsl generally welcomed the opportunity to publicly broadcast their work and thoughts, building their portfolio and making professional contacts in view of future employment, such visibility also came with associated responsibility and social pressure. An open question is whether these can eventually become obstacles to learning and the free scholarly exploration of ideas that are the premise of higher education.

Third, holding class discussion on Twitter brought a slightly unnerving marketing attitude to the class project: week after week, we started caring about whether we had an audience, whether we were attracting attention or comments. We were, and this created an extraordinary appetite for learning and growing in my students. But framing the work of education within the world of marketing has its downsides. By measuring public engagement rather than, for example, scholastic achievement, our value system can shift: Is this week's assignment selected because students will maximally learn from it or because discussing it online will attract interest, controversy, attention? Is this work good because it fulfills the learning outcomes I had fixed for the task or because 57 people "liked" it on Facebook? How can my grade be C-minus while I brought the class 200 new followers last week? In academia, these trends are already being felt at the level of the institution (Kirp 2003). What this now disrupts is the economy of what a "class" is: from a place of learning to a place of (public) performance to, eventually, a product.

Appendix: URLs of Websites Cited in the Article

Blackboard	http://blackboard.com/
Facebook	http://www.facebook.com/
Moodle	http://moodle.org/
Second Life	http://www.secondlife.com/
Twitter	http://twitter.com/

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