

NOTE: This is the pre-proof version of an article in press for *Computers & Education*

The Promise, Reality and Dilemmas of Secondary School Teacher-Student Interactions In
Facebook: The Teacher Perspective

Christa S. C. Asterhan & Hananel Rosenberg

School of Education

Hebrew University of Jerusalem

Mt. Scopus, Jerusalem 91950, Israel

asterhan@huji.ac.il, hananelr@yahoo.com

In press for *Computers & Education*

February, 2015

Abstract

We report on a multi-method study that seeks to explore if, how and why secondary teachers use Facebook (FB) to interact with their students. Issues of privacy, authority, and even abuse have fueled socio-political debates on the desirability of teacher-student FB contact, leading some authorities to curtail or even prohibit such contact. Proponents of harnessing Web 2.0 and Social media technology for learning purposes, on the other hand, have emphasized the many potential advantages for formal and informal learning. However, there is little empirical research on the scope, the nature and the purposes for secondary school teacher-student contact through social network sites. The present study makes a first step in this direction, by triangulating teacher survey data ($N = 187$) with in-depth teacher interviews ($N = 11$). Findings from both data sets show that teacher-student FB contact comes in different forms and serves a range of purposes, which fall into three main categories: Academic-instructional, psycho-pedagogical and social-relational. Advantages, dilemmas and limitations of FB contact with secondary school students are identified.

1. Introduction

1.1 Arguments against and in favor of teacher-student Facebook interactions

Facebook (FB) has become the dominant social network site worldwide with 1.23 billion active users reported in 2013 and 140 billion friend connections (Facebook, 2014). It is used by individuals of all ages, but especially secondary school and university-aged youth (Facebook, 2014). It is also increasingly used by teachers and college faculty. ‘Befriending’ one’s teacher or student is then only a few clicks away. Indeed, in a 2011 survey, 27% of Israeli teens reported that they are ‘friends’ with at least one of their teachers (Geocartography Knowledge Group, 2011). This new reality has given rise to ethical, pedagogical and social concerns that are discussed in public media outlets and involve parents, teachers, legal officials and policy-makers. These concerns, together with media-covered cases of potential sexual misconduct, have fueled debates over whether teachers and students should be allowed to communicate through SNS and other social media, leading some authorities to curtail or even prohibit student-teacher communication through social media. In Israel, in which the current study is set, concerns about privacy issues as well as protecting, what has been referred to as, the already “eroding status of teachers” led the Ministry of Education to issue a national ban on teacher-student communication through any Social Network Site (SNS). Eighteen months later, in April 2013, this restriction was adapted to allow some forms of student-teacher contact, but only through separate, professional profiles that were especially created for that purpose. Similar restrictions have been formulated in many other parts of the world (e.g., Queensland, Australia, New York and Missouri, USA).

Those in favor of online teacher-student social networking, on the other hand, have presented a variety of arguments in favor of student-teacher communication. These range from constitutional rights (i.e., teachers’ and students’ freedom of speech), the inevitableness

of the phenomenon, and the pedagogical and instructional potential of harnessing SNS technology for educational purposes (e.g., Greenhow, Robelia & Hughes, 2009). Underlying this latter argument are two claims, one relating to pedagogical theory and the other to convenience. First, the central features of many social network technologies are, in principle, well aligned with current socio-constructivist views on learner-centered, meaningful learning (Greenhow et al., 2009): Unlike typical Learning Management Systems (LMS) which are often criticized for being asymmetrical and teacher-centered (Palaigeorgiou, Triantafyllas, & Tsinakos, 2011), SNSs such as Facebook, encourages egalitarian contributions and discussions by all users. It allows learners to self-organize and collaborate on shared interests and to link and share online information resources easily. As FB is an integral part of high school and college students' routines, learning applications that piggyback on these routines may help to bridge formal and informal learning by situating opportunities within their everyday social contexts and appropriating peer interactions on both curricular and extra-curricular topics. Consequently, FB is attracting interest from educators and from learning scientists as a potential platform for online collaborative learning (e.g., Greenhow, Menzer & Gibbins, 2014; Tsovaltzi, Puhl, Judele, & Weinberger, 2014). In terms of convenience, those students and teachers who already use SNSs regularly may welcome the integration of all communication in one single platform instead of having to switch between phone calls, email, LMSs and other communication media for different purposes.

However, conceptualizing FB as a learning platform also poses challenges. Researchers have warned against exploiting FB for learning (e.g., Junco & Cotton, 2012). Kirschner and Karpinski (2010), for example, reported on a negative relation between time spent on FB and college grades. More recent research suggests that it depends on *how* FB is used makes a difference in whether academic outcomes are positive or negatively related (e.g., Bliuc, Ellis, Goodyear & Piggott, 2010; Junco, 2012). For example, posting status

updates and chatting on FB were negatively related to GPA, whereas using FB for collecting and sharing information were positively predictive (Junco, 2012).

1.2 Empirical research on student-teacher Facebook interactions

Against this background, it is surprising that there is little empirical research that focuses on actual FB interactions between secondary school teachers and students, and how they use FB for school-related purposes. The existing empirical investigations available have focused on college and university settings (e.g., DeSchrijver et al, 2009; Madge et al, 2009; Ophus & Abbitt, 2009; Wang, et al, 2012). They often report on students' self-reported willingness to communicate with college instructors through SNSs, rather than describing actual interactions (e.g., Roblyer et al, 2010; Teclehaimanot & Hickman, 2011). A 2011 review of research on college students' FB use shows that they primarily used it for social purposes, and very little so for academic purposes (Hew, 2011; see also Artega Sanchez, Cortijo & Javed, 2014). However, as more and more faculty and teachers open FB accounts, this may be changing. Students may be 'domesticating' (Haddon, 2007) FB for more academic purposes. Indeed, several recently published case studies have described how in college settings commonly used LMSs (i.e., Moodle) are being replaced by FB groups (Deng & Tavares, 2013; Towner & Lego Munoz, 2011; Wang et al., 2012). Others have shown that even in the absence of teacher-initiated learning activities, college students use FB for post-hoc critiquing on learning experiences and the exchange of logistical or factual information amongst themselves (Grosbeck et al, 2011; Lampe et al , 2011; Selwyn, 2009; Sanchez et al, 2014).

However, little is known about actual teacher-student FB communication in secondary school contexts. A recent study by Hershkovitz and Forkosh-Baruch (2013) reports that whereas high school students tend to view FB as "their" territory, they do seem to

welcome it as an available means for teacher communication. Studies that explore the extent and nature of secondary school teacher-student interactions in SNSs are then needed.

1.3 The present study

The present study fills a gap in the literature by focusing on teacher-student FB interactions in secondary school contexts. We adopt an exploratory approach to investigate teachers' perceptions of student-teacher FB interactions and how (if at all) and why secondary teachers try to harness FB for pedagogical purposes. More specifically, the questions we address are as follows:

1. What are the most commonly used FB communication channels, and why?
2. What are teachers' motives for choosing FB as the medium for teacher-student communication and what purposes does this communication serve? For example, do they at all use FB for pedagogical and teaching purposes? If so, how?
3. What, if at all, are the dilemmas that teachers experience regarding student-teacher FB contact?

A multi-method approach (Fontana & Frey, 1998) was adopted in order to triangulate both quantitative information about characteristics of teacher-student communication in FB (study 1), as well as in-depth, qualitative insights into the motives, experiences and evaluations of teachers' FB interaction with their students (study 2). Data for both studies were collected in parallel between June - October 2012, which is well within the period during which the general ban on SNS communication between Israeli teaching staff and secondary school students was in effect. It should be noted that the data collection and analyses were conducted separately by two different research teams, one focusing on the quantitative and the other on the qualitative data set, and were only combined upon completion of the separate analyses.

We therefore present each study separately here and discuss their combined findings in the Discussion section.

2. Study 1: Teacher surveys

Based on the themes identified in the literature review described above, a self-report survey was developed to gather quantitative data on the scope of teacher-student FB communication, the FB channels that were chosen for this communication (research question 1), and the purposes for teacher-student communication (research question 2).

2.1 Method

2.1.1 Participants

The overall sample included 178 Israeli secondary school teachers (130 female, 48 male), with a mean age of 42.11 ($SD = 10.37$) and 15.13 yrs of teaching experience on average ($SD = 10.15$). About a third of the entire sample of teachers taught in urban, central areas of Israel (32.6%), a quarter in rural, peripheral areas (25.1%) and the remainder (42.3%) in medium-sized cities. Eighty-seven percent of participants taught in secular, public schools, and 11 % in religious public schools (2% undetermined). A link to the online survey was sent to the administrative secretaries of Hebrew-speaking, public secondary schools from different urban and rural regions in Israel, with the request to distribute the online survey to the teaching staff by email. Requests for participation with a link to the online survey were also posted on online teacher forums (in Hebrew). Participation was anonymous, voluntary and open to all secondary school teachers, whether they had an active FB account or not.

2.1.2 Tools

The online survey consisted of 4 parts: Part 1 included demographic items (age, gender, experience, geographical area, type of school, whether they have an active FB page or not). Part 2 included items from the FB Intensity scale (Ellison et al, 2007), which assesses

different aspect of FB use and FB affinity in general. Part 3 included ten items designed to tap into teachers' attitudes towards using FB as a means of communication with students (not further reported here). It also included questions on participants' interaction with students (currently does, has in the past, or never has), the frequency of these interactions (ranging from several times a day to rarely), and the means through which these interactions take place (i.e., private messages, on a group wall, on students' personal profile walls, by passive monitoring). Teachers who had communicated with their students through FB in the past were furthermore asked to explain why they had stopped.

Part 4 included 19 Likert-scale questions (ranging from 1 -5) on different purposes for teacher-student FB interactions (see Table 1 for the item wordings). These questions were only posed to teachers who owned an active FB account. Respondents were also asked to indicate to what extent (on a scale from 1 to 4) they recommend using each of the following FB features for communication with students: Personal profiles, Separate Teacher profiles, Closed groups and Fan pages, and why.

2.1.3 Procedure

The online survey was distributed and completed between July - October 2012, which is well within the period during which the general ban on SNS communication between teaching staff and students was in effect. The online survey was preceded by a short introductory letter stating that the discussion on using Facebook in the educational system elicits a variety of attitudes, emotions and opinions. It was explicitly stated that the goal of the survey was to learn more about secondary school teachers' thoughts and experiences on the subject and that participation was voluntary and anonymous. A bookstore coupon of approximately US\$27 was raffled among 6 participants who completed the survey and expressed interest in participation in the raffle. A pilot run showed that completion of the survey lasted about 10 minutes.

2.2 Results

2.2.1 Extent of teacher-student FB contact

Despite official regulations prohibiting teacher-student contact in Israeli schools at the time of the survey, its scope appears to be considerable. Of the 178 teachers that completed the survey, 70% owned active FB accounts. Of these, 59% reported having past (19%) or current (40%) FB contact with students in an ongoing manner (52% indicated a frequency of at least once a week). As one teacher indicated, *“I will not give up because of the Ministry’s regulations. There is room for my own judgment and I decide that I will, if the way I use it, contributes.”* Of the 20 teachers who reported they had used FB for student communication in the past, only 8 mentioned they stopped doing so because of the Ministry’s ban on communication through SNSs. No differences were found between the FB usage groups with regard to age, teaching experience, or gender.

2.2.2 Modes of communication with students

Descriptive statistics were obtained about the types of FB features teachers use and prefer for communication with students. We only included in the analyses teachers who had current or past FB contact with their students. The communication channel recommended by most teachers as appropriate for teacher-student FB interaction is the closed discussion groups option (80% recommend it, while 2% wouldn't recommend it and 18% never tried it). The closed group option allows for the creation of a space for private group communication that cannot be observed by non-members. Participants receive updates of activities in the group, but they do not have to “befriend” any of the other group members. Therefore, group members (teachers and students) do not have automatic access to each other's personal profiles, unless these are set as public anyway.

About half of the teachers advocate the method of “befriending” students with a separate “teacher profile”, which is created specifically for that purpose (6% are against this,

while 46% never tried it). Reasons for creating a separate teacher profile for student communication mainly related to issues of privacy and boundaries protection, as is evidenced in the following quote from the survey:

“A profile that is created especially for them allows me to protect my privacy and not to “loose” my stature as a teacher, while at the same time I am available and there for them, even after school and when it is even too late for phone calls”
(anonymous).

The FB communication format that was most controversial proved to be the direct “befriending” of students through a teacher’s personal FB profile. Seventy-four percent of the teachers had experience with this type of communication format. Of these, the majority (62%) recommended against it, whereas the remainder (38%) actively recommended it. Teachers' motives in favor of the "befriending" option showed that this was often times a very deliberate choice, as is shown in the following quote:

“I communicate through my personal profile, because I know that as a pedagogical figure I don’t have anything to be embarrassed about, not in terms of my opinions, nor my fields of interest. Therefore, if I already communicate with my students I don’t see reason why they should not learn more about me” (anonymous)

Most teachers (68%) reported never having tried the fan page option, though most of those who tried it recommend it as a communication channel, rather than oppose it (32% and 6% of the total, respectively).

2.2.3 Purposes of teacher-student interactions.

An exploratory factor analysis via principal-components extraction with Varimax rotation was conducted on the 19 Likert-scale items that assessed purposes for teacher-student FB interaction. Only the responses from teachers who had experience with student-teacher FB communication were included.. The results of this analysis are presented in Table

1, together with the scale reliabilities of the different measures. This procedure yielded five factors each relating to a distinct category of interaction purposes: Monitoring and getting to know the students' world better (20.72 %), improving personal relationships with students (12.42%), improving teacher's status (11.90%), academic (learning) purposes (18.57%), and management and organization (12.71%). Together, these five factors accounted for a total of 76% of the variance.

T-test comparisons were conducted between teachers with active FB accounts that did ($N = 69$) or did not ($N = 53$) have FB contact with students. Results showed that the former rated FB higher in terms of an efficient tool for improving social relationships ($p = .002$), for academic purposes ($p = .054$) and for management and organization of the classroom ($p < .001$). No differences were found in terms of monitoring or raising teacher status.

3. Study 2: In-depth interviews

To gather further insights into the subjective experiences and motives of teachers who communicate with their students through FB, eleven in-depth interviews were conducted. The aim of this second study is go beyond the surface of the phenomenon and to explore the complexity of teacher-student relationships in online environments, while preserving the authentic voice of teachers. Study 2 particularly focused on research questions 2 (purposes and motives for actual FB contact) and 3 (limitations and dilemmas).

3.1 Method

Eleven teachers (3 male, 8 female) who maintained ongoing FB communication with their students for at least one year participated in the interview study. Table 2 summarizes demographic information about the participating teachers. They were recruited through snowballing techniques and online postings on non-institutional teacher forums with open invitations. The interviews were semi-structured and lasted between 60 to 90 *min* each. They were conducted face-to-face by one of two trained interviewers, at a quiet place of the

interviewee's choice. The complete set of topics that the interviews intended to cover broadly mirrored the online survey, with additional emphasis on obtaining teacher insights about the affordances and the limitations of FB for student-teacher contact, their motives for using FB, and the potential consequences for student-teacher relations. Out of ethical considerations and protection of the teenagers' privacy, no actual examples of student-teacher communication content on FB were collected, even though many teachers were willing to show and share them.

The verbal content of the interviews was transcribed and analyzed using a thematic organization method. Data saturation was reached at the 8th interview, when no more new themes emerged (Guest, Brunce & Johnson, 2006; Seidman, 2012). We ceased the data collection after the 11th interview.

To preserve the anonymity of the participants, each interviewee one was assigned an alias, and any other identifying details about the identity of the schools, students and / or teachers mentioned in the interviews were masked.

3.2 Findings

We present the findings according to the research question addressed: First, we present the purposes and uses of teacher-student FB communication that emerged from the interviews (research question 2, section 3.2.1), followed by the themes concerning the boundaries and dilemmas identified by teachers (research question 3, section 3.2.2).

3.2.1 Purposes of teacher-student Facebook contact

Three main themes emerged from the interview data: Connecting for instructional purposes, connecting to monitor student well-being, and connecting to deepen student-teacher relations. We describe each separately and provide selected citations from the

protocols, to further illustrate each. The quotes are verbatim, except indicated otherwise, and notes in parentheses are ours.

3.2.1.1 Academic-instructional purposes

The main purpose for establishing and maintaining FB contact with one's students mentioned by the interviewees was that it serves instructional goals. This could be further broken down in the following two different types of instructional purposes :

3.2.1.1.1 Expanding learning beyond the classroom

In a number of cases FB serves as an additional medium for learning, in addition to and as an extension of the classroom. This use was sometimes born out of the need for extra instructional time, “(...) *for the things that I didn't manage to cover in class*” (quote by Sara). Accordingly, certain exercises, instructions and question-asking activities can be moved to the after-school hours and accomplished in FB hereby gaining extra instructional time.

“I did not feel that I can enjoy my class enough, there was just not enough time to go over all the material. I was afraid that I could not challenge them enough. 3-4 hours per week is nothing. FB allows me to get to topics and places with them that I cannot cover [in class]” (Rudy, F)

Due to the different communication channels integrated in FB, users can themselves determine whether their communication will be publicly accessible or private. The interviews included many references to the advantages of students being able to turn to their teacher for one-on-one help on academic matters through private communication channels, and getting tailored help on specific questions that they may not want to ask during class time or that only came up during homework. Some of the interviewees emphasized that this is particularly helpful for low-achieving students. This may also be true for high-achievers, however, as becomes clear from the next quote:

“In the evening before one of the students had to give a presentation, he got stuck on an awfully big question in Physics. Turns out that he was going too deep with it. He asked those kind of questions that his friends would never ask during his classroom presentation, but he really wanted to understand it, so I gave him links and explanations. Another student I started a conversation with on a Physics topic led to loads of questions on Facebook. He is usually quiet in class. A bit after class he sometimes comes over and asks, like, real quietly and softly, and he asks a question in Physics that really shakes the foundation of 20th century Physics. When I come home I look up the answer on the internet, and get in front of him on Facebook to give him the resources. And then the “ping-pong” starts with this student, which could never have happened with the little time I have in between two classes” (Rotem, F)

This expansion of classroom time is not only evident in FB communication between teachers and students. Teachers also witnessed peer learning in FB groups, where students help each other out and answer each others’ questions on the learning materials.

“If I don’t answer a question that has been posted, then a peer student will respond. All of a sudden there is a relation, a link between them. They have become a more cohesive group, they respond to each other, they help each other (...) This brought them so much closer to each other, and closer to me. Instead of asking me every time, a forum is created, this and that and that, and every student participates and there is discussion. As a homeroom teacher, that is truly heartwarming” (Inbal, F)

In addition to extending regular classroom activities, FB features can also be harnessed to create new types of learning and instruction activities. According to several interviewees, content can be easily shared and uploaded which allows teachers to use different information sources, such as movies and videos, visual aids and so on. This was mentioned as being

helpful for example, for sharing video demonstrations of sports techniques, for example, but also in the more traditional subjects, such as mathematics and science:

“Facebook not only contributes to leaning but also allows me to provide links, add simulations, all kinds of things that you can’t do in class, especially when you want to explain mathematics or science, and about the more graphical aspects of mathematics or science. So, it is more difficult to get to that level of visualization with a marker and whiteboard” (Rotem, F)

Few teachers mentioned that they specifically designed learning activities and projects that exploited particular FB features for innovative learning experiences. For example, Sara, a History and Language Arts teacher, told that her students are required to build a profile page, including a detailed time line, for a historical, biblical or prose fiction figure. Rudy, who teaches English as a foreign language, requires each student to chat with her through the Personal Message function about any topic they wish, at least once a month. This way they practice their English in an activity that she refers to as unthreatening and informal.

“I believe that the personal relation with pupils in FB is much more in line with instructional models that rely on project-based learning, that is that the student learns by himself, constructivist instruction, that model of instruction in which I am not the center and I am not the only source of knowledge authority.” (Rudy, F)

3.2.1.1.2 Providing an organizational infrastructure for school-related activities.

More than a place in which the learning itself takes place, FB was characterized as an organizational infrastructure that indirectly supports learning. This indirect support was mentioned in several different ways: First of all, interviewees stated that FB was much more effective and efficient as a platform for conveying messages, instructions, updates and so on than the platforms provided by schools and the Ministry of Education that have been

specifically designed and designated for such purposes. They particularly emphasize the ease of operation and the way in which large groups of students can be easily reached. As a result of the immense popularity of FB amongst adolescents and the fact that they are constantly online, the notices land in the “feed” of every student’s personal account, and are read in time, even on short notice. It should be noted that even teachers who did not mention using FB for direct learning purposes, elaborated on a wide range of “organizational infrastructure” purposes that indirectly support learning, such as: sending messages about what to read in preparation of class, distribution of extra exercises before exams, reminders of homework and exam dates, aiding them to manage their time effectively in preparation of projects and large exams.

“I do not send them actual study materials, but their time management, I do, because I learned that they do not really know how to manage their time, to get ready for an exam. Which exercises, how many hours, how many days before, how many hours, how many exercises per day, which exercises also. Really, like, decomposing their schedule in a structured way” (Matan, F)

Using FB for organizational purposes was also mentioned to aid learning in another, indirect way: By off-loading the organizational communication content to the FB sphere, precious F2F classroom time does not have to be ‘wasted’ on such matters and can be freed up for learning purposes.

“Instead of wasting classroom time on democratic ‘votes’ when we want to pick a date, you open a survey and students vote and we follow the majority vote without arguments or noise that waste a lot of classroom time” (Shirel, F)

It is striking that even though teachers have separate FB groups for each class they teach, some nevertheless mentioned how it frees up time, both for classroom learning and private time after school.

“Once a month, the students are required to pick a modern song, a piece of literature or a classical poem and present it. The communication is through FB, and I confirm the topic through FB. Otherwise I would have had to stay at school and that’s not always a possibility. Not even once do they have to pick up a phone to call me.” (Rudy, F)

3.2.1.2 Psycho-pedagogical purposes: monitoring student well-being

Teacher motives for FB use were not limited to instructional purposes, but also included many references to broader pedagogical roles. Facebook is used as a rich information source to monitor and obtain insights into students’ well-being and to intervene when necessary.

Two distinctive monitoring purposes were detected:

3.2.1.2.1 Monitoring and patrolling the virtual sphere

Popular media accounts largely characterize social media like FB as the cause for a range of unfavorable and even dangerous online phenomena, ranging from cyber-bullying, creation of hate groups / pages, easy distribution and exposure to sexual content, advances by imposters, to increasingly superficial language use and social ties, on the other end. Several teachers were very articulate in their opinion that these online phenomena should be dealt with in the digital sphere itself, and that in order to avoid or solve them teachers and other adults should be present in these environments.

“Facebook may be a virtual environment but it is an environment. We don’t send our kids to run around alone in the streets, we cannot send them to be alone in this virtual space.

Adults should be there” (Chaya, F)

“On FB I saw how they behave among themselves, about youth culture, slang, codes in these tools, such as LOL for laughing, smileys, likes. In the beginning it was a nightmare for me... There were those racist remarks, so I usually commented on that. You won’t see them, cause I also deleted: “That’s because you are a Bukhari [an ethnic group]”, “That’s because you are gay” and I can’t stand that. How much I worked on that “homo” [expression]...!” (Sara, F)

Thus, monitoring and patrolling the virtual sphere is seen as part of a teacher’s responsibility, as pedagogical and educational figures. However, in spite of the importance and pertinence of the issue, their presence in students’ social networks also raises several issues, such as lack of trust and exposure to their students’ personal and sometimes private information:

“I do not think that as a teacher I need to spy on them. I do not think that I need to open on purpose the personal page of a certain student that I suspect and start to see what he did today and what he did yesterday and follow him all day long. But I do think that the fact that I have him, as an authority figure and as a FB friend, it gives him kind of a feeling that he will be less comfortable publishing problematic contents. That, in and by itself, is an educational act”
(Rotem, F)

Rotem clearly distinguishes between actively intervening and the effects of mere (passive) presence. With this distinction she defines why she believes her online presence may have a positive effect in the virtual sphere, while not invading her students’ privacy. In a way, the role of the teacher as the “adult in charge” in the FB sphere extends far beyond regular school hours and into students’ after school activities. The question then is, who should be the authority figure responsible for monitoring the virtual sphere: parents or teachers? Indeed, many teachers mentioned that the responsibility is first and foremost the parents’. However,

since according to their accounts they are not fulfilling this role, they feel it is their responsibility to fill the void:

“In general and most importantly, parents should befriend their children on FB, but that does not happen. Adults need to see... and right now, teachers are the solution. Look, I would not require it from teachers, cause it’s not fair, a teacher that does not want to it, that’s his right. He does not have to be a slave to this job. But a teacher who is interested... The fact that these children are my friends and they don’t block me from content that they should have blocked me from, that’s a bit like a kid leaving his dairy open, which means that they want me to see it” (Esty, F)

3.2.1.2.2 Using Facebook to detect personal distress

Sometimes the teacher is exposed to information about or from a student who indicates he or she may be in physical, emotional or social distress.

“You see all kinds of statements. I once caught a status that was suicidal. And I simply intervened and took care of that girl, without her knowing, I went in and did it. I intervened through her friend, and everything was out in the open, cause they do not block anything. They think only their friends really see this, and no one else. That was really helpful for me.” (Dana, F)

Lior, who is the homeroom teacher of a classroom of teenagers with behavioral difficulties, purposefully uses FB to systematically check up on her students, who attend school irregularly and, according to her own accounts, often have difficult home situations. The following quote shows how students turn to her when they find out a fellow friends might be in trouble, and even let her use their FB accounts to access vital information:

“I take one day a week, Fridays, when I sit down and check their profiles one-by-one. Each and everyone. Also, students come to me, since I am also a counselor, they come

and say “Did you see this and that?” and “There, you should check that out”. And I even look through their FB accounts, if I cannot access that child’s account by myself. That helps a lot. I mean, from the point of detecting things that otherwise you could never have otherwise. And it’s just there.” (Dana, F)

This purpose is different than the theme *patrolling the virtual sphere* in two ways: First, the focus is on detecting personal, individual distress of a particular student, and not on the group interaction. Secondly, teachers use cues from the online environment (FB) to detect offline distress, and their interventions are in the offline sphere. In the *patrolling* theme, the focus is on addressing social problems caused by the online environment and solving them in that same environment.

3.2.1.3 *Social-relational purposes*

Whereas the monitoring functions of teacher FB activities reflect and reify a hierarchical relation between the ‘monitor’ (teacher) and the ‘monitored’ (minor student), we also found evidence of a discourse that was distinctively different. The interview protocols included multiple, detailed references about how FB interactions allow teachers to develop a different type of relationship with their students, and how this was reciprocally so. We detected three different ways in which teachers experience that FB affects their personal relationships with students:

3.2.1.3.1 *Lowering thresholds for initiating and deepening relationships*

Much has been written about people experiencing less social inhibition and more willingness to disclose (intimate) details about themselves in computer-mediated communication (Suler, 2004). These disinhibition effects were a recurrent theme in our interview protocols, in particular in relation to students sharing their troubles with teachers, asking for their help, mostly through private communication channels (i.e., the chat function

in FB). This is shown, for example, in the following quote by Alona and one by Matan who tells about his support of a student with test anxieties:

“Kids who are shy allow themselves to open up and talk in ways and in intensities that they would never would face-to-face (...). Students feel more at ease to sit in front of their screens instead of eye-to-eye, to tell you all sorts of things. This way we get to develop deep conversations which, otherwise... I don't believe they ever would have talked to me on those levels.” (Alona, F)

“This straight A student, full of test anxieties, cause he is afraid to get less than an A. I invested a lot of FB time, talking to him, calming him down, getting him to-....Maybe exactly because of that, that it is not personal and not one-on-one, an opportunity was created to have *real* one-on-one talks that are less committing, feeling more comfortable there. The fact that it is not face-to-face, that it is written and they can think about what they are saying” (Matan, M)

3.2.1.3.2 *Going beyond institutionalized roles: Getting to know each other as persons*

Interactions through FB do not have any built-in social restrictions or social stratifications that structure with whom, when and on what one can interact, as is the case in traditional school setting. This then opens up new possibilities for teachers to connect and interact with their students on a range of (extra-curricular) topics, after regular school hours, and outside school grounds. Teachers mentioned several ways in which this lead to a deepening of personal relationships. The first relates to the more emotional, personal nature of interactions:

“It is as if I give them a certain kind of attention that no one else gives them. I mean, you tell them ‘Good luck on your History exam’ and you're not even their History teacher, it

is not your responsibility in any way, but you tell them “good luck” and you remind them about the exam, that’s like ‘Wow! She really cares for us!’” (Dana, F)

“Complements, congratulations on their birthdays, publishing pictures of common events. Communication with students becomes something continuous and the classroom meetings become a part of the teacher-student relationship, not just an isolated event.”
(anonymous)

The protocols also revealed many references expressing how both students and teachers have ample opportunity to learn more about each other through FB. Teachers mentioned that by reading through their teenage students’ FB activities and FB contacts provides a unique opportunity to unobtrusively study teenage life and understand their students better. FB is then presented as a window into, what many adults experience as, the impenetrable and illusive teenage culture: What they like, their interests, their concerns, their social ties, their language, and their culture, as is indicated by Dana:

“You learn a lot of things. For example, you learn that they love certain clothes, certain stores, certain movies. You learn about them as human beings. Who the kid is, what he likes, what he prefers, what he does, what his hobbies are. The more you know about a person and his more personal characteristic and behaviors, his passions and the things he likes to do in his spare time, that creates a certain bond. I read every one’s personal profile in detail, and that gives me a lot of valuable information.” (Dana, F)

Vice versa, students are also believed to learn more about their teachers and their out-of-school lives. Whereas exposure to teachers’ private lives may often be considered negatively (see section 3.3.4.1), teachers in our study articulated a particular advantage of this exposure: By allowing student a peek into aspects of their private lives, teachers felt that students get to know them beyond their institutionalized role, as a person and an individual.

“All of a sudden they see you as a person. Before, you were just a teacher. Sometimes they talk to you, sometimes they don’t. They are more distanced. Once you are in their world, you are there, and you exist and you are a person.” (anonymous)

“I have never had situations in which they did not appreciate me, or hold me in high regard, made fun of me [because of FB]. Quite the opposite, when I have FB contact with a particular group of kids, they know me as a real person, as a whole, and that adds something special” (Rotem, F)

The view that the development of a more personal teacher-student relationship is not only important in its own right, but also essential for improving academic outcomes is nicely articulated in the next quote by Inbal:

“When you don’t know their private lives, their lives at all, their world, the things that are important to them, the things they like to do, you are not there, then you are at a very distant and alienated place, and that is how they will see you as well. Some alien creature who comes in and does not know what to do with them. When you do not connect with them, you cannot understand them, you cannot teach them in a way that- [...]. It does not matter if you are a champion teacher in your subject matter, and you can be a great lecturer at university, here [in high school] you won’t be able to get anything through, because you have to *connect* with them.” (Inbal, F).

3.2.1.3.3 *Expanding the range of student-teacher relationships*

Teachers also reported that FB contact allows them to expand their relationships with students. This subtheme of expansions appeared in three different ways in the protocols. with regard to the range of social groups, develop relationships with a more varied range of students. Two different groups of students were mentioned: The first concerns the range of students they are in direct contact with. Teachers reported that FB allowed them to be in

closer contact with pupils who they would otherwise not have the opportunity to interact with. This may be due to lack of time, or because certain students get noticed less in the hubbub of classroom activities (or as Rudy called them: "*students without a social status*").

The latter is showcased in the following enthusiastic quote by Alona:

"I discovered that I have a poet in my class, a year or two ago, the kinds of poems he would write... And I did not know about him, he looked so bland to me, and suddenly he, I looked at his-, he send me through FB, he gathered courage and send me a poem he-.... I just went wild! I said "Wow, this is beautiful", I said "Such an intensity, such quality, such beauty" and I was extremely enthusiastic. And he saw that I was enthusiastic, he started to send me more poems, and I was in shock, I told him "Look, you have to publish this, it is amazing". And I completely changed my attitude toward him." (Alona, F)

Secondly, internet-mediated communication traverses geographical limitations and allows teachers and students to communicate even when they cannot meet in school, such as in times of warfare or other disastrous events, when teachers offer emotional support to their students in FB groups (e.g., during missile attacks in southern Israel).

"Several times during the missile attacks in the south, the FB group became a place to calm down for students who were anxious. Immediately after the alarms would have stopped, the students would share their experiences in the FB group and I as their homeroom teacher would be there to listen and support" (anonymous)

Lastly, it also traverses time, and allows teachers and students to remain in contact even after graduation:

"You know like, there are things that you do not expect, after so many years to suddenly hear from an old student, you know, that's really touching!" (Alona)

“Mostly I keep in touch with old students, not during school. It is difficult for them and for me to part ways. This is an excellent way to keep in touch and make the separation easier” (anonymous)

3.2.2 Dilemmas of teacher-student FB contact: Blurring, shifting and drawing boundaries

Teachers openly and extensively discussed different types of concerns and conflicts that emerged from their FB contact with students. These concerns most prominently referred to the blurring, shifting and drawing of boundaries. We discerned between three different boundary concerns: (1) Privacy boundaries; (2) Boundaries of authority and friendship; and (3) Boundaries of availability and responsibility. It is evident from the protocol data that teachers are very much aware and alert to these issues, which remain an ongoing concern, but have in many cases also developed strategies to deal with them. We briefly describe each type of boundary concerns below.

3.2.2.1 Exposure and privacy

The first concern refers to boundaries of privacy, about what should remain private or can be made public, and what the trade-offs are for exposure. These concerns surfaced in two different ways: The first is a concern for protection of teachers' own privacy. Some teachers expressed concerns about students gaining access to different aspects of their private lives, and a lack of control over which aspects they can and want to expose to the public. Others, on the other hand, explicitly stated that they are not concerned about it. The two views are expressed in the next two quotes:

“Look, the downsides are that they know my family, and who's who, and that's not their business. The fact that, for example, my daughter posts something. “Aah, Alona's

daughter is doing this and that...” [imitates a student voice]. That exposure is a huge downside. I do not want that exposure, I am not a public good.” (Alona, F)

“The fact that they see pictures from my trip in the USA could maybe confuse them a bit for a moment. But it does not matter, they see me in class afterwards anyway. The fact that they saw me in the USA, or that they know I celebrated the holidays, or that I threw a birthday party for my daughter, that does not really matter” (Chaya, F)

Teachers also related to the need to respect teenagers’ rights of privacy. These concerns were mainly framed in terms of students’ needing to be able to freely express themselves and spend time with their peers, without adult supervision and interference. It is then directly related and in conflict with one of the main purposes and advantages mentioned in 3.3.1, that is: the possibility to monitor student well-being.

“We need boundaries cause they have their own lives and I want them to have their own life. I don’t want to be involved in every detail or word or thing they do. I understand that a lot of our social lives takes place in [digital] space, especially in FB. Mine, and theirs as well. I want my privacy. Both me and them need our time off from ‘the system’” (Matan, M)

“They need their time off from being students, to be kids who do not have to weigh every word they say. I do as well. As a teacher I also need to be able to be someone else other than a responsible teacher , who does not have to consider everything he says or does or behaves all the time” (anonymous)

Rights of privacy are commonly viewed in terms of protecting one's own or not invading another person's private life. We also found references to another take on rights of privacy, however, namely the right (or wish) to not be exposed to certain details of another person's private life. This is explicitly stated in the following quote by Inbal, for example, in which she wishes she would not know certain things about her students and even asks them to block off certain content. The references to students often not being aware about who has access to which types of personal information are also insightful.

"It bothers me that sometimes I see and read things that I don't want to. I am sure that they don't even remember that I can see it, but it gets me involved too much. I ignore it and don't react, but there are things that I wish I had not seen. I have even asked someone to block me, once. There are those who have blocked me, but there are also many who haven't, and then I see their pictures, or their statuses. Such as "I hate Jewish Philosophy class". I don't want to know that!" (Inbal, F, teacher of Jewish Philosophy)

3.2.2.2 Authority and friendship

Teachers indicated that befriending students through FB allowed them to improve, expand and deepen student-teacher relationships (see 3.3.3). On the other hand, "befriending" one's students also raises questions about teacher authority and teacher status, and what is considered appropriate conduct in and outside of FB. We found that teachers invested quite some thought and time in exploring and defining the boundaries of authority and friendship in FB. This tension between authority and friendship is most evident in the very term "Facebook friends". Technically, it merely indicates that two individuals have mutually agreed to grant each other access to one's personal details and FB activities. However, the word "friend" means much more than that in everyday life. Teachers emphasized that

becoming their students' FB "friends" does not indicate a change in the nature of their relationship, neither off-line, nor online.

"FB friendship does not threaten a teacher's authority. I am a very authoritative teacher. In class I am very strict. In class, I am a teacher, 100%." (Rudy, F)

"I am your teacher, and there is a difference between us. I am not your friend, and I do not want to blur those boundaries. The word "friend" in FB is off, it is very confusing. It is not friendship, we are not friends. (...) I am their teacher and that should be very, very clear to them. The fact that they feel comfortable turning and talking to me and all, that's fine. But there are boundaries that I draw" (Alona, F)

They also described extensively how they identified and dealt with instances of -what they regarded as- transgression from appropriate norms of behavior. Interestingly, these instances were not limited to student transgressions, but also included transgressions from the part of teachers:

"We never wrote a set of rules. I am not sure whether that is good or bad. In the beginning, when I joined them in FB, they were very excited. They felt that we became closer, less distanced. You know, fun stuff, "Matan is our friend" and things like that. One of the first posts they wrote on my wall was "Matan is a bro" [one of us]. So I posted a smiley and wrote something like "Not a bro, but a teacher". Something along those lines. The next day in school I was told "Matan, loosen up! We're just having laughs on FB". I told them that it is just like in class, just like in class, and we have to be respectful to each other." (Matan, M)

“I do not know whether I should say this, but according to my own judgment I behaved improperly twice. I mean I was very close to the fine line. I had a 11th grader that apparently liked me a lot, and I was very very fond of her as well. For example, when I was ill, she would write “Hi Sara, how are you? How do you feel?”. I realize that she wanted something extra and, for some reason, I let her. Then she would all of a sudden ask me personal questions. I chose not to reply. So I did handle it as a responsible, mature teacher after all, but I still feel that I opened the door to something different, and a kid like that feels she gets special attention” (Sara, F).

3.2.2.3 Availability and responsibility

One of the advantages of FB that was recurrently mentioned by teachers is that the threshold for contacting and seeking a teacher’s help are lower than through other communication means. They are much more available for their students when they need support, assistance or help. However, the downside of being available is that their work ‘invades’ their private life, qualitatively but also quantitatively during after-school hours. It comes at the expense of their leisure time and questions concerning time management were frequently mentioned. Concerns were also articulated about students developing a dependency on their teachers always being available for help. Instead of trying to solve problems by themselves or with their peers, they may turn to the available teacher too quickly and expect immediate responses. A final concern is the division of roles and responsibilities between parents and teachers. On the one hand, teachers mentioned that they view it as their duty and responsibility to watch over their teenage students in the digital sphere (see 3.2.3.1). On the other, however, questions were raised about, what they perceived as, the lack of parental presence in these environments. As illustrated in the quotes in section 3.2.3.1,

several teachers felt that they were quite alone in their endeavors to “patrol” the digital sphere and watch over teenagers’ well-being, taking over some of the parental responsibilities.

4. Discussion

Teachers who use Facebook as a tool for establishing and maintaining contact with their students do so in a variety of ways and for a variety of purposes: The combined findings of the qualitative and the quantitative study converged on three main purposes for teacher-student FB interaction: Academic-instructional, social-relational and psycho-pedagogical purposes. These categories, along with their subcategories are summarized in Figure 1. Teachers have developed different routines and norms of behavior for communication with their students on this platform. They also choose to use different communication channels from the range of options that FB offers, to match these different routines, norms and purposes: closed FB groups, direct befriending with personal profiles, and communication through specifically created professional profiles (research question 1). Finally, the dilemmas and conflicts that teachers identified (research question 3) mainly revolved around the potential blurring of different types of boundaries: Privacy (*vs* intimacy), authority (*vs* friendship), and availability / responsibility. Even though teachers seemed to be aware and alert to these issues, they also seemed to have developed strategies to deal with these issues. We now turn to a discussion of our main findings and connect them to existing literature and to issues of public debate.

4.1 Facebook and the academic – socializing dichotomy

In both popular media as well as academic literature, spending time on FB and studying are often portrayed as mutually exclusive and even contrasted activities: FB is regarded as a place for socializing, building and maintaining relationships, self-presentation and procrastination. It distracts and comes at the expense of school-related activities such as

studying, learning and teaching, which takes place offline, or through other communication media. Studies based on data gathered between 2007 and 2011 indeed confirmed that college-age students predominantly use FB for social purposes and that they were wary of using it for academic goals (Hew, 2011). Moreover, negative correlations between FB use and measures of academic performance have been reported (e.g., Junco & Cotton, 2012; Kirschner & Karpinski, 2010). Scholars of social media, on the other hand, have highlighted the many potential affordances inherent to social network technology, such as Facebook, for transforming learning experiences to be aligned with progressive theories of pedagogy and learning, by encouraging peer collaboration, student autonomy, peer discussion, blending formal and informal learning, and knowledge creation (e.g., Bingham & O'Connor, 2010; Collins & Halverson, 2010; Greenhow et al, 2009).

The findings presented here do not support either side of this debate, but provide a more nuanced view. Even though FB may not have been intentionally designed with learning and instructional purposes in mind, and even though FB may in the past have been used for social purposes only, this seems to have changed. In contrast to earlier reports, we found that secondary school teachers and students harness FB for instructional and academic purposes. From a communication theory perspective, teachers (and their students) are *domesticating* social network technology for new purposes. Technology domestication occurs when common usage patterns and norms with a given communication technology are redefined and transformed by a particular user community to better align with its own values and purposes (Haddon, 2006; Silverstone, 2006).

Based on the findings presented here, the main reason for harnessing FB for school work purposes is that it expands the scope of instructional opportunities. This is achieved, among others, by distributing and sharing learning materials, orchestrating at-home study during after school hours, establishing private communication channels for one-on-one

tutoring and help-seeking, and increasing cooperative learning between students. Off-loading other school-related tasks, such as management and organization of non-curricular activities, may also free up face-to-face classroom instruction time. Taken together, these FB activities can be characterized as attempts to expand existing teaching practices and making them more efficient. At least for now, and in spite of what some may have hoped for, most teachers do not seem to use FB technology to transform their instructional practices or to design more “progressive” learning activities, such as collaborative inquiry and academic peer discussion. Design efforts by educational technology experts may lead to the development of easy to use applications and add-ons within ubiquitous social network sites, allowing for more progressive learning activities (e.g., Robelia, Greenhow & Burton, 2011; Tsovaltzi et al, 2014). Champion teachers who develop and share innovative pedagogies with fellow teachers may also be agents of change. The current sample already included at least one such teacher, Chaya the history teacher, but more research is needed that specifically studies these teacher initiatives and how they spread (if at all). Our research group is currently gathering more data on such champion teachers and the innovative Facebook pedagogies they have developed in different subject domains.

4.2 The psycho-pedagogical value of Facebook contact with students

Teacher motives for FB use were not limited to instructional purposes, but also included references to broader pedagogical roles. For many adolescents, social media, and particularly FB, have become the new town square (e.g., Valkenburg & Peter, 2007; Lenhart, Purcell, Smith, & Zickur, 2010). Adolescents and young adults use FB as a platform for self-presentations (Back et al., 2010), for emotional self-disclosure and frustration “venting” (Manago, Taylor, & Greenfeld, 2012) and for maintaining and creating social relations and affiliations (Hew, 2011). These online activities are logged and preserved. To be given access to this information offers an unprecedented opportunity to unobtrusively watch, monitor and

learn about adolescents' social and personal lives. Our findings show that many teachers use this information to fulfill more psycho-pedagogical aspects of, what they consider, their role and responsibilities in securing student well-being. This is accomplished through three different yet related activities: prevention, reaching-out and detection:

First of all, teachers patrol the digital sphere to prevent unwanted, negative social phenomena, such as bullying, posting negative posts and pictures, engaging in hate-talk and so on. Thus, in this case, teachers actually want students to be aware of the adult presence, to exert a preventive effect and to intervene when necessary. The second function is reaching out. Teachers reported that students find it easier to ask for help or to share their personal problem with their teachers. This occurs mostly through the private messaging function. Reaching out to teachers is made easier due to the expansion of availability into after-school hours, as well as the affordances of the communication media itself (e.g., increased self-disclosure, Hamburger & Ben-Artzi, 2000; Amichai-Hamburger, Wainapel, & Fox, 2002; Suler, 2004). Vice versa, teachers also reported that they seek to strengthen and support particular students by posting supportive messages and paying them special attention on FB.

Finally, FB activity leaves logged traces that may provide important information about a student's personal well-being. Some teachers use FB as a tool for detecting psychosocial distress among their teenage students and, based on this information, take action to intervene. In contrast to the previous two psycho-pedagogical functions, visibility of teacher presence may interfere with detection of personal distress. The teacher is more like a fly on the student's Facebook wall so that he/she can unobtrusively monitor specific students.

Little is known about the nature and the accuracy of detecting adolescents' socio-psychological distress through their online actions in social network sites. When teenagers post overt expressions of distress on their walls, detection can be a straightforward act. However, more covert indicators may be more difficult to discern or interpret, such as for

example "liking" a pro-Anna site or never receiving reactions to one's own posts. More research is need to examine which features of FB activity correlate with actual psychosocial distress. Also, how accurate are teachers, social workers and clinicians in detecting these signs of distress, and how can these assessments be improved? Whereas some headway has been made on FB signs of depressions amongst college students (Moreno et al., 2011; Moreno, Jelenchick & Kota, 2013), there is no research to date that focuses on teenage populations and other types of distress.

4.3 Teacher-student social relations and the erosion of teacher status

Teacher-student FB contact also serves social purposes. Our findings show that teachers who maintain FB contact with their secondary school students report that this direct contact improves their relationship with students and has a positive impact on the atmosphere in class and on group cohesion. Moreover, this improvement is not only considered as a goal in itself, but also as a means to improve teaching and learning effectiveness. Research confirms that student-teacher relationships are indeed key to students' social and emotional adjustment, as well as academic outcomes (e.g., Birch & Ladd, 1997; Hamre & Pianta, 2001; Sabol & Pianta, 2012). Nevertheless, concerns about privacy boundaries, about student-teacher relationships becoming too personal, and about the erosion of teachers' status have been the main motives for prohibiting student-teacher FB contact by different educational authorities. Status differences are less salient in computer-mediated communication and participation is often more democratic and egalitarian (e.g., Asterhan & Eisenman, 2011; Hampel, 2006; Weasenforth, Biesenbach-Lucas, & Meloni, 2002). In social network sites, where a social network includes members of several different social groups one belongs to, group behavior that is appropriate in one particular social group (e.g., personal friends) may more easily "spill over" to other social groups (e.g., one's students), where it may be deemed inappropriate.

Our data show that teachers are not oblivious to these concerns. Quite the contrary, they are very much aware of the boundaries and the potential pitfalls of interaction through this medium. This is a new arena for interaction, and norms of behavior are in flux. Students are initially likely to copy behavioral norms from peer-peer online interaction to student-teacher interactions, as are teachers. Based on the teacher accounts presented here, teachers have developed strategies to deal with them. They have found midways that allow for more personalized relationships, on the one hand, while protecting their own and their students' privacy, on the other. Moreover, they report that apart from some minor violations, the power relationship between teachers and students and the behavioral norms for what is considered "appropriate behavior" are overall maintained in FB.

It may very well be that teacher-student FB contact is particularly suited for those teachers for whom this form of more direct, personal contact aligns with their existing pedagogical views and teaching style. Previous phenomenological research has shown that secondary school students view FB as their territory, but that they are willing to invite in specific teachers, whilst not *every* teacher (Bouton & Asterhan, 2013; Hershkovitz & Forkosh-Baruch, 2013). A general ban on teacher-student FB contact does not take such differences between teachers into account, however.

In Israel, where the current research was conducted, the Ministry of Education banned *any* student-teacher communication via SNSs, specifically stating that "the usage of SNS for interaction between teachers and students is forbidden" (Israeli Ministry of Education, 2011). After 17 months, in April 2013, this directive was adapted to allow FB communication from specifically designated teacher and student user profiles only. The data presented here was collected when the general ban was in effect for at least 6 months. Yet, our data show that teachers clearly chose to defy that directive. Since we did not use representative sampling methods it was not possible to estimate the exact prevalence of student-teacher contact in the

overall teacher population. It is striking, however, that despite the ban, we did not have any difficulty finding teachers who maintain student-teacher FB contact. Moreover, teachers who had FB accounts but chose not to communicate with students through this medium mainly cited pedagogical and practical reasons; only very few mentioned the Ministry of Education directive as the main reason. Teachers who did have student-teacher contact through FB, on the other hand, most often cited their own professional judgment, pedagogical authority and capability to make appropriate decisions.

Ideally, policy-making should be informed by evidence-based research, not by popular media coverage or popular debate only. Based on the findings presented here, we agree with Herskovitz and Forkosh-Baruch (2013) that the decision of whether to utilize Facebook should be bestowed upon participants rather than policymakers. When used wisely and with care, Facebook-based communication between teachers and students may provide several advantages to both teachers and students. Instead of top-down implementation of decisions, much can be learned from champion teachers and their experience in order to educate and inform parents, teachers, policymakers and students of the pitfalls, dilemmas and advantages of social media.

4.4 Limitations and future research

The two studies reported here focus on the teacher perspective. We believe that the data provide unique insights into teachers' voices, their experiences and their perceptions of student-teacher FB contact. Further research should focus on the perspectives of secondary school students, to complement this picture (see Bouton & Asterhan, 2013; Herskovitz & Forkosh-Baruch, 2013 for some first exploratory attempts). Moreover, analyses of *actual* teacher-student interactions in SNSs are also essential. Unfortunately, however, several ethical concerns currently stymie academic SNS research that is based on actual online interaction data, particular with under-aged participants. In a recent discussion paper, Shapiro

and Ossorio (2013) address two of these challenges: It is argued, first of all, that adolescents (>13 yrs old) should be allowed to give consent to participate in research through commercial portals such as Facebook, and should therefore not be categorized as children for regulatory purposes. The reason behind this argument is that "in the non-research context, adolescents can legally use SNSs to play games and to provide identifiable, private information about themselves, so they should be able to consent in the research context" (p. 144). The second issue has to do with the extent to which researchers may collect data about SNS participants' FB "friends". It is argued that receiving active consent from each and every FB friend is not feasible. Moreover, perceptions about what is private and publicly available information are changing constantly. We agree with Shapiro and Ossorio (2013) that lack of ethical guidance and the conservative tendencies of many ethical boards on these issues may ultimately render academic research irrelevant to this domain, whereas the private sector makes extensive use of this personally identifiable information.

The current set of studies focused on one particular SNS: Facebook. By the time of the writing of this report, many students and teachers have come to use other SNSs alongside or instead of Facebook. One of the SNSs that has currently become rather popular, for example, is Whatsapp which enables communication in a format that is somewhat similar to group texting. Future research should examine teacher-student interaction in these new SNSs and compare it with Facebook interaction. How do different features afford different types of communication, and do participants develop similar, or different, norms of behavior?

Another interesting and unexplored research venue concerns how and to what extent secondary school students self-organize in online SNS peer groups. Little is known about such student initiatives and what characterizes them. There is research on self-organized, online groups around non-curricular, affinity domains, such as gaming (e.g., Gee, in press, on SIMS communities). This research shows how novices and emerging experts interact, tutor

each other, and create and share learning materials in these communities. It is uncertain whether the same could be expected for self-organized peer groups around topics from the school curriculum. For example, do students only use these groups to share learning materials, or do they also conduct discussions, or maybe even tutor each other? What materials do they share and how? Who are the organizers and the "knowledge brokers" in such self-organized groups and what motivates them to take such leading roles?

More empirical-based research is then needed to construct a better understanding of the different ways in which secondary school teachers and student domesticate SNS technology for school- and learning-related activities. We hope that the two studies reported here are a first step in that direction.

5. Acknowledgements

We are grateful to the participating teachers for sharing their views and experiences with us, to Karin Hafuta and Lido Solomon who assisted in the data collection and to Baruch Schwarz, Yaakov Ophir and Edith Bouton for their insights on this research. The research presented here was conducted with the financial support of the German-Israeli Foundation (grant 116-105.4/2010) and the Mofet Institute.

6. References

- Amichai-Hamburger, Y., Wainapel, G., & Fox, S. (2002). "On the Internet No One Knows I'm an Introvert": Extroversion, Neuroticism, and Internet Interaction. *CyberPsychology & Behavior*, 5(2), 125-128. doi: 10.1089/109493102753770507
- Arteaga Sanchez, R., Cortijo, V., & Javed, U. (2014). Students' perceptions of Facebook for academic purposes. *Computers & Education*, 70, 138-149. doi: 10.1016/j.compedu.2013.08.012

- Asterhan, C. S. C. & Eisenmann, T. (2011). Introducing synchronous e-discussions in co-located classrooms: A study on the experiences of 'active' and 'silent' secondary school students. *Computers in Human Behavior*, 27, 2169 - 2177.
- Back, M. D., Stopfer, J. M., Vazire, S., Gaddis, S., Schmukle, S. C., Egloff, B., & Gosling, S. D. (2010). Facebook profiles reflect actual personality, not self-idealization. *Psychological Science*, 21, 372-374.
- Bingham, T., & Conner, M. (2010). *The New Social Learning. A Guide to Transforming Organizations Through Social Media*. San Francisco, CA:Berret-Koehler Publishers & ASTD Press.
- Birch, S. H., & Ladd, G. W. (1997). The teacher-child relationship and children's early school adjustment. *Journal of school psychology*, 35(1), 61-79.
- Bliuc, A. M., Ellis, R., Goodyear, P., & Piggott, L. (2010). Learning through face-to-face and online discussions: Associations between students' conceptions, approaches and academic performance in political science. *British Journal of Educational Technology*, 41, 512-524
- Bouton, E., & Asterhan, C. S. C. (2014). Using Facebook for school work purposes: Secondary school students' perspectives. In: Y. Eshet-Alkalai, A. Caspi, N. Geri, Y. Kalman, V. Silber-Varod, & Y. Yair, (Eds.). *Proceedings of the 9th Chais Conference for the Study of Innovation and Learning Technologies: Learning in the technological era* (pp. 102-103), Raanana, Israel: Open University Press.
- Collins, A., & Halverson, R. (2010). The second educational revolution: Rethinking education in the age of technology. *Journal of computer assisted learning*, 26(1), 18-27.
- Deng, L., & Tavares, N. J. (2013). From Moodle to Facebook: Exploring students' motivation and experiences in online communities. *Computers & Education*, 68, 167-176. doi: 10.1016/j.compedu.2013.04.028

- DeSchryver, M., Mishra, P., Koehler, M. & Francis, A. (2009). Moodle vs. Facebook: Does using Facebook for discussions in an online course enhance perceived social presence and student interaction? In I. Gibson (Ed.), *Proceedings of society for information technology & teacher education international conference* (pp. 329–336). Chesapeake, VA: Association for the Advancement of Computing in Education (AACE).
- Ellison, N., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook “friends”: Exploring the relationship between college students’ use of online social networks and social capital. *Journal of Computer-Mediated Communication*, 12(3). doi:10.1111/j.1083-6101.2007.00367.x
- Facebook (2014, Jan 29). Facebook Reports Fourth Quarter and Full Year 2013 Results. Retrieved from <http://investor.fb.com/secfiling.cfm?filingID=1326801-14-7&CIK=1326801>
- Fontana, A., & Frey, J.H., (1998). *Interviewing: the art of science. Collecting and interpreting qualitative material*. Thousand Oaks: Sage.
- Gee, J. P. (in press). Accountable Talk and Learning in Popular Culture: The Game/Affinity Paradigm. In: L. B. Resnick, C. S. C. Asterhan & S. Clarke (Eds), *Socializing intelligence through academic talk and dialogue*. New York, NY: Routledge, for AERA books.
- Geocartography Knowledge Group (2011). Facebook activities: Students, teachers and parents (in Hebrew). Retrieved 4/11/2012 from <http://data.isoc.org.il/data/151>
- Greenhow, C., Menzer, M., & Gibbins, T. (2014). Argumentation and Civic Engagement in a Facebook App. Paper presented at the International Conference of the Learning Sciences. Boulder, CO.
- Greenhow, C., Robelia, B. & Hughes, J.H. (2009). Web 2.0 and classroom research: What path should we take now? *Educational Researcher*, 38, 246-259. doi: 10.3102/0013189X09336671

- Grosbeck, G., Bran, R. & Tuiru, L. (2011). Dear teacher, what should I write on my wall? A case study on academic uses of Facebook. *Procedia Social and Behavioral Sciences*, 15, 1425–1430
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field methods*, 18(1), 59-82. doi: 10.1177/1525822X05279903
- Haddon, L. (2006). The Contribution of Domestication Research to In-Home Computing and Media Consumption. *The Information Society: An International Journal*, 22, 195-203.
- Hamburger, Y. A., & Ben-Artzi, E. (2000). The relationship between extraversion and neuroticism and the different uses of the Internet. *Computers in Human Behavior*, 16(4), 441-449.
- Hampel, R. (2006). Rethinking task design for the digital age: A framework for language teaching and learning in a synchronous online environment. *ReCALL*, 18(1), 105-121.
- Hamre, B. K., & Pianta, R. C. (2001). Early teacher–child relationships and the trajectory of children's school outcomes through eighth grade. *Child development*, 72(2), 625-638.
- Hew, K. F. (2011). Students' and teachers' use of Facebook. *Computers in Human Behavior*, 27, 662-676.
- HersHKovitz, A. & Forkosh-Baruch, A. (2013). Student-teacher relationship in the Facebook era: the student perspective, *International Journal of Continuing Engineering Education and Life-Long Learning*, 23, 33–52.
- Junco, R. (2012). Too much face and not enough books: The relationship between multiple indices of Facebook use and academic performance. *Computers in Human Behavior*, 28, 187-198.
- Junco, R. & Cotton, S. R. (2012). No A 4 U: The relationship between multitasking and academic performance. *Computers & Education*, 59, 505–514.

- Kirschner, P. A., & Karpinski, A. C. (2010). Facebook® and academic performance. *Computers in human behavior*, 26(6), 1237-1245. doi: 10.1016/j.chb.2010.03.024
- Lampe, C., Wohn, D. Y., Vitak, J., Ellison, N. B. & Wash, R. et al , (2011). Student use of Facebook for organizing collaborative classroom activities. *Computer-Supported Collaborative Learning*, 6, 329–347
- Madge, C., Meek, J., Wellens, J. & Hooley, T. (2009). Facebook, social integration and informal learning at university: ‘It is more for socialising and talking to friends about work than for actually doing work’. *Learning, Media and Technology*, 34, 141-155
- Manago, A. M., Taylor, T., & Greenfield, P. M. (2012). Me and my 400 friends: The anatomy of college students' Facebook networks, their communication patterns, and well-being. *Developmental Psychology*, 48(2), 369-380.
- Moreno, M. A., Jelenchick, L. A., Egan, K. G., Cox, E., Young, H., Gannon, K. E., & Becker, T. (2011). Feeling bad on Facebook: depression disclosures by college students on a social networking site. *Depression and Anxiety*, 28(6), 447-455. doi: 10.1002/da.20805
- Moreno, M. A., Jelenchick, L. A., & Kota, R. (2013). Exploring Depression Symptom References on Facebook among College Freshmen: A Mixed Methods Approach. *Open Journal of Depression*, 2, 35-41.
- Ophus, J. D. & Abbitt, J.T. (2009). Exploring the potential perceptions of social networking systems in university courses. *Journal of Online Learning and Teaching*, 5. Retrieved April 2012 from http://jolt.merlot.org/vol5no4/ophus_1209.htm
- Palaiogeorgiou, G., Triantafyllakos, G., & Tsinakos, A. (2011). What if undergraduate students designed their own web learning environment? Exploring students' web 2.0 mentality through participatory design. *Journal of Computer Assisted Learning*, 27, 146-159. doi: 10.1111/j.1365-2729.2010.00382.x

- Robelia, B. A., Greenhow, C., & Burton, L. (2011): Environmental learning in online social networks: adopting environmentally responsible behaviors, *Environmental Education Research*, 17, 553-575.
- Roblyer, M. D., McDaniel, M., Webb, M., Herman, J., & Witty, J.V. (2010). Findings on Facebook in higher education: A comparison of college faculty and students uses and perceptions of social networking sites. *Internet & Higher Education*, 13, 134-140.
- Sabol, T. J., & Pianta, R. C. (2012). Recent trends in research on teacher–child relationships. *Attachment & human development*, 14(3), 213-231. doi: 10.1080/14616734.2012.672262
- Sanchez, R. A., Cortijo, V., & Javed, U. (2014). Students’ perceptions of Facebook for academic purposes. *Computers & Education*, 70, 138-149.
- Seidman, I. (2012). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. Teachers college press.
- Selwyn, N. (2009). Faceworking: exploring students’ education-related use of Facebook. *Learning, Media & Technology*, 34, 157-174.
- Shapiro, R. B., & Ossorio, P. N. (2013). Regulation of online social network studies. *Science*, 339, 144-145.
- Silverstone, R., Hirsch, E. & Morly, D. (1992). Information and communication technology and the moral economy of the household. In R. Silverstone & E. Hirsch (Eds.), *Consuming technologies: Media and information in domestic spaces* (pp. 15-31). London: Routledge.
- Silverstone, R. (2006). Domesticating domestication. Reflection on the life of a concept. In T. Berker, M. Hartmann, Y. Punie & K. J. Ward (Eds.), *Domestication of media and technology* (pp. 229-248). Maidenhead: Open University Press.

- Suler, J. (2004). The online disinhibition effect. *Cyberpsychology & Behavior*, 7(3), 321-326.
- Teclehaimanot, B. & Hickman, T. (2011) Student-Teacher Interaction on Facebook: What students find appropriate. *TechTrends*, 55, 19-30.
- Teclehaimanot, B., & Hickman, T. (2011). Student-teacher interaction on Facebook: What students find appropriate. *TechTrends*, 55(3), 19-30. doi: 10.1007/s11528-011-0494-8
- Towner, T., & Lego Muñoz, C. (2011), Facebook and education: A classroom connection? In Charles Wankel (ed.), *Educating Educators with Social Media (Cutting-edge Technologies in Higher Education, Volume 1)*, pp.33-57, Emerald Group.
- Tsovaltzi, D., Puhl, T., Judele, R., & Weinberger, A. (2014). Group awareness support and argumentation scripts for individual preparation of arguments in Facebook. *Computers & Education*, 76, 108-118. doi: 10.1016/j.compedu.2014.03.012
- Wang, Q., Woo, H. L., Choon, L. Q., Yang, Y. & Liu, M. (2012). Using the Facebook group as a learning management system: An exploratory study. *British Journal of Educational Technology*, 43, 428-438.
- Valkenburg P.M., & Peter J. (2007). Preadolescents' and adolescents' online communication and their closeness to friends. *Developmental Psychology*, 43, 267–277
- Lenhart, A., Purcell, K., Smith, A., & Zickuhr, K. (2010). Social Media & Mobile Internet Use Among Teens and Young Adults. Report for the Pew Research Center. Downloaded (27/7/2014) from http://uploadi.www.ris.org/editor/1267315614PIP_Social_Media_and_Young_Adults_Report.pdf
- Weasenforth, D., Biesenbach-Lucas, S., & Meloni, C. (2002). Realizing constructivist objectives through collaborative technologies: Threaded discussions. *Language Learning & Technology*, 6(3), 58-86.

Table 1

Five different goals for teacher-student FB contact, based on teachers' self-report responses

*(N=65)**

<i>Factor</i>	<i>Nr. of items</i>	<i>Items</i>	<i>Cronbach alpha</i>	<i>Mean (SD)</i>
Monitoring and getting to know the students' world better	6	Get to know their world better, Monitor what is happening in their lives / their social arena, Prevent potentially negative consequences, Understand students better, Monitor specific students who may need extra support	.900	2.96 (1.04)
Improving personal relations with students	3	Experience fun interactions with students, Deepen and strengthen personal relationships, Improve relationship with students	.848	2.91 (1.23)
Improving teacher status	3	Show them different sides of my personality, Raise my status, Not remain behind	.778	2.22 (1.08)
Academic (learning) purposes	4	Provoke discussions, Broaden horizons with materials and interesting links, Post assignments and homework, Increase their motivation	.905	3.02 (1.33)

Management and organization	3	Communicate organizational class matters, Manage the class technically, Be available for help	.860	3.84 (1.17)
-----------------------------	---	---	------	-------------

* The Likert scale for each item ranged from 1 (not at all) to 5 (very much so).

Table 2.

Characteristics of the teacher interview participants

<i>Alias</i>	<i>Gender</i>	<i>Yrs of teaching</i>	<i>Current role in school</i>	<i>FB communication modes with students</i>	<i>Number of FB friends</i>	<i>Years of FB contact with students</i>
Chaya*	F	24	Teacher (Language Arts, History and Culture)	Personal profile, closed group	250+	3
Sara	F	3	Teacher (Theatre)	Closed groups	300+	2
Shirel	F	5	Communication, History	Closed groups	250+	2
Matan	M	1	Teacher (Mathematics)	Closed groups, Teacher profile	300-500	1
Moshe	M	15	Teacher (Civics, History)	Closed groups	69	1
Rotem	F	3	Teacher (Physics, Mathematics)	Through personal profile	455	2-3
Rudy	F	4	Teacher (English)	Chat Through teacher profile, closed groups	30	0.5
Alona	F	32	Homeroom, Arabic & Hebrew Teacher	Personal profile , Closed groups	324	3
Dana	F	11	Mathematics and Homeroom teacher (special ed., behavioral difficulties)	Closed groups	500+	4
Inbal	F	5	Jewish Philosophy	Personal profile (limited exposure to feed)	-	-
Lior	F	22	Hebrew, homeroom teacher	Personal profile (homeroom class), closed groups	100+	2

* Real name, upon the participant's explicit request.

Figure 1. Purposes of Teacher-Student Facebook Contact, based on Teacher Interviews ($N = 11$).



