The effects of Facebook on students’ academic performances

Abstract

Much ink has been spilled on the topic of social media networks and identity. While this is a topic of much importance, how identity could be affected by social media is still a difficult thing to quantify. Urgency today is for the aspects of the impact of Facebook on our productivity levels and performances. Managers, university professors and advisors today observe that social media networks are affecting the workers and the students’ productivity. The Literature of the topic, though still in its beginnings, articulates many arguments concerning why social media are negatively affecting users’ performances. The research through traditional empirical research methods provide the social media scholars with findings that support both the idea that Facebook decreases productivity and that it doesn’t have any consequence performances and productivity. While we cannot clearly judge if Facebook decreases productivity or not, we still need to see how Facebook could represent a distraction from potentially productive tasks? This paper argues that Facebook creates distraction from potentially productive tasks and decreases user’s attention span for their academic work. It claims that by using Facebook for long periods of times and with a high frequency, users develop a trend to use it as an enabler for procrastination. We still cannot see to which extent Facebook is compromising our social interactions, but when it becomes a threat to our performances and our productivity then this becomes very important due to the consequences this could have on the academic level of our graduates and the economy and production of our economies.
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I. Introduction:

The rise of social media was seen as a revolution in the online world. Writers on the topic of social media discussed intensively some of the aspects of social media on users’ offline habits. While most of the previous research on the field focused on offline users’ practices, a new set of research deals with the topic of social media networks effects on performance and productivity. Indeed, much research done by companies and universities highlight a potential distraction created by social media, which affects students’ and workers’ performances.

Writers on the topic are split into two groups. The conservatives defend the case that social media indeed affects performances and decreases the productivity of its users. On the other hand, the modernists argue that social media do not have any effect on performance and productivity and could potentially be used in order to increase users’ productivity and performance. The research conducted by the two groups relied extensively on survey in order to collect data on the users’ habits online. While the surveys are indeed a very common way to get information on some of the practices on social media, in the case the distractions created by social media, the users tend to overestimate or underestimate the time spend on social media and how it could potentially has an effect on them. In order to get more accurate information on how users use social media and how it is a potential distraction from productive work, I have implemented a case study in which a time tracking system will be used by five college students to collect data in order to see how social media can potentially create distraction that decreases users’ productivity. In this paper I argue that social media networks distract users from productive activities. I add to the existing research that points to such negative effects by
implementing a methodology that provides more accurate indications of how often students get distracted when they are trying to focus on studying.

I will support my claim by demonstrating that first the time spend by the users surfing online network is considerably high compared to the overall time spend working on their computer. Secondly that Facebook encourages users to multitask and therefore decrease their cognitive resources and attention span. And finally, that Facebook represents a real distraction from potential productive activity and it is an enabler of procrastination. This is important because we can understand better how students could increase their productivity.

II. Literature Review:

Much of the research on social media focused on the effects of social media on identity. Scholars argued that people are getting addicted to social media networks. Marche “Is Facebook making us Lonely?” (2012), argues that social media provide us with a platform where we can control how we want our social life. This control is what makes the users addictive. On the same line, Turkle “Alone together: why we expect more from technology and less from each other” (2011), argues that the new generation is always connected to their social media networks; constantly looking for the safety that their online social network makes them feel. The feeling of safety the new generation feels when they are connected to their social network is an aspect of addiction to social media. But the most prominent discussion to addiction to social media comes from Rosen “iDisorder: understanding our obsession with technology and overcoming its hold on us” (2012), who argues that social media provide an easy and fast way to get positive feedback from peers. Rosen claims that “People need to choose the particular form of media that meets their personal needs and provides internal gratification” (p. 35). In other words, people use media
that can provide them with feedbacks that could make them feel good and social provide users exactly with those feedbacks. While scholars on social media effects on identity extensively discussed addiction to social media, most of them overlooked how this addiction could have an impact on the users in other aspects of their life; productivity and performances for example. While addiction by itself is an important issue, extensive discussion of its nature might not be as helpful and urgent as the discussion of its impact university students’ performances for example.

The literature on the topic of students’ performances and its relation to social media use compromises two groups. On one hand the modern optimists argue that social media doesn’t impact students performances. Syarif Husin Lubis and all argue that the “time spent on Facebook did not have correlation with CGPA”(p.2). In other words, Facebook use doesn’t impact students’ performances. Syarif’s research group findings imply that addiction to Facebook has no impact on students’ productivity and academic performances. On the other hand, the conservative skeptics think that social media networks like Facebook negatively impact students’ academic performances. Reynol Junco claims that “time spent on Facebook was strongly and significantly negatively related to overall GPA” (p.1). For Junco, the time spent on social media networks like Facebook has a negative impact on students’ performances. Thus, the addiction to social media networks like Facebook negatively impacts the productivity of students. On the same line, Kirschner and Karpinski claim that “Results show that Facebook users reported having lower GPAs and spend fewer hours per week studying than nonusers”(p.1), this means that Facebook is indeed responsible for the decrease of students performances. Junco, Kirschner and Karpinski’s findings all tend to imply that social media addiction is negatively impacting students’ productivity.
Findings and much of the previous research relied solely on surveys. While surveys can provide accurate measures and results, they might not give an accurate picture in the case of the impact of social media on students’ performance since the data is self-reported and not tracked. In fact, all the previous researchers said that their research have limitations due to their inability to accurately track Facebook users. My methodology in dealing with the issue, is to use a time tracking system in combination with a survey and interviews, in order to see how the results correlates and contrast with the previous literature, my argument being that social media networks and especially Facebook negatively impact students’ academic performances.

III. Methodology:

In order to collect the data for the case study I chose to track 5 users. An application called Desktime was used to track those users for 7 days. Users agreed to get interviewed later about the information Desktime was giving. To reinforce the case study, a survey was send to 110 students containing questions that were based on the patterns that Desktime was providing. From the 110 students, 81 responded to the survey. Most of them are people I personally know. They come from different majors but the highest numbers came from the business administration department. Most of the people surveyed are freshman with 6 people who are sophomores, one junior and 6 senior. Most of them were average students (43% with a GPA between 3.5 and 3.0), and 54% percent of them believed that Facebook doesn’t affect their academic performances.

IV. Facebook use and time spend on potentially productive tasks:
In the research literature, Junco argues that “student who spend more time on Facebook will have less time to study and therefore will have lower grades”. In other words, the amount that the user will spend on Facebook will decrease the amount he spends on studying thus it distract him from productive academic work. Kirschner and Karpinski also claimed that “the data shows a significant negative relationship between FB use and academic performance”. Kirschner and Karpinski’s point is that the time spend on Facebook has indeed a negative effect on students’ performance because it distracts them from doing their work.

Based on the information provided by Desktime we observe that the average time spend on Facebook per day is 60 minutes which correlates with what other researchers found (Junco) and the results of my survey (64% of people surveyed). The users usually check Facebook on an average 3 times every hour for 5 minutes every time. The number of times they check Facebook also correlates with Junco’s and survey’s findings (60,5% of people surveyed). The users tracked, spend on average 6 hours and 30 minutes per day online. The average of potentially productive tasks is 3 hours, the figure comes from the amount of time the users spends working on applications like excel, word, wolfram or python, the figure represents a potential productive amount of work the real figure could be less or more. The number of hours of work outside the classroom required on average for the students tracked was 27 hours per week. Assuming that all their work is performed online (most of the students said they use websites to help them solve calculus problems, they read their English reading on their computers and they have many programming exercises to perform on a computer), on average their required daily work amount is 4 hours outside of the classroom. One of the people interviewed said “I feel the need to go to Facebook, check what my friends are doing, It happens spontaneously, in reality I really don’t know how much time I spend on Facebook, It became part of my online habits, I guess it takes
up more time than what I imagine, because I visit Facebook in a non-continuous way it feels like if I don’t spend so much time on it, I taught maybe I spend 20 minutes, I was chocked to know I spend one day 1h30 minutes on Facebook, it made more conscious of my habits and in fact now I feel that I noticed that those small breaks I do from time to time actually last for like 5 or 7 minutes”.

Based on the information we gathered we can infer that Facebook creates a distraction that impacts users’ academic performances because it takes up approximately 1 hour from potentially productive work. The 7 hours spend on Facebook could be used instead to study and fulfill the 27 hours of work requirements per week. The critical part is that users like the one interviewed and tracked are not aware of the time they really spend on Facebook and how it is in fact having Impact on their academic performances by taking up time that could be invested in studying.

V. Facebook use in relation to multitasking:

Previous research found that Facebook increases the likelihood of its users to multitask therefore affecting their performances and efficiency. We can infer that Facebook increases the levels of multitasking of students leading to more distraction and decreased attention span, ultimately affecting students’ performances. For Kirschner and Karpinski “switching requires a person to juggle her or his limited cognitive resources to accomplish the different tasks successfully. This juggling leads to greater inefficiency in performing each individual task”. Karpinski and Kirschner’s point is that when multitasking, the user decreases his cognitive abilities to focus solely on a task until it is finished and thus decreases the amount of potentially
productive work. Junco adds that “chatting on Facebook chat may involve multitasking and may have a direct effect on schoolwork because of learning impairments due to cognitive overload”. For Junco, Facebook is indeed increasing the cognitive load of students and distract them from their academic work. Because their energy is wasted on different tasks and not focused on one single task their performance thus is affected.

Facebook impacts the productivity of users by increasing their multitasking levels and by breaking their focus and engagement. The data that Desktime provided show that the users tracked visit Facebook 3 times per hour for 5 minutes of activity per each one of those visits. The data provided by Desktime also suggest that on average, the students spend 6 hours and 30 minutes of daily internet use, in the form of 60 minutes chunks of activity when they are on their computer. Therefore for every 60 minutes of activity, the users spend 5 minutes on Facebook for 3 times for a total of 15 minutes. Assuming that the student is working on a project or doing his work he will be interrupted three times each time for 5 minutes. The problem is that those interruptions are not a one-time occurrence, this means that for every 60 minutes of work the student interrupts his work 3 times for a total amount of time of 5 minutes per interruption, while breaks of minutes every 60 minutes could be helpful for retention and improving attention span recurring breaks every hour definitely decrease the attention span and student engagement. We know from research that we need some time before reaching our optimum attention span. But with interruptions of 5 minutes we decrease our chances of reaching optimum attention span (Kikushi Tadashi, 1981) and therefore we are not fully engaged on the academic work we are performing.

One of the users tracked said “I cannot study for long periods of time anymore, especially now when I use Facebook, I always have this urge to go and check my phone or open Facebook
on my computer and see what other are doing. I say to myself, you can take a break, check what’s happening around, I’m not sure if it has a negative effect on my study but I feel always the urge to check Facebook, especially when I’m studying”. The survey results show that 49% percent of people interviewed can focus for 25 minutes, we can actually conclude that that Facebook has very likely an effect on their attention span, because it leads them to multitask and not completely focus their mind and cognitive energy on one single task.

VI. Facebook and procrastination:

Based on the research of Kirschner and Karpinski Facebook is a very powerful tool to procrastinate without feeling guilty for doing so. Kirschner and Karpinski found that the students they survey considered that “FB allows them to put off studying while not giving them the feeling that they are not working”. For Kirschner and Karpinski, the fact that Facebook is used in a social manner represents a good excuse to the students because they can always consider what they are doing as a form of socialization and not procrastination. This could represent a trend as to why Facebook is so successful among college students. Though based on the results we have we cannot assume that Facebook is used by students as a procrastination strategy, this hypothesis could still be plausible to some extent.

It is also very important to notice that Facebook could be the enabler of other forms of online procrastination. Multimedia sharing represents 39 percent of the activities that students do on Facebook (Junco). For example, a video could be posted and then the student might watch it on YouTube. Even if the time he spend watching the video is not counted as a Facebook spend time
it is still a consequence of using Facebook. The user might keep procrastinating and avoiding starting his work by watching other videos. Due to the size and to the limits of the tracking system used we cannot say exactly if those users tracked have the tendency to really use Facebook as gateway to other websites, but one of the users tracked said:”I follow many bodybuilding pages, and they usually post motivational videos and articles on how to perform exercises properly or how to improve my performances”. So, I tend to read those articles and watch those videos, I wouldn’t have watch or read if I didn’t find them on Facebook”. We can see from the previous example, an instance in which Facebook is not only encouraging the user to procrastinate by offering attractive social gains, but also where Facebook plays the role of the enabler to other forms of procrastination. In my survey, 54% of the people said they have the tendency to go to external websites like Instagram, Youtube, or online newspaper through Facebook, 49% of them spend up to 60 minutes in those websites. It is clear that Facebook is not only encouraging procrastination as Karpinski and Krischner said, but the results of the survey suggest that it is also an enabler to other forms of online procrastination.

VII. Conclusion:

The research conducted revealed many conclusions in relation to how Facebook affects academic performances of university students. Some of the important results relate to how Facebook increases the multitasking levels of students thus decreasing their attention span and their cognitive resources. It has also revealed how Facebook impacts the academic performances of students by literally decreasing the time they spend studying. The most interesting part of the
research I believe was that from the tracking and the survey we observe a trend toward using Facebook as an enabler to other forms of procrastination online, this aspect of how Facebook affects students’ academic performances was not addressed in any of the previous research and could be a potential point for deeper research. The added value of the research was the use of the tracking system which gave more accurate information on how users spend their time online in general and on Facebook particularly. And while the results that the research reached might be very promising it is important to acknowledge some of the limitations of the research. The tracking system was used to track 5 people which is not a very big number in order to draw conclusions. Many students were reluctant to use a tracking system on their computer for privacy concerns. More resources in future research could help establish a wider tracking system. The second limit to this research concerns what the system can track; Desktime might provide very accurate information on what users are doing on their browser, yet it doesn’t provide us with a complete picture of what is exactly happening when someone is on a specific website, we only get the title of the page. For those previous reasons, I had to survey students and interview people I tracked to get more background and context to complete what Desktime found. I think that in order to expand what was discussed in this paper; the second and third sections of the argument could be discussed and studied more deeply. It will be very interesting to understand what happens on the brain level when the users feel the urge to go to Facebook, or how does the brain react to successive “Facebook” breaks. Nevertheless, the paper and the research provided a first insight on how Facebook impacts students’ academic performances and more accurate research using better information gathering techniques on a large scale like users tracking should be used in order to obtain better results and conclusions.
References:

Lubis, S., Ridzuan, S., Ishak, I., Othman, H., Mohammed, N., Abdul Hamid, Z., & Akmal, N. (2012). The Relationship between Time Spent on Facebook and Cumulative Grade Point Average (CGPA) Among Third Year Biomedical Science Students in Faculty Health Sciences, UKM. *Procedia - Social and Behavioral Sciences, 60*, 590-595.


Appendix:

Survey Questions:

1. Do you think Facebook affects your academic performances?

2. How much time do you spend on Facebook per day?

3. How many times do you visit Facebook per hour of online activity?

4. How much time do you spend on Facebook per visit/hour?

5. Do you have the tendency to visit other websites like YouTube, Instagram or online newspapers websites through Facebook?

6. How much time do you think you spend on those websites when you are directed to them from Facebook? (Only if your answer to the previous question was yes)

7. For how long can you study without getting distracted?

8. Your GPA is:

Desktime Data (Averages per day for one month. The averages used in the paper are not similar because users weren’t tracked for one month):