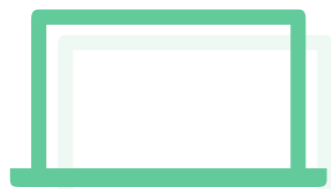


HOW MUCH RECREATIONAL TIME DO STUDENTS SPEND ON TECHNOLOGY?



BACKGROUND INFORMATION:

Ask any senior how technology looked when they were young, and the answer will be vastly removed from what we see today.

Digital technology has changed our way of life: billions of people use social media as a means of connecting with friends and family; video games can transport players into other worlds in the blink of an eye.

However, is it possible to have too much of a good thing?

Concerns have been raised as to the amounts of time youth spend using such devices, and studies have shown that overuse can have detrimental effects on sleep and productivity¹.

It is understood that often technology is used for productive purposes, but it is still well known that youth are spending more and more time using it for recreational purposes. But just how much time are teens really spending entertaining themselves using their devices?

DATA COLLECTION:

87 students, from grades 7 through 10, were asked to complete an anonymous survey. In addition to age and gender, the participants were asked to state the number of hours they had spent over the last week utilising both social media and video games. They were also asked about the platforms they utilised; website for social media, and console for video games.

There was an imbalance in the number of males and females included in the survey, but this was compensated for.

AIM:

To discern how much time students are spending using social media and video games, and identify any trends between this, age and gender.

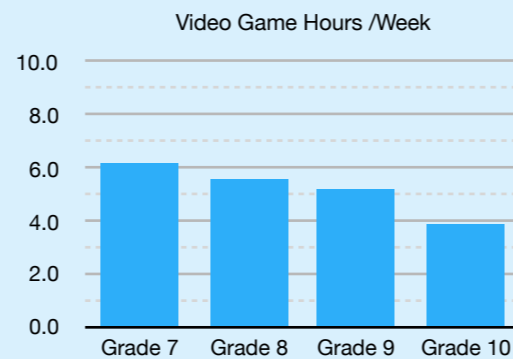
This study compares and analyses the amount of time students of one school, from grades 7-10, spent utilising both social media and video games — two primary forms of digital entertainment.

REFERENCES:

- <https://sleepfoundation.org/sleep-polls-data/sleep-in-america-poll/2011-technology-and-sleep>
- <http://www.pewinternet.org/fact-sheet/social-media/>
- <https://www.statista.com/statistics/199242/social-media-and-networking-sites-used-by-us-teenagers/>

VIDEOGAMES

Video games have been one of the primary sources of entertainment for decades, and with technology improving, these virtual worlds are beginning to demand more and more time.



This graph depicts the number of hours spent weekly playing video games across grades.

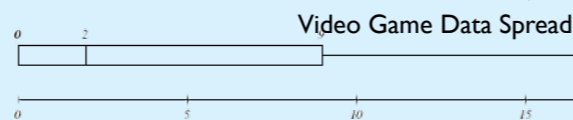
The data is positively skewed, forming an exponential decline, with the mean number of hours decreasing as grade level increases.

The most popular gaming platforms were laptop/desktop computers and smartphones, implying casual gaming with small session times.

An interesting thing to note is the disparity between the mean and median in each grade, as seen in the table to the right.

The large difference is indicative of the majority of people only spending a few hours on video games, with a few individuals spending far more time each week. This is also illustrated in the box-plot below.

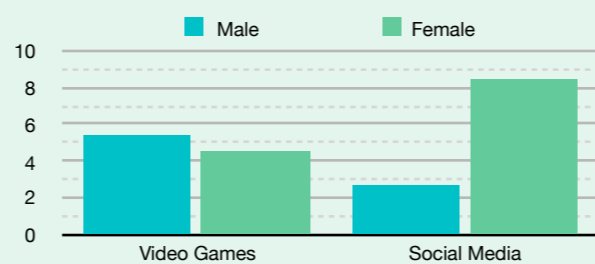
	Mean	Median
Grade 7	6.2	4.5
Grade 8	5.6	2
Grade 9	5.2	2
Grade 10	3.9	1



GENDER

Very often, the stereotypical gamer is a guy; the stereotypical social media user a girl — but how do these compare to real life?

The below charts show the average number of hours spent using video games and social media for both males and females:



Male Data (Hours)

Female Data (Hours)

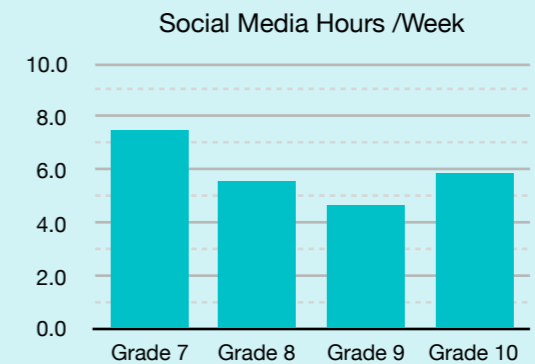
	Video games	Social Media		Video games	Social Media
Median	2	0.5	Median	1	7
Mean	5.4	2.6	Mean	4.5	8.4

Looking at the chart, it can be seen that females spend significantly more time on social media than males. This is backed up by the fact that the median number of hours females spend on social media — 7 — is far greater than the male median — 1.

Similarly, males do spend more time playing video games, but only slightly — the median for males is 2, while the female is 1, and the difference between the means is only 0.9 hours per week.

SOCIAL MEDIA

Social media, by its very nature, leads users to spend large amounts of time communicating and collaborating with others. Young people specifically use social media more than any other demographic², and as such are influenced by it more than anyone.

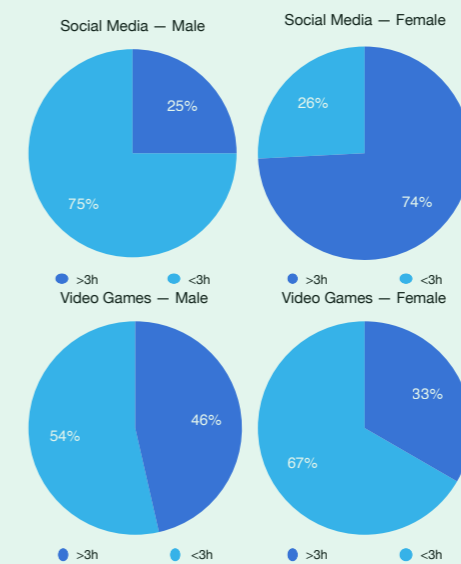
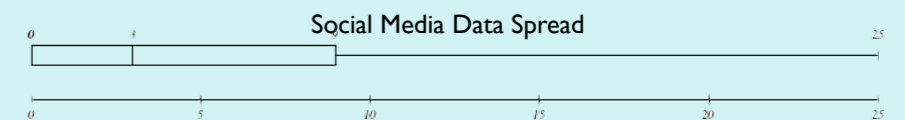


This graph depicts the average number of hours students spent on social media over the course of one week.

There is no obvious skew in this data, as it does not consistently increase or decrease in any direction.

The sudden increase in average social media use in grade 10 may be caused by less time spent playing video games, however it is also possible that the particular set of students surveyed simply favour social media.

In total, 55% of students reported regularly using social media. Of all social media platforms, Instagram was the most popular, with 36% of all respondents having had used it in the past week. Snapchat was a close second, with 32% of students having used it. This is contrary to larger studies in the US, which found that 79% of teenagers had Snapchat, and 73% Instagram. Another interesting point was that the US study found 76% of teens used Facebook, yet only 15% of respondents in this survey reported using it. The total spread of data is illustrated in the box-plot below.



The charts to the left depict the proportion of males and females who frequently use social media and video games. 'Frequently' in this case is defined as three hours or more every week.

These pie charts validate the claims made previously — that females spend far more time on social media, and males spend slightly more on video games.

Both of these outcomes likely stem from the social environment surrounding video games and social media — video games tend to have a more masculine appeal, and self-image, and thus, social media, is often very important for females.

CONCLUSION:

With digital technology forming the backbone of just about everything we do, it is fascinating to see just how much time students are putting into their devices.

As predicted, males spend more time playing video games, and females spend far more time on social networking sites. Something that is intriguing, however, is how the amount of time spent on video games, and social media generally decreases with age.

As time progresses, and as we age, we value our time more and more. Corporations use information like this to market products, but scientists, armed with similar information to that from this study, are able to provide research that can help us know how to make the most of our time.