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Module: Changemakers: Creativity & Value Creation

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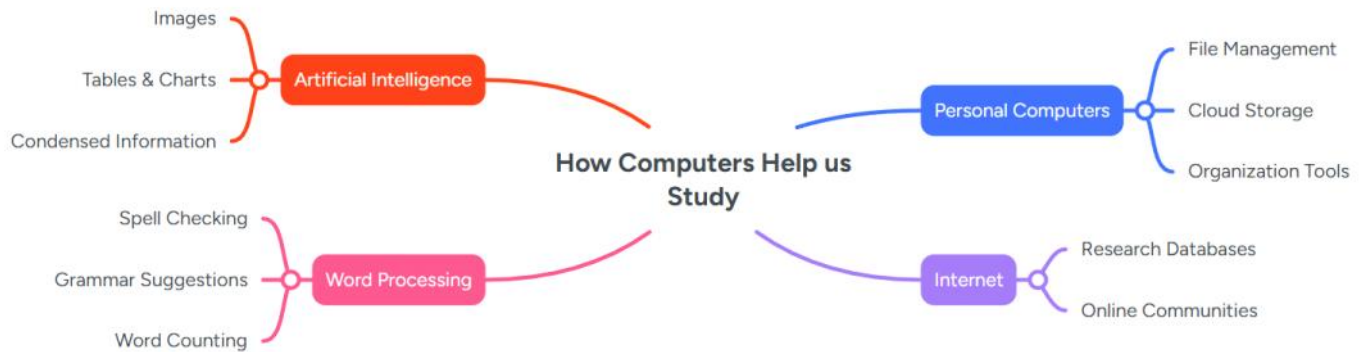
Idea

01 July 2026 18:17

Computers are a very helpful study aid, particularly know that there is so much that you can do with a single device such as note taking, researching, viewing media and communicating with others. My idea is to try and develop a way to streamline some of the many ways in which we study using a computer and see if it's possible to make it more convenient.

Mind Map

01 July 2026 18:19



This Mind Map looks at the way computers have already taken huge leaps forward in ways that have helped students make studying and researching much easier than it used to be.

Internet

The World Wide Web was launched in August 1991. Its popularity grew quickly, leading to a feature in Time Magazine in 1994. By 1997, 16.9 million computers were connected to the internet [1]. That number is now in the billions.

The Internet allows people from all walks of life to share and access information, making it an excellent place to find information for your studies. Much of this information can be found in research databases, which are home to countless books, journals and other media made by professionals.

Groups of like-minded people can form communities, and these communities can help each other with any number of problems.

Personal Computers

1977 saw the release of the Apple II allowing consumers to purchase a personal computer and use it without having to build it. Computing remained quite complex, however. The GUI made using PC's easier for more people, one of the most well-known being Microsoft Windows, launched in 1985 [2]

PC users can use folders to store and organize files, making it much easier to find what they need, including notes and assignments, which can be named and renamed whatever the user sees fit. More modern advancements have given us cloud storage, allowing users to upload files to an online storage folder that can be accessed from anywhere and on different devices.

As well as doing work, modern computers can help us stay organised in our daily lives. Users can set reminders, set up calendars and create to-do lists, amongst many other things. These features are a big help with time management, which is important when it comes to studying

Word Processing

Word Processors were introduced in the 1980's [3], giving users the ability to type and see the output on a screen and make corrections to their work before printing it. Making the technology a step up from the Typewriter. Modern word processors, such as Microsoft Word now allow users to check spelling and grammar, do quick word counts and see suggestions on improving their use of language. These features allow us to produce work to higher qualities, easier.

Word Processors allow us to save work, edit it and send it to others for feedback if necessary. These conveniences as well as the work checking features in modern word processors make keeping work safe much easier and reduce the stress of writing assignments. Word processors also remove the issue of poor handwriting. Everyone can present their work in a readable format.

Artificial Intelligence

AI tools, such as ChatGPT have become widely used study aids [4]. These tools can be very useful for generating information quickly, in various formats, such as charts and tables. While AI can provide wrong answers and is not a replacement for in depth research, it can nevertheless be a useful jumping off point for your studies. AI can provide information in condensed, easier to process ways and also allow the generation of images, tables and charts.

Many operating systems, such as Apple, Android and Microsoft have their own AI tools that can be a convenient aid for working by helping with answers to questions and help with word structuring and language use.

Aim

01 July 2026 18:33

My aim for this project is to look at the ways students use computers to study for school, college and university with the intention to propose a way to further improve the way students engage with both online and computer based studies.

Objectives

01 July 2026 18:36

The most efficiently achieve my aim, I will need to accomplish the following objectives.

1. Research how students engage with computers during their studies
2. Attempt to discover any problems or issues students encounter with their methods
3. Evaluate which issues are the most common
4. Research options to help or eliminate these issues
5. Create a viable way to put any ideas into practice

Research Philosophy

01 July 2026 18:43

Of the three core branches of research philosophy, I find Axiology the most difficult to contend with. As mentioned in [5], societal values can change making the science of values shaky. What was acceptable 30 years ago may not be acceptable now, and as a result, what is acceptable now may change in another 30 years, or less. While any type of research can, and almost definitely will become outdated, I think the Axiological approach is too likely to change vastly in a shorter amount of time.

Epistemology, I think, is an important philosophy for this kind of research. I want to know people's personal experiences and opinions regarding computer-based study. While [6] points out that it's important to consider where our knowledge comes from and what it's based on, I think my project needs both facts and beliefs/opinions to be successful.

Ontology, to me is a very interesting branch of research philosophy. The idea that something that doesn't technically exist can have presence and influence within things that do [7] is very intriguing. However, it holds little to no importance within my study area for this project.

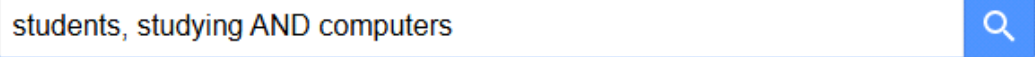
In conclusion, of these three main branches of research philosophy, Epistemology is the one that really stands out for this project.

I also need to consider the research paradigms [8]. These paradigms focus on how knowledge is acquired. My personal view is mostly pragmatic, meaning I put a lot of stock in what does and doesn't work. However, this outlook does take on more views within it. Positivism, Constructivism and to a degree, Interpretivism all suggest that reality can be context or experience based and in many cases the results from these ideas can be absolutely valid.

Search Tools

01 July 2026 18:44

For my research I will be using Google Scholar, which I have linked with the university library database. These provide a wide range of materials from different research databases, so the possible results are countless. I may also use IEEE Xplore, however several of their articles and journals also frequently appear on Google Scholar. The purpose of my project is to research the way students use computers to help with their studies, so keywords will include 'students' 'computers' and 'studying' with variations on those words if needed. I will need to use Boolean strings [9] mostly 'AND', for example 'students, studying AND computers'. Hopefully this will help me find some previous research in this area to pair with my own experiences and information I can receive from my own data collection.

The Google Scholar logo, with "Google" in its multi-colored font and "Scholar" in a grey sans-serif font.A search bar with a blue border and a blue search button on the right. The text "students, studying AND computers" is entered into the bar.

students, studying AND computers

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[D Jairam, KA Kiewra - Journal of Educational Psychology, 2010 - psycnet.apa.org](#)

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Validity, Reliability, Generalisability and Ethical Considerations.

02 July 2026 11:40

To ensure validity and reliability within my research I need to firstly ensure that I'm asking the right questions to the right people. It's no good asking questions about studying with computers to older, former students who didn't have the same resources. I must select a population of current students that I know use computers in the way in which I'm researching. As suggested in [10], this could require multiple methods of data collection to narrow down the population and get the answers I need for the project. I must consider the ethical implications of my research too [11]. I believe asking non-personal questions is the simplest way around this, however, should my research require communicating with any of the chosen participants within my sample, I must be aware of anything that could create discomfort or offence, or make the participant feel pressured to give a certain response.

In terms of generalisability, I must consider whether my population would cover a wider range of experiences [12]. People in different parts of the world or different age groups may use different methods. My research area may seem quite simple, but it still may not be an effective reflection of the wider student population.

I have created pilot survey questionnaire found in the **Appendix**

Data Analysis

02 July 2026 22:21

Analysing qualitative data is a very time-consuming task [13]. It involves compiling your data to make it easier to examine. This can be done by rewriting everything in one place, or transcribing audio or video. The compiled data must then be sorted into themes using patterns found in the data, such as repeating themes or reactions. This more organized data must then be interpreted and presented in a way that is clear and understandable.

Quantitative data will be analysed in the form of statistics [14]. These stats must be arranged in whichever way you think best represents the numerical data, such as a standard table. The data must be analysed as you choose, perhaps working out averages to simplify the numbers if you wish. The data then must be presented in an eye catching but informative way, such as graphs, charts or tables.

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02 July 2026 22:27

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Pilot Survey Questionnaire

02 July 2026 22:29

Questionnaire

Gender

☐ Male

☐ Female

☐ Non-Binary/Other

Age Range

☐ 16-24

☐ 25-64

☐ 65+

Do you use a computer prominently when you are studying?

☐ Yes

☐ No

Do you believe that anything can be done to improve this experience?

☐ Yes

☐ No

If yes, please give up to three improvements you think that could be made to improve studying with a computer

1.

2.

3.

If something such as a web application was available to refine studying with a computer, please, if possible, state one essential feature you feel it should have.