During the early 90’s the cost of computers fell which made it more affordable for schools, universities and even for personal purchase to use at home and therefore increased the availability of Computer Assisted Education. This began with ability to use programs such as Word to write assignments for classes. Over time this increased to using educational games in primary schools as well as using the internet when writing essays for homework about specific topic or doing research on the internet for an in-class presentation. Specific websites were created for teachers to use to take attendance and store grades which was previously done on paper. Other websites such as Sulis, that we ourselves use in University of Limerick, allowed the ease of uploading assignments from home as well as receiving lecture notes, grades and having direct contact with the lecturer. Unfortunately, even in the 21st century problems with availability occur. Some students might not be able to afford the new technology that is coming out and that is slowly becoming more and more expensive due to the increased capabilities of it. To no surprise not every area in the country has a high-speed internet access which means not every student can access the websites such as Sulis or can’t do so without any difficulty or loading times and crashes.

One of the main problems of availability with Computer Assisted education is price as I’ve stated above. Even though the price of computers began to decrease in the early 2000’s, computers were only mainly used to write assignments and do research for those assignments. This then would be stored on a floppy disc or a USB meaning that a powerful computer was not necessary. In todays times we use computers for much more than that, whether it is to have online real time classes, watch video lectures or to send and receive assignments as well as store them on the computer and to have the latest of each apps like Word, Excel, BlueJ we need something more powerful or rather more up to date. As computers become powerful by having larger memory or a stronger CPU to run programs like BlueJ, they also start becoming expensive.

This raises a question of can students or parents afford laptops, iPads or other devices that would be used in at home CAL. If not, is there funding or sponsorship available through schools or the government, seeing as most secondary schools already provide an iPad, laptop or surface Pro (depending on the school and needs)to students with dyslexia, that is owned by the school, but the student can use it for the duration of the academic year both in school and at home. As well as this most schools already have at least one room known as the computer room while universities have several labs which have computers in them. If CAL should be fully integrated into a classroom environment, it would be beneficial for the students to own a device where they can access the online material at home but unfortunately this would be extremely costly. As Scott says in her article, “Cost is perhaps the biggest barrier to using CAL in the classroom. Computers, electronic devices and software are expensive. As such, having a computer for each student is just not a realistic goal for some classrooms.” (Scott, n.d.)

Another problem which occurs with the availability of CAL is not only having a device but also having the internet access for the material. Even though statics from the Central Statistics Office show that “In 2019, 91% of households have an internet connection, an increase of two percentage points since 2018. Data for 2019 indicates that fixed broadband is the most common type of internet access in the household”, (CSO Ireland, 2019). There are still students who live in rural areas that don’t have a high internet speed or others might only have a limited broadband which wouldn’t allow for watching lectures daily or maybe even weekly. The other problem with limited broadband is other family members might use it for work which would limit the speed even more or only allow the student to access the internet at certain times which may not be ideal. These problems can impact the availability of online lectures or even the uploading of assignments. The current pandemic, Covid-19, is a good example of this as most students are currently at home and are facing some of these issues.

Availability doesn’t just cover the hardware side of things or the expenses; it also covers the materials available for students to use on the internet. This allows for students to do research on topics they struggle with to find more examples and books about the subject. There is also material on the internet that can’t always be accessed in person such as videos on medical procedures for medical students and applications mimicking the tsunamis or earthquakes in cities for engineers. Having such applications and hardware to be able to do and redo these things at home and not just in a maximum 2-hour lecture or lab allows for greater and more detailed understanding of the topic.

In recent years, large medical and technological advances have been made. Those technological advances make medical studies much easier as the availability of devices or rather robots that for example simulate birth. “Nursing students at the [MGH Institute of Health Professions](http://www.mghihp.edu/) use Victoria to practice, as realistically as possible, how to guide mother and child through birth. Just like human mothers, Victoria’s deliveries don’t always go as planned. Sometimes she has complications. Sometimes she hemorrhages fake blood, via a tank on her hips. Sometimes her baby isn’t breathing. And just like practicing nurses, students must confront those problems head-on.” (Ducharme, 2016). This allows for an easier learning experience for the students as they can go through different scenario to be fully educated about each, as well as creating a less stressful environment to study since there are no real-life threats if something goes wrong. It also allows more students to practice such procedures as they are not always available to students to even do in real-life.

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