

Technical Paper

Cyberlaw for All

John Doligale V

May 5, 2022

School of Computer Science and Engineering

University of Southern Mississippi

Hattiesburg, Mississippi

The Internet. It is one of the most complex inventions that humans have ever developed. It is constantly improving, adapting, and being updated. Many use it for good, few use it for evil, and some use it for entertainment. It's no surprise how innovative and useful technology and the internet are, but a majority of people who use them do not know the ins and out. In fact, a great number of people who use the internet daily do not know the things that experts would claim to be the fundamentals. Though, what if we could change that? What if within the next couple of decades our school system learning objectives changed for our future generations. With the proper funding and teaching environment, the forthcoming students could have a better understanding of the technology that will more than likely play a big role in their lives. Something that once seemed so bizarre for people of age, will then be like clockwork to newer broods of the world. This would be the start of a new era of children who think more critically, have a better understanding of technology, and can grasp the concept of cyber laws and ethics. In our age of advancing technology, incorporating a brand new learning curriculum for students of all ages is becoming a better idea every day. As the internet starts to become more and more useful, kids and teens will begin to want to use it for their imaginative minds. Whether it be for a mini video game, a project, a website, or maybe even a business idea! This is why the educational system should begin to consider adding a more advanced type of programming /software development course within their schools. Pushing students to have an active mind will not only teach them how to think critically, but they will learn very valuable skills which will allow them to make their ideas a reality. The argument towards this claims that the practice of

coding will eventually be “outsourced” due to automation, but “It is almost certain that today’s students will be interacting with technology throughout their working lives, regardless of what career paths they choose, so having an understanding of technology and its computational limitations will serve them well” [1]. Even learning older applications and their features will be a great skill for future projects and maybe even jobs.

Not only does learning the skills of programming help with software development, but it can be very helpful for other important subjects in our current educational system. Many of the concepts in coding are mathematically based, and the concepts of cyberlaw can be used in various subjects. New applications and mediums will create a greater interest in future generations. Solving problems through their laptops will be much more interesting than solving the boring old math problems out of textbooks. Therefore, it will promote higher engagement between the students and allow them to be more creative. This is because they can use their math skills acquired from programming and other classes to create algorithms and code rather than just solving a problem and feeling unaccomplished.

The argument to this is that schools would have a difficult time searching for teachers to properly teach students coding at different levels, or at all. Funding will always be a part of the issue because people with the skills to understand software development/coding know that they can likely make a better living with other job offers. The simple solution to this matter is to offer more money for the more complex job. While this will likely bring more talent to these schools, another factor that may deter programmers from wanting to teach students is the work environment. Not every school has the funding to provide each student with the hardware to efficiently run software applications or provide students with the necessary hardware at all.

However, the problem doesn't just lie in the amount of funding the school receives. The issue could also be where they are spending it. Instead of putting a majority of the school's money towards extracurricular activities and other pointless stuff, placing more of the budget on new technology and classes would be overall better for the students' education. So until the government makes a push toward bettering the education system or "tackl[ing] this problem," there will likely not be a "computing curriculum" [2]. With more technology though, comes more space that is required to place said devices in an appropriate work environment. This plays an important role for not only the teacher. The students may or may not get distracted by the new access to technology being provided. This is already an issue in schools that provide things like, tablets, laptops, etc. Students, without the proper self-restraint, could use these devices to download other applications (games, social media, etc), and not prioritize their learning. However, this will always be an issue for the general population as technology grants a lot of stimulus to our minds. No matter the age, technology will always have a hook on our lives, but limitations will be a necessity so that the main focus of the students is education. This is why we must effectively show students that while technology is becoming very important in our everyday lives, it should not control our every move. This means that teachers would have to find a way to make the classroom more interesting than the mini-computers they will be carrying around. Getting students more actively involved in the classroom is the key. Sitting at a desk for the majority of the day listening to lectures is the last thing a student wants to do.

Of course, there are other topics involved with Cyberspace and programming and not just mathematic-based curriculums. Similar to the structure of college-level education, high schools could implement a unit in their language arts or English departments that would include cyber

law and ethics. Many schools will use this idea as a “writing intensive course option” for STEM students in collegiate-level education. Learning more about those subjects would be of great benefit for future generations as they will be spending a lot of time around technology. Students should have the right and desire to fully comprehend the infrastructure of the internet and how it should be navigated. Also, learning this type of information from a younger age will be of better benefit so that they can add on to that knowledge in the future. If they added this type of course in high school (maybe late middle school), there would likely be some admirers for such a class as it is outside of the normal English curriculum. Which not everybody is a fan of nowadays, and it is slowly showing its age to younger generations. For this reason, the students will show a greater interest in the subject and have a better grasp of the topics at hand. Especially when compared to other subjects that they might find boring.

Going back to the ethics of coding and cyber law; teaching students the appropriate mannerisms of the online world will also improve how they conduct themselves on the internet. As the internet continues to expand nationally, so will the data it holds on its users. An important lesson for kids and students to learn is that the internet can be a scary tool in the wrong hands. It is imperative that they know the things they should and should not share on the internet. As we have seen in recent years, celebrities and other media have been getting “exposed” or “canceled” because of things they said in the past on social media. Not that it is likely for the whole world to see something that you wrote on Twitter, but having a decent digital footprint could not be more crucial in this day and age. Not to mention, sharing anything on the internet can put you at risk of identity theft or having your data stolen. Something as simple as putting your birthday on Facebook or where you live can make you a target for predators online. In spite of this, I am not

saying that there should be an entire course dedicated to maintaining a positive social media feed,

but students should know the basic principles of navigating the internet. Don't share your passwords with strangers, don't share your social security, and don't share anything that would indict yourself. You never know who may be stalking you through a computer screen or tracking your every move on the internet. The internet is a vast place, and kids and students can accidentally discover things they did not intend to find. "Although most youth today are unlikely to commit serious crimes such as robbery, burglary or assault, they may not think twice about committing a cyber crime" [3].

Technology though can be a very complicated thing. Many people in the current older generations stray away from great tech because they fear the small risk or they are unaware of what it is. Be that as it may, the internet and other things can be one of the greatest tools to have in your repertoire. As there are endless features and more being added every day! While technology should not be the controlling factor in our lives, we should not let the improbable risk of the internet frighten us. The internet has not only been a driving factor for societal improvements, but it has given us the opportunity to develop our ideas into a reality. So while some people may think the idea of teaching kids and teenagers cyberlaw and coding is too complex, it is like any other subject. In that, not everyone will enjoy it, but those who find passion in it will thrive. Allowing the students to engage with the nooks and crannies of the internet will spark a heavy interest in possible future projects and want to build on their prior knowledge.

Everybody has to start somewhere. Whether it be learning how to ride a bike, how to swim, or something as complex as coding. The internet is one of the most valuable tools humans have

created within the past few decades, and there is little to no reason why we shouldn't let students discover it for themselves. Learning how to code or understand cyber law will greatly benefit students to be critical thinkers and have a greater understanding of technology.

References

- [1] Caitlin Duncan. “Should your 8-year-old Learn Coding?” ACM Digital Library. <https://dl.acm.org/doi/abs/10.1145/2670757.2670774> (accessed April 29, 2022).
- [2] Francisco J. Garcia-Penalvo. Angela Marie Rees. Jenny Hughes. Ilkka Jormenainen. Tapani Toivonen. Jens Vermeersch. “A Survey of Resources for Introducing Coding in Schools.” ACM Digital Library. <https://dl.acm.org/doi/abs/10.1145/3012430.3012491> (accessed May 2, 2022).
- [3] Janna J. Baum. “CyberEthics: The New Frontier.” ProQuest. <https://www.proquest.com/openview/d285992c131471f03ff489f3e02f8485/1?cbl=40581&parentSessionId=hmcxo0v%2Fr90L6A7T3UdaHmTWPMCWkfquC4SYOmvkK18%3D&pq-origsite=gscholar&parentSessionId=OdUW%2FHkufqFMQwhzUzxFQg0ldbSVTJEpXaL2MMHBzMg%3D> (accessed May 4, 2022).