

Module 6 – Journal

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In the world of Computer Science to topics come to mind when we talk about game-changing in the world of computing. The first one is Cloud Computing, and it's continued success as more companies move to the cloud. The second one is Artificial Intelligence (AI) and its explosive introduction in the last few years. Starting with Cloud Computing, it is the idea of instead running your application locally on your own hardware you rent a server in a large datacenter and have it do all the work for you remotely. Cloud Computing often also covers costs such as backing up data, 24/7 runtime, instant server switching in the event of hardware failures, and accessible anywhere anytime regardless of internet restrictions. With Cloud Computing the idea of downtime for this service is virtually zero and the setup made much simpler. AI on the other hand has been improving, it is able to in some instances substitute a human, learn and adapt, build new models, and expand the possibility of applications. AI helps turn concept into reality, expands the possibility of small teams, and improves the overall experience. That is of course when it is used correctly with anything as powerful as AI there are considerations when using with your products.

Cloud Computing has clearly already made a large impact on the computer science field. Most services are now using Cloud Computing in some capacity and the days of large server cabinets are fading. The major impact this will have on my career is the fact that a majority of the applications I work on will most likely be designed with cloud scalability in mind. This shift with some applications is minor but with others major. Additionally, the mindset is slightly different as you have a large focus on scalability where with local hardware scalability was often limited. Of course, there are still important reasons to choose against cloud services such as super sensitive data, local virtualization, cheaper one time cost high-powered systems, etc. AI on the other hand is reshaping everything as we speak. AI can come in the form of an assistant

during development, be used for training models for application use, it can be used for data collection, data analysis, etc. AI is so young that its limitations are yet to be known but its power is scary and overreaching in some areas. This impacts my career because AI will never go away. It will always be tied to some part of the computer science field, and it will be my job and the job of many other computer sciences to ensure that it has safe and ethical introduction into the population. AI is here and there is no running from it, as it grows it's up to those who lead it to set the correct path for it.

Looking at the impacts of Cloud Computing on individuals it is clear that the effect is minimal expect that they have a more reliable means to access their application but on the business spectrum while it has a subscription cost it is much cheaper then maintaining several servers, managing public firewalls, and allows for massive scalability with nothing more then a few clicks. This has allowed communities to grow in the online space, allowed local business to grow quickly, and allowed the whole world to access their applications near 24/7, 365 days a year. AI on the other hand is so new a lot of its overall impacts are not yet seen; the largest feared impact is a loss of jobs leading to more unemployment and laziness in the whole world. These impacts while feared have not really come to be. AI is new and as a result it is not completely self-sufficient. If anything, it allows those who are skilled at explaining or prompting to get new jobs. Like anything new the old fades away and is replaced, the short-term impact may be negative now but in the long term with the correct management it will open a brand-new door that we are just stepping into.

I believe at this stage throughout my previous journals I have pretty much achieved all of the expected outcome of these courses. The final outcome felt like the largest threat however last week in the category three assignment I was able to finish that outcome.

As an update to my ePortfolio, I have begun focusing on creating layouts for each of the categories and breaking down each category into its own section. I have yet to commit these changes to the ePortfolio but I have computer the writing portion for the first two categories and am near the finish line with category three. Additionally, writing portions for the extra space such as introductions, code reviews, etc. are all prepared but not implemented into the design yet. Overall, I am nearing the final preparation for the finalization and plan to be uploading updates to the ePortfolio in the next coming days and wrap up the finalization of each over the weekend.

Checkpoint	Software Design and Engineering	Algorithms and Data Structures	Databases
Name of Artifact Used	X	X	X
Status of Initial Enhancement	X	X	X
Submission Status	X	X	X
Status of Final Enhancement	X	X	X
Uploaded to ePortfolio	Ready for Upload	Ready for Upload	Nearly Ready for Upload
Status of Finalized ePortfolio	Preparing Layouts and Final Edits	Preparing Layouts and Final Edits	Preparing Layouts and Final Edits