

Module 5 – Journal

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There are two major trends in Computer Science going on right now, the first one is artificial intelligence, and the second one is the major push for Linux as Windows seems to be pushing more people away. Starting with AI, it becomes quite clear over the last few years that AI is a major development. AI is trained using various data and is able to form intelligent responds to various inputs. As AI improves its usefulness only becomes better and better. This has two major impacts for computer science, the use of AI in code generation and the integration of AI into code. First, AI being used for code generation allows for development speed to increase as it can be used to write complex code that may normally take hours to write. With AI generation, it can also double check your code or modify your code. This allows for improvement to be implemented faster. Second, AI in code allows for a project to be dynamic and user specific. AI allows new possibilities and new ideas to occur in a live setting rather than requiring specific programmed data to be used. These changes with AI help improve the overall experience of the customers that use a product as well as helping the workers by relieving some pressure on projects to meet requirements. However, it does lead to a downside in experience, often time AI can be misused or used unethically. It can misuse data, it can have bias, or it can result in more data than normally need to be needed. This sort of downside could push customers, citizens, and workers away from positions that use AI. The reason I find that this trend fits with my career interests is because I find AI interesting and scary at the same time. I want to be able to say that I have got to influence AI in some way that helps it to become an ethical means to assist us.

Moving on to the starting trend of Windows 11 making things worse for consumers, we find that more than ever now more applications are starting to push for Linux support. This is significant because it feels as if Microsoft is making the move to focusing on big business models and is starting to lose the hold it had on the consumers. There are many spaces, such as

gaming, video editing, art and design, and so many others that are being impacted by this change. As a computer science major, it is important to be aware of these changes and plan accordingly to ensure that a product is open to as many people as possible. One of the major spaces being target for this change right now is the gaming space where we see the battle between Valve and Microsoft over which platform is right for gamers. Valve has designed the translation layer called Proton which translates Windows calls to Linux calls and at this stage is nearly flawless for 90% of games. The reason for this effect on computer science is because with this kind of compatibility more of the customers for gaming are shifting to Linux each month. While it is slow with the changes to Windows 11 it is only becoming more popular. This means new tools and programming will be needed to help support a changing industry sooner or later and with proton that transition is only getting easier. This trend sets into motion a battle of experiences for consumers, workers, and everyone for that matter, as Linux gets easier to use it seems Windows only gets hard to use. Nowadays it is not as hard to make the switch as the experience is similar between the two now and only going to get better on Linux as Microsoft seems to continue downward. I might have only talked primarily about gaming but a tool that proton uses is called WINE and a lot of Windows based software can run via it but not only that Linux has new tools that can replace the dominate Adobe software making easier to switch now. This fits into my career interest as ever sense I got into software and servers. Linux has always been at the front on my radar and with it growing it gives me a reason to push my Linux knowledge beyond the general knowledge or server space into a much more user focused mindset.

Looking at the outcomes of this course I would say with the completion of this assignment for this week I have at least hit all of the categories with at least one category or another category. Security was the hardest outcome to find a good spot to apply directly to but this week

it was the forefront of this week's assignment so I can finally say that security was fully taken into account. Outside of those categories one and two well overlap many of the other outcomes of the course and were addressed in previous journals.

Not a whole lot has changed since my last journal for the first two categories, category one is mostly complete and is ready for uploading to my ePortfolio. Likewise, category two is in a similar state after the submission from last week. I have now finished working on the third category by enhancing my CS 340 project. I am now to a state where I can utilize my feedback in order to design and submit each category to my ePortfolio.

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	In Progress	In Progress	In Progress
Status of Finalized ePortfolio	Not Started	Not Started	Not Started