Innovation Report

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Internet Applications

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We live in a world that is not merely dominated by technology, but one whose entire structure is dependent on technology and access to the internet. I cannot think of a single aspect of modern business, be it retail or otherwise, or business administration, or public service that does not have some kind of technological integration. I certainly cannot think of any that lack some kind of presence on the internet. Even the most basic things like record-keeping or inter-office communication are dependent on technology. So, to say that the programs and coding languages that we have learned about in this course are relevant to our field of study—that is, library and information sciences—would be stating the obvious.

HTML may be on the lowest rung of web design, but a mastery of this language means, at the core of internal workings of a program or website, that what you are creating will be better and stronger and, should problems arise, easier to fix. Moreover, the programs you make will be more effective at what they are supposed to do. Library technologies are not just about placing books on shelves in an orderly fashion. Library technology encompasses a great many functions—the storying of data regarding patron usage, receiving and sending out interlibrary loans, providing patrons access to our catalogues even when they are not in the library, et cetera—and therefore needs a solid, flawless internal base which will allow it to function smoothly. However, humans being the sticklers for aesthetics that they are, a working design is not enough, and so design languages like CSS are needed. But to describe CSS in such simple terms does not do the language justice. CSS does not just make a webpage or program interface aesthetically pleasing, but it also augments and adds complexity to the functions of the elements in the HTML code. We could use the human body as an analogy here: HTML is the skeleton and CSS acts like the muscles of a programming body. It is not enough to have an input allow for data to be typed into its spaces. We need that data to be collected and stored. It is not enough to have the bones on which to stand. We need the muscles to help us stand, walk, jump, and run.

But even these things are not enough. We need programs with deeper complexity to help serve our patrons better and more effectively. Technology is rarely static, just as a website is rarely ever just offering you a display with information. Rather, that website is doing things in the background—it is updating itself, it is analyzing data actively while you scroll and interact with it, its running code in the background, et cetera. This is not something that would easily be achieved on a website with simple HTML and CSS code. For these things, we need JavaScript, and a library would most definitely need extensive, complex designs laid into its websites and interfaces to be effective at its job. Libraries, which are dependent on the government for survival, face competition from wealthy businesses and organizations which can afford to pay the technological and coding equivalents of Antoni Gaudi or Le Corbusier to design their websites. Businesses understand the need for websites that can read into the interactions they experience and data collected from users, and this is something which libraries need for their own survival. Governmental budgets may not buy us the Gaudi of coding, but they can buy us competent programmers who can design library websites that take the information they receive and help create a better online experience for the user. These websites could take the data accumulated to recommend titles that fit a particular patron's taste better, or show off services that would be of use or interest to that patron. The data collected could be analyzed and returned to designers to show where patrons have found difficulty in using our programs and interfaces, allowing us to go back to the basic HTML and CSS code and make something work better. And even with all of this, we do not necessarily need coders and programmers who build everything from scratch. JQuery, being an open, free-to-use resources for coders and programmers, provides numerous complex programs which could improve library systems and technologies.

To close this off, if we are going to live in a technological world, we need people who speak these technological languages. We need people who know how to make our interactions with technology easy and seamless, and the only way to do that is with a workforce (or a segment of that workforce) armed with this kind of knowledge.