To: Travis Margoni

From: Writing 3015 Team 1

Date: October 29th, 2014

Subject: A new interdisciplinary journal that combines CS and the humanities

The purpose of this memo is to introduce a disciplinary dialogue of the intersection between Computer Science and Humanities. As Computer Students at University of Utah, we see a need to publish a periodical explaining the connection between Computer Science and the Humanities. This journals seeks to explain the impact of Computer Science, specifically with the scope of improving communities through active engagement in Humanities. The principal investigators of this journal include Gregory Anderson, Jackson Murphy and Meher Samineni. This memo includes the following information:

1. Connection between Computer Science and Humanities
2. Ethical and Philosophical Issues in Computer Science
3. Intersectionality of Jurisprudence and Computer Science
4. Computer Science and its impact on Language/Linguistics
5. Conclusion

**Computer Science Scholarship and Disciplinary Analysis**

Computer Science scholarly writing primarily takes place in research journals. . Research type of writing is basically the expansion of a person’s research. Sometimes reaction papers are also utilized as a way to react to case studies or incidents. Beyond original research, these journals commonly accept guest editorials, opinion pieces, proposals of new theories, and review articles of previously published papers. Some also feature book and software reviews.

In CS, the type of genres valued include research proposals, research methods, research discussions, research abstractions, dissertations and theses, Case Studies, and lastly Reports. The “most valued genres” are original research, reviews, and new theory proposals. The latter two might be justified when you consider that theory often fuels research, and reviews are helpful in determining future research directions. These genres are scientific writing, so clear objectives are always given. The writing is very pointed, makes the subject clear, and any assumptions or opinions are expected to be reasoned/backed with evidence.

Since CS is a relatively young field, almost any current research is considered hot topic. However, I think that these are some that intersect with multiple subjects: Biometrics, Machine Learning, Parallel Programming, Quantum Computing, AI (artificial intelligence), Data Mining and Big Data, RSA Encryption and Cryptography, Cloud Computing.

The Computer Science publications with the highest impact factors—cited by most in other journals—include the Journal of Statistical Software, IEEE Transactions on Evolutionary Computing, and the International Journal of Neural Systems. The journals all use plain user-friendly language and define technical terms when they are used. Most use the IEEE or CSE style guides. A strong math background is a must for many of these articles, but the researchers are evidently trying to make their work as accessible as possible.

Computer Science has obvious application to many fields, so it’s no surprise that there are a lot of them. According to impact factor, the most prestigious are Computer-aided Civil and Infrastructure Engineering, MIS Quarterly, the Journal of Computational Physics

**Ethical and Philosophical Issues in Computer Science**

Exploring the ethical and philosophical issues brought about by advances in Computer Science would be a compelling section for this journal. Today, largely due to Computer Science breakthroughs, we humans interact with and depend on technology more than at any other point in our history. This has given us convenience and many, many benefits. But it’s important that we discuss the ethical implications that come from using and developing technology, and also discuss how technology is changing our views on life and our place in the universe. Here are just a few examples of valuable discussion topics:

* How should companies like Google and Facebook ethically handle their users’ data?
* What restrictions, if any, should be placed on Artificial Intelligence (AI) research?
* How does digital communication enhance or degrade interpersonal relationships?
* How much, and by what means, should governments collect data on its citizens to prevent acts of terror and other crimes?
* Should we strive toward singularity and immortality, or remain content with a fleeting and mortal existence? Would the value of life be diminished if we could live forever?

I envision these issues, and many more like them, being debated primarily in the form of opinion articles and comics. I’ve chosen these genres because I believe them to be the most accessible to the layperson. It’s imperative that this journal engages as many people in the Utah community as possible, because these ethical and philosophical issues relate to all of us. As it stands, most people in Utah do not read academic journals. Journals are often esoteric. And they tend to have a style much different from the popular literature that most folks are familiar with. Together, these qualities make journals uninteresting and/or inaccessible to the layperson. By soliciting and featuring mainly opinion pieces and comics (similar to the wildly popular webcomic [xkcd.com](http://xkcd.com/)), the non-technical members of our community are more likely to read the journal, and also to contribute to it.

**Intersectionality of Jurisprudence and Computer Science**

In order to accommodate the rapid rise of computer technology, the legal system must work to incorporate the new impact on society. With the era of the Internet, constant threats faced by consumers as well as law enforcement working to solidify which legal entity jurisdiction to enforce rules falls under. However, before any enforcement can be approached, what the new rules are need to be defined in terms of intellectual property, cyber-identity, and cyber-crimes. With each of those categories, sub-categories arise including what constitutes cyber-crime and who owns an identity online.

Another interesting intersection between Computer Science and jurisprudence is how enforcement will be approached while respecting the constitutional rights that every citizen is provided. For example, could a law enforcement agency such as the NSA track the websites and track users online only to be used in court at a later time? Questions like these are not only relevant, but important for the average computer user to understand. The decisions made regarding the effects of Computer Science cyber-security field and jurisprudence will determine how free future generations will be able to use technology without regulation.

This journal proposes to explore the future effects that the field of Computer Science—specifically cyber-division—will have on future societies and communities. The articles portrayed in this journal will include past, current, and possible future case study scenarios. The scenarios will discuss the situation, involvement of legal entities, constitutional rules, and the effects that future communities will see. The articles will also present what current cyber-laws are, who enforces them, and what consumers need to know to protect themselves. We will bring experts from the community to explain the current impacts and future effects. Also, community members can opinion pieces that reflect their judgment of the support or opposition to any decision made of the law.

**Computer Science and its impact on Language/Linguistics**

During the initial stages of Computer Science development, memory in computers was limited, therefore language needs were small. Most programs did not have the capacity to support multiple languages. Companies that expanded globally faced the challenge of accommodating growing language demands with their new clients and employees. As a solution, computers developed support for characters from different languages. This became a vital development because, communities evolved to combine people from all over the world from every type of culture and language.

Some examples of how Computer Science has impacted language in our community are how our community has become diverse, and we need to be able to communicate with each other. Computer Science has brought about translation programs that help with the language barrier. Another example is how when a company needs to add support for a new language in their program, they need somebody who can translate the current text into the new language. The person who translates does not need to be a programmer in order to accomplish this. People who are bilingual have been able to contribute in these ways.

An example of an article that could be written for our journal would be a Study of how different companies have integrated support for other languages. How much more successful are those companies compared to others who do not have that support.

Conclusion