**Introduction:**

Copyright law has served as a cornerstone of content creation since the early 1700’s; since then content creators have had the ability to control the usage and reproduction of their work. Copyright law has continued to evolve through the years into laws all artistic works follow today; currently a copyright grants a creator the sole right to reproduce a piece of work or any substantial part of it. In Canada, copyright is automatically granted to any piece of work without the need to register it as long as the work meets 3 criteria, copyright lasts for the duration of the authors life plus an additional 50 years, at once a copyright has expired the work enters the public domain and may be used by anybody. The criteria required to meet copyright is, the work must be original, the work must be in permanent form and a person must make the work; this project will focus on ensuring work is original. The originality of a piece of work can be further broken down into two elements; the work must not be a substantial copy of another work and the work must be creative and not mechanically created. My project seeks to answer the question of a whether a piece of work is a substantial copy of another piece of work.

To determine whether a piece of work is a substantial copy of another piece of work I examine a piece of work to the work it is allegedly infringing upon as well as past work by the same author. As seen in the big assignment each author has a unique signature to their work; work created by an author will conform to that signature. If a piece of work does not conform to an authors signature, it is an indication of some sort of change in the creative process, once such change might be an author copying another authors piece of work. Once possible area of contention is the number of authors in a piece music rather than in a novel; music may have multiple authors while a novel will usually only have a single author. Multiple authors may compose a single piece of music, this will make it more difficult to match a piece of music to a single author. My project focuses specifically on the recent copyright battle between Robin Thicke and Pharrell Williams against the estate of Marvin Gaye; the estate of Marvin Gaye accused Thicke and Williams of infringing on Gaye copyright on his song “Got to give it up” with their song “Blurred Lines”. At the end of the trial the jury decided that “Blurred Lines” did in fact infringe upon the copyright of “Got to give it up” and awarded Marvin Gaye’s estate 7.4 million dollars.

My project uses the ideas from [2] to build profiles for Thicke, Williams and the two works in contention. Profiles are defined as collections of n-grams and their frequencies within a training set. Profiles are adjusted to a specified length; the L most n-grams to stored in the profile while the rest are discarded. Once profiles are built the “Blurred Lines” profile is compared to the Thicke, Williams and the “Got to give it up” profiles using the CNG algorithm presented in [2]. The comparison between profiles will yield a dissimilarity value between profiles; the lowest dissimilarity will indicate which two profiles are most similar. The results of the CNG algorithm will then be compared to each other; if it is found that “Blurred Lines” is more similar to “Got to give it up” than both Thicke and Williams then I conclude that the “Blurred Lines” does infringe upon “Got to give it up”. Conversely if it is found that “Blurred Lines” is more similar to either Thicke or Williams who co-authored the song, I conclude that the song does not infringe upon copyright. In order to increase the confidence the measurements; multiple measurements will be taken while varying the profile length and the n-gram length.

**References:**

1. Add Copyright site here
2. <https://wiki.eecs.yorku.ca/course_archive/2014-15/W/6339/_media/10_1_.1.1.87.754.pdf>