

Intellectual Property: Should Programmers have the right to protect the algorithms they develop?

In many cases today, application development often derives from the implementation of using open-source platforms and free source code. Many of the developers who are granted permission to use the code are asked to extend the same charity to applications or programs they develop from the source code that they were given. But, there has been a debate amongst developers and programmers who feel that they have a right to protect what they have created, provided that it could be used for monetary gain. This debate surrounding intellectual property leads us to ask several questions; is it right to limit the rights to code development protection, are programmers and developers obligated to society to share a portion their what they have discovered or created for free? And lastly, if intellectual property rights for code and mathematical algorithms are protected under the law, how far should it extend, and should there be exceptions.

Today as we look around us, we see an ever-expanding universe of technological advancement. From the development of faster mobile device speeds to the creation of smart appliances, whiteboards, and a continual breakthrough in artificial intelligence. But, we must acknowledge that these innovations would not be possible today if it were not for the programs or algorithms of code that make them possible. Moreover, these advancements in technology would not be possible if it were not for the programmers and developers, who brilliantly shaped, and exploited the constructs of complex mathematical and scientific equations to develop the programs that make these devices possible. This ability to construct, and reconstruct mathematical equations and algorithms to produce a command program to perform a specific

task, can be defined as what is known as intellectual property. Therefore, after establishing that programmers and developers merely manipulated mathematical equations to develop programs, the question arises as to whether these creations of powerful algorithms, should be protected as intellectual property of the developers who created them. To answer that question, we can look at an age-old industry, the music industry, which has fought for many years regarding this very thing. Copyright laws in this industry are often tricky and require a very comprehensive knowledge of these laws. But the question of producer's rights is clear. In the music industry, a creator of media, either instrumental or vocal, under the law, has the right to protect their creation wholly or partially as they desire, even if the media uses samples or snippets of previously recorded media. This can be so as long as it is unrecognizable. Therefore, because there are already laws and protections for creating a product from a universally used construction of sounds, it set a precedence for a strong argument for protecting the intellectual property of developers and programmers. Giving them the right to limit the use of algorithms they developed, giving them sole proprietorship.

Also, the debate to whether programmers and developers, should have the right to copyright, or patent their algorithms, moves closer to being in their favor, as the question of whether these inventors should provide some portion of their code for free use. Though this may seem to be an easy answer for some, this question is far from being simple, especially for the developers who create the applications. Being that we have a moral obligation to help make the world a better place, we can assume that in the case of producing products and services for profit, most will agree that charity can be represented by providing proceeds or resources, resulting from monetary gain from the products developed. We can see this in many ways throughout the tech industry today. For example, Microsoft, though it does not offer its office applications as free

downloads for personal use, does offer the use of many applications, free online. Such as Word, PowerPoint, and excel. Microsoft's business model for providing access to using many of their applications for free proves that developers and programmers do not have to feel an obligation to provide their code and or applications at no cost. But may extend benevolent gestures in other ways through providing scaled-down applications for the less fortunate.

Lastly, deciding whether the protection of the intellectual property of developers and programmers should extend to the code they create, maybe a definitive yes, the question of how far should protection extend, and should there be exceptions to these cases. When talking about copyrighting algorithms and code structure, the fear that this would hinder the expansion and development of more new and innovative ideas causes a pause and an analysis of what we should be allowed to be protected. A great analogous concept we can use as a reference is that of fashion designing. In creating new styles, the designer has the protections under the law for their patterns, the unique construction of patterns, designs, and personal prints, but not the fabric used. Certain prints, like animal prints, floral, or other inspirations from nature and the environment, are considered free for use. This idea can help govern how much of today's code development could be protected. To further help mitigate any potential conflicts that may arise from code protection, being able to limit these protections in the case of math and science education should prove to be highly beneficial to ensuring the continual expansion of new ideas and growth in innovation; as long as it does not exploit or compromise trade secrets currently being protected under the law.

In conclusion, the idea of intellectual property protection for programmers and developers, being a questionable possibility, seems to be picking up more and more traction. As we continue to expand our technological horizon and applications become more advance and

complex, the need for developers to protect their ideas and creations will continue to grow.

Therefore, it will continue to require the need for us to answer questions of whether it is right to limit the rights to protect the code developed by programmers, whether the programmers and developers are obligated to society to share a portion of their program and code for free. And lastly, if the code protection for intellectual property, should be limited to a certain amount of code, what exceptions are considered when doing so. Though these questions may seem difficult to answer for some, they may be a definitive yes for others and could resolve this in the next few years. Yet, their complexity in nature will ensure that this discussion will be with us for many years to come.