United States Senate Committee on the Judiciary
Subcommittee on Intellectual Property

Hearing on
"The State of Patent Eligibility in America: Part III"

Testimony of Nicolas Dupont
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Chairman Tillis, Ranking Member Coons, and Esteemed Members of the Subcommittee: thank you for today's opportunity to testify regarding the effect of existing Section 101 jurisprudence on Cyborg and other small businesses in the technology industry.

My name is Nicolas Dupont, Founder and CEO of Cyborg Inc., a software firm which develops data compression algorithms for Fortune 500 companies. I am honored to testify before you on the utmost importance of intellectual property to our business, the implications of existing legislation which disproportionately affect the growth of small businesses like ours, and how we believe the system can be improved.

Cyborg Inc.

I founded Cyborg six years ago, then a sophomore in high school, and only a few years after immigrating to the United States from France. The idea for Cyborg was borne out of my early research in a field of electrical engineering called information theory – the scientific study of the 0's and 1's powering the digital world we live in today. Over the past six years, our team at Cyborg has developed novel data compression algorithms, which are methods to store and transmit digital data in an efficient manner.

Like many small businesses in the tech industry, our intellectual property makes up the majority of our market value and is of paramount importance. For Cyborg, working directly alongside massively valuable corporations with vast resources means that protecting our intellectual property takes on an even greater dimension. To that end, we have spent valuable time and invested significantly in such efforts, with five US Patents issued to date, and several more pending. Unfortunately, the existing system fails to address our needs adequately, leaving us and countless other small businesses feeling vulnerable and unprotected.

The Three Effects of Section 101

There are three main ways in which small businesses like Cyborg are affected by current Section 101 case law. The first of these effects are patent eligibility rejections. Patent applications, and intellectual property protections as a whole, are considerable investments for a small business to make. When a company like Cyborg files a patent application and is met with a rejection on the grounds of ineligibility, the large investment turns into a costly loss, causing irreparable harm to the limited funds of the company. The intellectual property is rendered further vulnerable through the publication of the rejected patent application for general public consumption – doubling the negative ramifications of the rejection. With most of a technology firm's value being derived from its intellectual property portfolio, such a patent eligibility rejection is detrimental to the company's value, potentially causing the loss of external investment and job creation.

A second consequence results from the inability to predict patent eligibility. On occasion, this fear of rejection and of the ensuing damage to our intellectual property has led the team at Cyborg to resort to trade secret protection, which offers no legal defense for our innovation. Not only does this allow another corporation or foreign entity to use and commercialize our technology without penalty, but it also gives them the right to file their own patents, since our innovation could not be considered prior art. This can force small businesses like Cyborg to surrender their market advantage and become crowded out of their own sector by a competitor or a foreign actor.

The amalgamation of these consequences makes up the third point: a lack of confidence in the system. While Cyborg has five issued US Patents, and a number of patent applications which have passed the eligibility test, the ambiguity of Section 101 engenders some uncertainty in parts of our patents. Our counsel have proposed scenarios where, ostensibly, litigation could be initiated by another entity to question the legitimacy of our patents under the unclear Section 101 definitions. The risk of such an event, while unpredictable, has caused us to take an exceedingly prudent approach to business development and partnerships, which actively stifles some growth potential and at times, compels us to forgo potentially lucrative opportunities.

While these issues have been a consideration throughout our six years of operation, one occurrence in 2017 had a noticeable impact on our operation. As I mentioned earlier, Cyborg develops data compression software for large companies, mainly in the cloud computing sector. In 2017, however, we were focusing on applying our data compression algorithms to wireless telecommunications in order to

retrofit existing 4G LTE wireless infrastructure and improve bandwidth, years before the rollout of 5G. In that effort, Cyborg garnered a close relationship with a leading telecommunications equipment manufacturer, which ended abruptly five months in. While all communications were ceased by them, our team discovered that our confidential documentation was being improperly used, pointing to malicious intents regarding our intellectual property.

Most of the documentation we had shared with this large company was covered by patents, but some parts were kept as trade secrets for aforementioned reasons. A difficult decision followed: pursue legal action against this company, which massively outstrips Cyborg's resources, and risk being countersued – or walk away with hopes that any malicious behavior would subside. Legal action was ruled out, partly because of our compulsory use of trade secret protection. We conveyed a cease and desist letter formally ending the relationship, and hoping that no foul play would ensue. This interaction also played a part in our eventual decision to walk away from the wireless telecommunications sector, focusing on the cloud computing sector instead, which hurt Cyborg's immediate growth potential. We estimate the opportunity cost of this altercation to lie in the tens of millions of dollars, possibly representing several hundred high-paying technology jobs. Should we have been afforded the confidence we needed in the patent system, and the ability to avoid trade secret protection, the outcome may have been very different.

How We Can Improve the System

Given the aforementioned points, I have no doubt that there is room for improvement in patent eligibility determinations, particularly for software applications. Large corporations in the industry stand to benefit from maintaining this ambiguity and may suggest that the Subcommittee's proposed changes will facilitate patent trolling activities. We respectfully disagree. In Cyborg's six years of operations, patent trolls have never been an issue, while Section 101 has been a considerable obstacle.

I believe the draft outline presented by the Subcommittee is a considerable step in the right direction. Namely, establishing a closed list of exclusions and a practical application test, similar to the recent United States Patent and Trademark Office guidance, will clarify restrictions significantly. The premise of evaluating eligibility and patentability as separate considerations is also equally important.

In addition to the proposed changes to existing legislation, I would urge the Subcommittee to consider adding software as a statutory category alongside the current list of process, machine, manufacture, and composition of matter. While software could fall under the category of a process, we are often not only

patenting the process behind the software, but the software itself as a discrete product, which can be redistributed globally. Enumerating software as a statutory category would not only simplify the patent application process and strengthen relevant intellectual property protections, but also signal to the world that the United States will defend the rights of its technology inventors, both to domestic and foreign threats.

Conclusion

As a young, first-time entrepreneur, owning the intellectual property which I had developed was the only way in which I had the ability to launch Cyborg and receive funding. However, the ambiguity and outdated definitions around Section 101 patent law not only pose a threat to Cyborg's intellectual property, and by extension to my business, but also to the opportunities of the next generation of young men and women in this country who will continue to drive innovation and maintain the United States as the world's foremost technology leader.

I strongly believe the Subcommittee is moving in the right direction to remedy the issues discussed today. I find myself very hopeful and optimistic for the future of the patent ecosystem in the United States, and the future of innovation in this great country.

I would like to thank the Subcommittee for the opportunity to testify. I hope that my voice was helpful, and I am at your service to assist in this important transition. I look forward to answering any questions you may have.