



Insight

John Deere Copyright Issues

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Where I grew up in the Midwest, the landscape is filled with corn fields, punctuated by the even more distinct green of John Deere tractors. The iconic company has largely stayed out of the news, but this changed recently when it was reported that the manufacturer “told the Copyright Office that farmers don’t own their tractors.”^[1] What the company actually argued is much less egregious than what is being portrayed in headlines, but it did reignite a debate over the future of innovation in America. Innovation in the 21st century requires community and collaboration, so manufacturers naturally walk a fine line with regard to legal positions and customer communications.

As part of a Copyright Office review of the Digital Millennium Copyright Act (DMCA), which governs copyright law for the Internet, John Deere joined in with car makers, including GM and others, to oppose a suggested tweak to current regulations.^[2] If the Copyright Office moves forward with its proposal, the exemption would allow for the circumvention of the manufacturer’s technical protection measures or TPMs, like passwords, keys, or encryption services. These elements protect the computer programs “that control the functioning of a motorized land vehicle, including personal automobiles, commercial motor vehicles, and agricultural machinery, for purposes of lawful diagnosis and repair, or aftermarket personalization, modification, or other improvement,” as long as it is undertaken “by or on behalf of the lawful owner of the vehicle.”

John Deere and others were not arguing that you don’t own the tractor, but rather that you don’t own the computer programs and thus cannot circumvent the protection protocols. This limits who can access and accessorize the machines, leading towards a more closed system. As the Apple iPhone has shown, it is not immediately clear that closed systems cannot be innovative, but Apple has been very active in cultivating and encouraging an innovative community that similarly exists within agriculture and car enthusiast circles. Nevertheless, both circumvention programs and the techniques to route around TPMs are generally illegal under the DMCA’s Section 1201, a part of the law that has created a constant stream of court cases and news. However, there are a series of exemptions also up for renewal with this review. The most famous of these includes the iPhone, which can be jailbroken so that apps other than those bought in the App Store can be run on the phone. It is worth noting that Android allows for other App stores, which seems to have lessened the demand for jailbroken Androids.^[3]

So, who would be affected by the suggested change allowing circumvention?

Farmers and agricultural manufacturers could be affected, for one. According to the most recent data from the Census, agricultural machinery manufacturing employs 213,000 people^[4] and accounted for \$41 billion in revenue last year.^[5] The industry is facing pressure as overseas sales and the rollback of tax incentives have hit their bottom line. Late last year, John Deere projected that their 2015 sales will see a 20 percent drop.^[6]

Meanwhile, the technology embedded in the new machines has become vastly more sophisticated, allowing for greater precision and information for farmers. While this has helped, farmers are increasingly unable to work on their own machines, setting up the terms of this particular debate. On the one hand, embedded tech is costly to produce and so John Deere and others want to be able to tightly manage the stack. And yet on the other hand,

farmers have a long history of DIY and want to be able to tinker with their machines.

Not surprisingly, as the sales of new machines have dropped, the prices and demand for older similar tractors that don't require a computer to fix has picked up.^[7] One is reminded of Keurig, the coffee machine maker that suffered massive downgrades when consumers stopped buying newer machines that had tight integration with licensed K-cups.^[8] Consumers were not pleased by the closed system and rebelled. One cannot imagine that John Deere would be immune to similar pressures.

The auto parts industry could also experience repercussions. The Census estimates that 1.3 million people are directly employed by automotive parts, accessories, and tire stores.^[9] The entire industry—including the stores and the manufacturers—is tallied to be nearly \$328 billion of the GDP, supporting nearly 4.2 million jobs.^[10] In total, selling to the DIY customer comprises around 44 percent of the industry's total sales.^[11]

Yet, only the most advanced enthusiasts delve into computer to tune it. Most instead change out the wheels or install a new exhaust system, reattaching the sensors and computer components from the older systems as they go. All of this suggests that there may not be an immediate threat of overly closed car computer systems. But these individuals are often the source of innovation and ingenuity, so the manufacturers might want to rethink how they approach their community.

What this recent spat highlights is the constant back and forth between consumers and manufacturers. While manufacturers dump resources into producing higher quality products, consumers also want to be able to customize what they have bought. DIY communities are not passive and will place pressure on manufacturers to provide both the product and the freedom to use it in a variety of ways. While the market can often sort this out, important but difficult issues like these surrounding copyright and intellectual property pose thorny questions for policymakers.

^[1] <http://www.wired.com/2015/04/dmca-ownership-john-deere/>