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To : Prof. Michael Robinson and Vicki Parrish

Time : Thursday 12 : 00 PM to 2 : 45 PM

Topic : Intellectual Property

**The basic legal questions that can identified in the given articles are :**

Can the farmers who own the tractor and agriculture equipment are entitled to repair the software issues that may arise in their equipment.

Does the right to repair everyone’s equipment not compromise the security aspects of the manufacturer?

Why American Farmers Are Hacking Their Tractors With Ukrainian Firmware ? Are there any legal issues associated with it?

How are the laws of intellectual property affected by granting the right to repair to each individual?

What are the effects of not granting the right to repair on small business owners and the stifling effect on start ups and potentially new industries.

**Why can you repair a car but not a tractor?**

As per the  new exemptions to the Digital Millennium Copyright Act (DMCA) as part of a triennial review, one of them grants people access to parts of the computer software running their cars but these exemptions do not mention anything regarding the repair of tractors.

The federal Digital Millennium Copyright Law is keeping equipment owners from performing some repairs on their equipment because it contains software on which manufacturers have copyright.

The question that arises is whether a tractor's owner actually owns the software in the machinery. This situation affects any equipment with software, and currently most farm equipment manufacturers require their products have to be repaired by certified technicians.

**What was the bill proposed in Nebraska?**

 The Fair Repair Act bill has been proposed in Nebraska. This bill (LB1072) would essentially allow owners of equipment with software the right to repair their own "stuff," this would include items like smartphones, computers -- and even farm machinery.

The “Fair Repair” bill was designed to give owners increased rights over the software-embedded equipment and electronic items they purchase.

**What is your opinion on how this issue should be treated? Explain your reasoning**

In my opinion, the right to repair their own equipment by the farmers which may include software modules should not be encouraged. It is because it would create safety, security and intellectual property risks for the manufacturing companies. If the right to repair bill is passed , it might also affect the people who’s profession is based on the repair of the farming inventory as they would go out of work. The newer farming equipment are now outfitted with an amazing array of [sensors](https://securityledger.com/tag/sensors/) and software powered controls that can use satellite data to guide the machine over fields and on board- and [cloud](https://securityledger.com/tag/cloud-2/) based computers to [analyze and adapt to different growing conditions](http://www.deere.com/en_US/products/equipment/tillage_equipment/primary_tillage/truset/truset.page) and automate operation in ways that maximize production. Since the equipment’s are in a cloud network and may consist of sensitive information, the intellectual property of the company may be compromised.

On the other side of the issue, farmers are facing heavy costs for the repair of the newer farming equipment because they are not aware of the functioning of the software modules. Hence, they are resorting to illegal use of software hacks which are being developed in countries like Poland and Ukraine.

I would like to suggest a solution which incorporates two key points

The manufacturing companies must lower the costs of repair and must also give a basic level of repair access to the farmers who own the equipment along with proper documentation that can be easily understood , without compromising the security, property of the company.

The farmers must stop resorting to illegal hacking techniques which might compromise the intellectual property of the manufacturers.