Romantic ideas of agrarian life in the American heartland no longer depict the reality of modern farm operations. Farmers of the twenty-first century depend on agricultural equipment outfitted with computer systems and state-of-the-art software. The proliferation of high-tech farm equipment in recent years not only increased average yields in light of unreliable market prices, but it also distorted traditional notions of ownership. In short, methods used to protect intellectual property, such as end-user license agreements and technical protection measures, prohibit access to proprietary software critical to the function of modern agricultural equipment.[i] As a result, self-sufficient farmers are unable to perform even minor repairs on equipment purchased for sums well in excess of one hundred thousand dollars.[ii]

As the world’s largest manufacturer of agricultural machinery, John Deere is at the center of a national debate over the ownership of proprietary software information.[iii] John Deere requires customers to execute an end-user license agreement which forbids nearly all repairs and modifications to equipment, unless conducted by an authorized representative of the corporation.[iv] Furthermore, the computer software within equipment that manages key components and diagnostic systems is locked by technical protection measures.[v] In order to diagnose sometimes simple issues which inhibit operation, farmers must summon an authorized repairman or haul the equipment to the nearest John Deere service center.[vi] Attempts to circumvent the proprietary software may run afoul of the Digital Millennium Copyright Act (“DMCA”), which criminalizes attempts to bypass measures that control access to copyrighted work.[vii] Ultimately, a farmer must depend on authorized John Deere services throughout the life of agricultural equipment or face criminal exposure of up to five years in prison and/or a half a million dollars in fines.[viii]
Farmers disheartened by the onerous restrictions on their equipment are united in support of Right to Repair legislation, which requires manufacturers to provide spare parts, repair manuals, and software necessary to interact with diagnostic systems embedded in machinery. The so-called Right to Repair movement garners support from diverse segments of the population and across party lines, with legislation backed by Republicans in the Midwest and pro-consumer Democrats along the East Coast. Proponents of the Right to Repair movement contend that protections on computer software in agricultural machinery are utilized to monopolize repair services and generate revenue beyond initial sales. In addition, Right to Repair advocates refute the notion that manufacturers, such as John Deere, can sell consumers a product and retain ownership of vital components therein. Thus, legislation in at least twelve states have proposed Right to Repair bills, however, efforts to enact such measures face stiff opposition from powerful lobbyists.

A number of corporate giants, such as Apple, Microsoft, and AT&T, have rushed to support John Deere in the fight to uphold protections on proprietary software. The group of corporations allege that Right to Repair legislation diminishes uniform consumer experience and exposes software to hackers and unscrupulous competitors. In particular, John Deere is concerned that universal access to copyright-protected software will allow individuals to bypass safety mechanisms and programs designed to ensure compliance with federal emissions regulations. The United States Copyright Office announced that “reproducing and altering the computer programs on ECUs [electronic control units] for purposes of facilitating diagnosis, repair and modification of vehicles may constitute a noninfringing activity as a matter of fair use and/or under the exception set forth in section 117 of the Copyright Act.” Nonetheless, John Deere required customers to execute an updated EULA, which stipulates the use of John Deere-certified diagnostic and repair software for personal maintenance.
Although concessions from either side appear improbable, a middle ground may exist in the dispute over copyright-protected software which encumbers modern agricultural equipment. First of all, consumers must recognize that the value of John Deere’s products now resides within the iconic green frame of the equipment. The modicum of software which powers a fifteen ton tractor is essential to John Deere’s competitive advantage; therefore, the corporation is justified in efforts to ensure the code contained therein remains proprietary. However, the extent to which John Deere prohibits good-faith interaction with its software leaves many farmers vulnerable to financial ruin. As a result, a black market of John Deere parts and “jailbroken,” owner-friendly software prospers in Eastern Europe [xix]. Inadvertently, John Deere’s efforts to maintain a uniform customer experience and secure proprietary information have invited a wave of forged products into the United States [xx].

In the end, John Deere must work with customers to provide requisite diagnostic and repair resources at a cost-effective price point. However, John Deere should be permitted to render the computer software on its newest models completely confidential, which will allow the corporation to recover research and development costs before potential exposure to competitors. As previous models of equipment become outdated, and more likely to require maintenance, John Deere’s EULA should consider the reproduction of its computer software for purposes of repair as not violative of copyright protections, consistent with the fair use doctrine. In exchange, consumers must be willing to bear the burden of potential damage to equipment and personal injury as a result of negligent repairs conducted by unauthorized individuals. Ultimately, John Deere may be willing to meet the demands of the Right to Repair movement to prevent a situation in which the company is forced to navigate diverse consumer-protection legislation in various states.


[vi] Id.

[vii] Bloomberg, supra note ii.


[x] Fitzpatrick, supra note ix.


[xii] Sydell, supra note ix.

[xiii] Fitzpatrick, supra note ix.
Wherever there is no consensus that can be achieved, disagreement has to be made clear.