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EMPOWERING FARMERS TO NEGOTIATE THE LEGAL LANDSCAPE OF FUTURE FARMING TECHNOLOGIES

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Abstract

This paper describes the changing legal landscape that farmers must navigate when adopting digital farming technologies and modernising their farming enterprises. The digital transformation that is taking place on farms and the enormous amount of farm data that is now being collected, used and stored has highlighted a new range of skills that farmers will need into the future. While the need for digital literacy of farmers has been recognised and is being acted upon with a range of training programs and model smart farms, little attention is being paid to the increasingly complex legal environment that these digital farming technologies bring. Along with digital literacy, farmers also need awareness of their rights and obligations that are created under the new legal arrangements that accompany digital farming technologies. Legal awareness and understanding is now an indispensable tool for digital farming. Empowering farmers with legal awareness of the range of legal issues arising from data licensing agreements, competition and privacy law will reduce the vulnerability that many farmers experience as their industry rapidly transforms. Knowledge of law is power and when farmers are aware of their legal rights and obligations, the commercial relationships within digital farming will hopefully become more transparent, thus more equitable. Ultimately, once trust is re-established between farmers and the broader agri-supply chain, digital farming relationships will be transformed.

1. **Keywords**: Digital Farming, Legal Challenges, Knowledge, Trust

2. Introduction

While the potential benefit and value of future farming technologies is immense, a major hurdle to realising the benefits is the tension between those who provide the new future farming technologies and those who are adopting it on farm. This tension limits the potential benefits of precision agricultural technologies because, in large part, it results in problems of the attitudes and understandings about access and use of ag-data (Wiseman and Sanderson, 2017). In the wake of the high profile data breach controversies, such as the Facebook Cambridge Analytica (Bowcott and Hern, 2018), it is not surprising that, fundamentally, farmers and producers do not trust agribusinesses with their farm data. A 2016 survey of Australian producers and farmers identified that this lack of trust in the way agribusinesses deal with ag-data was identified as a major concern, with 56 per cent of respondents having no trust or little trust in agribusiness maintaining the privacy of their data. (Zhang et al, 2017). Further evidence of a lack of trust between farmers and agribusiness was found by the American Farm Bureau Federation, who, in 2016, conducted a survey of over 400 farmers and found, for example, that 77 per cent of those polled were concerned about which entities can access their ag-data (American Farm Bureau Federation, 2016).

At the heart of the concerns of farmers is the fact that with the new digital technologies coming onto farms, are complex software licenses that are setting the rules about who owns, who can use their farm data and where and how their data is being managed and stored. The fact that there is very little conversation at the point of sale of the new technologies around the issues of data ownership and management compounds the confusion that is rife within the agricultural industry about data ownership, privacy and competition implications. The aim of this paper is to reveal the implications of the changing legal landscape that farmers must navigate when adopting digital farming technologies and modernising their farming enterprises. We will focus in particular on the data licences that farmers are entering into when adopting new digital technologies and services, as they regulate the way in which their data is collected, managed and shared (and includes the privacy implications of data sharing). In so doing, we conclude that developing legal literacy in farmers will enable farmers to negotiate with technology companies from a stronger bargaining position and with an increased degree of trust. To build trust, farmers need to be introduced to how a contractual relationship can both empower and limit the respected parties and how certain laws seek to address the power imbalance upon entering these relationships.

3. Data Licences

It is well accepted that the current legal framework around data ownership, control and access are complex and fragmented. From feedback gained from with Australian farmers as part of an Australian wide research project, Accelerating Precision Agriculture to Decision Agriculture: Enabling Digital Agriculture in Australia (P2D) (Leonard et al, 2017), a number of key concerns of farmers about data ownership control and access that were identified. For example, the following questions were raised: "how is my data being used and who has access to my data?"; "can I get my data back and use it in another system?"; "my data contracts seem to change without me knowing, can they do this?"; "how did I get locked into service agreements?"; "what happens to my data if the company that has my data merges with (or is sold) to another?"

In answer to these questions, while many laws potentially impact on ownership, control and access to data, put simply, it is the data licences entered into by farmers that will regulate the data sharing relationship. In their day to day farming businesses, farmers and enter into numerous contracts with a number of different parties for products and services:

- chemical/fertilizer suppliers
- broader service providers e.g. telecommunications, soil testing, drones etc.
- agri-technology/agri-business providers
- third parties and professional advisers (e.g. agronomists, advisers)

Many of these relationships result in the collation or collection of production data.
The vertical nature of many agricultural industries and the way in which technologies are being rapidly adopted within them shows how crucial the basic contractual arrangements are to an understanding of how data can, and is, being used in agriculture. The Producer Survey that was conducted as part of the P2D project has revealed that 47% of primary producers and farmers surveyed say that they have no understanding, and an additional 27% said that they have little understanding, of the terms and conditions of data licence agreements before signing up to a new software or service, particularly where the service is provided online (Zhang et al, 2017). One key consequence of this is that farmers are often, unknowingly, giving away the right to access and use their own farm data]. Interestingly, the issues arising from the increasing value of data being generated, collected and shared has not escaped the attention of Governments, both here in Australia and internationally (Australian Government Productivity Commission, 2017, EU, 2018).

Data licences themselves are usually long, very detailed and wordy documents (often only available from the technology supplier's website) that are designed to set out the rules of the commercial relationship between the parties. Normal contractual principles require both parties to be fully informed of all of the terms and conditions of the agreement when they enter into an online contract. This ensures that there is a conscious decision to agree to the terms of the contract and full awareness of the parties' rights and obligations and any potential consequences of breach.

So in revealing the changing legal landscape for farmers, we will focus on three issues that are commonly addressed in agricultural data licences, where better knowledge and understanding by farmers of their, and their commercial partners' legal rights and obligations would help improve the trust in the commercial partnerships: ownership/control of data; privacy and competition; and consumer law protection.

3.1 Ownership and Control of Data

One of the main concerns is that there is confusion about who owns or controls farm data. While many public statements have been made that 'farmers own their data' (American Farm Bureau Federation, 2016) this is only partly true and so better knowledge of who has rights to control and access farm data will improve the dialogues between contracting parties. One of the key areas of law that farmers should be familiar with in the context of agricultural data ownership is intellectual property law, particularly copyright law.

Copyright law is the primary means by which ownership of the commercially valuable agricultural data will be determined. Put simply, while copyright law does not protect mere facts (i.e. single data points), information or ideas, a collection of data (dataset) that results from some original contribution of the data aggregator may be protected under copyright law as a table or compilation. When applying this to agricultural data, it is clear that the farmer as data contributor will not necessarily have rights, per se, in the resulting agricultural dataset. This is not to say that farmers do not have control over the data that they generate on farm and who they choose to give access to their data.

To address the legal uncertainty around the ownership, control, and access of agricultural data, bold moves taken by some farming organisations (such as the American Farm Bureau, (American Farm Bureau, 2014), New Zealand's Dairy Industry (NZ, 2016) and the EU *Copa-Cogeca (EU Copa-Cogenca, 2018)* have resulted in the implementation of guiding principles that encourage best practice in the ownership, control, and access of agricultural data. While these principles and codes have attempted to instil confidence in

producers and farmers, unfortunately, they have provided little headway in clarifying the legal position of ownership of the agricultural data derived from farms. What has been useful, has been the development of tools that empower farmers by increasing their awareness of key issues in data contracts, such as the "Ponder These Nine… Before You Sign": Data Privacy Expectation Guide (American Farm Bureau, 2016, Pennsylvania Farm Bureau, 2016, Janzen T., 2016). This awareness assists farmers to clarify their rights in relation to their data and opens dialogue with their tech providers. In a modernising industry, steps in this direction are vital in building trust in data sharing relationships between tech providers and farmers.

3.2 Privacy Concerns

Another concern of farmers and producers relates to the potential widespread sharing of their data. Knowledge of recent developments and the expansion of Privacy laws and how these may impact on the way in which agricultural data may be shared will also assist farmers when negotiating their data licences.

While many farmers consider their farm data as something that is personal to their farming business, the privacy law takes a slightly different approach. As the Australian Productivity Commission states:

> [A] common misperception is that privacy laws – or, indeed, the privacy policies of individual organisations – give individuals ownership over data created by or about them. Privacy legislation, the primary generic tool offering individuals some control, regulates how personal information is collected, used and disclosed. (Australian Government Productivity Commission, 2017)

Hence it is only 'personal information' that is regulated by the Australian *Privacy Act 1988* (Cth) and the *Australian Privacy Principles* (APP). The *Privacy Act in section 6* defines 'personal information' as: 'Information or an opinion about an identified individual, or an individual who is reasonably identifiable: whether the information or opinion is true or not; and whether the information or opinion is recorded in a material form or not.'(*Privacy Act 1988* (Cth) By contrast, 'non-personal information', such as business or commercial information and farm data, is generally governed by the law of contract.

While some agribusiness contracts with farmers and producers may contain terms that provide details about the use and security of 'information' gathered under the contract, it is often the case that it is 'personal information' that is being referred to rather than any of the agricultural or productivity data that is being collected. Therefore, it is important for

farmers to read the terms of the agribusiness contracts with that in mind. This basic literacy about privacy provisions in the agricultural data license agreements (or their related Privacy policies) is vital in reducing a farmer's vulnerability in modernising industry and promoting trust.

The enactment of the *General Data Protection* (GDPR) in the EU in May 2018 has empowered consumers in relation to their personal data and the data that is collected about them. (EU, 2016).The main change has been to introduce the requirement that consent must be obtained from data contributors before their data is shared. The GDPR also introduces a right of portability of data (the ability to move data) and a right to be forgotten (the right to delete data). This new expansion of Privacy laws is impacting on the way that agricultural technology providers manage the data that they collect. There are a number of other changes to privacy laws around the world, that either introduce similar provisions to the GDPR or in fact increase the protections offered by the GDPR, such as the Australian proposed Consumer Data Right. (Australian Government, 2018)

While detailed knowledge of each of these laws is not necessary for farmers to become familiar with, the fact is undeniable that the general expansion of privacy laws around the world will benefit farmers and producers. With large financial penalties for breaches of the GDPR, data aggregators now more than ever, have a responsibility to ensure that they obtain full and informed consent from individuals for data sharing and more generally, to ensure the data they collect is managed more transparently and equitably.

3.3 Competition and Consumer Protections

Interestingly, as was discussed above, there has been little clarification provided by the law and the courts about the ownership of agricultural data. However, what we have seen more recently, is that concerns over the improper sharing of data and the potential for the misuse of data have been highlighted in competition law cases in the US. (Haff Poultry v Tyson (2017), Wiseman (2018) In what seems like the first true agricultural data case, that is considering the potential harm caused by the alleged improper sharing of detailed processing data is before the Oklahoma Court in the United States. Put simply, the latest case has been brought by a group of American chicken farmers who have sued some of the US's biggest poultry processors, including Tyson Foods Inc. (*Haff Poultry,* 2017) for allegedly conspiring to depress their payments. It has been alleged that Tyson Food Inc., Pilgrim's Pride Co., Sanderson Farms Inc. and other companies illegally agreed to share

detailed data on grower payments with one another which led to price-fixing and suppression of grower compensation to keep payments below competitive levels.

While this and earlier cases are interesting in their own right, what is more interesting for farmers and producers more generally is the fact that their US counterparts have taken steps to have some of their fears and concerns around the collection, control and sharing of their agricultural data addressed. The class actions are evidence of the growing concerns raised in the agricultural industry over the way in which agricultural productivity data is controlled and shared.

The nature of the tight contractual relationships in vertically integrated industries such as chicken meat production, combined with farmers' lack of knowledge of the expansive rights being granted to agricultural data aggregators in their contractual relationships, all contribute to the genuine concern that many farmers have the potential for abuse of power resulting from the knowledge gained from aggregated agricultural data.

- Unfair Contract Terms For Small Business

In 2016, Australia expanded its unfair terms legislation to small businesses.(Australian Government, 2015). This expansion potentially provides an opportunity for small businesses - defined as those that employ fewer than 20 persons - to seek some redress where unfair terms are presented to them in standard form contracts on a take-it or leave it basis. While there are some notable exceptions, many agricultural enterprises and primary farmers operate businesses that would fall under this definition of a small business.

Under the new expanded Unfair Terms regime, a contract term may be declared void and unenforceable if it satisfies these three criteria:

1. the contract is a standard form contract for the supply of goods and services (including financial services) or the sale or grant of an interest in land
2. where the upfront price payable under the contract does not exceed A$300,000 for contracts shorter than 1 year (or A$1,000,000 for contracts longer than 12 months)
3. the term is unfair.

In terms of the third requirement, terms are defined as "unfair" where:

- they could cause a significant imbalance in the parties' rights and obligations

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- it is not reasonably necessary to protect the legitimate interest of the party relying up the term
- detriment is suffered, either financial or otherwise.

In considering whether individual terms are unfair - how transparent they are and how they relate to the contract as a whole are looked at. Put simply, transparency means the terms are legible, in plain language, presented clearly and readily available to any party affected by the term or contract.

The unfair terms in milk processing contracts that were being enforced against dairy farmers in Victoria, Australia are just one example of the impact that unfair contract terms can have on an industry. The 2018 final report from the ACCC Dairy Enquiry concluded that farmers are in a vulnerable position due to the limited bargaining power and the ability of larger parties to use contracts to pass risks onto farmers. Contributing factors to this are that farmers enter into contracts on a 'take it or leave it' basis and are given little information about the contract or the associated risks. (ACCC, 2018)

The standard form contracts that the Unfair terms laws apply to, are prepared by one party and presented to the other party who has little or no opportunity to negotiate the terms prior to entry. Given the fact that most digital farming technologies involve unseen licences that are embedded in the farm machinery, it is arguable that there are many contracts being entered into by farmers with their technology service providers that could be considered unfair under the Unfair terms legislation. As described above, most of the data licences entered into by farmers when adopting new digital technologies, are entered into with the click of an "I agree" icon which then signifies consent to the terms of a software licence. Little opportunity for conversation, dialogue or the reading of these contracts is provided and it is this type of conduct that would possibly fall within the notion of 'unfair' given that the terms are not often legible, nor in plain language, nor presented clearly and readily available to any party affected by the term or contract. It is useful for farmers and producers to know that these changes go some way to empowering them to expose unfair terms in their data licences.

4. Conclusion

There is no doubt that the new digital technologies have transformed agricultural industries. What they have also done is impacted on the long held trusted relationships between farmers, advisers, agronomists and their broader agriculture supply chain. The

raft of new legal relationships and legal challenges that are arising from digital farming technologies have contributed to the concerns that farmers and producers have about the way in which the data they contribute from their farms is being collected, managed and stored. One way of building trust in digital farming relationships is to ensure a more informed and transparent dialogue around the legal rights and obligations arising from the licences of new digital technologies and services. This will be achieved by empowering farmers with the knowledge they need to redress the current power imbalance in the digital technology licences. Legal awareness and understanding is now an indispensable tool for digital farming. Empowering farmers with legal awareness of the range of legal issues arising from data licensing agreements, privacy and competition and consumer law will reduce the vulnerability that many farmers experience as their industry rapidly transforms. Knowledge of law is power and when farmers are aware of their legal rights and obligations, the commercial relationships within digital farming will hopefully become more transparent, thus more equitable. Ultimately, once trust is re-established between farmers and the broader agri-supply chain, digital farming relationships will be transformed.

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