What is 'Big Data' in agriculture and why does it matter?

We should pay close attention. Agricultural big data is likely to have far-reaching detrimental environmental and social impacts.

While farmers have used satellite weather data for decades, today's big data practices are different. Data gets collected by sensors built into precision farm machinery. Then, corporate data scientists aggregate and "mine" this data for insights.

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It is likely that firms collecting data from farms about weather and pest pressures will be able to predict which products are most needed where and then use this information to maximize profit.

Companies supplying farmers with seeds and chemicals have for years used price discrimination, selectively setting higher prices for inputs within those demographics or regions that are seen to depend on them.

Big agricultural data could entrench the market advantage of large agribusinesses.

Companies collecting and controlling the most data are likely to accrue the most power. This is because of the scale-driven proposition of artificial intelligence: Al is only as good as the data that feeds it.

. . .

This design bias toward large, commodity crops and capital-intensive farms presents implications at a large scale, such that our food system could become increasingly characterized by an industrial mode of agriculture.

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