corporate sector? A recent initiative in the Human Rights Council, spearheaded by Ecuador and supported by more than 100 governments and dozens of CSOs, proposes to advance a binding instrument to regulate transnational corporations. Could this be an indication that the discourse on the role of the corporate sector is shifting?

The UN has so far seemed to assume that cooperation with large transnational corporations would help it regain relevance. This trend has accelerated in the context of discussions and negotiations around the post-2015 development agenda. The UN has partnered with farm equipment manufacturer John Deere to provide “decision services” that allow farmers to upload data onto servers, which ultimately feed electronic data prescriptions of seed and fertilizer back to the tractor in the field. Tractors may be built with GPS systems or seed monitoring tablets that allow farmers to download information. In theory, this GPS technology serves as an information dragnet, analysing raw field data to provide farmers with industry-funded solutions.

The prospect of sharing intimate details of their operations with the companies has raised concerns with some farmers who are worried that the companies could tap the information for their own purposes or sell it to other entities, like commodity traders. By gathering information directly from the tractors in the moment of seeding, corporations could make estimates about harvests several weeks in advance (and with better accuracy) than the US Government itself. This information can then be used to speculate in commodity markets, resulting in price fluctuations that may hurt the very farmers that provide the data but do not control their use.

Yet, in reply to their concerns, Kansas Representative Lynn Jenkins expressed the prevalent view in Washington that “information and data utilization is the way of the future.” He did acknowledge privacy concerns and wrote plainly that “just as our federal government struggles with privacy concerns through records at the NSA and various health records, so too must we maintain appropriate privacy protection of individuals from corporations.”

A spokeswoman for DuPont said that the company abides by data-privacy laws, but urged farmers “to always read and understand the terms and conditions of any services they sign up for as each company maintains its own policies and provisions.”

Governments should take this advice very seriously, since as part of the post-2015 development agenda, the UN Secretary-General has stated that advances in information technology over the past decade provide an opportunity for a “data revolution” that should enable countries to strengthen existing data sources and develop new ones.

This rather cryptic language echoes the observation of the High Level Panel (HLP) co-chaired by UK Prime Minister David Cameron and Presidents Ellen Johnson Sirleaf of Liberia and Susilo Bambang Yudhoyono of Indonesia that there have been “innovative initiatives to use mobile technology and other advances to enable real-time monitoring of development results.”

Earlier, in a Wall Street Journal piece, Cameron envisaged using aid “as a catalyst to unleash the dynamism of developing

“Big data”: threat or revolution?

Steve Baccus, an American farmer and president of the Kansas Farm Bureau, made a trip to Washington in April 2014 as part of what he called “an educational effort” to make sure members of Congress know about data collecting and “the implications of the issue for our farmers and ranchers.”

The issue is the gathering of large swaths of data by large seed companies, Monsanto in particular, using sensors installed on tractors. The corporations argue that the sensors help crop yields by measuring and evaluating soil conditions and seeding rates, among other variables.

That information would allow them to give out seed prescriptions optimized for each farm’s soil, disease history and pest evaluation in the area.

Monsanto calls this a “Green Data Revolution” — a play on the so-called Green Revolution of the 20th century, based on intense use of fertilizers and pesticides and seeds adapted to resist them. To steer this revolution, Monsanto has recently purchased Precision Planting, a farm equipment manufacturer and Climate Corporation, a database analytics firm.

Similarly, biotech giant DuPont Pioneer has partnered with farm equipment manufacturer John Deere to provide “decision services” that allow farmers to upload data onto servers, which ultimately feed electronic data prescriptions of seed and fertilizer back to the tractor in the field. Tractors may be built with GPS systems or seed monitoring tablets that allow farmers to download information. In theory, this GPS technology serves as an information dragnet, analysing raw field data to provide farmers with industry-funded solutions.

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In a book called *Big Data*, Viktor Mayer-Schonberger and Kenneth Cukier explain that “big data” is about predictions that result from applying math to an enormous amount of information. Thus Google is able to predict an epidemic before people know they are sick by correlating searches for terms like “fever” and “headache” in a certain locality with similar search patterns in the days before the outbreak of previous epidemics. And soon it will include information gathered by your refrigerator or your car, not just your mobile phone, in light of the emerging “Internet of things.” For individuals, they add, “this implies risks for their privacy.”

While “big data” has enormous potential, the potential is for evil as well as for good. In promoting a “data revolution” as part of any monitoring and accountability mechanism attention must be given to privacy and rights issues. Miniaturization enabled broad participation as shown by the use of mobile cameras to document human rights violations or convene demonstrations during the Arab uprisings. Independent producers can use cheap handheld cameras to create movies able to compete with those from huge Hollywood studios. But “big data” requires harnessing big computing capabilities, so big that they are out of the reach of most civil society organizations and even of most developing countries.

*The Guardian* blogger Anne Marie Cox published an “educated guess” of what a minimum list of restraints should include to guarantee basic rights:

- **Individual control:** the right to exercise control over what personal data organizations collect from them and how they use it.
- **Transparency:** the right to easily understandable information about privacy and security practices.
- **Focused collection:** the right to reasonable limits on the personal data that organizations collect.
- **Accountability:** the right to have personal data handled by organizations with appropriate measures in place to assure they adhere to the Bill of Rights and relevant human rights standards.

In her UN speech in 2013, protesting the electronic spying revealed by Edward Snowden, Brazilian President Dilma Rousseff added an intergovernmental dimension: “The time is ripe to create the conditions to prevent cyberspace from being used as a weapon of war, through espionage, sabotage, and attacks against systems and infrastructure of other countries. The United Nations must play a leading role in the effort to regulate the conduct of States with regard to these technologies.”

Without adequate checks and balances, the “data revolution” could become Orwellian nightmare.

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**Social networks monitor elections, services**

“Traditionally, the only role for citizens during elections is as voters. But citizens need to be a greater part of this electoral ecosystem and engaged in the entire process,” said Philip Thigo, programme director for Social Development Network (SODNET), the Kenyan chapter of Social Watch.

During the 2010 constitutional referendum SODNET partnered with others to implement *Uchaguzi*, an effort to “protect the vote” by allowing any citizen to text a message, send an e-mail or otherwise communicate complaints about the electoral process using a crowdsourcing software called Ushahidi (“witness” in Swahili). The key to the success of this system, unanimously credited as having contributed to the transparency and credibility of the electoral process, is the mechanism used to validate the communications, based on the social recognition of the originating source.

The example spread regionally and the mechanism was adapted and used in elections in Uganda, Zambia and Tanzania in the following years and was used again in the 2013 Kenyan general elections.

The positive results of Uchaguzi led the Kenyan Government to partner with SODNET in establishing Uhuma (“service”) a system enabling citizens to report on the quality of public services using the same technology.