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TECHNOLOGY

Data as Currency: What Value Are You Getting?

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In traditional currency transactions people exchange cash for goods and services of equal value. But in the data-as-currency world, trade is one-sided, at least today. Generators of data get practically nothing. Their data is captured and used to sell them more things in a targeted manner. There are also concerns around security and privacy. "There are huge opportunities [to use data] for much better engagement and service, but it's being used just to target and sell to you," says Jane Barratt, chief advocacy officer for MX Technologies, a Utah-based firm that provides data to financial institutions and fintech firms.

In a conversation with the Knowledge@Wharton radio show on SiriusXM, Barratt talks about the implications of data as currency, why data-driven innovation is a strategic imperative for companies, and related issues. (Listen to the podcast at the top of this page.)

An edited transcript of the conversation follows.

Knowledge@Wharton: What do you mean when you talk about data as currency?

Jane Barratt: Something we hear that data is the "new oil," and that there is absolute value in data. If you go back just 10 years and look at the market caps of the top 10 companies globally, those companies made products and services. Today 50% of the top 10 companies are data-based platforms — Google, Facebook, Alibaba, Tencent — it is a fundamental shift in terms of the way the market views the value of data.

Knowledge@Wharton: In traditional currency transactions people exchange cash for goods and services of equal value. But when you talk about data being currency, do you think the trade is on equal terms or is it one-sided?

Barratt: It is still very early days in this data-as-currency world, but it is an absolutely one-sided trade. The buyers at this point are amassing, assessing, consolidating data, and then using it. They are the ones that can put data to work in the economic model. The generators of data are basically getting nothing. Think about a social media platform that says, "Our user is worth $120 to us in the course of a year." To you, it seems like a decent trade. You think, "Okay, they give me photos, help me keep in touch with family," and so on. Then you realize that this amount is aggregated across the world. If you're looking at a New York City-based person who is earning half a million dollars a year, of course they're worth more from an advertising model and a monetization model than someone in a village in an emerging market.

Knowledge@Wharton: At the "Fearless in FinTech" conference at Wharton San Francisco, you presented a paper in which you used the phrase "data exhaust." What is that? And why should consumers care about it?

Barratt: Data exhaust is not that different from actual environmental exhaust generated by cars. If you think of everything you do in the online world, every site you visit, everything you click on — you're being tracked. That is being captured in a database somewhere and made up into this sovereign view of who you are. This is now also happening in the offline world, through tracking through your phone, for example, and location tracking. There is this massive amount of data that you are generating on a daily basis, that is being captured and sold and resold, and then targeted right back at you to sell you more things.

Knowledge@Wharton: That's the expectation that a lot of people have now. It has almost become the norm rather than the exception.

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Barratt: It is absolutely the norm. You know that you're throwing off data everywhere you go. But do you know what's happening to it? Do you know how it's being monetized? Whom it's being sold to? Did you know that there is a social map of you and your family and your friends and the places you go? I heard of an amazing story of a certain social platform that could tell just from phone locations whether people were having an affair — because their phones were technically too close to each other! So a lot of data is being thrown off and if people truly knew (a) the value of it, and (b) the implications, they'd maybe be a little more careful.

Knowledge@Wharton: One of the things that you wrote in your paper is that the shift to data-driven innovation is now a strategic imperative for companies everywhere. What kind of data-driven innovation did you have in mind? In what sense has it become a strategic imperative?

Barratt: Let's take an example, say, from travel. I fly my family of five from the U.S. to Australia every Christmas. And yet, every time — usually around this time of year — I start to panic because I haven't booked tickets yet. I've digitally put my hand up. I'm flying a family of five to Australia. Look at who gets paid: Priceline gets paid, Google gets paid, Facebook gets paid. Everyone who says, "Oh, she visited my site in terms of her search," gets paid. But I still must do all the heavy lifting. Why? I have a loyalty program. Why are airlines not saying, "Hey, based on her history, these are the sort of seats she gets. This is how much she has paid." I will pay you today for that, if you reserve those seats for me, but I'll pay you 20% less, because you shouldn't be paying Facebook and Google and everybody else on that path. This is a very simple version of it but optimizing a product or service experience without having to spray and pray — which is still the technical marketing approach — that is what the data-driven innovation should look like.

Knowledge@Wharton: Is it that the companies are not taking advantage of this opportunity? Or they haven't ramped up their operations to the point to be able to do that?

Barratt: Data literacy is still something that's not really talked about. Everyone will say they're digitally literate, which 20 years ago was a challenge. Now, we're seeing this other wave of people needing to be, for the sake of their careers, data literate. At present, that literacy sits within the marketing department. So, guess what it gets used for? To sell you more stuff. There are huge opportunities for much better engagement and service, but it's being used just to target and sell to you.

Knowledge@Wharton: What does it mean to be data literate?

Barratt: At the very least, to extract insights [from data] and act on them. At present, much of the infrastructure and investment goes into getting the data in. Companies now have data lakes. Great — we have a data lake. But it's full of exhaust. What are we going to do with it? Taking it from that infrastructural data lake, being able to structure data sets, to truly drive what a business does, versus what a business sells. And those insights should be from the board level down. If you don't have board directors who are data literate, how can the executive team and all the way down work?

Knowledge@Wharton: What are the implications for data-driven innovation for companies in the financial services industry? Do you think the fintech industry is taking the lead in this regard?

Barratt: The implications for financial institutions are very positive. Financial institutions are the trusted stewards of our money. Globally, there is infrastructure in place from a fiduciary perspective and from a safety and soundness perspective, to make sure that your money is protected. Each country approaches it differently, but for the most part, we have managed to avoid runs on banks for a long time. The implications for institutions are whether they go from being a steward or a fiduciary of your money to also being a steward or fiduciary of your data. The race is wide open. Any company could step up. Clearly, the big tech companies are endeavoring to do that right now. But at the same time, the financial institutions are making moves, within open banking especially, to start to control that flow of data.

I'll take a step back. Traditionally, when you wanted to share your banking data, say with a financial technology company – for instance, to apply for a loan through a startup lender — you would enter your username and password. It was called "screen scraping." Everything that you saw on your screen, whoever you shared the data with could also see it. And they could continue to see it until you changed your password.

That created an enormous amount of data exhaust around your specific financial data, which tells a lot about who you are. With open banking, the move is to go from username and passwords to token-based exchanges. So no longer would you be sharing what is incredibly confidential information out with the ecosystem. It would just be a token exchange back and forth. That does start to reduce the amount of data exhaust from within the financial services industry. Globally, they seem to be the first industry to be doing this at scale. There are very positive implications around this.

Knowledge@Wharton: What are some of the relationships you see between open banking and data as currency?

Barratt: It's step one, I would say. If we truly get to this idea where I can take my financial data, or any data, and exchange it for value — at my terms, at a fair market value, with transparency and insight — open banking, this idea of making more secure and private exchange of data is step one. Reducing the amount of data exhaust is step two. It's very hard to monetize data when there's so much of it out there, but if you can start to reduce that flow, then that is the logical next step.

Knowledge@Wharton: If this can work in the banking sector, is there an opportunity to take it into other areas and take away some of the angst around data in sectors such as health care and retail?

Barratt: We're seeing this in other countries. In Australia, for instance, a consumer data right has been passed which says, a person owns their own data and should be able to access it securely and safely. They're starting with financial services, but then very quickly moving into energy and telecommunications. It's not just about the calls you made. It's how do you compare to others? Are you paying more or less? How much energy are you utilizing and so on.

Knowledge@Wharton: Could we take a step back and talk about how data as currency evolved?

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Barratt: It is still early days. If you think of how currency evolved — for thousands of years, it was barter and trade. But you knew you were getting some broccoli for a potato. Now, with data, you're probably trading a donkey for a potato.

It's like, "I'm exchanging everything about my personal life to be able to see a cute picture of my friend's kids." That is not a fair value exchange.

Knowledge@Wharton: Do you think we can head towards a time where there can be more of a level trading field?

Barratt: I truly hope so. What may be shocking to some people is that sometimes it's the most economically disadvantaged people whose data is worth the most from a financial services perspective. For example, there are predatory lenders out there, and if you're Googling, "Need credit quick," these people sell for a lot of money. If you had the awareness that you now had barter power, that's huge.

Knowledge@Wharton: How do we best go about that?

Barratt: Different countries are approaching it in different ways. GDPR across Europe has had a huge impact. Things like the data right in Australia is a huge step. The U.S. has traditionally let the industry solve for this. Financial services being the largest industry by a factor of several, having large institutions drive the solution is great because they have the resources. But will it account for everybody? Does it account for all the different use cases?

I believe that the regulatory bodies do have a role to play, whether it is the Securities and Exchange Commission around what is like a value exchange for data or it's the Federal Trade Commission around business practices overseeing that. This idea of data stewardship, if not data fiduciary, is a new one. Again, we have seen the value that data can produce. So how can regulators, institutions, consumer advocacy groups work together? There are some industry working groups moving in this direction to set up a viable framework.

Knowledge@Wharton: How can the balance shift more in the direction of consumers starting to take control of their own data?

Barratt: The intellectual leap that needs to happen is when there's a return on investment. Am I going to spend the time to set up my digital life in a way that I'm granting and declining permissions — or revoking permissions — because there is a monetary reward for me? It could be that I save 20% off airlines fees for 20 people. It could be that I get a check for $120 from a big social media player. But until you start seeing those rewards, it's going to be challenging.

Knowledge@Wharton: But right now, there isn't the driver to get to the point of say, getting a check from a social media company. That driver is not there, and that creates that unevenness that you talk about.

Barratt: Exactly, but again, I think the interim step is value. How can tools and services be provided based on my data that can help me as an individual? Instead of simply marketing to me, if you look at my data history and the complexity of my financial life and talk to me about that, I'm in.

Knowledge@Wharton: Going back to your analogy of data as currency, when we think about conventional currency, regulators like the Federal Reserve have rules in place about how you regulate currency movements. When you talk about data as currency, who is the logical regulator? And how should data as currency be regulated?

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Barratt: It may well be a whole new regulatory standard and body. In the U.S., it could be someone like the FTC because the U.S. has such a complicated regulatory landscape. Most markets have a singular body overseeing all things, like say, financial. And if it’s currency, why isn’t it the OCC? It’s the Office of the Comptroller of the Currency. Should it be falling under them? Maybe. But probably logically, it would be more like someone like the FTC.

Knowledge@Wharton: Which countries do you think have made the most progress in becoming aware that this is a serious issue — and trying to find solutions to deal with it?

Barratt: The solutions seem to be on an industry by industry basis. Open banking is probably the most high-profile solution to the problem of data exhaust and lack of security and potential for breaches.

From a country perspective, the U.K. and their open banking initiatives have had mixed success, but for the most part been a great leap forward in terms of permissioning. You now have permission to grant and revoke access to your data. Across Asia, you’ve got Hong Kong. You’ve got Japan. Australia, as I mentioned. Canada is doing a big multi-year learning exercise into what’s going on around the world. So there is no one leader, but there is a lot to learn from the different market approaches.

Knowledge@Wharton: What would you say are the hurdles that need to be crossed?

Barratt: The human condition likes stasis. “If it’s not broken, I don’t have to fix it.” I hope it doesn’t take a massive financial breach for this to accelerate. The industry collaboration is moving in the direction that we’re not waiting for a breach. But that would certainly accelerate things.

Knowledge@Wharton: Could something be done on a larger scale than each country doing it on its own? Could there be more global perspective?

Barratt: Yes, and I think we will have to look to the big global institutions. Citi, for example, has started by opening APIs in nine different countries. BBVA has a whole open banking platform. There are initiatives that have moved forward, that have been very positive, that are about customer outcomes. But from a multi-country approach, it is extremely challenging because every country has its own regulatory regime. Should it be Amazon, or should it be Facebook or Google or one of the big tech platforms to step up and say, "This is the way it's going to be." We saw it with the launch of Libra [Facebook's proposed cryptocurrency]. This is very new territory. It's incredibly exciting territory, but for the banking industry and finance to be going first will be great given the fiduciary standard.

Knowledge@Wharton: What are the biggest opportunities and challenges going forward?

Barratt: The biggest opportunity is that increased transparency helps people move their financial lives forward. We're seeing massive potential social issues with income inequality. There are a lot of things that technology cannot solve for, like income levels, for example. But there are a lot that it can solve for, in terms of transparency and truly competitive offers. And to understand when you're being taken advantage of, and what the predatory lenders are up to. If we can help solve some of those systemic issues within the macroeconomic landscape, as well as down to the micro and the individual level — that is huge, and that's transformational. Some of the challenges are globally operationalizing this, getting to a point where the value exchange is both transparent and functional. And again, who oversees this? These are questions that are still open. It's like digital in the 1990s. The path is yet to be chartered.
