

Lessons in FinTech: Connecting Screen Skills to Real-world Spending

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Welcome to the PwC-KWHS Podcast Series for High School Educators on Business & Financial Responsibility.

I'm Diana Drake, managing editor of Knowledge@Wharton High School, and today we are discussing the intersection of technology and finance. Technology is dramatically changing the way consumers handle personal financial transactions, everything from online banking and virtual wallets to bar code-based mobile payments and cryptocurrencies. We are here to explore what that changing landscape looks like, and what the technological shift means for the future of money management and financial capability. Also, how can educators prepare students to use these high-tech tools to manage their finances responsibly and successfully?

This is part four of our four-part technology and finance discussion with Wharton International Management professor Mauro Guillen and PwC Partner Elizabeth Diep. Here, we help high school educators prepare their students to use technology to manage their money.

Below is an edited transcript of the conversation.

Knowledge@Wharton High School: Educators, of course, are very serious and also interested in finding out how they can prepare students to use technology to manage their money. I'm hoping that we can explore for a moment ways that the classroom learning experience needs to adapt to this changing landscape of technology and personal finance.

Technology is all about making life easier and faster but that may not necessarily be a good thing when it comes to teaching comprehensive money management. For instance, technology can't compensate for a poorly developed budget or cash management plan. Patricia Page from East Greenwich High School in Rhode Island asks, how as educators, do we ensure that the conceptual time-intensive framework needed to effectively use high-tech tools doesn't get overlooked in the scan, select and done mentality?

Elizabeth Diep: I like the scan, select and done mentality. That's very much how we function these days. But I'll say that today's high school students have grown up in a world surrounded by technology. They're probably more comfortable [with it] than they are walking into a library asking for a hard copy of a book. I don't think they would know how to do that because they've accessed everything either on their smart phones or through their computers, etc.

When it comes to financial literacy and helping young adults understand the basics behind the technology, the challenge is, how do we make a connection between the lessons that the students learn in front of the screen and the real-world spending that they're facing every day? The good news is that there are many programs being built today that integrate both worlds.

I'll give you an example. There is a new app that's called JA Build Your Future. It's an app that helps teens, their parents and teachers break down the costs of achieving career goals into really easy-to-understand numbers. So, if you want to go to college, it will look at how many years you're away from going to school, what a saving plan could be, what loans you would take. It develops a budget for you in a really easy way, [with a] great interface. And that's just

one of many other apps out there [that] teach classic lessons about spending, saving, earning and how [to] share that money with a community.

I'll put in a shameless plug for a great program that we have developed at PwC — it's called "Earn Your Future." This is a financial literacy program focused on teaching students how to become more financially literate. We've developed an entire financial literacy curriculum. And as part of PwC's "Earn Your Future" commitment, which is a multi-year, \$190-million investment in U.S. education and financial literacy, PwC has created our own financial literacy modules. It's really to provide it for students and for educators free of charge and focus just on this — the simple concepts around saving and investing, saving for college, how do you save for your first house and taking out a loan. This is the core knowledge base that would make many of our students more responsible financial users.

KWHS: Technology can be a great tool for teachers to help students understand complicated financial topics. How can digital tools and simulations that replicate things like online mobile banking and investing platforms be used most effectively in the classroom?

Mauro Guillen: For high school students, I would focus the attention on the five key financial decisions that they need to make in their lives. These are, which college to attend — there's the cost of college and there are several ways of funding your education. How about saving for retirement? Okay? Buying a home — so, getting a mortgage — and buying a car — an auto loan. And then perhaps the most important one these days is how to use your credit cards in a wise way so that you don't accumulate too much credit card debt.

I would recommend high school teachers tell the students, okay, go online, and go to an auto dealership online. Choose a car that you would like to buy. Every dealer in the United States these days has a calculator [on their website]. So, they tell you this is the interest rate at which you can borrow money [and you] choose how much of a down payment you want to make on this car. Do you want to pay the car over three years or five years? Also, other characteristics of the vehicle can be factored in.

Ask students to go through that exercise of seeing how much they can afford — what kind of car they can afford. Ask them then to change some of the variables in those calculators, like the interest rate. Or go from paying the car in three years to five years and see what impact that has on how much money you need to spend every month and how much money you end up spending on that car. Do the same thing for college. Do the same thing for saving for retirement.

If you go to the websites of companies that offer these products, these days all of them have a financial calculator that is specific to that particular purchase or that particular issue. And I would encourage the students to experiment with that and to see how it works, and how, if you change the interest rate or you change the number of years, or you change the value of what you're purchasing, how the monthly payment changes, right? Or when it comes to retirement, how much do you really need to save if you want to continue having the same standard of living when you retire as when you were working.

What high school students need to understand is the value of money and more specifically the time-value of money. That is to say that money today is worth much more than money in a year from now or in five years from now. They need to think through all of those variables and how they interact. I think it's easiest if you do it with specific things that they are very likely going to purchase at some point in their lives. They're going to [pick] a pension plan. They're going to purchase a car. They're going to purchase a home.

KWHS: That's great advice. One of our educators, Elim Carpenter of Royal Learning Center in Los Angeles asks, what are some good online consumer money management websites and resources? I have to put in my own shameless plug for Knowledge@Wharton High School, which we will obviously have that resource available along with these podcasts. But we have lesson plans and articles and all kinds of things that explore various different areas of consumer money

management. And it's a great resource for both educators and for students. Would anyone else like to suggest any others?

Guillen: As I mentioned, you can also put your students in the real life situations like going online to buy a car. Go online and [pick] a pension plan, and see what kinds of decisions you need to make in order to be able to afford those things.

Any of these simulators, any of these financial calculators — especially those specific to a particular decision that you have to make in your life, can be very useful and they can serve a very important pedagogical function in the classroom. I would encourage all the teachers to help students understand what are the consequences over the long run of the financial decisions that they make today.

For example, [the kind of] car you buy depends on a number of variables like, what are the current interest rates, for how long do you want to be paying down the balance on the loan and so on. It's important to educate young people financially because they're in high school. They're 14-, 15-, 16-, 17-year-olds but within a couple of years they're going to be making big decisions in their lives.... They're going to have to start making decisions for which they need to be prepared because they are complicated decisions. And there are so many ramifications. Making the wrong decisions early on in your life — for example, accumulating credit card debt — is something that can be highly problematic and can haunt you for 10 years or for 15 years.

Diep: It's a great example and a great idea going out and looking at what a car would cost. That's something that a lot of students would be very interested in. And what are those must-haves versus those nice-to-haves? That's something that we spend a little bit of time talking to the elementary school kids about. I think at the high school level it's even more important, because we start talking about this concept of what's luxury versus what's necessity and really identifying the differences between those two. Because ... that's what gets you into the trouble of having acquired this credit card debt — how much of that was for necessities and how much are those things that I probably didn't really need?

Having those conversations is critical, and having those at a very early stage is very important. One other site that I would just add for the teachers to look into is something as simple as Yahoo Finance. Yahoo has a lot of great tools ... taking it to the next level and start thinking about, well, what am I going to do about savings, even if it's a small portfolio that you can automate it and manage with a safe investment amount? That has been a great tool that we've used sometimes at the high school level to just simulate what an investment portfolio will look like and what a \$1,000 dollar investment can do for you if you continue to manage that.

That's a great way to see how your money would grow by either saving it and making some saving decisions or investment decisions for yourself.

KWHS: What I'm hearing is teaching the financial concepts is really important. But that experiential learning and getting students to engage in different ways in these concepts is what helps them stick.

An increasing number of young adults are becoming victims of identity theft because they over-share through social networks, file sharing and cell phones, this has huge implications for their consumer profiles, particularly their credit scores. Other than stating the issue, how can educators prepare students for this type of risk?

Guillen: What needs to be conveyed to these young people is that everything in life revolves around your reputation. I think they understand this because they know that, well, you have a reputation as a nice guy and there are certain things that you can enjoy in terms of having friends and so on. So, they see that the kind of reputation that you make for yourself and your social relationships, whether they are digital or face-to-face, has an impact.

But they need to understand that this translates also into the financial part of your life. That building a solid, clean credit record is really important. That accumulating credit card debt or even worse, defaulting on — or not keeping up with your payments — it's a huge mistake, right? It's better to actually recognize that there's a problem and try to sit down with whoever you owe the money to, to see how you can get out of that situation than to just say, 'oh, I'm going to skip a payment', because that stays in your credit report for a very long time.

It's important for them to understand this basic principle — that everything is about reputation. Not just in social relationships but also when it comes to financial matters. And, yes, social networks — smartphones — it has become so easy to share information. And we all know that you can get into a lot of trouble, for example, if you share intimate pictures, with a very good friend of yours because that person maybe is no longer a friend of yours a little while later, and then uses that picture of you to essentially undermine your reputation in whatever community or social network you happen to be operating in.

It's important to educate young people about the importance of privacy. The issue with new technology, especially smartphones and mobile technology, is that it's so easy to share every intimate detail about our lives. And privacy is important. It's an asset that you have. You are the master of your destiny to the extent that you share things that you want to share with Maybe you only share [certain things] with your family or with your closest friends.

This is important to keep in mind. And along these lines, I think it's important for them to understand that increasingly, banks and other types of financial companies are using evidence from social media sites to calculate credit scores. There are a lot of startups that are trying to develop the tools for credit scoring based not so much on your own behavior but rather on your social network ... and what kinds of things you and your friends do.

It's very important to convey to high school students that whatever they do online, whatever they do as part of a social network, whatever they do as part of a digital community will most likely have an impact, not just next week or the week after but probably over the next five years or 10 years. If something goes wrong, it's very difficult to get rid of that bad reputation on your credit score.

KWHS: So, the digital footprint also impacts your financial profile?

Guillen: High school students will understand that you have to be very careful about the kind of digital footprint that you leave behind.

KWHS: What does technological innovation in personal finance mean for the future of money management? And how can we best prepare young people for this brave new world?

Diep: It comes down to a lot of other things that we've talked about already. But the fact is that technology has truly accelerated the pace and the frequency of change, not only in business but also in our lives. Today, life and work activities tend to overlap and ... there's this digital fingerprint that we're sort of leaving out there that we have to think about.

Because all of our students will use the technology as a tool for managing information, it becomes imperative for us to hone these lifelong learning skills but also foster flexibility in career paths and confidence in how are we using this technology, how are we using the information that we're posting out there. In classrooms around the nation, educators play such an important role in preparing the students to become responsible citizens, in helping them think about what it means to post the information out in the data world. What does it mean to use these tools and what is it that is happening behind the tools? What are the concepts that they are essentially applying?

That's why I think it all goes back to — do the students understand the core principles of what the tools are doing? What

does this merger of technology and personal finance really mean? I think for young people it's just understanding and having a foundation in financial literacy. Understand what budgets are. Understanding the question around balancing a checkbook and the fact that, at the end of the day, that's you balancing your budget and everyday lives ... and how does that translate to what we do day in and day out.

In order to get there, we have a responsibility to spend time with this generation and prepare them to be financially literate at a very young age. And I think that [we need to do that at a] younger [age] than ever because technology has given them access to manage their finances at an earlier age than it ever has before. To steal a line ... it does take two to tango. Educators and high school teachers have a responsibility to become so much more technologically savvy to be able to share [their] experiences and to be able to share those concepts with the students — and to put it in words that they understand, which is really through the technological tools that they're using in their mobile phones and in their apps. That's how they understand it.

The better that we're able to integrate those two worlds, the better we'll get some of these messages through to them that will help them use the information responsibly.

Guillen: So, to echo what Liz has been saying, maybe [do this] by emphasizing that number one, you need to be financially literate. You need to understand the basic concepts. You need to understand how it works. And number two, technology's a very powerful tool. But it's a tool that can harm you or it's a tool that can enhance your standard of living that can liberate you.

There's nothing predetermined about technology. We see that social networks are wonderful, but sometimes they get some people into a lot of trouble. We need to educate young people that technology is not just good or only brings about good consequences. It depends on how you use it and for what purposes. You have to start, as Liz was emphasizing, with financial literacy, with a basic understanding of how it works — again, mostly through experiential methods or simulations. People of that age group will be more receptive to those ways of learning than just seeing a formula on the board as to how compound interest works, for instance.

KWHS: Thank you both so much for this interesting exploration into the intersection of technology and personal finance.