

**KAREN FOLEY:** The Online Business Exchange was a two-day live event presented by the business school at The Open University. During the event, there was live chat and forum discussions. The live chat is now closed, but we hope you enjoy the video that follows.

[MUSIC PLAYING]

Hi and welcome back to the Online Business Exchange. Well, in this session, we're going to be taking a look at personal finance in a digital economy. And I'm joined by Jonquil Lowe-- welcome, Jonquil-- and Will Brambley. Jonquil is a lecturer in personal finance here at The Open University, and Will is a research associate at the True Potential Centre for the Public Understanding of Finance. What a centre here at The Open University.

Now, the key theme for this session is around digital transformation. It's unstoppable because of the advantages in terms of cost saving and efficiency, which are quite overwhelming. And Jonquil, you've argued that the question is no longer whether customers choose to interact with firms digitally, but how they manage that transition for those who are reluctant to embrace digital voluntarily. So age gaps springs to mind initially. Can you tell us what your thoughts are on this whole concept, basically, of how consumers are interacting, and whether age is really important in this digital economy?

**JONQUIL LOWE:** Hmm. Right. Me and some colleagues have been doing some work around this, and the problem here is access to services. So you're right that digitisation is fantastic for many people. It's making services more accessible. They don't have to get to physical bank branches. They can interact from their phone-- absolutely great, and highly embraced by young people. So it's only about 5% of young people who are not online in some way.

But if you look at the 55 and over age group, then you start talking about 17% of people have no internet access, whatsoever. And if you look at the reasons why they don't have access, well, 53%, I think it is, say they actually don't see any need. So they've grown up in a completely different era, and as yet, they don't see any need to be online. I think as time goes on, they will, because all the ways that they've enjoyed interacting with financial services in the past-- being able to go into a branch and talk to somebody physically about the products they want-- all of that is beginning to slip away as bank branches close because they're so expensive compared with digital routes.

But as well as that 53%, there's another 31% who say they don't want to engage that way because they don't have the digital skills. And I think there are lots of initiatives that are being entrained to address that. So that may pass.

But then there is also another group, 14% who say they can't afford it. And that's not just about affording the hardware and the computer software. It's affording the online connection and the antivirus software, all of those kinds of things. And that's particularly a problem for low-income households, who we know already are the group that are at risk of being excluded from financial services.

So there's a multiplicity of reasons why people don't engage. You're right, the older age group is very prominent amongst them, but there's also the low-income groups. Disabled people-- oddly enough, you think digitisation is good for them. But sometimes they actually find it very hard to use the equipment, or if they've got a mental disability, they can't remember passwords, things like that.

There are solutions out there, or coming down the line, but at the moment, there's this big group who are being excluded. And I don't think that we're in a world where they can expect that banks will just keep offering physical bank branches. Those are going to progressively become rarer and rarer. So I think we've gone past that tipping point, where they have to become digital.

**KAREN FOLEY:** So what are they being excluded from, specifically? Because sometimes customers are incentivised to go digital, to have their bank statements electronically, as opposed to being posted out. We can see economies of scale there making sense. But for some customers, what are some of the implications then in terms of how they're able to access financial services, both from the personal perspective, as well as how that might affect how they're able to consume with businesses?

**JONQUIL LOWE:** Well, they're excluded in all sorts of ways. I mean, you're right. There's the banking side. It becomes very inconvenient to bank, especially if you're in a rural area. The last bank in town has shut down. You're actually then talking about huge amounts of time to actually get to some centre where there is a bank.

You talk about paperless statements. I mean, that's quite interesting, because when you open a bank account, a savings account, any kind of financial product, you're going to have to

produce some evidence of your name and your address. And typically, address is from a statement. And perversely, a digital statement is not acceptable. It has to be a paper statement. And we're fast getting to the point where if you want a paper statement, you're actually having to pay extra to have it.

Then we've got comparison websites. So that's the way that most people now shop around for insurance. And if you are not engaging with comparison websites, you're actually often paying more, missing the best deals. So there are all sorts of extra costs creeping in now. If you are not digital, you are just paying several hundred pounds a year more for not being digital.

**KAREN FOLEY:** But what about protecting customer rights here? I mean, well, are there any policies in place that can protect some of these consumers?

**WILL BRAMBLEY:** --well areas. And I think that that's, frankly, heading part way, I also see that there is a problem with regulation here and that it doesn't keep up with the digital age. I know myself and many people have had various issues when it comes to things have to be sent physically for data protection reasons and can't be done online, which is rather frustrating when you have an account that you usually use online.

I do think there are things that could be done in terms of requiring there to be-- for example, I know with paperless transactions-- paperless credit, moneyless transactions, credit cards, and such, there's generally rules that say they have to be offered at the same price. You can't say, oh no, this is cheaper, if you pay by credit card, because you don't have to handle the money.

And you could do a similar thing of saying, you can't actually charge more for having an account with where you post out statements. Whether or not they hit the economies of scale and the general benefits of the digital thing in terms of having cheaper products, for most people, it's a big trade-off. But it's a very difficult area which I think needs to be looked into quite closely to find the right solutions.

**KAREN FOLEY:** I mean, you would call these digital drivers, wouldn't you, Jonquil?

**JONQUIL LOWE:** Yeah. I mean, I think it's really interesting what you're saying, because if you say that those services have to be offered at the same cost, you are essentially saying, somewhere along the line, the digital customers have to cross-subsidize the non-digital. And there's a point at which digital customers may say, well, why should I?

And I think there's this lovely parallel with telephones. So the first telephone exchange was

1879, I think. And William Preece, who was the chief engineer of the post office, was really famous for saying, we don't need the telephone. We've got an abundance of messenger boys delivering the telegrams, and what have you.

**KAREN FOLEY:** I'll just stop you there, Jonquil, one second, because we just had a little technical hitch and went offline for a minute. And so I'd like you to recap, because that was such an interesting point. So I hope everyone's back with us now. We were talking about what governments are doing.

**JONQUIL LOWE:** Yeah, I was just drawing a parallel, really, with how telephones were introduced. So 1879, William Preece, chief engineer at the post office, was famous for saying, we don't need telephones here in the UK, because we have an abundance of messenger boys who can run around delivering telegrams. And it wasn't really until the war years that the use of the telephone picked up. By about 1948, 2/3 of households had a telephone, but it was 1981 before hand-delivered telegrams finally vanished. So you're talking about a 100-year cycle.

If you look at internet banking, started about 1983, so it was Homelink. I don't know if you remember that. Bank of Scotland and Nationwide got together--

**WILL BRAMBLEY:** I'm afraid I was born in 1984.

[ALL LAUGH]

**JONQUIL LOWE:** This isn't age-devoted.

**KAREN FOLEY:** Tell me when you were born.

[LAUGHING]

**JONQUIL LOWE:** I remember seeing it presented at a conference by this very enthusiastic man, saying, this is the future. And we all thought he was a crank-- interesting, but cranky. So that was 1983. We've just about got to the stage where 2/3 of people are now banking online. So that's taken about half the time that it took for the telephone. So we're-- innovation is very speedy now. And if we follow that analogy, it might not be how the future goes, but that means bank branches, for example, might disappear completely within 10 years-- not 10 years, about 20 years.

**WILL BRAMBLEY:** And it's actually interesting with this as well, that I think we have to also think about, to some

extent, the competition angle with it. Because what we tended to find with the initial bank accounts that were online was they were specifically online only subcompanies. So this is-- whether it's Mint, whether it's-- I've forgotten all, though. Smile was one, lots of those banks launched them.

**JONQUIL LOWE:** Egg.

**WILL BRAMBLEY:** Egg, that was it. Yes. And these are another way of saying, well, they're cost-saving, so we can offer a product that's much, much cheaper. And the problem of trying to give access to everybody who wants things with paper and in more expensive ways is that you have to say, well, if we're going to put this cross-subsidy in there, some company is going to pop up and go, we'll just offer the online only version.

**JONQUIL LOWE:** Well it's already happening. Atom Bank is doing it, aren't they?

**WILL BRAMBLEY:** Exactly.

**JONQUIL LOWE:** Yeah.

**WILL BRAMBLEY:** And so I do think there's a lot that the government can do in terms of trying to get people better access to digital things. I have to say, I do feel for older people, especially. But I think that in the future, if you're going to want to have that kind of physical banking, you will have to pay for it. In the same way that most people who want what is effectively becoming a niche product tend to pay a lot more for it, because there aren't the economies of scale, the competition, and that sort of thing around it.

**KAREN FOLEY:** But whilst individuals might have a choice, do businesses?

**WILL BRAMBLEY:** Well, I do think, to some extent, that the business bank accounts have fallen behind. There are actually a lot of business bank accounts that do still require some form of physical presence, or that sort of thing, in a way-- for example, things like cheques. A lot of firms still want to accept cheques, and you have to find a way of cashing them. So I think that, actually, that's somewhat behind the consumer.

**KAREN FOLEY:** But is that because businesses have more pressure than consumers?

**WILL BRAMBLEY:** Quite possibly. And I think it also depends whether it's SME banks, where you'll go into a bank and take out an off-the-shelf bank account. Or whether it's someone like Tesco, who has

specific agreements with various financial companies to pay lower fees on everything, and such.

So I do think that this is something that is still moving online. It might be have moved slightly slower, but I think it's somewhere where it will probably speed up quite a lot, simply because there are such gains.

**JONQUIL LOWE:** Well, cheques are quite interesting because, of course, there was a move to abolish the cheque. So that was going to be abolished by 2018. And there was such a hue and cry, a big debate in the House of Commons, one of their committees looked at it. And in the end, it was decided that cheques would continue indefinitely for as long as people wanted them. And the people using them, again, it's the elderly, but it's the small businesses as well-- clubs, charities, schools. All those kind of smaller scale entities are using cheques.

But they have come up with a technological solution, which is cheque imaging. So you can now take an image of a cheque on your mobile phone, send that to your bank securely, and that is paying in a cheque. So you no longer have to take that piece of paper to the physical branch and shove it in the machine these days. You're just not actually giving it to a person. So there are all these solutions coming along.

And I think it's really interesting. The regulator, Financial Conduct Authority, in April, they had what they call a tech sprint. And they got lots of companies, like the FinTech companies together with traditional providers as well and programmers. And they spent two days looking at, really, very consumer-focused problems, the issues that consumers have in being digital. And they hacked away for two days and came up with lots of very practical solutions, things like ESA voice recognition, face recognition. I can't remember them all-- all sorts of things. And I think two of those are actually now going on to commercial rollout. So yeah.

**WILL BRAMBLEY:** I think that academics and the government have a bad record of underestimating the power of innovation. And we have no idea of what new ideas people come out with. And one question we commonly get asked, how is this going to look like in 10 or 20 years? There are ways you can see it moving with this great [INAUDIBLE]. But the idea that it might be done through face recognition, or that thing that's the entire security, which is a huge area of banking, because it's something that, rightly, consumers and firms and banks themselves are very worried about. And there's a huge set of money laundering rules and terrorist finance rules around this.

But the idea that you could get rid of almost all of this when you actually get into ideas of using eye movements, facial recognition, thumbprints-- all of these sort of things, and a whole host of other ones we haven't thought of-- that it's quite exciting, really. And I think we'll end up delivering something which released for most consumers and for most businesses, will work much better and much cheaper than what we currently have.

**JONQUIL LOWE:** Yeah. I was going to say, I can't remember where it is. Is it Singapore, I think, there's already a supermarket where you can pay by face recognition.

**KAREN FOLEY:** Really?

**JONQUIL LOWE:** So you just go to the checkout and you look. [CHUCKLES] And that's it.

**KAREN FOLEY:** Wow.

**WILL BRAMBLEY:** Yeah, I mean, the other day, I went down for a conference in London, and I forgot to take my Oyster card and suddenly realised that I can just use my debit card and swipe it as a normal contactless. It's yeah--

**KAREN FOLEY:** So would you both argue then that the digital economy is having a positive impact in terms of finance, both personal and more global?

**WILL BRAMBLEY:** See, I would say overwhelmingly, yes. But then I've grown up with the internet, and I'm both comfortable with it and enjoy using it. And I can see, from the economic analysis and from the financial analysis, how much sense it makes and how much freedom and choice and ability it gives for people to do things that they would never have otherwise done, whether it's managing their own portfolio, or whether it's the whole array of businesses that have sprung up around financial technology.

However, I can see that there are groups of people who are left behind, and individuals who are left behind, and that this can be-- I possibly can say, with what we've seen in the Brexit vote, a lot of both globalisation and this digital movement can be disorientating and something that people feel is moving away from something they felt comfortable with.

**KAREN FOLEY:** Yeah.

**JONQUIL LOWE:** I think there are also legal issues that haven't been sorted. There was a report a couple of weeks ago in the paper, saying that the banks are beginning to explore whether with a bank

account, the customer should be liable for losses if their account is hacked and that customer has not been using the latest browser and the latest security software. Now that starts to put a big onus on consumers. And if we're already talking about these more elderly consumers who are unfamiliar with the whole territory, and actually don't know very much about antivirus software, and what they should be using, where is the right balance there? I think those kind of issues need teasing out.

**WILL BRAMBLEY:** I think you're right. I think what we've actually had, especially with credit cards, has worked brilliantly, which is where, because the credit card company is liable for security breaches, they are the people who, as a group, can know about this sort of thing, can do the research, and can find out, what does it work? What security procedures do we need to have in place?

We cannot expect ordinary people, I think, to understand where there are risks in using banking online, or not risks, or what's safe and what's not, because we're all individuals. And we don't have the time or inclination to engage in that level of detail. So I've always been a big fan of the idea that banks are liable for those kind of security breaches. But I can see the problem of going, actually. There is an element now where it's so easy to hack into things that, actually, to what extent do you need to be taking the right level of precautions.

**JONQUIL LOWE:** But I think you're right. If the onus is on the banks, they are the ones who can afford to investigate this, find the right technical solutions. And consumers really can't.

**WILL BRAMBLEY:** Yes.

**JONQUIL LOWE:** Yeah.

**KAREN FOLEY:** Yeah, I mean, people in the chat are agreeing that face recognition can be a good thing, and that, indeed, digital innovation does have some benefits. But you did raise issues there in terms of accessibility for certain groups of people who may not be able to get there.

And then also, Will, you were talking about some of the policies and how those could impact. Devendra and I were talking earlier today about trust and how important that can be. And perhaps maybe for those certain clusters of consumers, they may not have that trust in this digital technology to be able to think, actually, I am going to pay contactless, when you're faced with a choice, because there are still some choices. You can choose how you often interact with your debit card, for example. And so how important would you say trust is, bearing in mind that there is this need to regulate, to have policies that will protect consumers

in varying guises?

**JONQUIL LOWE:** Well, if you look at those surveys, it's only actually about 5% of consumers say that they won't engage, because they're worried about security issues. So it's actually surprisingly low. There's also research that shows that new users of the internet are less likely to do things like bank online. But once they've been users for about five years, then they're far more likely to embrace it. So there's a kind of familiarisation going on here as well. So--

**WILL BRAMBLEY:** I mean, I think you're absolutely right. And I think-- though I would say, as well as these, very few people will say, I'm not going to do things online for security reasons. But we do know that it's not just trust in security. It's trust in finance. And banks are almost universally some of the least trusted large companies and institutions. And I think that's definitely something, that there's a big issue of trust there that needs to be addressed, because even if there's no security breach, do you trust your bank with your data?

But banks have the most amazing data on all consumer spending. I mean, for an academic, it's a minefield, a wonderful-- not a minefield. It's a goldmine of things to research, to find out how people behave. But there are, of course, these ways in which firms know how they market it to consumers, because they have data on how they behave in that way. So I think there was some sort of sense of understanding there.

But I've always found it quite interesting that when it comes to having greater convenience, people seem to be willing to allow their data to be used, allow-- give up on security concerns with that. As we tend to find-- I mean, Google is the best example, where you sign into it once in one place, and it will save your credit card details. It will save everything. And I love it, because I use a laptop, a PC, and a phone. And it will save, on all of those, my login details, my credit card details, everything that I need to go and shop or act online.

But at the same point, that's quite a huge level of trust that I've given Google there. And I can entirely appreciate that's something that a lot of people aren't comfortable with. But I think, given the benefits of the convenience with it, we tend to find that a lot of people are surprisingly trusting.

**KAREN FOLEY:** Well, this relates to apps as well, because whilst you can trust something like Google, you think, well, that's a multinational company. They will have measures in place. Equally, I download apps, and I tick that box to say, yes, you can use my data. You can use them on the-- I don't always read it. And so, because of that convenience, because I want something

digital enough, and because I can see that advantage, you're right, I do compromise that.

**WILL BRAMBLEY:** You're right. And actually, I'd say, not only do you not sometimes read it. I don't think anybody ever reads it.

**JONQUIL LOWE:** No.

**WILL BRAMBLEY:** There's been-- my favourite example is--

**KAREN FOLEY:** And I wonder how many different ones there are, actually, if someone were to compare some of these. I bet they're very large.

**JONQUIL LOWE:** Oh, there was an experiment, wasn't there, on terms and conditions?

**WILL BRAMBLEY:** Yeah. Someone put it in their terms and conditions a thing that said-- on April Fool's Day-- that, by signing this, you give us the eternal rights to your immortal soul.

**KAREN FOLEY:** [LAUGHS]

**WILL BRAMBLEY:** And it actually included a cash figure if you were to point this out to them. And nobody pointed it out.

**KAREN FOLEY:** Ah.

**WILL BRAMBLEY:** Because nobody reads them.

**KAREN FOLEY:** No, it's like the washing labels. I've seen some really funny ones of those, because again, you just glance over them.

**WILL BRAMBLEY:** But actually, this is not a digital problem, specifically. I mean, if you look at-- I did this in a lecture that, actually, HSBC's Basic Bank Account has 40 pages of terms and conditions. It's called a Basic Bank Account. This is not digital.

When it's online, there is the ease of ticking that box. There's the ease of being nudged through it. There's also the ability of regulation and of firms to nudge you to actually have to read it. But we know that even if-- there are ones I've seen where you can't just tick the box. You have to scroll down first. People will still just scroll down. We can't assume that people are going to read pages and pages and pages of legalese, which even to people who actually really know about this stuff is quite hard to understand.

So I think, in my view, the role of firms, especially, and regulation of firms that don't do it is to make products work for consumers and for businesses, not to try and make products and then say, well, we can just put a load of legal terms and assume that people are happy with all of this.

**JONQUIL LOWE:** I think you're quite right with that. There's another angle, though, that also, often you don't know how your data will be used, and it will be used in unexpected ways. So when we look at credit referencing, so whether or not you can get a credit card, and a credit check is done, there are now a lot of experiments around using big data. So what you're doing on Facebook, the kind of people you hang out with, the kind of digital shopping you do, all of that sort of data, even if it might not seem actually terribly relevant to whether you're creditworthy, if statistically it correlates, it is starting to be used in order to decide whether or not you can get a credit card, what interest rate you might be charged.

Now the Information Commissioner's office is actually very concerned about that, because most people, if they sign up for something like Facebook, they do not think that their data is going to be used in their credit file. So there are whole issues about this moving feast, really, of how data is being used.

**KAREN FOLEY:** So does that mean like if I sign up for an employment site, for example, they might think that I was unemployed and not give me a loan?

**JONQUIL LOWE:** Well, they probably don't even think about you. When we talk about big data, we're talking about huge data sets and simply running statistical correlations. So if people like you signing up to that site actually are not creditworthy, then yes, it could damage your credit rating.

**KAREN FOLEY:** Yeah. So massive implications, and consumers aren't aware of that. But then whose responsibility is this in terms of educating people? And where is that balance?

**WILL BRAMBLEY:** I say this as somebody who is a big fan of financial education. I think it would be relatively futile to try and educate people about that, because there has always been such a huge minefield of issues and places you can make problems there. Whether it's-- so for example, with your credit file, your credit file is linked also to where you've lived and who else has lived at that address with you. So if you shared a house with a housemate who then went bankrupt from launching a firm, that's going to hit your credit file. And that's on digital.

**KAREN FOLEY:** Isn't this like walking into a bank, and somebody saying, well, sorry, I'm not going to serve you,

because some gentleman walked in here with glasses and brown hair a minute ago, and he defaulted on a loan. So I'm not going to give you one. And stereotyping in that way can be very unhelpful.

**WILL BRAMBLEY:** Incredibly so. It's not meant in that way. There's no desire. There's no particular intention to say, we're going to target people like this. It is exactly as Jonquil says.

**JONQUIL LOWE:** You can disassociate, though. In the example you've said, if it's someone in the household, if you actually don't have any financial connection with them, you can challenge it. So I think there is a role for educating consumers about their rights to get misinformation put right.

**WILL BRAMBLEY:** True.

**JONQUIL LOWE:** But I do agree with you. Educating the public in a world that's moving so fast, this is the Willis point, isn't it?

**WILL BRAMBLEY:** Yeah. Yeah.

**JONQUIL LOWE:** That financial education is almost doomed even before it starts.

**KAREN FOLEY:** But you've also mentioned some categories of more vulnerable consumers earlier who may not be engaging with the digital economy as effectively as other groups are. And perhaps this is more important for some of those groups who don't maybe feel able to challenge things.

**WILL BRAMBLEY:** One thing I'd like to add on both those points is that there is, I think, aside from the education, a political debate to be had about, do we want correlations of things to matter in that way? So if we know that people like you behave in a certain way, and so that can determine your credit worthiness, this makes a lot of sense. More risk profilings then for what? For banks. They have to look at a risk basis.

But if that says things about your ethnicity, your gender, if they have an impact on whether you are expected to be creditworthy in terms of what the model is spitting out as a probability, do we want to say you can't use that? And there is precedent for doing this where when people worried that with genetic testing-- was one of the ones-- where if people had genetic testing, that they'd never be able to get health insurance, because if you showed up a genetic abnormality, that they'd go, we're not going to cover you for that. And so they explicitly made it that no genetic data is allowed to be used in that.

And so I do think that there is a conversation to be had of-- I mean, this came out, I know, a lot with the annuities, which is something we've both looked into, where there is this EU ruling which says that you can't discriminate based on gender, when it comes to car insurance or annuities or any product like that. And so that's why young men no longer have to pay a lot more than young women do for car insurance. Everybody has to pay a lot.

**KAREN FOLEY:** But is that a good thing, when you look at then the profiles of risk?

**WILL BRAMBLEY:** Well, yeah, that's the debate that needs to be had. It's certainly less efficient in terms of the allocation of risk and giving people the price that's right for them. But it definitely has a social benefit of saying, actually, we're not going to prejudice you because you're old or a particular ethnicity or because you're a man or woman or anything like that. And I think that is a debate to be had, because there is a trade-off.

**JONQUIL LOWE:** I mean, the argument with gender was really, though, that gender was being used as a proxy for other things. So behavioural things were underlying that. So you shouldn't really be using those kind of proxies of features of people that they can't change, they're just born with. You should actually do more detailed data analysis that actually gets to what's underlying it.

**WILL BRAMBLEY:** True. But I think all-- when you use these big data models and you're putting in-- you're looking at correlations, rather than necessarily causal links, you're always looking at proxies in that sense. Now, I do see a difference between proxies you can change, proxies you can't change, and that sort of thing. And I definitely don't think that-- I mean, so one of the examples, if you live in a poor neighbourhood, you're going to have to pay more for your car insurance. You're going to have to pay-- you'll actually get better rates from an annuity, because you're expected to live less.

Now, that's not fair, and it penalises people who can't afford to move to the nice areas in exactly the same way as schooling systems do, and that sort of thing. And I think there is a whole debate around that. But I am uncomfortable with the idea. But at the same point, I can see the benefits of using these data in that if you couldn't use any of this, if we said, actually, we're going to have to treat you as an individual, the old-fashioned idea of your friendly bank manager sort of looks at you and looks at your proposal and goes, yes, I think that's OK.

That was incredibly inefficient. It meant that loans were incredibly expensive to get, that banks had huge costs involved, and that those costs got passed on to consumers. And this is the trade-off is that, as much as people bemoan automated systems and not being able to get

someone on the phone, this is what makes banking cheap. This is what makes it something that's available to everybody, what helps with mortgage rates, that helps with credit card rates, all of these things.

**KAREN FOLEY:** No, absolutely. Will and Jonquil, we're nearly out of time, and I bet there was so much more to discuss. I wondered if we could close by talking about two MOOCs that you're both involved with. And I think I'd like to ask you first, because it relates so well. Jonquil, you're involved with the Inequality and Personal Finance. And Will, if you could also mention one of the digital economy MOOCs, which is Finance for Business Growth.

Jonquil, tell us a little bit just in one minute-- because we are going to draw to a close-- just about that MOOC and what's so unique about it, because it is a really good one that's been running for quite a while. And I'm really pleased there's going to be a new cohort of that.

**JONQUIL LOWE:** Yes, indeed, there is. So there's a lot of concern in the world these days that we've got huge inequalities. So there's the 1% that are running off with all the wealth and the 99% who are feeling very much left out. And it's quite interesting, actually, with the Brexit vote, because one wonders whether underlying that is some of, well, do we really care if GDP grows or not, because if we're not getting a share of it, why would we be bothered?

And so, the MOOC takes some of the data to look at does inequality exist? How big is it? How has it been changing? We take a couple of case studies, which is housing and pensions, to look at how those are very different, particularly for older generations and younger generations. So we've got an intergenerational aspect going on here as well.

And then in the fourth week of the MOOC, we start looking at different models, because inequality seems to be becoming a sort of inevitable outcome of the brand of capitalism that we have. And there are other ways of organising society and economies which are more sharing, more inclusive, and perhaps offer an alternative model. So it actually ends on quite hopeful mutual minds.

[LAUGHING]

**KAREN FOLEY:** It's going to be from the social sciences perspectives, wouldn't it? But Will, the other one that we have is, of course, on the digital economy, which is Finance for Business Growth. And this is one within this suite from the business school.

**WILL BRAMBLEY:** So yeah, Finance for a Business Economy is-- Finance for a Digital Economy-- it's all about, really, trying to cover a whole range of topics to bring some of the academic thing to be a bit more practical. The idea, if you're helping to run a firm, if you're involved in a large firm, whatever it is that you do in that sense, where is it you might look for finance? Talking about new forms of finance, crowdfunding, peer-to-peer lending. It looks a bit at some of the new ideas around behavioural finance, around risks within firms and how can you manage them. It's really quite a broad church, actually. So it includes, I think, quite a lot of things there.

The other MOOC I actually would quite like to mention quickly is we do also run-- in the Centre for the Public Understanding of Finance-- a series of personal finance education MOOCs, which given the topics that have moved a bit towards that as well. So there's Managing My Money, which is a basic one for everything we think people need to know about pensions, investments, that kind of stuff. Managing My Investments, which is a bit more in-depth into what actual mistakes might you make, and how can you correct them. And the new one, called Managing My Financial Journey, which looks at the consumer journey, at the history of the industry, and gives a little bit more of an academic flavour, I think, to it.

**KAREN FOLEY:** Wonderful. Thank you. Well, thank you, Jonquil and Will for being here tonight. That's been a really, really interesting session. And you can go and find out more about those MOOCs. Do sign up for them. They're really, really useful. And just in four weeks, you could learn an awful lot, a nice bite-sized chunk there.

Will will be continuing the discussion in the chat, and then we'll be coming back in just under half an hour to draw the sessions to a close. So we'll see you very soon, but do keep those questions in the chat box. And if you aren't, in the chat box, you might like to join us using the Watch and engage function, which you can reconnect with from the website.

Also, if you do have a second, we'd love to know what you thought about this event. There's a Feedback button on the website. It takes just a couple of minutes to fill that in. So please do let us know your thoughts, your suggestions, and how you've experienced this whole event. But I'll be back in just under half an hour, and I'll see you soon.

[MUSIC PLAYING]