Hayley introduces the podcast:

Hello and welcome to The Buzz: a University of Manchester podcast about all things science and engineering here in the city of Manchester. Each episode will be shining a light on some of the research happening here: how it was influenced by the city's past and how it will shape the future. We'll celebrate the University's heroes both past and present. Legends like Alan Turing, Jocelyn Bell Burnell, Ernest Rutherford and Brian Cox. We'll also chart its greatest achievements like the isolation of graphene and the development of the first computer and we'll meet with the scientists and engineers who work here today. We’ll ask what are they working on, why does it matter to them and how will it impact the world.

In this episode we take a look at the renaissance of Manchester’s textile industry through the birth of fast fashion. This is a sector whose influence on the fashion industry can be seen everywhere from the struggling high streets to the luxury fashion houses. After all, how can you compete with a brand that can deliver the outfit you've seen on Instagram that morning to your door in less than 24 hours and for less than the price of most university textbooks. There's no doubt fast fashion will have come to the rescue for one or two of you this festive season whether you're having a panic over your Christmas party outfit or you needed a last-minute gift.

Manchester is home to some of the biggest and best-known fast fashion brands operating in the UK today. This is a city that was built in the heat of the 19th century textile boom. One hundred years later, Manchester blazed a trail for catalogue shopping . With the advent of the internet it was only natural Manchester would be at the forefront of the fast fashion revolution but at what cost does this success come.

Later I meet with doctors Patsy Perry and Amy Benstead to dive into the murky waters of fashion's dark side. I'll also be chatting to fashion business graduate Rachel cox about what the future holds for the sector. But first my colleagues Joe and Natalie take us back to the time of the industrial revolution to chart Manchester’s fashion ascent.

Joe and Natalie introduce today’s topic:

Natalie: “So can you tell us a little bit about how Manchester started as the centre of the cotton industry. “

Joe: “Yep so Manchester was the birthplace of the industrial revolution in the 19th century and in 1870 it was dubbed Cottonopolis and this was because it was the centre of a cotton and weaving industry that served the world. In fact, at one point around 80% of the world’s imported cotton was produced here. Trading halls were the big commercial centres of Cottonopolis and perhaps the best example of that is the royal exchange. This is situated close to St Anne Square and around 11 000 cotton merchants would meet there every Tuesday and Friday to trade and the building was heavily damaged both during the Manchester blitz in World War Two and in the 1996 Manchester bombing. The building of course now is the home to the Royal Exchange Theatre.”

Natalie: “What about the name ‘warehouse city’? Where did that come from?”

Joe: “In addition to Cottonopolis, Manchester also adopted another nickname that was warehouse city in the second half of the 1800s. This was due to a really big increase in warehouses that was built in the city to support the cotton trade and they first appeared on King Street before spreading to places like: Portland Street, Whitworth Street and Mosley Street. Among these warehouses were what were called packing warehouses and these were particularly tall and ornate buildings such as Asia House, India House and Velvet House. These are located not too far from the University's own Sackville Street building and the packing warehouses really formed the backbone of Cottonopolis.”

Natalie: “and how did they receive all the goods?”

Joe: “Yes so in the 1800s Manchester became a really important transport hub and this was made possible by a few things including the opening of the Bridgewater canal. This meant that raw cotton could be imported from the West Indies and the United States via Liverpool. Coal came from Wormsley. As well as this, the Liverpool and Manchester railway opened in 1830 and with this improved railway network Manchester became more connected throughout the North West”

Natalie: “Can we still see any evidence of Cottonopolis around Manchester today?”

Joe: “Yep there's lots of evidence of it and probably most notably in the buildings particularly in the northern quarter and Ancoats; two areas that are now known as the more trendy parts of Manchester. In Ancoats in particular there's quite a few old mills which are now being turned into luxury apartments. Also, in pubs such as the Grey Horse on Portland Street and The Vine on Kennedy Street. These were once weaver's cottages and if you look closely at the second-floor windows they're quite distinctive: they're quite large and this was to maximize the light that came in. Also the Great Northern which is now a big kind of leisure complex with restaurants cinema (even axe throwing I think!). This huge brick building tied together the city's road, rail and canal networks. Also the Castlefield basin, which is now a place where music gigs and other events take place. This was the terminus of the Bridgewater canal and the Science and Industry museum was the original Manchester station building for the Liverpool and Manchester railway.”

Natalie “Has Manchester always been such a trend-setting city”

Joe: “Yep. Plenty of trends have kind of been set in Manchester down the years. One of the most obvious was the Manchester scene of the late 1980s. Think baggy pants bucket hats and bands such as the stone roses and the Happy Mondays. Also, Manchester has a history of kind of promoting independent shops especially in boutiques throughout the northern quarter and perhaps the most well-known is Affleck’s palace which has been a place where people have been buying alternative and vintage clothes for decades. Of course all the big-name shops can be found throughout Manchester in places like the Andale centre and the Trafford centre”

Natalie: “What about the rise and the huge rise in online shopping?”

Joe: “Yep so Manchester’s a really big player in online shopping. it's actually the UK's largest technology hub outside London. A lot of big name ecommerce brands have set up shop here and with the advent of digital technology has come fast fashion which we're obviously going to talk about in more detail later in this podcast. Fast fashion has many advantages for the consumer such as being able to order clothes cheaply and having them delivered quickly d but there's also many disadvantages in relation to things like the environment, waste and exploitation, which again we'll look at in more detail later.”

Natalie: “What role does the university play in fashion?”

Joe: “Today the University offers a range of fashion business and technology courses. We have lots of experts in the field which we'll feature in the podcast later, but the university also has a very rich history when it comes t fashion and materials in particular. For example, during World War One we developed new ways to test aircraft fabric and during World War Two we developed new materials for barrage balloons and parachutes. Throughout the 19th and 20th centuries, there's been huge advancements made at the University such as the development of artificial intelligence, modern computing and chemical engineering. Today of course, we're leading the way with graphene and this was isolated at Manchester in 2004. It's the world's first 2D material and it's being used for all kinds of things including in running shoes and race cars. There's lots of big plans for it moving forward and it's a good example of us trying to produce materials that are stronger and lighter and more sustainable. Importantly, the new Manchester Engineering Campus Development (or MECD as it's also known) is going to be the new home of engineering at Manchester and promises to be a real centre of innovation. The site where this is being built was the former site of the Manchester materials science centre which was the former home of the Department of Materials and this is a really good example of the University building on its proud heritage in order to shape the future.”

Hayley introduces the new topic:

Fashionistas have never had it better. There has really never been a more convenient time to shop. If you spot an outfit you love while you're scrolling through your Instagram account one night you could have it delivered to your door the next day for less than the price of a cup of coffee. Is it any wonder we're now more likely to have a bag for life than a dress for life?

I'm Hayley Cox and I work here at the Faculty of Science ad Engineering. As the British high street declines, online retailers continue to grow. Fast fashion is getting faster as retailers compete and all the while prices are getting lower. I sat down with Dr Patsy Perry and Dr Amy Benstead from the Department of Materials to learn more about the dark side of the rise of fast fashion. But before we get to that, what exactly is fast fashion? I asked Patsy to explain.

Interview with Patsy and Amy begins

Patsy: “…It’s [Fast Fashion] cheap and cheerful and disposable clothing and sometimes people do buy it for only to be worn one time so it's almost like a single used plastic item.”

Amy: “There's like new drops literally every day so people can go online every day, even to the same brand or retailer, and find newness every single day. It used to be a couple of seasons a year, but it's now seasonless”

Hayley: “Wow okay so what do you think is behind the growth in fast fashion?”

Patsy: “It's an incredibly slick marketing machine. I think in terms of the website experience, the speed and the accuracy of the delivery and the reliability of the delivery; these are all powerful. Also the social media marketing and influencers that are behind the brands that encourage us to buy things and show these garments in their best light and kind of feed that frenzy. They create that excitement”

Hayley: “Would you say that social media has had quite a significant role to play in the growth of fast fashion? I’m thinking of sort of that idea of taking the shopping experience out of shops out of the 9-5 window and moving it into just sitting on the sofa at the end of the day scrolling”

Amy: “Yeah because you can just sit watching tv or shop even in bed. I mean people are spending a lot now just kind of before they drift off to sleep because it's now accessible 24 hours a day and people don't want to be seen in the same outfit more than once because they're constantly posting photos on social media”

Hayley: “so it's almost like it plays into this need we have for individuality and status and promoting that the online life as it were the social Instagram persona”

Patsy: “Yeah and that kind of novelty so especially if you're using garments not particularly to wear out but just to be photographed in then you don't need to wear them again and you probably don't want to wear them again.”

Hayley: “Okay so we're used to online brands leading fast fashion but are high street stores also getting in on the act you think?”

Amy: “Yeah I think they're having to be able to compete because they can't lag behind. They can't be seen to just be having kind of newness in their store once a month or once a week, they need to be having new items to buy every day as well”

Patsy: “And it is impulse purchasing that these companies rely on isn't it because we don't need any more new clothing. But if you can get consumers to buy something purely because they like it and they want it there and then then that's a good business model and it's a revenue stream”

Hayley: “So do you think fast fashion has made fashion more accessible to more people and do you think we're shopping more as a result?”

Patsy: “Yes I really do think so. It has brought a style to the masses and we can all indulge in brand new garments at very very low prices; not much more than a coffee and a sandwich. it's fun to experiment with different looks and try and recreate your favourite celebrity style and also be able to wear different things every day”

Amy: “And it's made it more accessible to people that have a lower income as well so maybe they couldn't have new clothes before they were buying second-hand and now they are actually being able to go into the shops and buy things that at a time were very aspirational and now they can go out and buy and be like everyone else”

Hayley: “What could be better than getting a brand new outfit a low price in 24 hours… but obviously there's a cost so Patsy you specialize in the environmental cost of fast fashion. Can you tell us a little bit more about that?”

Patsy: “Well there’s increasing volumes of production that are being made because of the growth of fast fashion. It's growing all over the world so not just in western countries but also in developing and emerging economies where populations are growing and those populations are going through periods of economic development. These people have more money to spend so there are huge swathes of the population that want to buy into this now. The great volume of the stuff that is being produced is being disposed of very rapidly because it's not warm or kept for very long. It is leading to a massive waste of resources, pollution and increasing volumes of textile waste predominantly going to landfill”

Hayley: “What are the biggest concerns: is it the production side of the operation or the waste that results from it?”

Patsy: “It's kind of both areas really as they are very closely connected. The production is very energy intensive, uses a lot of chemicals and lots of waters. They are predominantly synthetic fabrics now which don't bio degrade and because of the trend of wearing things and not keeping them and also how people dispose of them, we don't really have a closed-loop garment to garment recycling system. Instead mostly everything is binned when it's not desired anymore”

Hayley: “So I suppose it's like we're more aware now of plastic bag use and we use bags for life but someone might not think that when they just throw out an outfit it's actually going to take the same amount of time to break down…”

Patsy: “Yeah absolutely because they're made of similar materials (it all comes from the same source of petrochemicals) and it's all going back into the environment. We're becoming more conscious about plastic use but we need to translate that into garment use as well”

Hayley: “so 2019 could be seen as the year that people really woke up to the reality of climate change but do you think that consumers are aware of how damaging fast fashion is to the environment?”

Patsy: “I think we are becoming increasingly aware. We've seen a lot more in the news; a lot more celebrities and influential people are talking about this and also lots of brands both online and on the high street are showcasing various initiatives that they're doing. People are waking up to it”

Hayley: “I think we can agree that people are becoming a little more familiar with the environmental impact of fast fashion but there is another dark side to it that people might not be aware of. Which brings us to your research Amy… If you could tell us a little bit about that?”

Amy: “Yeah I mean fashion has a social cost. It's a very labour-intensive industry which has meant that production moved offshore. When you think about how we used to have a lot of production in the UK and then it moved to the Far East because it was cheaper… that’s always happening as they’re moving around looking for that cheaper option. They obviously want to be able to charge low prices in the shop and yet the cost has to come from somewhere. It’s a labour-intensive industry and they'll often look for a low-cost labour country. There's that social cost where people are suffering and people often don't associate that with their clothes. I think they're becoming more aware of maybe the environmental side but they aren't thinking actually who made my clothes. That's the real issue at the moment that people are being exploited to make cheap fast fashion.”

Hayley: “And you mentioned how this began when more and more manufacturing was taken offshore to bring down the cost of production, but obviously with fast fashion this isn't something that's just happening overseas anymore…”

Amy: “No so it's happening here in the UK and that's often quite surprising for people because they think that it won't be happening in the UK. Obviously if you want speed like you said, then we've found that production is starting to come back to the UK. There are certain hubs. There's lots of production happening in Leicester, for example. Obviously, you've got higher costs in the UK so something's got to give. Unfortunately, it's people. People that aren't being paid the minimum wage for example and working very long hours. It's a very complex issue as well and companies are quite nervous about producing in the UK because they want the speed, but then there's also the exploitation that's taking place. A lot of the bigger retailers are also aware that this is happening and they are joining a lot of initiatives to see what can actually be done in the UK to improve the situation”

Hayley: “What sort of initiatives are those?”

Amy: “A lot of the brands are doing things themselves as well and visiting the factories on a regular basis. However, there's just hundreds and hundreds of factories and subcontracting which again is another issue in the industry. A retailer or brand will place an order with a factory and this could be a factory that they've visited and that they've audited and then made sure it's okay, but then the order won't actually be made there. It will be subcontracted to another unit that isn't compliant and it's so difficult to actually have visibility of where your products being made and this happens in every country that production is happening.”

Hayley: “You mentioned earlier that you think this side is something that consumers probably aren't aware of when they think about where their clothes have come from. Do you think that if they did know, it would alter their spending habits?”

Amy: “There are probably more sustainable brands available now than ever, but it's quite difficult. I mean a lot of them are at a lot higher of a price point so that's not necessarily accessible for everyone. I think there's still a lot of confusion as well, like Patsy said, amongst consumers and they're not really sure what they should be buying or what the best option is. Most sustainable brands do not have like a really wide offer so you might not necessarily be able to find the exact item that you need”

Hayley: “Do you think that influencers social media influencers and brand ambassadors have a duty to take more responsibility over what they promote?”

Patsy: “Interesting. I think so and it's kind of coming into regulation now isn't it? There is more of a debate about this. We've seen it focused around other products: you're not allowed to promote things like diet pills and stuff on Instagram. That's been all shut down hasn't it ? I think we are questioning now the rights of people just to promote anything to a big audience of people that are quite susceptible to following what they say, just for them to make money off of it.”

Hayley: “Can the environment ever take priority over consumerism and what do you think would need to change for this to happen?”

Patsy: “I think we'd need to see much more of the effects on our own territory whereas at the moment we're quite far removed. Probably most people haven't even been to landfill sites. Certainly nobody in this country would have seen a polluted river or seen the after-effects of chemicals being sprayed on children that are born in that community and so on. It's really difficult to imagine because we don't see the effects of it here… hopefully we won't ever see that, but I’m sure if we carry on the way we're going, there could come a day where that happens everywhere.”

Hayley: “We’ve seen fast fashion really explode almost out of nowhere due to a number of different factors that we've addressed but what do you think the future holds now for the fashion industry?”

Patsy: “Yeah there's lots more options now but there's also lots more innovations and different fibres coming; non-traditional fibres, like fibres made from waste materials like ocean plastic waste or vegetable waste and bio fibres and so on. All of that's coming. There are fashion designers emerging from all parts of the world so I think it's a really interesting time and we need to think about what fashion is to us. When you're young, it means something different from what it does when you’re older. I think as you get older, you become more aware of the problems that it causes. You become more conscious. But it's hard when you're a young person. You don't really know about everything at that stage or, for example, if you've worked in the industry or you've researched the industry, you have much greater awareness than the average consumer would have. When we go into a shop you can't necessarily say that one item's the better option. It's really difficult.”

Amy: “There are more sustainable brands being introduced as well. I think there are more options available. I think big brands and retailers are becoming a lot more transparent. They're having to publish modern slavery statements and there is a lot more information being made available to the consumer. I don't think we're necessarily at the stage yet where all consumers are kind of actively going out to find this information. It definitely needs to become a lot easier and accessible for consumers to know kind of what is right and what's the better product to buy so we're not quite there yet.”

Hayley: “Do you think policy change is needed from the government to make this move a little bit faster?”

Patsy: “I think that's the only thing that would make things speed up. But it's a difficult one isn't it? You want to protect the industry because it’s a big employer and a massive contributor to the economy. It’s also our culture and our lifestyle. So, it's not easy. If there were easier options, for example, that people could easily access repair services or repair cafes. Or that they could easily find things that were made from recycled materials or even access rental services at a reasonable price, then that’d be very beneficially. At the moment that's not really there in the environment…”

Amy: “They could be greater teaching in society too. For example, teaching textiles in schools so that actually everyone knows how to sew and how to mend and then they can actually have that longevity when they buy something.”

Hayley: “You both teach young people. You both teach fashion business and fashion marketing students. Do you think there's going to be, or are you seeing, more of a move towards shopping at charity shops, clothes swaps and a make-do and mend mentality among young people?”

Patsy: “I think we've always had that in this part of the world. I think we've kind of grown up on vintage and all of that stuff from the 1970s. Our students are quite keen on them and alternative sources of fashion and style but it's not for everyone. I think we have to be mindful that hygiene, cleanliness and so on are factors. Garments do degrade over time and they do get dirty, worn out and smelly, so there is a limit to what you can buy second hand. But I think nowadays with fast fashion, people are actually donating goods to charity shops that haven't ever been worn so you can actually go charity shopping and pick a few bargains which are absolutely brand new with the labels still on.”

Amy: “I think the students are becoming a lot more aware and a lot more inquisitive and they’re questioning what's going on. On the sustainability side, they do projects in their final year when they set up their own business and a lot of those are sustainable businesses. I think they are becoming a lot more conscious. When they're actually going out into employment as well, I think they're actually more conscious about who they're going to work for.”

Hayley introduces a new section

We've heard how Manchester has been at the forefront of textiles and later fashion for more than a century. Today the city is home to some of the country's best-known fashion brands offering cheap and on-trend clothing from an online basket to your door in a matter of hours. But if something seems too good to be true, it probably is. As we've heard, the fashion industry has a dark side. So, what does the future hold? what questions should we be asking of our favourite brands and shops? I spoke to Rachel cox, a recent fashion business graduate about how consumers can help change the industry.

Hayley’s interview with Rachel.

Hayley: “Christmas is over and we all probably have at least one outfit hanging in our wardrobe that we will never wear ever again. It's also a new year and people want to better themselves. With that in mind, what's your new year's resolution?”

Rachel: “Good question to start. The one that I’m going to continue that I’ve done probably ever since I actually joined the university, is to boycott most high street stores. Now, at the end of the day, there are some that I do think are better than others. But just as much as you can. The idea is, if you can boycott mass manufacturing wherever you can, then actually it’s not a bad way to start. Also, I will try to just repair and protect too. Despite being a textile student, I haven't actually learned many repair skills because it was more the business side. It wasn't a lot of sort of basic repair and protect skills. I'd like to get back doing some of that just so I can. There's a lot of things that I loved wearing and I realized this may be slightly broken. I thought there's no point in chucking it out. I will try to just maintain them I think and keep on top of it.”

Hayley: “When you're thinking about boycotting certain high street brands, what are you looking for? What is it that will make you say “that's it, you're not getting any more of my money”?”

Rachel “I think it's any research that I’ve done on the brands in the first place and/or that they've maybe potentially green washed. This is basically where they try to sort of put environmental and social messages out there but they might be then exposed to slave labour or somehow down the supply chain, they have huge environmental problems. I think what I’ve personally I've done is to look at the stores I go in and see if there is so many rails. There’s just usually so many things around. It can be way too good to be true that they have these ethics and yet all this stuff. It's really difficult because honestly just by me saying I boycott places it's like it's not just as simple as that. But I know that by boycotting a lot of big high street chains, it's one way of stopping the support of those practices.”

Hayley: “So if it seems too good to be true, it probably is…”

Rachel: “Basically yeah! You're asking what's the catch? I think there is some sort of moral as well in this. There’s charity shops there's thrift shops and there are local suppliers to places that are affordable. You have to look for them a lot of the time, but they are affordable and actually I think it's doable. You just have to make that commitment as much as possible and if you are used to shopping somewhere because of a certain style or a certain thing, the best thing to do honestly is just have a look elsewhere else. I think the thing is with the number of second-hand stores there are around, it's easy to find something very similar to what you usually would want.”

Hayley: “You mentioned a certain high street brands green washing before. Perhaps to sort of jump on the green trend, what do you think the fashion industry should really be making its new year's resolution?”

Rachel: “I think one of the main things they should be doing is talking to each other high street brands and also talking to other fashion companies. This can be within the luxury sector or even with the thrift shops themselves. They should see what sort of schemes they run and just have more collaboration. I think if people talk about the problem, it could help to solve it. I think people don't talk to each other enough. Also have different companies, not just fashion companies, but have companies in industries like the food and marketing industries involved. It would be really helpful if everyone just started collaborating more and talking more because actually, whilst it's good to have different ideas, it might not always work in a certain area or with certain brands. By actually having that idea in the first place it's like “well where can we take this?” and the conversation's been made at least.

I think that's one thing and the other, sort of linking to that, is future strategies. At the end of the day, I think there's so many discussions that happen. Many people, myself included, always say the fast fashion model isn't workable. Even if you have different types of materials, it's not sustainable. The actual model is based on the idea of the business churning out so many clothes and products and yet the consumers is just potentially throwing them away at such a fast rate. The model is just completely unsustainable. By actually having these businesses have these conversations to look at future strategies; at long-term strategies, we will hopefully see them minimising the impact on society and the environment. I think that's another thing they can do.”

Hayley: “We've heard that the materials used by the manufacturing techniques used by the fast fashion industry are incredibly harmful to the environment. That in order to make that model work, (not by *every* brand and *every* sector) some use slave labour. It sounds like you're looking at an even bigger picture; at completely overhauling the entire fast fashion model and saying that the current model doesn't work. Can you explain a little bit more about why you think that model isn't working?”

Rachel: “I think because it just causes so much inequality obviously. I think the idea of being able to afford amazing clothing at these low prices and own so much of it as well, it makes us think we're very rich. In reality, there is someone always losing out.”

Hayley: “You're a fashion business graduate so you're looking at it very much with an expert's eye. But you're also a shopper. You buy clothes and you follow trends. So, as a consumer what power do you think we have to change the industry?”

Rachel: “I mean I have followed trends before, but one thing that I’ve found that I’ve always loved doing as a kid is just purely being yourself. if you want to follow trends: great that's fine. But just, I think just honestly consuming less and then when you find something you want to buy, just make sure you absolutely love it . Then if you love it, you will wear it a lot.”

Hayley: “Coming back to something you said just before about making the most of what you buy and really thinking about if you want it when it comes to fast fashion, how do you think we really can get the most out of those clothes? Especially clothing that often isn't designed or made to last.”

Rachel: “There's a good concept that's kind of around at the moment and it is to try to wear clothes 30 times at least before you either sort of get rid of it or you pass it on or something like that. But actually, I think personally that should be more at the end of the day. It's a good concept to start with as it asked the question: are you going to wear? Then if you're not, then obviously question whether you're going to buy it. If you do buy it, then think “right what can I do with it afterwards?”. Don't just throw it away: recycle it, reuse it, let somebody borrow it, change it yourself or learn how to alter them.

This brings me on to another point about sort of protecting and repairing items of clothing or accessories. That's one thing that I think we're just not taught to do anymore. We do not know how to fix things. It's like I said before, why would you want to get rid of something you absolutely love even if it is a bit broken?

I think material consideration is a good point too. Now this is obviously a huge debate at the moment because of the plastics and with polyester and other synthetic fibres. Obviously, cotton has also been called out as being quite a very unsustainable material. There's obviously the material process but there's also the actual process of what happens to the material afterwards. I would argue that at the end of the day, synthetic fibres are probably overall worse but at the same time it depends. It depends how you use it and what you buy with it in. It depends how you care for it as well. That's one thing to consider but it is a big topic there as well. Also, thinking about outfit variation; so when you do actually buy something , you should think. I'm not saying for people to go for really sort of bland things and to be able to have to match everything, but do think” would you wear this? And how many variations can you make out of your wardrobe? If you can make loads, then great there's nothing wrong with that.

I think one of the things as well that’s a good tip is sometimes we feel like we have to wash and launder clothing. Obviously, it depends on the person and how you feel but you really don't have to launder as close to as much as people think. With jeans, for example, you can get away for months without actually washing them properly. If you look after them they can actually be kept well.”

Hayley: “What's the problem with over washing our clothes?”

Rachel: “Over washing basically encourages microfibers to escape which are basically the small fibres you get in any material. This happens especially with synthetic materials and plastics. They are small particles of plastic and they can get into the waterways through your washing machine and this is a major problem. I think there's a lot of like laundry bags that you can put your washing in. These collect the fibres, but there's been a huge argument recently of well if you're just going to collect the fibres and put them in the bin, isn't that just as bad as letting them go out into the waterway? That's also what's considered as greenwashing. It's a very difficult thing to know from a consumer's perspective about what they can actually do. I think that's where if you do feel like you can just sort of hold off from too much laundry, it will make a difference. It might not feel like it, but if everybody's doing it, then it will.”

Hayley: “The primary consumer base for fast fashion markets is young people on a low income but with few financial commitments. People who follow trends, people who are social media savvy. The industry banks on these shoppers putting their desire for the latest styles and for the latest trends above the environmental impact. To put them above the people cost. But do you think that this thinking is a little dismissive? The extinction rebellion was spearheaded by young people, do these brands need to wake up and see that this is actually something that matters to young people more than just having the latest outfit?”

Rachel: “Absolutely. It is dismissive. It's the young people's future. It's our futures that actually we know are coming shorter and shorter. It’s coming to an end if this doesn't get sorted out. Just because we’re young, it doesn't mean we don't have a valid opinion. At the end of the day, you don't have to have a full 50 years of experience to suddenly realize “hey! something around the planet that is happening, is not great at all”. But yeah, I think it's really dismissive just to generally say that young people like just to prioritize fashion and trends and that's it. I don't think they do at all. I think now that a lot of people have actually seen the impact and they realize the huge impact that this has, I think they do want to make a difference. It's just finding the opportunity to be able to make a difference that's also not absolutely exhausting to them and without obviously impacting on them too much because it isn't easy.”

Hayley wraps up the episode.

That's all for this episode of The Buzz. If you're still thinking of a new year's resolution, your wardrobe might be a good place to start. We'll be back with a new episode soon delving into another science and engineering subject. We hope you've enjoyed what you've heard and if you have any suggestions or requests for future podcasts or if you'd like to comment on anything we've covered, then please get in touch our email is fsemarketing@manchester.ac.uk and you can follow the faculty on Instagram and Twitter at @UoMSciEng. We also have a Facebook page and YouTube account. Links to all our social media can be found on our website at [www.manchester.ac.uk/TheBuzz](http://www.manchester.ac.uk/TheBuzz) along with further information on what you've heard today. So feel free to get in touch but if you'd prefer to just listen that's great too! Subscribe to the podcast via iTunes or your usual podcast supplier and give us a like or even a review we'll see you next time.