Gender and the emergence of the 'geek celebrity' in young people's celebrity talk in England

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ABSTRACT

In this paper, our two starting points are the growing policy focus on encouraging coding or computer programming as an aspiration for young people and the entrenched gendering of participation in computing. Drawing on group and individual interviews with 148 young people across England, we argue that the 'geek celebrity' is an emerging figure in young people's imaginations, as an aspirational and inspirational 'role model'. Using discursive psychological approaches, we analyse the 'geek celebrity' as a discursive formation looking at three key patterns of meanings, or repertoires, and tracking the ways these are gendered. First, the business repertoire positions the geek celebrity as a source of social innovation, impact and initiative. These traits are viewed universally positively by young people and are normatively masculine. Second, the celebrity repertoire positions the geek celebrity as having huge wealth and status. Through their philanthropic use of these, together with their associations with business and intelligence, geek celebrities are seen as deserving of their celebrity. Finally, the geek repertoire positions the geek celebrity as highly intelligent and socially awkward, traits that are aligned with masculinity culturally. This impacts on how young men and women speak about them.

KEYWORDS

Bill Gates, business, celebrity, computing, geek, gender, nerd, technology

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INTRODUCTION: CODING OUR FUTURE

Technological knowledge and skills have long been aligned with individual and national economic progress (e.g. DfES, 2006). However, the last three years have seen a new and distinct promotion of coding, or computer programming, by a range of national and transnational bodies and corporations. In 2013, the European Commission set up an annual Code Week with events across Europe aimed at children and young people, alongside the European Union's Code for Europe, in which "agile" and "entrepreneurial" developers "solve local civic challenges". The UK Government declared 2014 The Year of Code and introduced computing into the primary and secondary school national curriculum. Code.org presents itself as a global campaign with its website proclaiming that students of its tutorials have written over 7 billion lines of code. There is now a UK version. These initiatives indicate a significant investment in programming careers within education and economic policy, aligning coding with business and entrepreneurialism within an alleged 'knowledge economy' of high-skill jobs. These moves draw on the growth of 'new media work', "popularly regarded as exciting and cutting edge. ... [I]ts practitioners are seen as artistic, young and 'cool' – especially when compared with the previous generation of technologically literate IT workers... who had a distinctly more 'nerdy' or 'anoraky' image" (Gill, 2002, p.70). However, while many, if not most, of the early computer programmers were women, computing has become an increasingly male-dominated field (Abbate, 2012; Bury, 2011; Prescott and Bogg; 2011). Thus it is vital to interrogate the gendering of these new worker identities to which young people are encouraged to aspire.

The varied coding campaigns that have emerged over the last few years provide an insight into such gendering: they both deny and reproduce the gender inequalities that mark computing participation. Women are implicitly constructed as a problem, by being mentioned repeatedly in relation to a discourse of 'untapped potential'. Neelie Kroes, Vice President of the European Commission, assures her viewers that coding is "for men and women". The young woman who fronted the 2013 European Code Week campaign, Alija Isaković, states that her key motivation is all the young women she knows with great business ideas who lack technological know-how, and informs us of initiatives aimed at "kids, women, adults", as if all adults were male. US President Barack Obama, speaking for code.org insists that coding is for everyone "whether you're a young man or a young woman". The UK and US-based campaigns are keen to present a rainbow image, with a high profile US video featuring a Black girl in a village and a Middle-Eastern girl in a hijab telling us in their own languages how many lines of code they have written. However, it is more often white men who speak from coding experience while women and people of colour figure as amateurs who are learning to code. When women do feature as coders, they are far less famous than their male counterparts such as Microsoft founder Bill Gates and Facebook CEO Mark Zuckerberg. So while these campaigns superficially present coding as democratic and accessible to all, inequalities appear through the placement of bodies and the direction of flow of knowledge.

Even as these campaigns attempt to re-brand coding as trendy ("great coders are today's rockstars") and inclusive ("it's easier than you think"), they remain haunted by 'geek clichés' as we encounter young men who taught themselves to code before they reached adolescence and built successful businesses in their teens. These geek clichés are also embodied in the celebrities they feature, including many like Gates and Zuckerberg, whose public images encompass *both* business success based in coding skills *and* social awkwardness. These campaigns are largely aimed at young people, hoping to encourage them to follow educational and career pathways in the field. But '"w]e still do not know what the real messages are which reach adolescents and young adults when they see a … role model ahead of them (Byrne, 1993, p.92). Given the tensions we have begun to sketch here, in this paper we analyse young people's views of these 'geek celebrities' who are being presented to them as aspirational role models. We do this by drawing on a large-scale qualitative study of the role of celebrity in young people's aspirations in England. We use data from group and individual interviews with 148 young people aged 14-17 to evidence the emergence of a new discursive formation: the 'geek celebrity'. We show how this figure is culturally aligned with masculinity, combining business success, celebrity status and geekiness.

THEORY AND METHODOLOGY: ANALYSING THE RELATIONS BETWEEN GENDER AND TECHNOLOGY.

A large body of work explores the gendering of mathematics and science. Research shows that media representations of people who work with these subjects are predominantly white, middle-class, 'geeky' men (Moreau, Mendick, & Epstein, 2009; Haran, Chimba, Read, & Kitzinger, 2007; O'Keefe, 2013). Further, analysis of these subjects has shown that they are constructed through a series of gendered oppositions which position them with masculinity as objective, rational, hard, against subjective, emotional, soft, feminine subjects, in ways that make it more difficult for girls and women to identify with them (Archer, DeWitt, Osborne, Dillon, Willis & Wong, 2012; Mendick, 2006; Walkerdine, 1988). However, while there has been much research on media and wider cultural representations of mathematicians/mathematics and scientists/science, there is relatively little work on coders/computing. That which does exist positions the discipline similarly, arguing that images of disembodied machines controlled by geeks and hackers culturally align technology generally and computing specifically with masculinity (Clegg, 2001; Lupton, 1995; Wacjman, 1991). These impact on women's relationships with computing (Bury, 2011; Phipps, 2008), in ways that intersect with social class, ethnicity and sexuality (Stepulevage, 1994; Varma, 2007). In this paper, we contribute to this literature by interrogating the figure of the geek celebrity, mapping the contours of this new discursive formation and tracing its relationship to gender. Following Linda Stepulevage (2001 p.326), we explore not the male-dominance of technology per se, but the relations between gender and technology "so that the social practices which help to constitute difference can be highlighted". Following Judith Butler (1990), we see gender not as 'natural', a fact about oneself, but as a phenomenon that is being constantly produced and reproduced through our talk and actions, including in relation to technology (Bury, 2011; Wacjman, 1991).

This paper draws on a larger study of 'The role of celebrity in young people's classed and gendered aspirations' funded by the UK's Economic and Social Research Council. Our rationale for the research was to intervene into debates around the impact of celebrity on young people's aspirations. UK politicians and teacher unions have spoken out on the 'dangerous effects' of celebrity, expressing fears that young people are a get-rich-quick generation who want fame (as footballers' wives or Reality TV stars) rather than achievement based on hard work and skill (Mendick, Allen, & Harvey, 2015). Such statements create a 'moral panic' around celebrity, taking attention away from wider social and economic issues and inequalities. They are also based in assumptions about young people rather than evidence of what young people actually say and do. Through our research, we are tracing how discourses, or collections of meanings, about celebrity/ies become part of the ways that young people talk about, and so know, their-selves and others. We show how attending to young people's 'celebrity talk' can help us to understand how they make sense of educational and career pathways (Allen & Mendick, 2012).

Our empirical data are drawn from 24 group and 51 individual interviews with young people aged 14 to 17 – all of whom were in full-time schooling. These were carried out in 2012-13 in six 11-18 co-educational state schools, two in each of: London, a rural area in South-West England, and Manchester (a city in Northern England). In each school, we held four group interviews, two with students aged 14-15 and two with students aged 16-17. Most groups contained six students and all but two were mixed gender. The participants were made up of 81 females and 67 males; 82 were White British and 62 from a mix of Black and Minority Ethnic Backgrounds, with 4 choosing not to answer; 63 of the participants said that at least one of their parents had been to university and 64 that none had, with the remainder unsure or choosing not to answer. We did not impose a definition of celebrity but instead used the group interviews to examine the shared negotiation of meanings around aspiration and celebrity. We began by asking participants to identify those celebrities whom they most liked and/or disliked, moving on to ask them to: describe an 'ideal celebrity'; talk about what makes someone a celebrity; and discuss how they consume celebrity.

As we elaborate in the next section, we were surprised that young people included many technological entrepreneurs as celebrities often speaking passionately about them. In particular, Bill Gates was mentioned in nine group interviews, across five of the six participating schools. As a result, in the subsequent individual interviews, we asked 51 young people, drawn from across the group interview participants, to imagine that Gates (along with 11 other popular celebrities) were their age and attended their school and then to discuss who they would want to befriend, who they would want to avoid, and how each celebrity would perform academically and socially within the school.

The interviews were audio-recorded and transcribed. We used the computer package NVivo to code the group interview data into seven broad themes capturing the main areas of discussion, including 'behaviours', 'genres' and 'routes to celebrity'. We used the spreadsheet Excel to collate and compare the individual

interview data. In this paper we draw across the group and individual interviews, tracking the emerging figure of the 'geek celebrity' and the positioning of the young people in relation to this (Davies & Harré, 1990). Following Michel Foucault (1972, p.38), we describe the 'geek celebrity' as a discursive formation: "whenever, between objects, types of statement, concepts, or thematic choices, one can define a regularity (an order, correlations, positions and functionings, transformation), we will say … that we are dealing with a discursive formation". In unpicking the discursive formation 'geek celebrity' we have analysed the data to identify the detail of the patterns of meanings which combine to constitute it. In doing this we have borrowed from discursive psychology to analyse the fine grain of young people's talk (Billig, 1992; Wetherell, 1998). In particular, we identified what discursive psychology refers to as interpretive repertoires. These are the descriptions or the discursive resources on which people draw in their meaning making. "An interpretive repertoire is a culturally familiar and habitual line of argument comprised from recognisable themes, common places and tropes" (Wetherell 1998, p.400). This tool enables identification and examination of contrasting systems of meaning and how they are accomplished in talk.

In the next four analytic sections of the paper, we first introduce geek celebrities, as they emerged in young people's celebrity talk, and then look in turn at the three interpretive repertoires that young people use to construct them, identifying the key themes and tropes that comprise each. We have called these repertoires: the business repertoire, the celebrity repertoire and the geek repertoire.

INTODUCING THE GEEK CELEBRITY
We identified the geek celebrity through our coding of the group interview data into genres, that is, the broad fields – of music, sport, reality television and so on – that constitute a celebrity's main 'claim to fame'. We used genre as a coding theme because of how, within the young people's talk, as within public debate, genre impacts how celebrities are spoken about with some fields being valued over others (Allen & Mendick, 2012). Business as a genre of celebrity came up in 13 of the 24 group interviews. These celebrities are not as oft-mentioned as those from the genres of sport, music or film, but they feature in discussions in most of the group interviews, in five of the six schools and more often than those from some other genres, notably science and nature. Apart from Richard Branson (Virgin) and a passing reference to the adventure tourism company Bungy, *all of those who young people primarily associated with business are drawn from the field of technology*. Branson, while having a range of other business interests, is increasingly culturally associated with science and technology through many of his high-profile personal and commercial ventures. These include Virgin Galactic's development of space tourism, Virgin Media's broadband and digital empire, and his multiple world-record attempts involving balloons, boats and various other vehicles. Alongside Branson, Alan Sugar (Amstrad), Bill Gates (Microsoft), Burnie Burns and Gavin Free (Rooster Teeth Productions), and Steve Jobs (Apple) are named, alongside "the guy who created Twitter" (Jack Dorsey), "the guys who made Google" (Larry Page and Sergey Brin), "the Facebook guy" (Marc Zuckerberg) and "the FarmVille guy" (Mark Pincus). Of these, all are male, all are white and all but Sugar come from professional middle-class backgrounds (Sugar's working-class upbringing is central

to his public persona, see Allen & Mendick, 2013; McGuigan, 2008). As Kunyosying and Soles (2012) identify, geek brings together characteristics of being non-conformist, unpopular and lacking in social skills with interests in and access to potentially-profitable knowledge. These match with two of the three interpretive repertoires that characterise the young people's talk about these figures: the geek repertoire and the business repertoire. The third is the celebrity repertoire and concerns the wealth and power that attach to their celebrity status. We have thus called these figures 'geek celebrities' because they bring together these three repertoires within a new discursive formation.

Our central methodological commitment throughout the data collection process was that research on young people should be 'youth centred' (Skelton & Valentine, 1998). Thus, we allowed our participants to interpret 'celebrity' and to identify and contest the boundaries of this category. This meant that we were often surprised by those people whom young people included within (or excluded from) celebrity – expanding celebrity from the 'traditional' or 'expected' fields of entertainment and sport to include criminals, politicians and businesspeople. The emergence of this group of geek celebrities is in part a result of the openness of our methodological approach. But it also reflects the wider 'celebrification' of new media careers and changes within the cultural, publicity and media industries that associate celebrity with a broader range of fields (Gill, 2002; Turner 2013). That the fields of business and technology were not talked about more often is also bound up with young people's understandings of celebrity and what and who can be included in discussions about this. Thus it is likely that our data underestimate the significance of these figures in young people's consumption, in relation to who value and view as
aspirational and
inspirational."

We can see the ambiguity about whether businesspeople are 'celebrities' in this group interview, where one young man, OrangeJuice (participants chose their own pseudonyms) questioned whether there were any celebrities in the investment banking field to which he aspired:

> Interviewer: Anyone else want to say … whose job they want to be?
> Maybe you wouldn't want their job, but whose…
> OrangeJuice: My dream job is an investment banker. And I don't
> know anyone, like celebrities that are…
> Interviewer: …any celebrity bankers. [laughter]
> OrangeJuice: No.
> Eleanor-Marie: I don't think I'd like to be a celebrity.
> Syndicate: Alan Sugar is sort of like a role model for that, isn't it?
> (London, 14-15 years old)

Despite OrangeJuice's reservations, as Syndicate's intervention suggests and as we indicated above, a whole range of technological entrepreneurs did emerge in young people's celebrity talk, including Sugar. In this paper we show that their celebrity status is an intrinsic part of their appeal to young people. However, as Eleanor-

Marie's comment suggests, and contrary to widespread assumption, young people are ambiguous about the desirability of fame (Harvey, Allen, & Mendick, 2015). Indeed, celebrity status attached to fame in and of itself, is devalued in our culture (Tyler & Bennett, 2010) within a 'crisis of fame' discourse in which contemporary celebrity is seen to have become detached from work, merit or talent (Mendick, Allen, & Harvey, 2015). Thus the ambiguous location of geek celebrities in contemporary celebrity, and their association with business and technology, allows them to maintain worth as famous for 'the right reasons' and deserving of their status in the public imagination. As we show in what follows, geek celebrities operated in young people's talk to make distinctions, to oppose the good with the bad. Such oppositions are never innocent. Jacques Derrida (2002/1981, p.39) writes, "we are not dealing with the peaceful coexistence of a *vis-à-vis*, but rather with a violent hierarchy." One of the two terms governs the other (axiologically, logically, etc.), or has the upper hand'. In our data we have: deserving celebrities over undeserving celebrities, innovators over the unoriginal, the naturally intelligent over the hard workers, the masculine over the feminine. While ostensibly distinctions between celebrities, these are always already also distinctions between lifestyles, aspirations, and career and educational pathways.

In these next sections we analyse young people's celebrity talk about geek celebrities in greater detail. We track these oppositions through the three key interpretive repertoires that define these celebrities, the "recurrently used systems of terms used for characterizing and evaluating actions, events and other phenomena" (Potter & Wetherell, 1987, p.149). We look in turn at their business success, their wealth and power, and their intelligence and social awkwardness. Throughout we identify how these repertoires are gendered through their associations with cultural features of masculinity.

THE BUSINESS REPERTOIRE: INITIATIVE, INNOVATION, IMPACT
Business is present in the young people's talk in discussions of two groups of celebrities. First, there are the geek celebrities listed above who are primarily defined by their work within the business world (specifically with technology) and for whom fame is a by-product of this. Second, there are a group of celebrities for whom business is an additional label, with their main claim to fame being in another field. They are female-dominated, work in fashion, music and television, and their position as businesspeople is contested; they are not geek celebrities but are representative of geek celebrities' Others. The construction of any position "involves establishing opposites and 'others' whose actuality is always subject to the continuous interpretation and re-interpretation of their differences from" the governing position (Said, 1995, p.332). In other words, all discursive formations are defined by both their inside and their outside. Thus in this section, we look at the oppositions between these two groups tracking how, through these, business is aligned with technology *and* masculinity.

Across our dataset, geek celebrities tend to be discussed positively, being talked about as inspirational, intelligent, successful and as having a huge impact on society, through the creation of new products and services. The following extract is typical of how geek celebrities feature in the group interviews. Here, two young

men who both chose the pseudonym Bob discuss whose celebrity life they would like:

> Bob1: Richard Branson, who's like really rich, and like he has a big business, so you can like improve someone's ideas and make better business as well. He owns a private island, that's pretty cool as well.
> Bob2: I would say Bill Gates because he's really rich and yeah, I just like his lifestyle. ... because he created like a whole new generation to technology, and that's something I want to do. Cos he's really successful because of what he created, so that would be really nice.
> Interviewer: How about you with Richard Branson?
> Bob1: Sometimes business can help people you need business to like run or start like business or marketing or something and some people's careers are to be businessmen and to have like Richard Branson as inspiration, he can help people get some ideas to how to make money and stuff and make profits.
> (London, 14-15)

Both participants first state that they are attracted to Gates' and Branson's lifestyles because of their extreme wealth, drawing on the celebrity repertoire that we discuss in the next section. However, each then mobilises the business repertoire. This repertoire relates business to innovation ("he can help people get some ideas"), initiative ("you need business to like run or start") and impact ("he created like a whole new generation to technology"). These relationships are also evident elsewhere in descriptions of Google as "huge" and Gates as having "created something that everyone uses". One young woman said of Dorsey, "I owe him an awful lot, which is life ... He invented Twitter" (South West, 14-15).

While distinctions between 'digital natives' and 'digital immigrants' are reductive (Jenkins, 2007), these young people are part of a generation who have grown up using technology throughout their lives (Buckingham, 2007). In these data we can see how their imagined connections with the individuals who have created the technologically 'transformative' products they engage with seep into their own aspirations. This connects to wider discourses that position young people in the vanguard of neoliberalism, as those whose entrepreneurialism promises individual and national wealth (Osgerby, 2004). It supports the central tenet of neoliberalism that it is individuals rather than the state who are the main source of initiative and innovation (see Mazzucato, 2013, for a detailed debunking of this).

The patterning of the business repertoire becomes clearer when we look at the six people who are only marginally and/or provisionally positioned within the business genre. They are much more diverse than the geek celebrities, being female dominated and containing people from a range of social class and ethnic backgrounds. They include: models and Reality Television stars Tyra Banks, Kim Kardashian and Katie Price, former Spice Girl turned fashion designer Victoria Beckham, and musicians Demi Lovato and Sean Combs (also known as Puff Daddy and P. Diddy). We are not suggesting that Tyra Banks and these others are geek celebrities. Quite the opposite. We are arguing that the consistent contestation of attempts to link this group to business serves to secure the link between business and geek celebrities such as Gates. They can also reveal the normative gendered,

classed and racialised dimensions of this label.

In the group interviews, drawing on the business repertoire was a way to position celebrities as legitimate aspirational figures. For example, Kirsty, explaining why she admired Price, positions her as having business acumen: 'even though she's known for her botox and … obviously her boobs are massive … I think that she has got a good head on her, and she knows how to make money, and how to create a business" (Manchester, 14-15). Kirsty's framing suggests that she is aware that respecting and valuing Price as a businessperson is difficult and needs to be justified because of Price's associations with the 'excessive' working-class feminine body, via "botox and … boobs" that are "massive" (Skeggs, 2004) and which locate her in opposition to the masculinised realm of business. Indeed, within our wider dataset, the use of the business repertoire to give value to such celebrities was often contested, as in these two extracts:

> Makavelli: He [Combs] made his own water, his own alcohol line, clothing line, as well as music he is like successful.
> Snoop: Then he made, I mean he made the Big Mac as well for Biggy.
> Sasha: Really?
> Snoop: It say Big Mac on it, because he's B.I.G, Biggy. We're told he is B.I.G, Big Mac, you know.
> Edward: Seriously?
> Snoop: Yeah. (London, 16-17)

> Ally: She's [Price] not talented in any way, is she?
> Mavie: She's got a good business.
> Ally: Huh?
> Mavie: She's got a good business.
> Ally: Huh?
> Mavie: She's got a good business.
> Luigi: Yeah, she's made a lot for herself, even though she
> Ally: Yeah, she's got a good business, but is it her that created it? And is it her that done all the stuff? No.
> Mavie: Yeah, for her kids.
> Ally: She's not a businesswoman, I'm telling you know, Katie Price is not a businesswoman.
> Mavie: She owns Mamas and Papas.
> Ally: Sorry?
> Mavie: Do you know, Mamas and Papas.
> David: She, really?
> Mavie: Yeah, that's her business.
> Ally: Yeah, she can own it, but, I think, oh, she's not a businesswoman, she's pathetic, honestly.
> David: Did she make, or did she buy it?
> Mavie: No, she made it all.
> (London, 16-17)

The claims that Combs and Price are businesspeople draw on inaccurate information: <u>Combs is unconnected with the Big Mac</u> and <u>Price is unconnected with Mamas and Papas</u>. However, similar inaccuracies occur frequently in our data, often passing unremarked. What is important here is how the constructions of Combs and Price as businesspeople are strongly disputed by others in the group. Sasha's "Really?" and Edward's "Seriously?" question Combs' positioning and the challenges to Price's are even more strident. Ally three times indicates that he fails to hear Mavie ("Huh?", "Huh?", "Sorry?") when she mentions Price's business credentials, and twice insists that she is "not a businesswoman". David and Ally both question Price's right to be so classified for owning a business: "but is it her that created it?", "did she make it or did she buy it?". This offers a striking contrast to the discussion of Branson and Gates above where their creativity, business acumen and entrepreneurship went unquestioned. Elsewhere, Ally also speaks about Price taking excessive holidays and pursuing an easy route to fame through modelling (Mendick, Allen, & Harvey, 2015). The refusal to see Price and the other women in this group as authentic businesspeople is less about their femaleness per se than specific markers of 'bimbo' and 'frivolous' which are associated with femininity but which also attach to some racialised male celebrities such as Combs, as blackness too historically aligns with body not mind, with idleness rather than initiative (Stinson, 2013).

In this section we have shown that there is an alignment of technology with business in young people's talk so that they treated as commonsense that geek celebrities were businesspeople, while contesting the inclusion of other figures in this group. The business repertoire is thus a crucial element in the way that the geek celebrity is constructed by young people. Through this repertoire they are associated with the positively-valued traits of initiative, innovation and impact. This is achieved in part through a series of oppositions between 'geek celebrities' and their Others: intellect vs vacuity, innovation vs unoriginality, initiative vs idleness, impact vs frivolity, masculinity vs femininity. They relate to a gendered overarching opposition of the 'serious' field of business against the 'trivial' field of celebrity (Negra & Holmes, 2008). Yet despite this opposition to celebrity, a celebrity repertoire is key to how young people constructed them.

THE CELEBRITY REPERTORE: WEALTH, POWER AND THEIR LEGITIMATION

The second interpretive repertoire of geek celebrity centres on their perceived wealth and power. As for Bob1 and Bob2 in the extract above, many young people described these as desirable aspects of the geek celebrity lifestyle. For example, when asked by the interviewer whose job they want, Bruce grabs the piece of paper carrying Sugar's name, says "You're fired" (Sugar's catchphrase from the BBC's *The Apprentice*) and explains: "he's got a lot of money, he's got a lot of power, and he's a Lord now" (London, 16-17). However, such instances of young people expressing aspirations to celebrity lifestyles were rare in our data. Overall, in our study, as in other research, money and status operate as moral issues (Harvey, Allen, & Mendick, 2015; Sayer, 2005). In terms of their own future, most young people in the individual interviews spoke about the desirability of having enough to get by rather than being rich. In group interviews there were frequent criticisms of the

'excessive' salaries earned by footballers, including comparisons between these wages and those of soldiers. Celebrities' vast wealth and power raise questions of inequality and so have to be justified within young people's celebrity talk (Billig, 1992; Harvey, Allen, & Mendick, 2015) This explains why, in the small number of cases when such 'illegitimate' desires for wealth do surface, they are more often articulated in relation to geek celebrities than others, because in such cases they can be legitimised by other factors. Geek celebrities acquire value through the business repertoire of initiative, innovation and impact, and through the intelligence and authenticity that are part of the geek repertoire discussed in the next section. But specifically, wealth and power are directly legitimised through discussion of geek celebrities' perceived 'ethical' use of their resources via well-publicised philanthropy (Harvey, Allen, & Mendick, 2015; Littler, 2015). This is the third crucial element of the celebrity repertoire. As with the business repertoire it links to wider neoliberal discourses that advocate the replacement of state support by private philanthropy (Littler, 2015; Ouellette & Hay, 2008).

In all but one case, young people's mention of Gates' wealth is accompanied by mention of his charity work. This extract is typical:

> Interviewer: Okay well if you were going to design a perfect celebrity…
> Homer: Oh what's his name, the guy who made the computers, [some laughter] Bill Gates. … Oh he's like a beast, he's got loads of money.
> Jack: He's good as well.
> Homer: He gives it away for free.
> (London, 14-15)

The use of "beast" to describe Gates links his wealth to masculinity via animal imagery, while his goodness connects to the mastery of patronage (Walkerdine, 1988). In the quotation below, Gates being "the richest man in the world" sits directly alongside donating "billions and billions of dollars to Africa":

> Dave: Bill Gates has donated around 50% of his earnings across his life. To Africa. And that's a lot. … Cos he was worth, pretty much the richest man in the world, second. … he's donated billions upon billions of dollars to Africa. … Bill Gates stands out, but that's because he donates money to charity. … He stands out for the right reasons.
> (Manchester, 14-15)

Here the global economic inequalities that Gates' position embodies (as part of the growing super rich) are superseded by his charity work so that finally, he is judged as "stand[ing] out for the right reasons". Geek celebrities were not the only ones praised for their philanthropic work. However, Gates secured nine mentions for this – more than double that of any other celebrity.

As with the business repertoire, the celebrity repertoire operates through gendered oppositions. These are evident in this next passage:

David: But doesn't every celebrity … if they get loads of money, they just waste it?
Luigi: No.
Mavie: No, not Alan Sugar. [laughter] Sorry, but he's like…
Ally: He's a good role model.
David: Yeah.
Ally: Cos he only got one GCSE at school, and he could still, that gives other people young people who are maybe not as clever as others a lot of hope, because if he only got one GCSE at school, and he still becomes a er multi-millionaire.
David: Basically an entrepreneur. They're good role models, and they're celebrities.
Mavie: Who's the guy that owns Virgin?
David: Richard Branson.
Mavie: Yeah, him.
Ally: He's also a good role model, because er when that Virgin accident happened with the train, he came right from holiday straight away to go and see what happened, because obviously it was his company. And if you were a bad person you wouldn't, you would stay on holiday, whereas he didn't.

Interviewer: Yeah. So you think businesspeople generally are more, are better role models than sports people, is that?

Ally: Yeah. Because they're usually brought up in the right manner, ain't they, because that's how they got there in the first place. Because when you're a footballer you basically just dive into loads of money. Whereas if you're a businessman you have to work your way up to earn that money.
(London, 16-17)

In this discussion, Branson and Sugar (and all entrepreneurs) are positioned as "good role model[s]", who demonstrate responsibility. By implication, they are contrasted with other celebrities, such as Price, the discussion of whom among the same group of young people was analysed in the previous section. In general, celebrities from modelling and reality television are constructed as undeserving and worthless (Allen & Mendick, 2012). Similarly, Branson and Sugar's route to celebrity is highly valued "if you're a businessman you have to work your way up", associated with initiative and dedication. Their behaviours and routes to fame are explicitly counterposed to those of footballers who are "bad" and "waste their money". As David's comment about celebrities generally wasting money suggests, and as noted earlier, 'excessive' and 'undeserved' wealth was seen negatively by young people. However, being a "multi-millionaire" is constructed positively in the above discussion, as was Branson's "own[ing] a private island" in an earlier extract, when they are attached to business*men* because they are seen as examples of "earn[ing] that money", rather than "just div[ing] into loads of money" as, largely, working-class, professional footballers are positioned as doing.

In this section we have shown that wealth and power are central to how young people construct the geek celebrity. These facets are given as reasons to dislike many celebrities who young people view as undeserving of them. In contrast, this group are seen to merit their money and status as a reward for their initiative, innovation and impact and because they are seen to use these responsibly, to improve the world around them. Intelligence is also key to constructing them as deserving of their celebrity. In the next section we look at this trait as central to the geek repertoire.

THE GEEK REPERTOIRE: SOCIAL AWKWARDNESS AND NATURAL INTELLIGENCE

We can see the geek repertoire most clearly in the 51 individual interviews where we asked young people to imagine that Gates and 11 other celebrities were their age and attended their school. Here we find Gates' perceived asociality and intelligence intertwined in the talk of both the 12 participants who said they would try to avoid him and the 15 who said they would try to befriend him. In this section we look at each of these groups in turn, and suggest that the gender of the speaker impacts how they position themselves in relation to the geek repertoire.

All those interviewees who said they would try to avoid Gates in school talked about his social awkwardness. The four male participants offered only brief comments. For example, Tom joked, "he'd be always in the computer room at lunch-time" (South West, 14-15). In contrast, the female participants' longest discussions of Gates came from this group and were negative. The amount of talk signals the importance of distancing from Gates for some young women. For example:

> Olivia: I'm not sure if he'd be friendship type, I think he'd be a bit awkward … how he got into computers I think was not having a social life at school, and spending all his time in the computer room doing computer stuff. [laughter] So I think he would, I don't know if we'd have much in common. … I think he must have done brilliantly in like science and maths, but I have a feeling maybe he didn't do so well in something like English. Like I think quite a lot of really sciencey people just don't really care about English and history, and things like that. … I have a feeling Bill Gates would have been off doing his own thing studying his maths, and stuff like that. Rather than being concerned about, you know, going to parties and having friends.
> (South West, 16-17)

> Lise: I think he would probably be just a loner. … He seems geeky. … He could be the ICT thing. Because there are some students who are good in ICT and they help teachers to do things. And some of the staff in our school say that well, if you need help you can ask this student because he'll be able to help you or she'll be able to help you.
> (London, 14-15)

Although only Lise explicitly uses the term "geeky" to convey Gates' social awkwardness, we can see key aspects of this in both extracts. In Lise's and Olivia's imaginings, schoolboy Gates is "a loner" who does "not hav[e] a social life". Olivia also draws on ideas of a gendered opposition between science/mathematics and arts/humanities subjects (Thomas, 1990) to portray Gates as different from her: someone with whom, as an aspiring lawyer, she would not "have much in common". We can also see Olivia and Lise associate him with great intelligence describing him as doing "brilliantly in like science and maths" and, in a strangely dehumanising phrase, "be[ing] the ICT thing" to whom teachers defer. Olivia, like Tom, mentions the amount of time Gates occupies in the computer room, connecting to stereotypes of geeks who spend their free time indoors rather than outside and with computers rather than people. This stereotype suggests that Gates is there in order to discover and then indulge his enthusiasm for coding rather than because he needs to work hard (Lupton, 1995). This idea, that his success comes from 'natural intelligence' rather than 'hard work', comes through more clearly in the talk of those who said they would try to befriend Gates.

In contrast to the Gates avoiders, the group of 15 interviewees who said they would want to befriend him in school is male-dominated. Two of the (just) five young women in this group gave gaining help with school work as their only reason for wanting him as a friend, and one was drawn by his wealth. Geekiness and nerdiness occurred in the talk of the young men in this group, but this time operated as a point of connection. For example, Rick, drew on the geek and the celebrity repertoires saying, "he's a bit of a nerd and I've got that side to me so that would be quite fun to talk about, and obviously he became a very wealthy man" (London, 16-17). Meanwhile Edward drew on the geek and business repertoires, linking his attraction to Gates to his coding successes, explaining, "I'm a bit of a computer geek. … He's made Microsoft and Windows, and all these amazing things. So I'd love to be friends with him" (London, 16-17). However, he also questioned the possibility of a deep friendship with Gates, suggesting again his asociality: "We'd share interests, probably speak a lot, but I'm not sure if we'd be good friends".

In this next extract, we can see all three repertoires together:
Dave: Probably Bill Gates [is my favourite celebrity] just because it's a lot of effort to make a computer company that's been running for all these years and he's rich, it's become the most successful company ever. … I am not really interested in celebrities. I'm more interested in what they do than who they are. Like for example, Bill Gates, I'm more interested in his computers than himself. He's a good guy, and he's rich and he's really smart, but I'm not really interested in him as much as his computers.
(Manchester, 14-15)

Gates being "really smart" and "his computers" underlines his appeal to someone like Dave who is "not really interested in celebrities" and in the group interview, had described reality television stars as "the bottom of the celebrity pit". The most explicit articulation of Gates' 'natural intelligence' came from Boo:
Boo: I think he has probably gone beyond structured education, intelligence-

wise, and would be someone who would never actively work, would do the minimum. And if asked a question, he would always know the answer. The teacher would be trying to point him out as someone who doesn't listen. And I think he is probably the type of person who is cleverer than the teacher … you would probably find it a bit arrogant, but in another way you would admire it and want to be like that.
(Manchester, 16-17)

Boo describes Gates as "cleverer than the teacher", having an intelligence that places him "beyond structured education". What is important is Gates' avoidance of active work and visible effort. Máirtín Mac an Ghaill (1994) in his study of school masculinities argued that the only acceptable way for middle-class young men to succeed in school is through 'effortless achievement', with 'hard work' positioned as the province of the 'less able'. Boo, who admits to admiration and "want[ing] to be like that", was high achieving and produced himself, within the interview, as antithetical to schooling's rules and regulations.

Although the use of the business and celebrity repertoires was dominated by young men particularly within the group interviews, it is in the use of the geek repertoire that we find the strongest gender differences. As we have shown in this section, young women are more likely to draw on this to distance themselves from technological career aspirations while young men are more likely to draw on this to align themselves with these new technology worker identities. We can understand why Olivia, Lise and some of the other girls go to such lengths to distance themselves from Gates, if we look to other research showing the tensions between geekiness and normative femininities. For example, writing about science, Louise Archer and colleagues (2012, p.181) argue that the subject's associations with geekiness mean that it "appears by default as an imagined space that is incompatible with girls' performances of popular/desirable hetero-femininity". Varma (2007) found that, for women who had chosen to study computing at university and who then leave their courses, geek culture had less impact on ethnic minority than on white women's decisions to 'drop out'. However, we found no clear differences by ethnicity among the female participants in this school-aged group. These gender differences provide a powerful caution to those seeking to use geek celebrities to market coding to young people.

CONCLUSIONS
This paper opened with a discussion of the prominent appearance of global celebrities within recent campaigns to raise awareness of coding among young people. The visibility of celebrities promoting coding to young people has continued, and arguably intensified, since 2013 in England with the implementation of the new computer science curriculum. But the main celebrities who feature within these campaigns and their discursive patterning continues to follow the patterns identified in the analysis presented here.

Given the growing national and international investment in encouraging young people to take up careers based in coding, we urgently need gender critical work on how these careers are understood by young people. We have contributed to this

task by identifying the emergent figure of the geek celebrity. This figure holds together contradictions. *He* is both inside of celebrity, through his wealth and status, *and* outside of 'vacuous' celebrity culture, through his talent and enterprise. He is both incredibly wealthy *and* incredibly generous. He has both a desirable lifestyle and intellect *and* an undesirable asociality. In holding together these contradictions, the geek celebrity serves to legitimise inequalities of wealth by supporting the myth of meritocracy: the idea that social rewards are distributed to those deserving of them (Littler, 2013).

In the analysis in this paper, we have focused on mapping out the contours of the geek celebrity as a new discursive formation. However, our data on the different ways that young women and young men positioned themselves in relation to the business, celebrity and geek repertoires, suggest the importance of looking at how these figures shape – if at all – young people's actual choices and transitions within education and from education and into the labour market. Beyond the use of geek celebrities in the coding campaigns discussed in the introduction, there is an emphasis on 'role models' in educational programmes and policies encouraging young people to pursue all STEM subjects. We need to know more about how such role models might inform what choices young people make about possible and desirable pathways. We cannot say what career choices the 148 young people involved in our study will make but we see important patterns in the gendering of how these celebrities and the associated new worker identities are constructed by them.

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