PRIVACY	United Kingdom	United States	Germany
General concern	• "[My brother's] got one but won't use it [due to privacy concerns with voice]." Ethno	 "I think people that understand technology really, really well, probably know that there's no real security issues with most things except your financial information and social security." Ethno "I mean, for me personally, it's not a concern, but I would like to know if it really does that [listens constantly]." Ethno "We don't think about it. It's funny you mention it though because my husband saw Mark Zuckerburg covers up webcams and now all ours have plasters over them! He doesn't think twice about Alexa though' User 	 "I would totally love to use the things I've seen and heard about. But I'd also like to have security" Non-Users [Discussing another participant's suggestion that Alexa is completely personalised to the user] "But isn't it dangerous? I think it's pretty dangerous." Non-Users "I'd be a little afraid to acquire it because I'd fear for my own security." Non-Users "In our constitution we've a right to privacy, and I can't just say I don't care." Non-Users
No concerns	 "I don't even think about [privacy concerns with voice]." Ethno "You do wonder, but I've got nothing to hide." Ethno 	 "I mean, people who have something to hide probably would be concerned about it. But probably the people that you're meeting with are not those people." Ethno "I have nothing to hide" Non-Users "My son can be funny about that stuff, but for me, I just don't say anything interesting. I mean I ask it to bark at my dog!" Ethno 	 "It's not nice to know you're being listened in on all day, but in the end I don't give a shit." Non-Users "I don't care if Alexa knows if I was on the toilet half an hour ago or not." Non-Users "I've got nothing to keep secret. I don't have any nude photos, I'm not a terrorist, I don't care." Users

PRIVACY	United Kingdom	United States	Germany
cont.			
Companies using personal data	 [Discussing Alexa saying 'Thank you for your feedback'] "I immediately see it as like a kind of data acquisition for Amazon about its services, which is fine." Ethno [Discussing concerns about Alexa] "So, yes, that recording thing, I don't know. Maybe it paranoia." Users 	 "I would just assume they take all the data on your phone and use it to produce news" Non-Users "I get it, it's Big Data. It's like Google search, they aren't sat looking at what I am doing, it's just lots of code. I guess older people might be more concerned about it" Ethno "They have everything, if I was worried about data I'd have to switch off my phone entirely and that isn't happening. It is what it is" Non-Users "When you talk about something and then suddenly there's an ad on Facebook – that isn't cool. I really wouldn't want Alexa doing that. It has to be related to what I'm asking for at all times" Ethno "I recently read an article that some researcher set up a backwards internet router and tracked every time that the device was listening. And it was like constantly. Even if you don't engage it, it's constantly listening and sending data back to Amazon, or whoever." Ethno 	 "But what I've noticed is that it's cool for the company, because they listen in a bit." Non-Users "I was talking about cola, because I wanted to buy a cola, and half an hour later I'm sitting in front of my computer and I notice, Oh, they're showing me a cola ad. And I think that's a bit spooky." Non-Users "I'd receive advertising through Alexa that is tailored – which some people might think was nice – and on the other hand you think that, okay, if Alexa is using that for advertising, what else is it using it for?" Non-Users "Sometimes. I don't tell the device really critical things." Users "On the one side, it makes life easier On the other side for the companies behind it – you can call it a conspiracy." Non-Users

PRIVACY	United Kingdom	United States	Germany
cont.			
Too late for concerns	• [When asked about concerns with voice knowing too much information about you] "Not really, I think not now maybe if you asked me that a few years ago but now we're at a point where that is basically already happening." Ethno	 "Right. There's nothing you can do about it." Ethno "It is what it is" Non-User "I mean everything is tracked. It's impossible to avoid. But it's not a person sat looking at an individual level you have to remember it's machines looking at the big picture" Ethno "It's the world we live in. Even if you turn off all your location and turn off data and everything and digital track on your phone, whether it be Google, or Apple, or whatever map system you have, they're tracking it." Ethno "But the fact that it is constantly listening and constantly sending data, is annoying and intrusive. But it's the world we live in." Ethno 	"But you're already being monitored when you post certain things on Facebook, for example." Non-Users
Constantly listening		 "I'm not sure if I'm okay with it coming with me everywhere I go and listening to my every conversation." Users "Just the fact that it's constantly tracking you and constantly listening. Constantly sending information back to Amazon and whoever else Amazon partners with." Ethno 	

ATTITUDES TO VOICE	United Kingdom	United States	Germany
Superior to previous devices	 "My Bose system's become a little bit redundant since getting my Alexa." Ethno "I gave [the radio] to my brother because I don't need it now because I've got my Alexa." Ethno 	 "I don't even have a radio anymore, it's great – it totally declutters" Ethno "We have 5 Bose speakers and we barely use them – the quality is nowhere near as good [on the Alexa] but it's just so much more convenient" <i>User</i> "Sometimes I'm still asleep and don't want to open my eyes. Even though I could use my voice app for it, I still have to pick it up, and make sure I find the right buttons, or whatever." <i>Ethno</i> 	
Issues with use	 "The only thing I'd say with Alexa is sometimes "I'm sorry but I don't know the answer to that" Ethno "[Understanding how to use voice] technology, takes ages." Ethno "I'd prefer [my daughters] to tell me [new features on Alexa] because I think I would understand them showing me rather than me reading it." Ethno "[The problem with asking questions is] It's just a) understanding the input and b) actually finding a way to present the answer more clearly and authoritatively or a range of 	 "Sometimes she'll just speak. I don't know why. If it's a sound it's heard from outside. I don't know. The radiator? She just speaks." Ethno "There's the 'horror' story of it creepily laughing. I don't like that. That puts me off and makes me wonder if it's worth trusting' Non-User 	• "When it suddenly starts talking to me I don't think that's funny at all and I've never really figured it out." Non-Users

ATTITUDES TO	United Kingdom	United States	Germany
VOICE cont.			
Issues with use cont.	answers." Ethno "I have trouble with the installation. I always have a hard time, and I'm always happy to wait for my son-in-law so that he can set it up for me." Non-Users		
Potential not used	 "I might not give [Alexa] the credit that she's due. I associate them more with TV and sort of PC, laptop news or a paper." Ethno "There's probably so much more she can do that we've not even looked into yet." Ethno "If I can't be bothered to read up more or learn more, then I'm holding it back." Users "[We only] scratch the surface of [voice potential]." Users "I don't actually read [the Alexa emails] as well as I should do." Users 	 "I've never really worked out using it more. I know it can do the Smart Home stuff, and I'd like to set it all up I've just never got round to it" Ethno "I see the Alexa emails, and I'll occasionally try something new. But it very rarely sticks with me" Ethno "I LOVE to use it for trivia, and to wind up my dogs and husband. I'm sure it's meant for far more than me just playing games" Ethno 	
Trust/Distrust in voice	 "I'm confident in what [Alexa's] telling me." Ethno "I don't know whether or not I would have felt 100% confident her giving me [airplane delay updates]." Ethno [Discussing voice on Apple TV] "I think the reason I'm using it more now is because it is quite reliable." Ethno [Discussing shopping via Alexa] "It 	 "I still have a fair amount of faith in it because of that. Because it often says, "I don't know." Or, "I don't have information about that." Which leads me to believe that the information should be fairly accurate." Ethno "I've never thought about the sources being right until you said that. With it being Google, I've just always trusted it wouldn't be 	

ATTITUDES TO VOICE cont.	United Kingdom	United States	Germany
Trust/Distrust in voice cont.	comes back to that level of trust, that just being able to see the product." <i>Ethno</i>	fake" Ethno	
Cost	 "My boyfriend came home and said I've bought a [smart] light bulb for £50 and I nearly fell over." Ethno "I think it's great but you're then talking about quite a lot of money." [Using additional features ie lights]. Users "The light bulbs are £50, at the moment I'm quite capable of just switching the switch on." Users 	"Yeah. I mean, my phone and tablet are both Samsung, so I would consider, more so, the Samsung one over the others. But it's probably more expensive than the Google one." Ethno	Turning on the heat. It has to be able to do that. Or with lowering the blinds. But you'd have to invest a thousand euros to make it do that." Non-Users "Well, it's inexpensive, it has developed fast, and everyone could afford it." Users
Desire for portable device	 "I thought, like the Bluetooth speaker, it was rechargeable and therefore you could move it to whatever room you were in and out in the garden." Users 	"It would work in the car for sure. Now that would be helpful!" Non-User	
General positive regard	 "But [Alexa is] great, we really like it." Ethno "I thought [Amazon Show] was really exciting" Ethno "I mean, for me, it's got no negatives to it." Ethno "I think it has given [my husband] confidence [in using technology]." Ethno "I quite like that it doesn't have a screen actually. One less thing." Users 	 "Out here people don't care. Everybody's screaming and yelling down the street and no one cares." [on using voice technology in public] Ethno "Yeah. As I get used to it and I find out new things it can do, I use it more and more." Ethno "I do like to know about new things and see if I can incorporate them into my life." Ethno "I definitely think it's useful. I 	 "I liked the way you could do everything with it. Control the TV, play music, get reminders for things, even if it was just birthdays and that sort of thing" Users "At first you feel kind of modern, and fast, and new and so forth." Users "But I think that's improving with each generation." Non-Users "They've also got an Amazon thing, and they thought it was loads of fun." Non-Users

ATTITUDES TO VOICE cont.	United Kingdom	United States	Germany
General positive regard cont.		think it's useful, but very intrusive." <i>Ethno</i>	"I think [my car voice tech] is fantastic. I'm driving and I can still telephone." Non-Users
Assistance for less able	• "I think it would help so many elderly people who are lonely." Ethno	"We got one for my mother – she loves playing Jeopardy on it" Ethno	 "It's good when different voices can use it. It's helpful for schoolkids doing projects." Users "It's also good for older people who need assistance." Users
Anthropomorphic	 "I used to say please and thank you to her all the time and the girls would say, 'Mum, you don't have to do that." Ethno "I don't know, maybe subliminally it was much more natural to say 'Hey, Alexa [than saying 'Hey Google']." Ethno "It's amazing how quickly you start talking to her like a person." Ethno "I don't like the fact that [Alexa] has a gendered name." Ethno "[My boyfriend] has yelled at it and used insults that would be used against women." Ethno "She hasn't got the greatest personality, has she?!" Users 	 "I'm saying that's how I bond with it." Users "Sometimes I talk to her like what should I wear today?" Users "Usually she follows directions." Users "I say please – like it's a piece of technology, why am I saying please?" 	
Voice elicits laziness	 "He'll go, 'Hey Siri, duh duh duh,' and I just yeah, I look at him like, just type it in!" Ethno "Alexa will tell you but only within the next three trains, in a way, so if you're looking an hour ahead, you might as well still get the phone 	 "I rarely type. I guess because I'm lazy." Ethno "I use Siri for everything on my phone – I can't be bothered to even look at my phone" Non Users 	 "On the one hand you think it's cool, but on the other hand you seem kind of lazy." Non-Users "You get a little too dependent on it." Non-Users

ATTITUDES TO	United Kingdom	United States	Germany
VOICE cont.			
Voice elicits laziness cont.	 out." Users "My attitude is much more like, I can just put my phone up on the counter, open up the recipe or whatever." Ethno 		
Robotic	 "I think the Google one feels a bit more functional rather than part of the household." Ethno "There's no emotion, it's the robotic voice, isn't it? And I think that's what makes me switch off or would make me switch off." Users 	 "They could make it a little more amusing" Non-Users "I don't mind it, but you can tell it's not a human voice." Ethno 	"But with her, everything sounds so monotonous." Non-Users
Alien	[Alexa] "I told my mother, "Throw that crappy thing out!" It was really spooky." Non-Users	"It doesn't feel weird anymore. It just feels normal." Users	 "I thought [Alexa] was a bit alienating." Non-Users "But I think what's still weird for me is when I get an answer. It's weird, because I'm actually talking to my mobile, and it's totally unfamiliar." Non-Users
Dislike/ Disappointment	"It's slightly more limited than I would appreciate." Users	 "Has to learn from your habits, and it's not learning" Non-Users "It won't always get it right if it's something I want to hear that's got a Spanish name, and I can't say it right, it goes 'oh so you want to hear" Non-users "Well, I thought it could play music without having to have Amazon Prime or Amazon Music because I don't really want to pay a monthly fee for that. So I think it could play some Like if I say, 	 "I was a little disappointed that a couple of things don't work with Google Home." Users "It's actually supposed to be an assistant, and as soon as it starts doing things that aren't personalised, then it has missed its purpose." Non-Users "That's missing so far, because just playing music or, I don't know what else they can do, like receiving calls." Non-Users "But if I would get it now, what

ATTITUDES TO	United Kingdom	United States	Germany
VOICE cont.			·
Dislike/ Disappointment cont.		"Play classical music", and I don't care which one or what kind, I would like it to do that." Ethno I would definitely expect it to be more user friendly per se. But I don't know if it's a system update or it's a hardware thing. I don't know." Ethno	would be the difference, when I can already get my mobile to play music through the speakers?" Non-Users
Ease	 'Or get me that answer without having to sort of Google it" Ethno "It's so simple, you just say it." Ethno "[My husband] can't really work the telly very well, but Alexa, he loves it." Ethno "It's easy to use, and it suits everybody in the house, you know, everybody can do something with it and the ease of use with it." Users "Just the ease of use, you don't have to sort of bring your phone into the kitchen." Users "I quite like that it doesn't have a screen actually. One less thing to too many screens all the time. I quite like this, just a slick little thing that if you don't know it's there and it's in a corner room, and when you need it, it's there. I like that" Users 	 "It's so much easier to voice control." Ethno "So it's the ease of, "What is it?" Done. Next. And there's no other Nothing can distract you." Ethno 	That's why it's so popular – simply because it's so simple." Users

ATTITUDES TO	United Kingdom	United States	Germany
VOICE cont.			
Convenience	 "You can do a lot more, a lot quicker, without getting bored and losing interest." Ethno [Before buying Alexa] "Oh my god, that is so fuss free, that would be good just to be able to tell someone to do something" Ethno "[Without Alexa I would miss] the convenience of the presence" Ethno "[I like voice for] speed, convenience, elegance." Ethno "[I liked using the smart thermometer because] a) it was convenient, b) it was very good for heating bills as well because it gave you much more control and it could tell when you were in and out and stuff like that." Ethno 	 "You don't have to pick something up. And also, it's much quicker to ask her, "Can dogs eat carrots?" Ethno "But I think when it's all one, it's still intrusive and creepy, but it's convenient and I would love to do it. Have a completely smart home." Ethno 	 "You don't have to type anything, you don't have to look for your contacts. You simply say it and it switches on." Users "I think it's good that my hands are free. I can come home, cook, do something, and I get my full program." Users

USING VOICE	United Kingdom	United States	Germany
Fun/Games	 Uses "tell me a joke" Ethno "We'll do like games and stuff" Ethno "We mess around with her and ask her to tell us jokes and things like that." Ethno "We have asked her some silly general knowledge questions." Ethno "[The kids use the joke function] just for fun, really." Ethno "If you've got friends around and you're debating, you can just go, 'Okay Google, tell me this.' I use it every day." Users "[We use Alexa for] music to the news, just general knowledge questions, or silly questions, just to have a giggle really." Ethno 	 "I like asking it like weird questions or play odd alternative songs." Users "So I'll use it for the trivia. I'll use it to make silly noises when I'm in a silly mood [laughs]. Or to tell me a joke, to find my phone." Ethno "I wind my dog up with it – I tell her to bark, it's so funny! – I got that from the Alexa emails" Ethno 'My son and his friends play games – like guess the net worth of different people' Ethno 	"I was with friends at a party. We were playing a drinking game – yes, that exists too. And we were trying it all out – looking up stuff" Users
Weather	 "Checking the weather is quite useful". Ethno "Yesterday I said to her "What's the weather forecast for tomorrow in Barnet?" and she kept getting Barnet, Australia [rather than London]." Ethno "On the Google Home I just check if I need to bring an umbrella with me." Users 	 "So I ask the weather." Users "As soon as I get up, I'm checking the weather with the Echo." Users "If I'm in the middle of something in the kitchen or in the bathroom, I can yell and ask for it." Ethno 	 "When I'm lying in bed and I say, "What's the weather like today?" Non-Users "I'd like it if it didn't jabber too much. It would be enough if it said, "Today it'll be 30 degrees in Berlin and it'll rain in the afternoon". If you have to listen to it for 5 minutes"

USING VOICE	United Kingdom	United States	Germany
cont.			
Music	 "I sort of use her mainly for music." Ethno "Every morning and asks it to play certain music" Ethno "I tend to listen to the Echo in the morning, that'd be where I'd be making lunches, whatever, so it would be music and just hearing news on the radio." Users "I think I am probably not using even half of what it can do, it's mostly music." Users 	 "Wake up, tell Alexa to play something to have some background" Users "She's a glorified speaker really, but I use it" Ethno "I think I use it most for music, it's good in the background, but the speaker quality isn't great" Ethno "Usually if we're cooking and we'll just put music on in the background. Of if people have come over and hanging out, we'll have it in the background also." Ethno 	 "I wanted to listen to a mix of songs I wanted to hear, and also the weather report." Users "At first I was mostly asking it to play my Spotify list, or I asked it for the weather." Users
Radio	 "[When getting ready in the mornings] I'll have Alexa on, she'll either be on one of the radio stations or I'll do a shuffle." Ethno "I just got rid of the radio because there was no need for it anymore [after getting an Alexa.'] Ethno "I would use [the radio function on the Dot], but again it comes down to also the sound quality of the speaker itself." Ethno "The only thing, the struggle I've had is that it doesn't understand when I ask it to put on Kiss Radio." Users 	I way prefer it to the radio, because like I said you just switch you don't have to go shut off the radio, then pick music on the computer you just tell it to do it, then it's done." Non-Users	"Okay. So it's not really live, what's really playing now, but it's somewhat delayed?" Non-Users

USING VOICE	United Kingdom	United States	Germany
cont.			
Radio cont.	 "In the morning, actually, music would generally be on my iPod or on my laptop but in the evening is when the music use is to Alexa." Users "I think primarily it's a sort of additional, I'm probably doing a bit less on the iPad in the mornings. I'm probably listening to a bit less traditional radio." Ethno 		
Advanced functions/ smart functions	 "I had a smart thermometer [Alexa] was linked to and I was able to change the temperature using that." Ethno "In the end, it was so complicated [to use the lights function]." Ethno "I use a piece of software called Evernote, quite extensively for my council stuff you can add voice or text notes through there, which is quite useful." Ethno 	• "So, like I said, it's great to use for the things that I use it for. And the lights and if I ever get one of the Hives or Nest, it'll be even more useful." Ethno	
Podcasts	 "I've got the [podcast] app on my phone." Ethno "Before I used to use my phone with my headphones in or something [for podcasts] so it's nice to do it from a speaker." Users "Yeah, again, because of where it 	 "I transitioned at some point to listening to podcasts on Alexa." Users "It's not as communal as music, or videos, or whatever. Especially when it's a talk podcast or a talk radio, you actually want to listen to it. You don't want to have people 	 "I wouldn't do it. I don't see the necessity. But if so – yeah." Non-Users "I don't want to get that assembled by Amazon or Google. I prefer to rely on the editorial board of Deutschlandfunk and Deutschlandradio. Then I get what I want. I prefer that. And I'm satisfied with it. The style of it." Users

USING VOICE	United Kingdom	United States	Germany
cont.			
Podcasts cont.	is, probably I'm not sure how much I would listen to it there, because podcasts are the sort of thing I would listen to on a train." Users I want to be able to ask it to recommend a podcast." Non-Users	talking over it, and interrupting, and 'sorry for that', pause, rewind, whatever. So, yeah. No, it's more individual." <i>Ethno</i>	
Travel	 "I think we've asked [Alexa] about traffic before." Ethno "I used it to order Ubers a few times" Ethno "You order an Uber through the Alexa and the moment it was ordered everything else came through your phone, you didn't get a response on the Alexa that, I think it would tell you the car is coming in five minutes." Ethno "It can tell me if I'm going to go to a tennis lesson, alright, what traffic is en route, so it can tell me that." Users "There were skills with the Amazon where I could get the Thameslink timetable on it and Thameslink delays and stuff like that." Ethno 	 "Alexa are there any accidents on the four ninety-five?" Users "I don't like reading directions. I don't like going the conventional routes that people go. I guess I don't have patience for that. I just like to do it." Ethno [Traffic] "I usually use my phone for that. I don't think it'd be that smart. Actually, let's find out. I've never actually tried that. Alexa, when is the next subway?" Ethno 	
Calls/Texts	"Because I've got my headphones in, I use Siri through my headphones, so it would hold the volume control down and	"So either to record my voice and send a voice message or to say, "I'll be there in ten minutes." And then it comes up. Sometimes it says the	

USING VOICE	United Kingdom	United States	Germany
cont.			
Calls/Texts cont.	say, 'Call Mum' and then it calls Mum." Ethno • [Discussing Dot] "I don't mind listening to someone speaking through bad speakers, that's fine." Ethno • "I've started actually using the dictation for WhatsApp after I started using this, because it conditions you to use voice more." Ethno • "They'd type a text or a WhatsApp or something, but they might say, I don't know, 'Siri, what's on at Borehamwood cinema this evening." Ethno	wrong word and You have to read the language. It defeats the whole purpose of hearing the voice." Ethno	
Recipes/ cooking	 "We have it in the kitchen, so God knows why I haven't used it for recipes yet." Users "I quite like it while I'm cooking I don't have to wipe my hands to unlock my phone to see the next bit [of the recipe]." Users "I don't really use it for [recipes]." Ethno "If my girlfriend's in Florida and I'm here, I use it for recipes." Users 	I know. That's the tough thing. It's not like you can be like "Pause" when they do the step. "Okay, next step." Yeah. You need the device to control it. It would be a problem, that. Right." Ethno	
General/ Other	 "I use it for recipes and weather and traffic, she uses it much more in-depth." Users "[I use the Echo for] directions, 	 [On using phone] "That's what it is. It's disrupting. It's not the 30 seconds it takes for me to check my phone, but if I check my phone 	 "I use it when I discover a new word. That's convenient for my work. I don't have to page through a dictionary, I just ask right away."

USING VOICE	United Kingdom	United States	Germany
cont.			
General/ Other cont.	possibly, it will be recipes, generally music. A lot of the bits and pieces like shopping, or headlines, would be on my laptop [due to] where it's situated." Users • "I use it for recipes and finding out information, directions, everything and just silly things." Users • "I use it all the time for the weather, sports all the time, mostly for music and podcasts." Users • "One thing that I also did on the Alexa that I've now worked I can do on here, actually, is I use a piece of software called Evernote, quite extensively for my council stuff." Ethno • "We are all used to googling and this has set the bar very high, I assume it is like Google but it isn't working like that so we are disappointed" Non-Users • "Otherwise, we're all like some evenings we sit there and realise that all three of us are sat there, my husband on the laptop, son on his phone, me on the iPad, and we're all sat within a room	then I'm going to get a text. Then it's like, "Oh shit." Ethno "Oh, I use it everywhere. I don't have an unlimited data plan so I'm not in the park, on data, looking up something. But if I'm in a café, or at work, or on data for whatever reason, or on Wi-Fi, rather than typing something in, I'll voice ask it." Ethno [Shopping] "I would. I haven't. I'm usually not home when I realise I want to buy something or need something. Like certain things like our toilet paper, our paper towels, are all on the subscription. So it just comes every few months." Ethno "Like before my trip to London, I was asking it the conversion rate. So stuff like that. Or how many miles is in a kilometre, or something. So yeah, I guess trivia, but not necessarily a set kind of game per se. Just information." Ethno	"My assumption the whole time is that I tell her what to do. I tell her, when I want to." Non-Users

USING VOICE	United Kingdom	United States	Germany
cont.			
General/	smaller than this." Users		
Other cont.			
Hands-free	 "If I'm lying down or sitting down, I can just say, 'Can you play this' and it will. Saves me getting up." Users "It [Bixby] says its hands-free, and you can use it in the car but when I've gone into it you have to press a button on the side of the phone to talk to it and I can't do that while I'm driving." Users [Discussing Sky TV] "I think it has got the voice activated thing, but we just use the old remote because it's easier." Ethno "I don't find [Apple TV remote] that user-friendly so because of that I'll use the voice-activated thing." Ethno "I can turn it up, turn it down just by asking her to do it" Ethno "I can just call through from any room and she'll pick it up" Ethno "I can't say 'Play one of my Sky recordings' on the TV and it will." Ethno Siri in the car obviously I don't want to look at the phone, I want it to tell me, but it goes 'Look what I've just found on the web!' Users 	 "I mean one example is like if I'm cooking So that voice command thing is so convenient at times." Users "She's helping me to multitask." Users 	

USING VOICE	United Kingdom	United States	Germany
cont.			
Constant use	 "Whereas now, as I'm coming down the stairs [in the morning], and my husband, we're telling Alexa what we want before we've even switched the kettle on." Ethno "The more I've been using [Google Home] at home, the more I've started using the voice recognition on the phone." Ethno 	 "My husband got up in the morning, first thing in the morning he played a playlist we do that every morning to wake up." Users [Discussing frequency of use] "Probably every day at some point." Users "I set my alarm, which I used to always do with my iPhone, now I did it more Alexa." Users 	
Problems with use	 "[Alexa] can just go off quite randomly people have been scared and left." Ethno "I've asked [Alexa] to play it and she's playing it but I can't just play Kisstory in the car." Ethno "[My husband] gets frustrated because he might ask [Alexa] that question four times" Ethno "If I'm getting up earlier than my partner, I can very quickly just pick my phone and turn it off as opposed to going, 'Echo, stop!' and sometimes it doesn't stop." Ethno Generally I'm in the lounge and using [my voice laptop], everybody's watching something on TV, then you disrupt everyone else." Users "I'm very much someone who, we have this equipment, but I 	 "Every time you leave you have to say Alexa connect the Bluetooth does anybody know how to fix that?" Non-Users "I'd say the Echo's a little better on understanding [than Siri]." Ethno It's about always having the speaker on so you don't have to grab a device, push a button, wait for the wiggly line it's a small chore each time you have to do something." Users "That's why I don't really use it for more in-depth knowledge. I'm pretty sure I said 'subway station' and it said aquarium 22 miles away." Ethno "Oh. Maybe it's just learning. But sometimes if it's a question that could have more full meanings, it makes me ask it again and again before I'm detailed enough to 	"[My car voice tech] can easily confuse "Heike" with "Meike", that happens sometimes." Non-Users

USING VOICE	United Kingdom	United States	Germany
cont.			
Problems with use cont.	doubt I use half of it to its full potential." <i>Ethno</i> • "Because of [struggling to set up Alexa], I miss out on things." <i>Ethno</i>	know. Or detailed enough for it to know what I mean. I forgot what the original question was." <i>Ethno</i>	
Awareness of potential	 "I think how we engage with it is basic." Ethno "I never engaged with [games on the Echo] because I don't use games on anything." Ethno "There's probably a lot of stuff I don't know on [Google Home]." Ethno "I've never really sat down and gone through it all to find out her full potential." Ethno "Then I'll go and sit down and I'll forget about it or I've then got to figure out how to configure the thing and get it changed." Users 	 [On being shown news bulletin feature] "Pretty cool I'm going to get one." Non-Users "I feel like there's a lot more that I'm missing I just didn't explore it enough." Users 	"You don't use everything it can do. Right?" Users

NEWS	United Kingdom	United States	Germany
TV	 "I like the 10 o'clock news" Ethno "I watch the news usually in bed, on the TV." Ethno 	 "In the morning, I watch BBC news on the TV" Users "I almost never just watch TV" Ethno "Well, in the morning, at five in the morning or whatever, I would put on the news and watch the news. But then it starts to repeat so after an hour or so, it's enough." Ethno 	 "It's rare just to be sitting in front of [the TV]. If I really could manage to sit down on the couch at 8pm, I'd probably switch on the news." Non-Users "In the morning, if there are two of you, you enjoy watching the news together." Non-Users
Newspapers	 "At work we have the newspapers in the department" Ethno "I flick through the whole thing" Ethno "[Getting a newspaper is] not an every day occurrence, it's every other day maybe." Ethno "On the Tube, I'll pick up The Metro or The Evening Standard, but I don't buy a newspaper." Ethno "He commutes on the Tube, so I usually look at The Metro and The Standard." Users 	 "It's funny, I actually took the business section from a physical today, but I don't get a physical newspaper." Ethno [Doesn't like having to buy newspapers] "I like reading it. Whenever I go home, I actually read the physical paper My parents have the Washington Post and my grandparents have the New York Times. So whenever I go to their houses, it's literally reading it." Ethno 	 "Then during my lunch break I check certain newspapers and so on. And I do that while I'm eating." Non-Users "On the weekend. I get the Morgenpost." [Morgenpost is a classic printed newspaper]. Non-Users "And once a week I pick up Die Zeit. There you can see news that doesn't appear on the Internet or on TV That's why I buy the newspaper." Non-Users "I've tried reading newspapers, but I'm just not a thorough reader." Non-Users "And a newspaper is well organised. The different sections and articles and pictures. I can skim it. I can read things much faster than I can listen to them." Non-Users

NEWS cont.	United Kingdom	United States	Germany
Newspapers cont.			 "Ideally, if I could, I would read a newspaper every day. I love having a newspaper in my hands." Users
Online	 It's just the Daily Mail's saved to my favourites [on work computer]." Ethno "[I read online news] more so at my desk" Ethno "I'll read the Guardian online most days." Ethno "[At lunchtime] I'm more likely to look at something, like a news website, when I actually have the time to read it and engage with it properly." Ethno 	 "When it comes to it to the day-to-day, I like to read facts so I will occasionally open up CNN." Ethno "So, by looking at the headlines, I do get an idea about what's going on in the world. And then, if I want more information about something in particular, I can either ask for it or look it up myself and read about it." Ethno 	
Арр	 "I'll read the news on my phone when I'm away on the BBC app." Ethno "I would look at [the Guardian app on] my phone in the evening." Ethno "Sometimes BBC [app] pops up on my phone so if it's something like a newsflash item or something then I will look at it and go into it." Users 	• "No. It's just a "Go to our website and find it". Maybe if I had the app, the CNN app, maybe. There'd be some setting, or whatever. But I don't have that." Ethno	 "My mobile beeps when there is new news. I've set it to quiet, but there's a button that shows me when there's something new, and I see the headline." Non-Users "If I don't have much time, I look at the news [on my phone], and if something interests me I read the headline and click on it, but I actually read it at home on my iPad." Non-Users "I have an app for Spiegel Online on my mobile. You can say exactly what you don't want." Non-Users "I hardly read news on my smartphone. I've switched off the

NEWS cont.	United Kingdom	United States	Germany
App cont.			feature where the messages come in." Non-Users • "Newspapers No, I'm too comfortable for them. I've got my apps. I have subscribed to news sources." Users • "When I want sport news, I do that with my smartphone because that's the fastest." Users
Social media	"I don't think [social media] is the first place I would go to for news." Ethno	 "So actually I probably get more of my news from Facebook." Ethno "Like Fox News, I think I'm on, on Facebook." Ethno "Like I said, if I saw an interesting article on Twitter or Facebook, I would either save it for later when I'm at my computer to read it, or just skim through it then." Ethno 	 [Discussing news on Facebook] "You can look at all kinds of things, not just newspapers, but also other media, TV and so on. You can look at everything you think is good, and you get selected news." Non-Users "I've got friends and acquaintances who also supply me with news via WhatsApp and so forth." Non-Users "I get news from Instagram posts, Facebook messages etc." Non-Users
Radio		"Sometimes, I listen to 10/10. I ask them to display news." Users	 "In the morning, in classic style, I turn on the radio and listen to Inforadio, news and weather." Non-Users "I only listen to Inforadio [for news] when I'm in the car." Non-Users "I think we now want more concentrated news, and I can't listen to the radio anymore because there's too much advertising." Non-Users "In the early morning I listen to the weather, news and music" Users

NEWS cont.	United Kingdom	United States	Germany
Sources	 "I tend to read a different newspaper each day, just because for work I find it useful to get a different perspective." Ethno "[I read] the broadcast media websites far more for sort of breaking news and headlines." Ethno "There's actually a really good daily news summary called The Spoon." Ethno "I definitely don't balance my Guardian reading habits with like scrolling through the Daily Mail's website anytime soon." Ethno "I quite like the idea generally of just having multiple platforms." Ethno 	 "There's an app call TechCrunch I look at that probably every day." Ethno "If I feel like something important is happening, like there's an urgent story, or whatever, I would go to CNN." Ethno "I would say the news on my iPhone. You know that news?" Ethno "CNN is good for breaking news, it's quite factual but when there's an issue [political] it becomes swayed." Ethno "At least, when I ask for an update, it's coming from a news source, which is usually I think it's usually from the New York Times. Which is a very respected media, but it's also very It's still agendadriven." Ethno 	 "Whether it's from the TAZ or from some radical right-wing front, or from the BZ, or BILD – it makes a big difference." Non-Users "We had the TV on, we didn't believe it. And we switched on the radio. When it comes to fakes Then I would inform myself elsewhere." Non-Users "I want to listen to what I want to listen to, with selected journalists. That's my thing." Users "Blendle is super, I stand by it. It's very personalised, really. I get articles I otherwise never would have encountered because they bundle things from all kinds of newspapers and recommend things to me based on my previous reading habits." Users "I already select my news for myself – whether it comes into question for me – whether it's credible or not. I'd like to have it that way there too." Non-Users
Importance of news	 "I think all news is important" Ethno "I do like to be informed of general important global things going on." Users 	I like to know what's going on in the world and to be aware of what's going on. But I feel that the news isn't full of facts these days and there is a lot of bias and attempt to appeal to drawing more and more viewers or listeners or readers, and it's very	"I always listen to news. You can't suppress these things." Non-Users

NEWS cont.	United Kingdom	United States	Germany
Importance of news cont.		difficult to get the real facts." Ethno	
News avoidance	 "I was just like, I can't look at the news, it's so depressing." Ethno "I kind of think I'd rather know what's going on and either do something about it or at least be aware." Ethno "Watching the news on the TV, everyone can agree, for more than 5 or 10 minutes, gets really depressing." Users "I can't stand the news in the morning, it's depressing." Users 	 "They might like talk about Trump for 20 minutes. 'Oh, my gosh, I really don't care today." Users "I don't always want to hear about politics every single time it's the first story. There's got to be other more interesting shit going on. There has to be. That's the shit that annoys me. So I stay away from that." Ethno "God knows why the average person loves this horrible sensationalized stuff? Because I think it's horrible. Those things happen. But they play it up and play it up and play it up and play it up." Ethno "I don't like news in general anymore because it's not news." Ethno 	 "Music has a lot to do with lifestyle and so on, and that's why I don't look at that much news." Non-Users "You hear a lot of stuff [about news], of course, but I don't really want to deal with it, because it's all raining down on you anyway." Non-Users "When I'm in a good mood, I don't necessarily listen to the news. I don't want to. Before I head out to a party, I'm definitely not going to listen to the news." Non-Users "I don't need that much news. You click through a lot of the news." Users

NEWS ON VOICE	United Kingdom	United States	Germany
Do not use	 "[News on voice is] not something I've ever thought about" Ethno "I've never seen anybody advertising for [news on voice]." Ethno 	 "I don't really use it for news news." <i>Users</i> "I do the news occasionally out of boredom." <i>Users</i> 	 "For news, I don't need Alexa." Non-Users "You can read articles on your smartphone, and I'm more likely do that. It wouldn't occur to me to have it read out loud." Users
Part of routine	 [Listening to news on voice] is just part of my routine, I think, in the mornings." Ethno "I normally ask [Google Home] to do the news briefing straight after [turning the alarm off in the morning]." Ethno "If I get in from work I always get changed in when I get in from work. Sometimes then I say, 'Echo, tell me the news." Ethno [Listening to longer news bulletins] "Probably at the weekend if I'm having a lie-in." Bet "I listen to the news on Alexa and also from my smart TV as well." Users "Sometimes in the morning I'll ask for headlines as well." Users "I used to pick up an Evening Standard, I didn't even do that anymore. It's either on my phone or it's directly on the Google Home." Users 	 "In the morning quickly for like traffic, weather all that kind of news." Non-users "Quick update in the morning." Non-user "With news, I don't know what I want to know, so it's difficult to ask a question" Non-Users "It's more relevant in the morning." Non-Users "All I have to do is speak and the news comes up" Users 	 "In the evening, I have the news read to me, by the Echo" Users "I listen to short news in the morning and the evening." Users "In the evening, I have the news read to me, by the Echo" Users
Ease	 "Some mornings I don't have a chance to put the telly on I might just say [to Alexa], what's the headlines?" Ethno "I'll just go, actually, I haven't got my 	 "Just like if I want a quick link on the weather or the news." Users "It's easier than going and 	"I'm busy here, I go to the fridge, I'm at the stove. It runs in the background and I'm listening." Non-Users

NEWS ON VOICE cont.	United Kingdom	United States	Germany
Ease cont.	phone, 'Alexa, what's in the news?'" Users It's so convenient to do it on Alexa." Ethno [Alexa] can fit in with me rather than me fitting in with BBC Radio." Ethno	picking up a paper" Non- Users	
Length	 "[The news bulletin] is a bit long sometimes, when you just want to know the basics, but no, it's fine." Ethno "I like the fact you get the short, snappy BBC Headlines, and Monocle's normally quite good at doing in-depth reports on stuff that interests me. It's a good mix." Ethno "I think personally I'd prefer one thing in depth but three in 20 minutes would also be useful." Ethno "I'd probably switch off maybe after 45 seconds." Users [Discussing longer news headlines] "The only thing I've listened to on that is about Tottenham Hotspur." Users "Especially also if you could pick the length [of news bulletins]." Ethno "I just want it brief, I don't want a big story." Users 	 "You can play a lot in one minute" Non-Users "Anything that's audio, and you're asking a question, even if it's just giving you an update, an update is 30, 60 seconds max." Ethno "But I guess it has given me a much more brief and relevant news update compared to eight hours of BBC or CNN World." Ethno 	 "I wouldn't want to hear an entire three-page article being read by Alexa. I have no desire to listen that long. Brief and concise is cool." Users "It's difficult even listening to the headlines. It requires so much concentration. The headlines – two or three words – are okay. But after that it gets strenuous. I couldn't listen to this woman for five whole minutes." Non-Users
Inferior to other means of	"It's a little bit easier, if you know exactly what you want it's a little bit	• "She doesn't update" <i>Non- Users</i>	[Discussing news on voice] "It doesn't offer anything my current device
accessing news	easier to go to it through a visual medium rather than[news on voice]." Users	 [Traffic] "I usually use my phone for that. I don't think it'd be that smart." Ethno 	doesn't have. There would have to be a bit more." <i>Non-Users</i>

NEWS ON	United Kingdom	United States	Germany
VOICE cont.			
Inferior to other means of accessing news cont.	 "So, certainly with a political story it's never going to befor me it's never going to be the ideal way to access the news." Users [Discussing longer news headlines] "I'm not sure I would, because it's at home, it's a home-based device, I would just switch the TV on." Users "I think I would probably concentrate more on the television than I would with the Alexa talking to me." Users "It never tells me anything that I don't already know." Users 		I have to say I don't like this so well. With me, the news is read by Deutschlandfunk with the original voice." Users
Desire for more sensory stimulation	 "When all the royal wedding was going on, you want to see it, you don't just want to hear it." Users "If I actually really wanted to hear a proper or read a proper story I would rather digest it by reading it rather than listening." Ethno "We've just come back from Greece, so the forest fires they are having over there was very interesting to keep an eye on, but you can't get a visualisation of that through Alexa." Users "It feels very similar to a news bulletin on a radio obviously you can't fast forward, again with a visual medium you can." Users 	"I prefer my Facebook newsfeed" Non-Users	 "When I watch news, I want to see the presenter who's reading it, hear the voice. Maybe she's got charisma. That's her. But Alexa? Who's Alexa?" Non-Users "But it's better on TV. You switch on the TV and right away you see the big picture to go along with it." Users

NEWS ON VOICE cont.	United Kingdom	United States	Germany
Spontaneous updates	 "[I would like] a ping or something, you know, to say a newsflash, only if it was something major." Ethno "It would be nice just to know [without asking Alexa] that something major like that's gone on." Ethno [Discussing spontaneous bulletins] "If I was busy recording something and wanted silence, it would be very annoying." Users 	 "I want it when I want it." Non-Users "I can see why people would use it" Non-Users "I would never want it to just start speaking to me" Ethno "I'd want it to be very actual breaking news. Not like, "Trump's attorney was found guilty" or whatever. More like a car accident that killed how many people is causing traffic and delays and whatever. Like actual breaking news that is instant and relevant and important." Ethno 	 "Like I said, when several people are living in the household, it can get very complicated. When you're alone it's okay, but with two people" Non-Users "I imagine it would be really difficult with a family." Non-Users
Sourcing/ sources	 "When I get that BBC daily briefing, with the headlines, again, maybe it's because I work in a sector where you think quite a lot about news sources, I'm thinking, well which part of the BBC has that come from?" Ethno When I listen to the stuff on [Google Home], it leaves you wondering about which part [of the BBC] it's come from." Ethno "I guess it's quite useful that it says, 'from BBC News." Ethno "The headlines it gives are probably headlines I would have heard through a different sort of source earlier, already in the day." Ethno 	 "It's called the news brief and I disagree with what they consider news." Users "Or just going back to the generic flash briefing to have it give you the details. Like where it's from and how to read more. But with the specific news sources, I would want to just download it and play around with it and listen to them, to just compare. Because I've only used CNN on it. But with the generic one, at least with Amazon, to 	 [Discussing the possibility of using voice for news] "I think it's good I frequently have a problem with ARD and ZDF, that they're so one-sided I don't have that much time. I can't watch ARD, ZDF, RTL, N-TV and so forth to maintain an overview." Non-Users "The Tagesschau – isn't relevant to me. I have other news I look for, and this device [voice] couldn't find that for me. I get news from Instagram posts, Facebook messages etc. If that would happen, then I might say, okay." Non-Users

NEWS ON VOICE cont.	United Kingdom	United States	Germany
Sourcing/ sources cont.	"I would probably be quite happy to have BBC News headlines." Ethno	get more of the source info." Ethno	 "She takes my request through my voice, quicker than if I get beeps from six different apps from news formats that might interest me. That I have to control." Non-Users "I've never looked to see if I could connect Google Home with Die Zeit. Maybe you can, but it would never occur to me." Users "How Alexa assembles the news – I wouldn't trust it. It's like when I look at Google News. I have no confidence in these algorithms. I trust Deutschlandfunk and Deutschlandradio" Users
Sound of voice	There's no emotion, it's the robotic voice, isn't it? And I think that's what makes me switch off or would make me switch off." Users		 "I think it's nice that I hear it like the proper news, and not just presented by the computer voice." Users "When the news is read with the voice of the news presenter, I think that is very much better than Alexa's voice." Users "With that tone of voice, I have to listen with total concentration, because it's so monotonous. Every news presenter is 100% better." Non-Users With radio, there's an emotional element involved. When they strongly accentuate something, you're more likely to have an ear for it I think for me [news on voice]

NEWS ON	United Kingdom	United States	Germany
VOICE cont.			
Sound of voice			would just be a background noise."
cont.			Non-Users

FUTURE NEEDS	United Kingdom	United States	Germany
Car	 I think it would, definitely, [use voice in my car] especially on long journeys" Ethno "[Alexa] would be a great addition to your car." Ethno [I would like] if there was any way I could plug the little one into the car and use it in the car." Ethno "[Voice in the car] would be much easier than the current hands-free phone system where the voice recognition is a bit clunky." Ethno "Obviously, Alexa's not in the car with me, but Alexa will read out what she's found [but it would be brilliant if she was]." Users 		 "I've got a set route. Maybe it can learn. So that it knows my work route, because I no longer enter it into my GPS to see where the big traffic jam is." Non-Users "Route 1 – this is my route every morning. Is route 1 clear? And she could say something. I think that'd be super." Non-Users
Reminders	 "[Would like Alexa to] Remind me on the day of an appointment" Ethno "[Alexa could have] a notification noise so you know" Ethno "You [could] get different noises for different notifications." Ethno "[Would like] little reminders." Ethno 		I'd like to have a reminder. So when I say, "I'm leaving now", it'll say, "Close the windows and take your keys". Or something like that. Otherwise, I forget things." Users
Education/ Helping less able	 "Maybe she could do that, learn the Spanish phrases." Ethno "[Scientists] were trying to make an Alexa device for this older lady who couldn't use her hands." Ethno 		

FUTURE NEEDS	United Kingdom	United States	Germany
cont.			
Education/ Helping less able cont.	"[The Amazon Show] would be great for someone [unable to use their hands] to be able to see the person she's speaking to as well." Ethno		
Give suggestions	 "I'd like her to tell me what events are on within a certain area." Ethno "[I would like Alexa to be able to give] suggestions she would have for lots of things, whether they be days out, recipes." Ethno 		 "But once I set it up, I could imagine there'd be, like, 'Hey, Laura, there's a jazz group playing on the Kurfürstendamm tonight at 12." Non-Users
Personalisation	 [Discussing future news on voice] "I want my Guardian daily, but I'll have the news and politics and not the sport and finance, if it was modular that would be ideal." Ethno "[I would like Alexa to tell me] what countries we could travel to for our needs." Ethno [When asking factual questions] "If it would have given me the date of the article as well, maybe even better." Ethno "Oh if I say, 'Echo, I'm feeling really down, put some music on' [Interviewer: Predictive]." [Talking about Amazon Show] If it's just going to display a Guardian web page, I think that actually to be honest it would be more useful if it had a better integration with the TV." Ethno 	"It can be annoying when it's not relevant, when it's not customizable" Non-Users	 "And if you could get Alexa to recognise my voice, and only my voice, and tell me, for instance, my password for Gmail. Right? I've forgot it, because I've got too many accounts." Non-Users "Alexa would automatically say – or it would set itself this way automatically – "Good morning. It's 7:30am and you should have got up half an hour ago." Non-Users "Personalisation has its advantages if I say, "Alexa, I only want news that aligns with the AfD party. I don't want to hear any other news." Non-Users

FUTURE NEEDS	United Kingdom	United States	Germany
cont.			
Personalisation cont.	 "I guess, would be good, that you can be vague but through time or through use it gets to know better, that it can pre-empt your tastes and what you actually want." Ethno 		
Read/ write messages	 "You're at home, you haven't got your phone with you, and suddenly, she says, 'You've got a message from WhatsApp,' from who and she just says it out loud." Users 	 "I think Alexa or the other ones should be able to read your apps." Users 	 "For example, if I receive a WhatsApp voice message, it can ask me if I want to play it." Non-Users "Email. So that I can write emails. It doesn't do that yet." Users
Safety	 "I think maybe if it was a bit of a safety thing if there was somebody knocking on the door and you're not at home, for it to have like some kind of sensor so it could come on and play music, so it sounds like you're in." Users "You go on holiday and Alexa turns the lights on when at night and turns it off in the morning." Users 	[Ring App potential] "It comes integrated with video. So you can see who's standing by your door. Yeah, it's phenomenal. Yeah, that's crazy shit. Yeah. Definitely." Ethno	
Design	[Discussing a wireless voice] "You could put it in the garden, there's never enough sockets for things so not have it always plugged in." Users	I mean, they have other hardware. They have other devices that are less And more aesthetically pleasing and whatever." Ethno	• [Future designs] "With fabric, without fabric. Colours – bright, glimmering. With glitter, without glitter. Matte." <i>Users</i>
Development of current features	 You could just ask for [answers to questions] from [your chosen] source." Ethno "If you had it connected to Tinder and so it's based on algorithms, 	 "I could actually prefer it. If I could specifically ask for specific information and it would actually deliver." Non-Users "I'd like to be able to shuffle 	 "I've got a separate gas heating system. And when I'm on the go and say, "Turn the heating on" a quarter hour in advance." Non-Users "And pulling the blinds up and

FUTURE NEEDS	United Kingdom	United States	Germany
cont.			
Development of current features cont.	basically scrolling for you all day." Ethno • [Discussing Amazon Show for recipes] "Just directions and a visual, to be able to see it as well." Users • "I'd like it to have a tiny digital clock on it because for my son, it's done away with his clock radio, in that he uses it for his alarm." Users	 [through answers]." Non-Users "Regional news." Non-Users [News] "Local stuff because I'm here and if there's incidents going on, I want to know about it because I'm here." Ethno. "Yeah. That's game changing. If I could tell Alexa to put on a channel or, if I didn't know a channel, a programme, I would use that more than even the weather." Ethno [Reading articles] "I think it'd be cool if Alexa would tell you, first of all where it came from, and then how long the read was." Ethno "If I hear them and I say, "Oh, let me read this later" or something. And then it would hear that and send me that one link, or whatever. But I wouldn't want it automatically." Ethno "Maybe it's just me, but I would want to teach it more news sources." Ethno 	down. That would also be good." Non-Users
Seamless conversation	 "I'd like to be able to start listening to my kind of carousel of news on there and just continue it seamlessly if I get into my car or via my phone or what have you, and just 		

FUTURE NEEDS	United Kingdom	United States	Germany
cont.			
Seamless	 sort of pick it up wherever I left off." 		
conversation	Ethno		
cont.	 "[I would like] the ability to carry on in conversation without having to wait." Ethno "I think the idea of having them in every room and possibly in the car, so it becomes the one technology and it's all linked so it doesn't matter where you are." Users 		