

Main Code	Definition	Sub-Code(s)	Definition	Sub-Sub-Code(s)	Definition	Sub-Sub-Sub-Code(s)	Definition	Quote(s)
Definition of a smart city	Definitions that participants provided for smart cities	Technology-driven (P2, P3, P4, P7, P8, P10, P11, P13, P14, P15, P16, P17, P18 P20, P21)	Technology being the main component of smart cities					<p>P6: "When I think of smart, I think of it being used in a way that emphasizes technology."</p> <p>P13: "A smart city is mostly run by technology. I would think that it's... I mean, it's got people in it, obviously. But it's pretty much, everything's run on technology. Everything's computerized, no more cash, self driving cars. It's just like the Jetsons. How we used to think of the Jetsons, when we were younger?"</p>
		Domains	The domains that participants' definitions of smart city most apply to	Transportation (P2, P4, P5, P6, P9, P11, P13, P15, P21)	Improvements in the transportation system (e.g., automation, efficiency)			P21: "I would say that smart city is pretty automated, for example, the public transportation is automated. All the signals are automated and they're in sync with the public transportation."
				Healthcare (P15, P20, P21)	Improvements in the healthcare system (e.g., remote healthcare)			P20: "I guess going to the doctor, essential places like that, is pretty technologically advanced in a smart city. You could talk to your doctor virtually instead of actually physically visiting with your doctor. You could talk virtually."
				Environment (P6, P11, P12, P14, P15)	Improvements in the environment			P14: "A Smart city would definitely be more eco-friendly, green-friendly, more renewable for the earth, and more conscious towards that as well as for the betterment of their community."
				Economy (P4, P7, P9, P13, P15, P19)	Improvements in the economy			P15: "Amazon Go where you don't need to have cash. We're quickly becoming a cashless society."
				Education (P1, P4, P18, P20)	Improvements in the education system			P1: "I guess in a smart city people who would be well-read people who have a higher degree of education."
		Smart devices (P2, P3, P8, P9, P15, P16, P19, P20)	Smart devices were mentioned in participants' definitions of smart					P19: "I would define a smart city as things with Google, with Alexa, smart technology, things like that. So smart key, smart locks, smart voice automation, things like that."

			cities (e.g., camera, air quality sensor, motion detector, smart phone, intelligent personal assistant)		
		Convenience (P2, P5, P6, P9, P10, P11, P15, P16, P19)	Using the services and technologies conveniently		P2: "Features that are available to make it easier to get around or navigate."
		Tech & Finance Companies (e.g., Microsoft, Google, Amazon) (P14, P15, P16, P19)	Participants mentioned tech and finance companies in their definitions of smart cities		P16: "I would think it would be driven by the technology industry such as Google or Amazon."
		Accessible city resources (P1, P3, P6, P9, P10, P14, P15, P20)	Participants talked about accessibility of city resources in their definitions (e.g., wheelchair accessible, accessible to blind people)		P20: "It would be more wheelchair accessible for the disabled individuals. They need to have more devices, smart devices for the disabled."
		Internet connectivity (P1, P3, P7, P9, P10, P11, P17, P20)	Having internet connectivity throughout the city		P20: "I would probably say that it's really connected via the internet or via WiFi or something."
		Community-oriented (P6, P9, P11, P15, P21)	City resource and services are available to benefit the community		P15: "Smart cities would be very group-oriented."
		Privacy-invasive (P12, P20, P21)	Smart cities violate people's privacy		P12: "In a smart city, the fact that they're following everything I do, everywhere I go. There's no privacy, absolutely no privacy, and I don't like that."
		Lack of creativity (P3, P21)	Smart cities take the creativity away		P21: "In a smart city you don't use your imagination anymore. Everything is just set up. It would take away from the people aspect, honestly. You need that diversity. When you make it so automated, you've lost the diversity and I think with that, you lose a lot of creativity, and you just lose, because people get dumber. They don't have to think

							about anything, they don't have to do anything because it's all done for them."
Smart city scenario assessment	Participants' assessments of smart city vignettes	Benefits	The benefits participants mentioned when discussing the vignettes	Increased accountability (P2, p3, p4, p6, p9, p10, p14, p18, p19)	Everybody having access to the collected data would increase the accountability		<p>P3: "I think that because it [presence of gunshots] is accessible to everybody, it improves accountability and makes it a little more democratic. I'm more concerned if it was only accessible by the police or only accessible by people in power, because then they would have the opportunity to not release it and not tell the truth about what was happening."</p> <p>P4: "This is where something like the Freedom of Information Act is important because I think that there's not enough stuff that everyone has access to. It's like somebody may want to know that to conduct their own studies. It ends up being locked away kind of like bureaucratic documentation when it shouldn't be."</p>
				Raising public knowledge and awareness (P3, P5, P6, P9, P11, P12, P13, P20)	Data being shared with public (open data) increases their knowledge and awareness		P5: "I think it would be a good thing to wake up a lot of people who are in denial about what's going on here and have watched the insanity, like a zoo, that's in front of the courthouse 24/7. I think that could be a good thing and the more you can pull those folks out of denial, the better."
				Utilitarian purpose of data collection (mentioned by all participants)	Data being collected and used to satisfy the intended purpose of the technology		P17: "Insurance companies can use this information to assess some claim for damage on that one day due to air quality. Perhaps someone would say it was so foggy and smokey that I crashed my car into something I couldn't see and the insurance company would have information about that."
				Privacy protection (P3, P4, P5, P9, P14, P16, P17, P20)	People's privacy would be better protected if data is being retained for a shorter amount of time		P14: "Because that information is going to change the next day and not everyone's going to be focused on observing the same thing every single day to observe a trend. So the potential of being tracked over time would be less compared to looking at that information and reviewing it day after day after day."

		Harms	The harms participants mentioned when discussing the vignettes	Information misuse	Data could be misused to harm the public	Discrimination (P4, P6, P8, P9, P16)	Information to be used to perpetuate discrimination	P9: "As a white person, it's difficult for me to give an answer because I don't live in a neighborhood that's affected by this. I would be concerned if a sound that wasn't a gunshot was interpreted to be a gunshot and the police were called particularly if I was a black person because of problems with the police."
						Misinformation (P1, P2, P5, P8, P9, P10, P15, P17, P18, P20, P21)	Information to be used to spread misinformation	P15: "Any city, especially for Shanghai or Hong Kong, or Tokyo that have poor AQIs and that mayors would be looking towards tourism, especially now that we're ramping back up. They don't want that information to be released to the public and I don't think it's right."
						Abusive behavior (P1, P2, P6, P7, P8, P14, P19)	Information to be used in an abusive manner	P1: "If there is somebody who is in, for example, a domestic violence situation where they are trying to not have somebody know what their business is or where they're located, something like that. If that information is accessible and let's say that there's some means [of] looking at particular people, that could be really harmful for that particular individual."  P8: "I would think that the concern for me is that everybody will then in some way, shape, or form could track other people. Whether that's knowing the actual people or just knowing the number of people in the proximity of the area. It still weirds me out. I guess the harm is just feeling like I'm being watched still."
				Violation of privacy and personal freedom (P1, P8, P9, P14, P15, P19, P21)	Data could be used to harm public's personal freedom as well as their privacy			P8: "I would think that the concern for me is that everybody will then in some way, shape, or form could track other people. Whether that's knowing the actual people or just knowing the number of people in the proximity of the area. It still weirds me out. I guess the harm is just feeling like I'm being watched still."
				Waste of resources (e.g., money, time)	Data collection is not beneficial and could be a			P17: "I think then it's a waste of time. I really do, because you want to be able to go back

				(P5, P6, P9, P11, P16, P17)	waste of money or time		and look at things. I think that's the whole reason you do it, right? Somebody's going to sit there and watch it the whole time? No. You don't need that. You need it recorded so if something happens, hey, we can go back to that time and date and look at it."
				Information overload (P5, P7, P8, P10, P13, P21)	Data being accessed by everybody could lead to information overload and be anxiety- and anger-inducing		P21: "What do you do with that information? I mean, we know what the air quality is, it's not going to change. So, really what good is the information other than to make people upset. 'Oh, look at our air quality, it's horrible. Oh, this is bad.' Then, people get in an uproar, and really there's nothing we could do about it. You want to change the air quality, you got to make different steps to change air quality around, right?"
	Responsibility	Perceived responsibility in making people comfortable and less concerned in a smart city	Public	People have the responsibility in making smart cities less concerning	Seeking information (P10, P12, P15, P20, P21)	People have the responsibility to seek information about smart city technologies	P15: "I am ultimately responsible for my own comfort. I am accountable and have the ability to respond by seeking data. They [device manufacturers] will give me just enough, they'll give me a sweet little blurb about who they are, which is supposed to be enough to pacify me. If I want more, then I'm going to have to dig. If I want Freedom of Information Act on this, then I need to form a coalition or get journalists involved or get other people involved to try to break open this in a legalistic legislative sort of way and say, 'Okay, we've got too many sensors. Let's find out what they are. Why the heck are they looking at us?'"
					Make their voices heard (P2, P9, P12, P18)	People have the responsibility to participate in the discussions about smart city technologies and make their voices heard (e.g., by voting)	P9: "I think there should be some way for people to be able to stop things like this if the whole neighborhood comes together and says, 'We really don't want this. And we think it would make our life worse'."
				Device manufacturers	Device manufacturers have the responsibility in making smart cities less concerning	Transparency (P5, P8, P19)	P8: "I feel like the companies that create the devices that are used are responsible. I think that being up front about the information that is stored is really important. I want to know how long you're holding my information. I want to know what exactly the

							information you're holding. Are you holding my social security number, or are you holding my credit card number, or are you holding personal information? I just feel like I want transparency if we're going to be in a smart city."
				Conduct research into community needs (P5, P7, P12, P13)	Device manufacturers have the responsibility to conduct thorough research in the needs of the public before designing new technologies		P12: "I'm always wondering why something new is being introduced. Especially if there are already existing things being done, why can't those just be improved? So I think there would have to be a rationale for why something completely new is being reintroduced. And if it's to address the deficit, then I would be much more in favor of it than if it were just, 'here's a new idea.'"
		City officials/local governments	City officials and local governments have the responsibility in making smart cities less concerning	Seeking community input (P1, P2, P3, P4, P6, P8, P9, P12, P14, P16, P17, P18, P20, P21)	City officials should listen to people and include them in their decision makings		P16: "When a smart city is being proposed, community groups and minoritized groups should be there. They should be at those meetings, be able to say what their concerns are and feel heard. Then I think that would help a lot of minority groups feel like their concerns were addressed."
				Transparency (P1, P2, P4, P7, P8, P11, P15, P16, P17, P19, P20, P21)	City officials should be transparent about the practices and policies of smart city technologies		P1: "It is really on them [the city] to make me understand why that information is being collected in the first place and to see the value of it ... I want to know as much as one is allowed to. I want to be able to see what effect that information collection has had and hopefully see that it's something beneficial, right? I just want transparency, I want to know exactly what it's being used for and why."
		Academic researchers	Academic researchers have the responsibility in making smart cities less concerning	Educate the public (P9, P17, P21)	Academic researchers have the responsibility to educate people about smart city technologies		P17: "I tend to think of research groups, think tanks, and universities to have the responsibility. They seem to be a little more objective as a third party that is not the one directly involved with receipt of the information."
							P21: "I think there should be an unbiased group that researches, and with that research comes up with the best plan or what's going to work for different areas,

							because different cities are different people, and they're going to want different things."
		Regulatory agencies and policy makers	Regulatory agencies have the responsibility in making smart cities less concerning	Regulating the use of technology (P1, P16, P17)	Regulatory agencies should ensure that the technologies adhere to their intended purposes		P1: "I think that technologies can be very adaptable depending on what they are. So it's one of those things where it is important to know what its original purpose meant to be and is it staying true to that purpose or is there a way in which it's being manipulated once it's in other hands?"
Information communication	Participants' preferences over the modes of information communication	Real-time notifications (e.g., text message) (P4, P6, P7, P12, P13, P14, P18, P19)	Information being communicated through real-time notifications				P14: "I think receiving information via text message sounds like a reliable system. I think it sounds like a decent system, a good system actually."
		Passive/Asynchronous notifications (e.g., postal mail) (P1, P2, P3, P5, P8, P9, P10, P11, P15, P16, P17, P20, P21)	Information being communicated through asynchronous modes of communication				P2: "I think mail is an appropriate way. Once you hit a certain age, getting the mail is like the highlight of your day. And unlike people in their 20s or 30s they don't just automatically throw everything away. Like they open and read every single piece of mail. It's like the low tech option, I feel like that's easily able to reach to a lot of people."
Neighborhood-specific perceptions	Participants' attitudes toward their neighborhoods	Age (P3, P6, P10, P14, P15, P18)	Age as a factor to impact people's perception of smart city technologies				P10: "I think the younger population are less concerned because they're habituated to technology. Collecting the data is a very natural process to them. I think people in my age range and older would have maybe more caveats about it."
		Socio-economic status (P7, P9, P10, P18, P19)	Socio-economic status as a factor to impact people's perception of smart city technologies				P9: "My neighborhood is generally more affluent white people. I think they would be concerned about privacy even more than me, and I'm pretty concerned. However, I don't think they would be as concerned about law enforcement so I think they would see more benefit in having these technologies used to call law enforcement."
		Race (P2, P4, P6, P10, P11, P13)	Race as a factor to impact people's perception of smart city technologies				P6: "I would say that race could be important because of the perception of surveillance, especially if individual have had that experience before. I have been going into a store and feeling surveilled. Feeling as though you are being suspected of

					committing a crime versus going into an Amazon Go to just pick up some groceries.”
		Experience (P2, P7, P11, P12, P20, P21)	Having experience as a factor to impact people’s perception of smart city technologies		P7: “I think people become willing to give up some freedoms, myself included, for the sake of safety. If I were walking down that street and I got mugged, it would be great for it to be on a videotape. So you see how it's more likely to benefit me in that way, whereas it's not ever going to harm me because I don't go around mugging people. Anyway, I'm not as concerned about it using against me in a policing type way whereas I think I could benefit from it if I was ever a victim of a crime.”