Urban Sociology
Professor Archana Patnaik
Department of Humanities and Social Sciences
Indian Institute of Technology, Kharagpur
Module 3 – Smart cities and Urban life
Lecture 13
Community, Smart Citizenship, and the Digital Divide

Hello everyone. In this lecture today, we will be covering the topic of Community, Smart Citizenship, and the Digital Divide.

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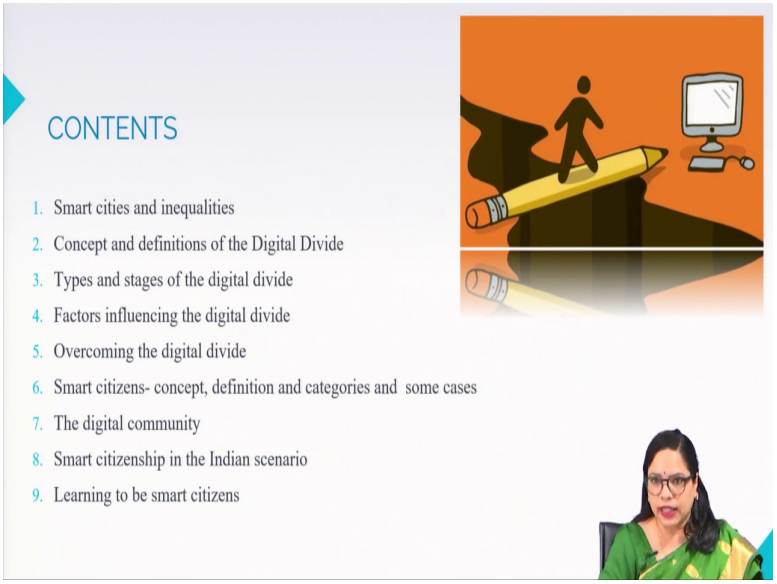

The contents that we will cover today in the lecture are smart cities and inequality, the concept and definition of the digital divide, types, and stages of the digital divide, and factors that influence the digital divide. Then we will be discussing how we can overcome the digital divide, smart citizenship, the concept, definition, and categories, and also, we will discuss some cases to reflect more on them.

We will also discuss the digital community and then we will start analyzing the smart citizenship in the Indian scenario. And then we will also understand how we can become smart citizens through different scholars.

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So, when dealing with the concept of smart cities, the most important element that comes up after the ICT and smart technologies are the citizens who are the users and the beneficiaries of this. However, some elements lead to unequal access and usage, giving rise to inequalities fostered by smart technologies within smart cities.

In this lecture, we will cover the digital divide, which influences and expands the already existing inequalities within Smart Cities. At the same time, we will also discuss the solution in the form of smart citizenship that can make use of smart cities to make them more sustainable.

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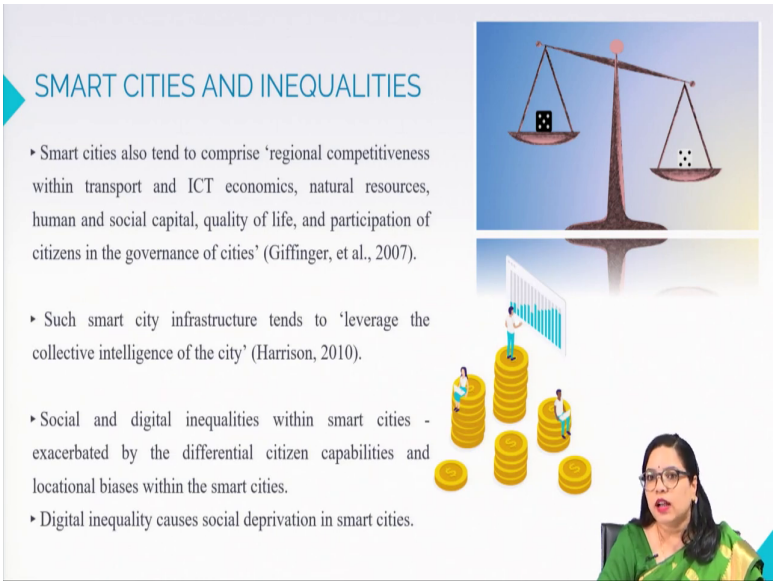

According to Griffin, and others, smart cities comprise reasonable competitiveness within transport and ICT economics, natural resources, human and social capital, quality of life, and the participation of citizens in the governance of the cities. Adding to this Harrison suggested that such smart city infrastructure tends to leverage the collective intelligence of the city.

However, there exist social and digital inequalities within smart cities that are exacerbated by the different citizen capabilities and location biases, within the smart cities, among others. Additionally, digital inequality causes social deprivation in Smart Cities.

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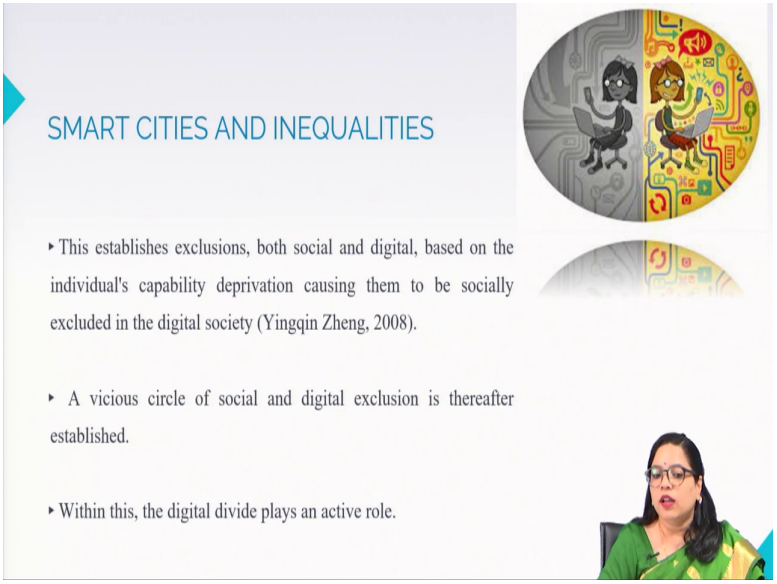

According to Zheng, this establishes exclusion, both social and digital based on the individual's capacity, causing them to be socially excluded in the digital society. A vicious circle of social and digital exclusion is therefore established. Within this, the digital divide plays an active role.

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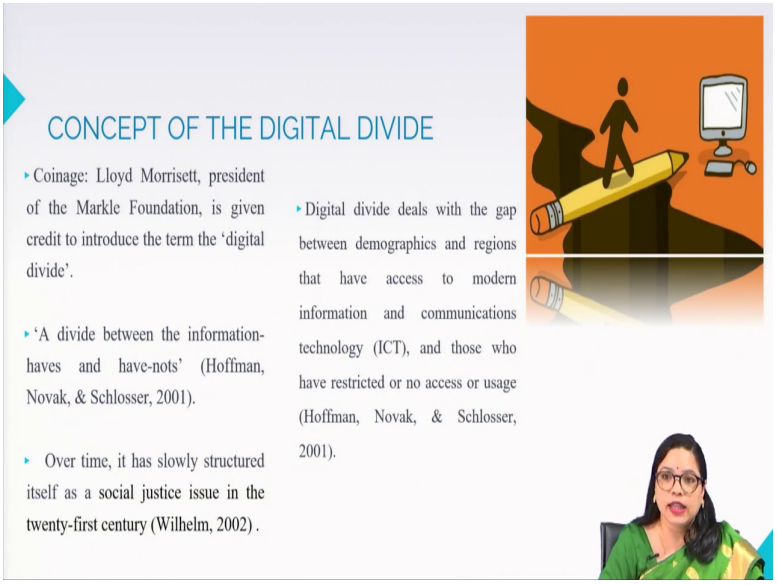

Let us then discuss this concept of the digital divide in detail before we understand the citizens and the community, which operate within the smart cities to date back to the coinage. Lloyd Morrisette, president of the Markle Foundation, is given the credit to introduce the term the digital divide, which was a divide between the information haves and the have-nots, according to Hoffman, and others.

And over time, William explains it has slowly structured itself as a social justice issue in the 21st century. According to Hoffman, Novack, and Schlosser, Digital Divide deals with the gaps between demography and regions that have access to the model, information, and communication technology and those that have restricted or no access or usage.

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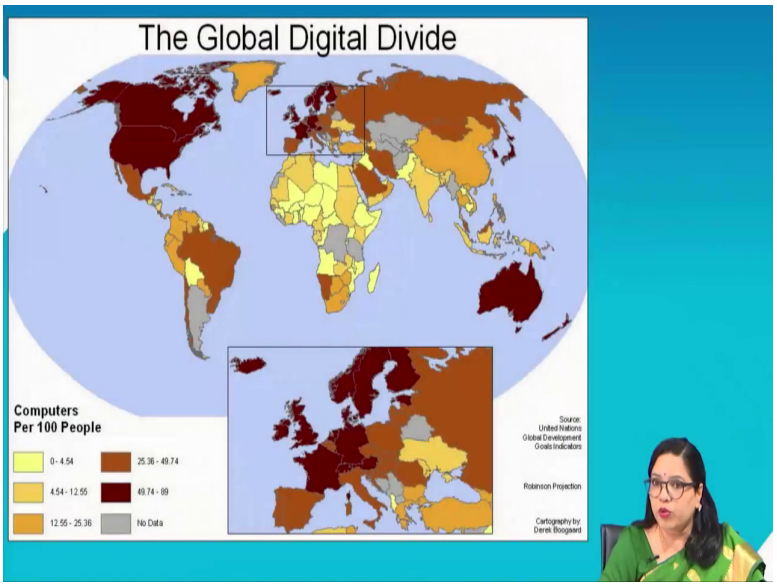

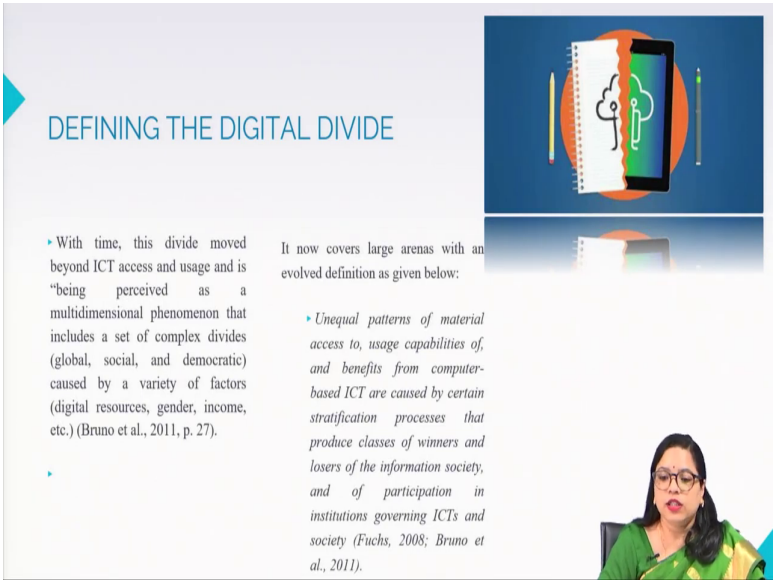

According to Bruno, and others with time, this divide has moved beyond ICT access and usage and is being perceived as a multi-dimensional phenomenon that includes a set of complex divides, like the global, social, and democratic, caused by a variety of factors like the digital resources, gender, income, etc.

It now covers large arenas with an evolved definition as unequal patterns of the material access to usage capabilities of and benefit from computer-based ICTs are caused by certain stratification processes that produce classes of winners and losers of the Information Society and participation in institutions governing ICTs and the society.

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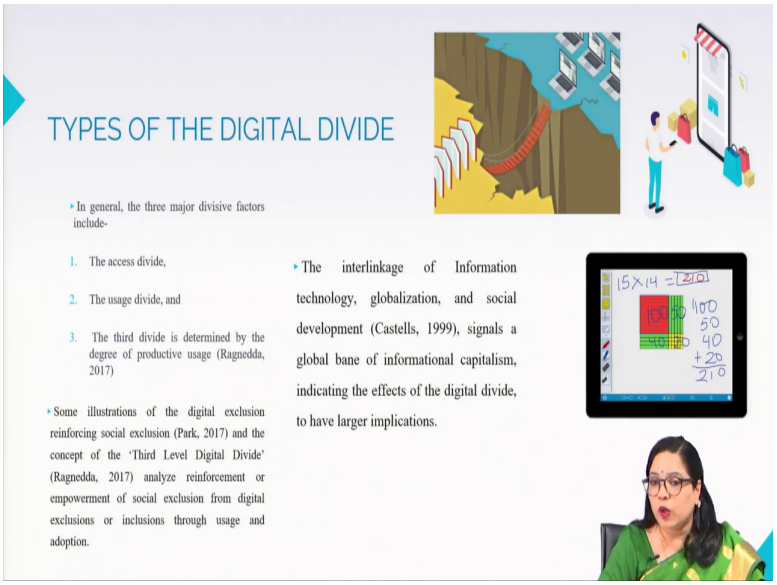

In general, the three major decisive factors according to Ragnedda include the access divide, the usage divide, and the third divide, which is determined by the degree of productive usage.

According to Park some illustrations of the digital exclusion reinforced the social exclusion and the concept of the third level digital divide as given by Ragnedda, analyzing the reinforcement or empowerment of such social exclusion from the digital exclusions or inclusion through the usage and adoption of the digital platforms.

This aspect of larger inequalities is reasoned out by examining the absence of certain capabilities and deprivation in the E society. Castells establishes the interlinkages of Information Technology, Globalization, and Social Development and finds that the interlinkages signal a global bane of information capitalism, indicating the effects of the digital divide to have larger implications.

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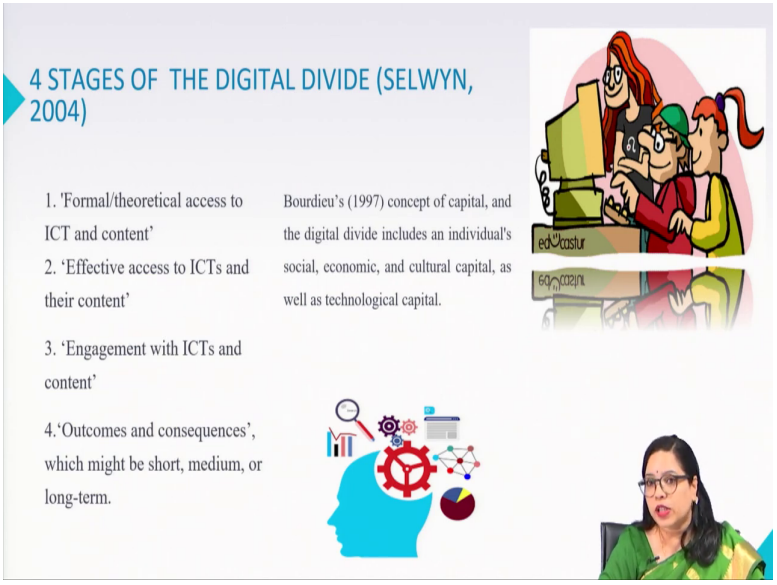

There are four stages of the digital divide according to Selwyn the first stage is the formal or theoretical access to ICT and the content. This stage comprises ICT being available at home, in a community setting, and in other spaces that are available to an individual in theory.

The second stage is effective access to ICT and its content. This stage comprises the ICT being available at home, in the community setting, and in other places that the individual feels that they can access. This form of use may or may not be meaningful in the long run, or even may or may not have consequences.

The third stage according to Selwyn is the engagement with ICTs and the content. This stage comprises meaningful access and uses where the users exercise a certain degree of control and choice over the content and the technology. The last stage he speaks about is the outcomes and consequences, which might be short-term, medium-term, or long-term.

According to him. These take place in the form of productive, political, social, savings, and consumption activities. Additionally, Selwyn explains that the digital divide has also been influenced by Bourdieu's concept of capital. And the digital divide is influenced by an individual, social, economic, and cultural capital, as well as the technology play capital he or she possesses, having discussed the stages of the digital divide. Now, let us discuss why it is important to have digital inclusivity.

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According to Graham, internet access now is a fundamental right in countries like Finland, Costa Rica, and Estonia. These countries consider access to the internet a fundamental right and human right in countries like France, Greece, and Spain. Hence, the lack of access and usage at the preliminary level becomes an issue and of radical importance in the developed country.

According to Rouse in due course of time, the developing nations are also shedding light on the same, with heightened intensities, the divide seemed to cause a gap in the information that is available, and hence attracted a lot of attention from the advocacy group scholars and the policymakers worldwide.

According to Farhadi, and others, even though there is a huge boom in information and communication technology adoption. Many developing as well as developed countries still face the problem regarding access and the usage of broadband and mobile network facilities.

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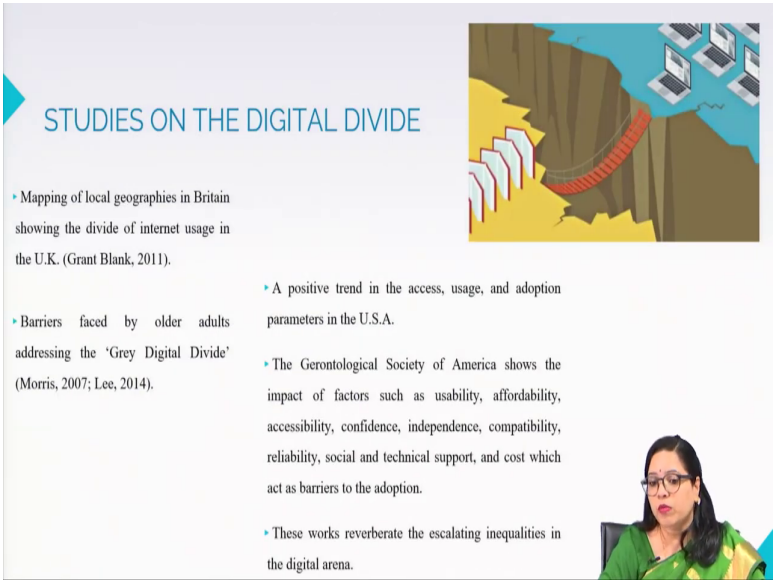

There has been expanding research in this realm of digital inequality, such as the mapping of the local geographies in Britain, showing the divide of internet usage in the UK or an inquest on the barrier faced by older adults in addressing the grey digital divide, which was referred to by Morris and Lee.

Although some studies infer a positive trend in the access, usage, and adoption parameters in the United States. The Gerontological Society of America shows the impact of factors such as usability, affordability, accessibility, confidence, independence, compatibility, reliability, social and technical support, and cost, which act as a barrier to adoption. These works resonate with the escalating inequalities in the digital arena.

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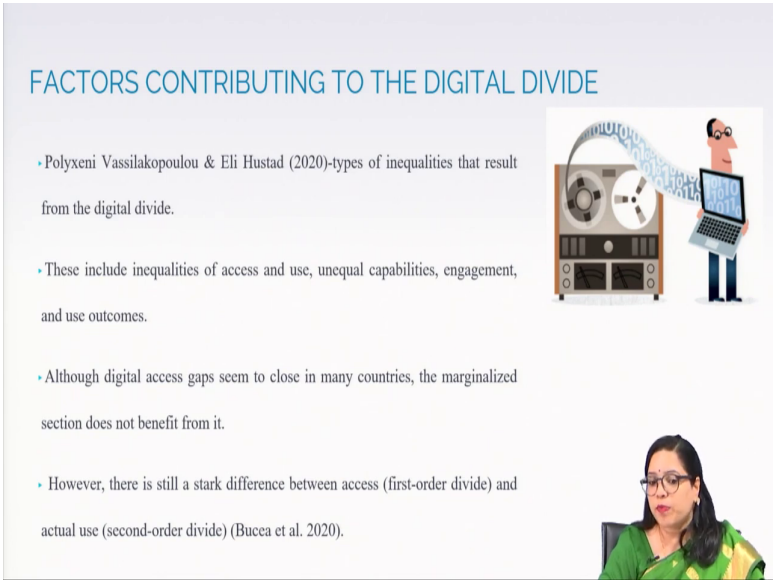

Other scholars explain the influence of the digital divide, for example, Polyxeni, and Eli Hustad in the article, bridging Digital Divide explain the various types of inequality that result from the digital divide. These include inequalities of access and use, unequal capabilities, engagement, and usage outcomes.

Although the digital access gap seems to close in many countries, the marginalized section does not benefit from it as established by various scholars, there seems to be a stark difference between the access, the first order divide, and the actual use, the second order divide, as explained by Bucca and others.

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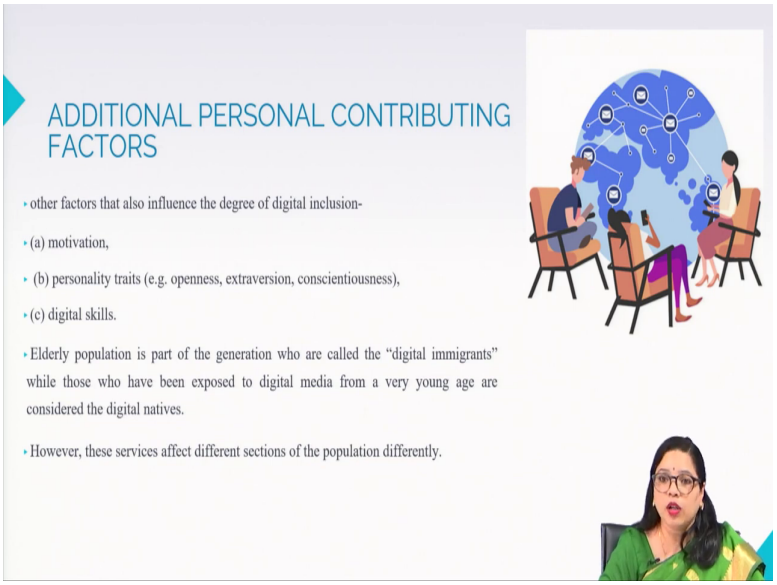

Other than the external influences of access and capabilities. As we discussed, other factors also influenced the degree of digital inclusion. These include an individual's motivation, and personality traits, like openness and digital skills. When we consider the digital world, the elderly population is a part of the generation who are called digital immigrants, while those who have been exposed to digital media from a very young age are considered digital natives. However, digital services affect a different section of the population differently.

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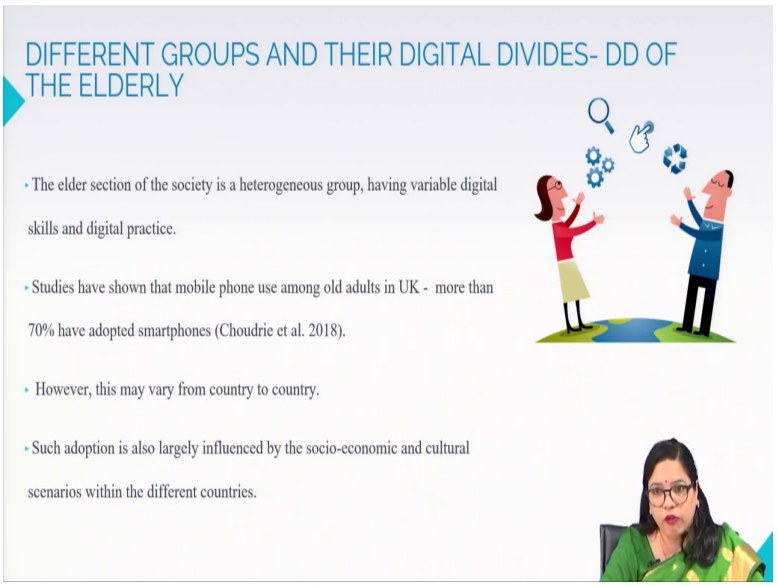

The elder sections of society are always a heterogeneous group, having a variable degree of digital skills and digital practice. We find studies in the UK have shown that more than 70 percent of old adults use smartphones. However, this data may vary from country to country and such adoption is also largely influenced by the socio-economic and cultural scenarios within different countries.

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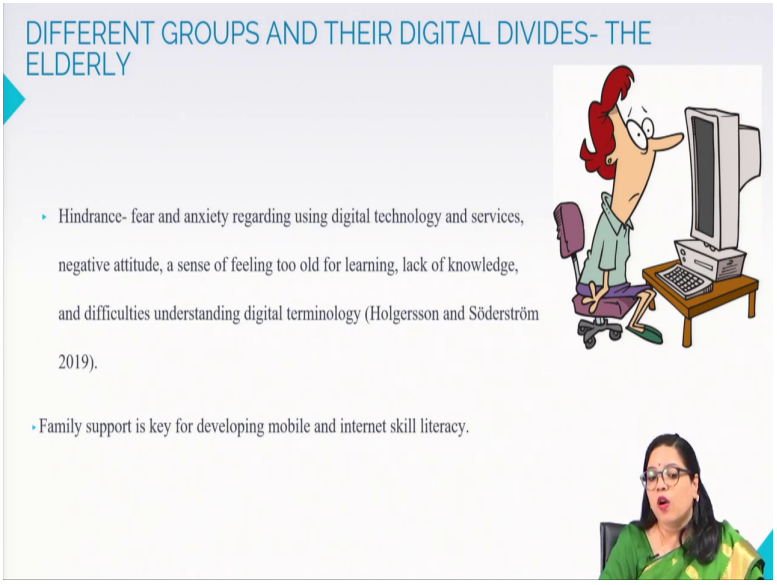

Further, there are certain hindrances for the elderly adults such as fear and anxiety regarding the usage of digital technologies and the services, the negative attitude of feeling that they do not or they are too old for learning, lack of knowledge, and difficulties understanding the digital technology as emphasized by Holgersson and Soderstrom. Family support hence in these cases plays a key role in developing mobile, internet skill literacy.

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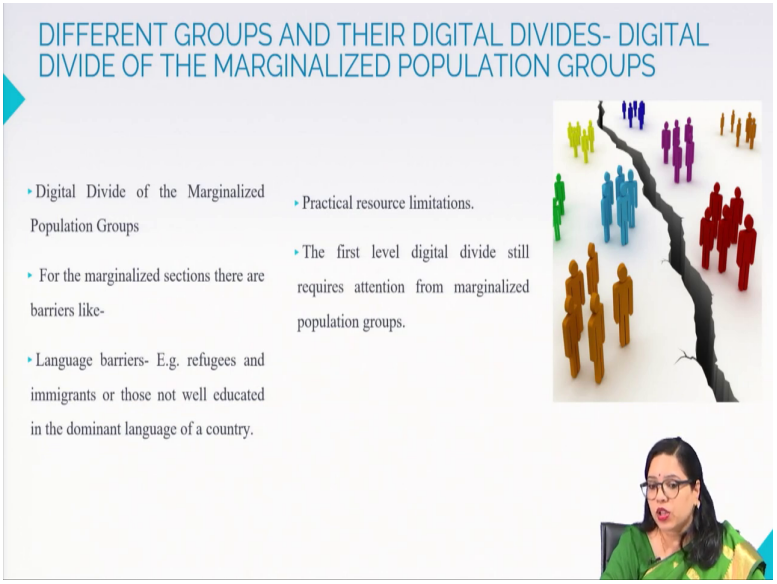

Now, let us discuss the digital divide and the marginalized population groups, for the marginalized section there are barriers like the language barrier, for example, this is applicable for the refugees and the immigrants or those not well educated in the dominant language of the country that they are residing in. The second is practical resource limitation.

For example, the socially excluded and distressed urban areas and remote rural areas can cause social exclusion, and hinder the process of digital technology assimilation throughout society. The first level of the digital divide, therefore, requires effort from the marginalized population group, if they want to be digitally included.

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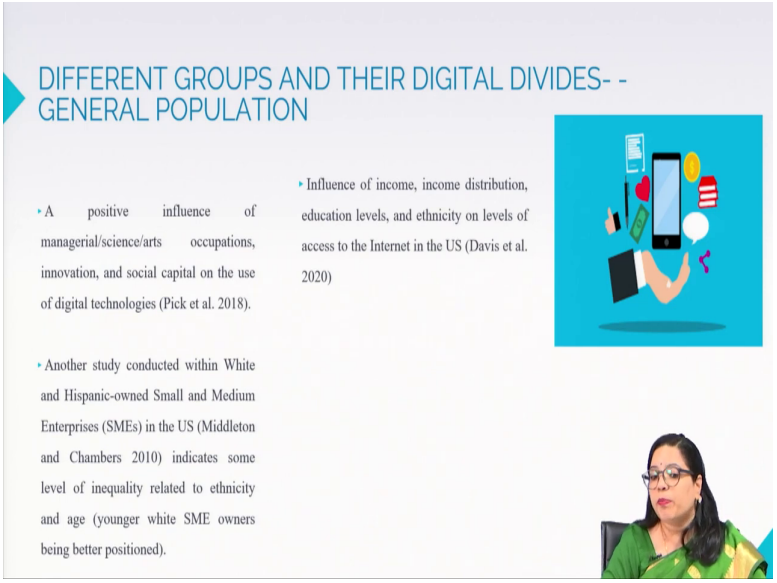

In the case of the general population, certain studies depict which section of the population is more inclined toward digital inclusion and exclusion. For example, one study by pic and others showed a positive influence of managerial science, arts, occupation or innovation, and social capital on the usage of digital technologies.

Further another study conducted within the white and Hispanic-owned small and medium enterprises in the United States, by Middleton and Chambers, indicated some level of inequality related to ethnicity and age, where younger white, small and medium enterprise owners were better off and better positioned. Other studies highlighted the influence of income, income distribution, educational levels, and ethnicity on the levels of access to the internet in the United States.

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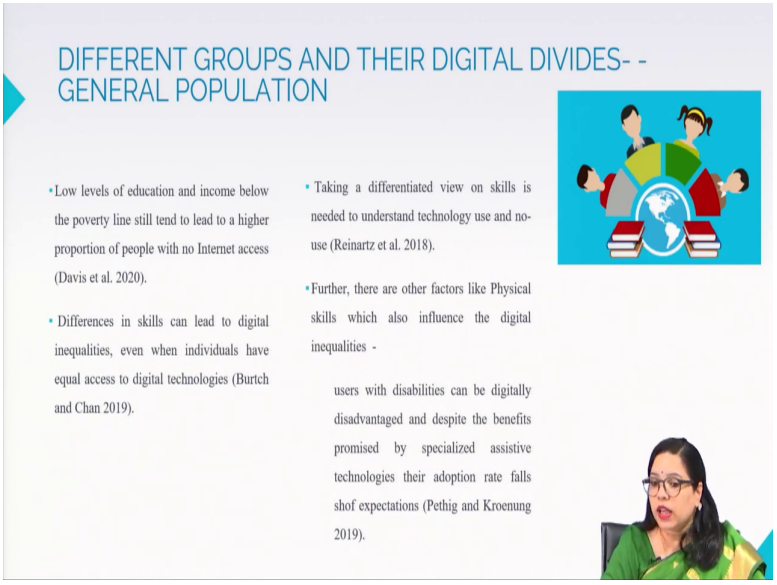

A low level of education and income below the poverty line still tends to lead to a higher proportion of people with no internet access, as found by Davis and others. Further differences in skills can lead to digital inequalities. Even when individuals have equal access to digital technologies was established by Burtch and Chan.

Taking a differentiated view on skills is needed to understand the technology use and no use according to Reinartz and others. Further, there are other factors like physical skill, which also influence digital inequalities, users with disabilities, according to Pethig and Kroenung, can be digitally disadvantaged. And despite the benefits promised by the specialized assisted technologies or assistive technologies, their adoption rate could fall of expectations.

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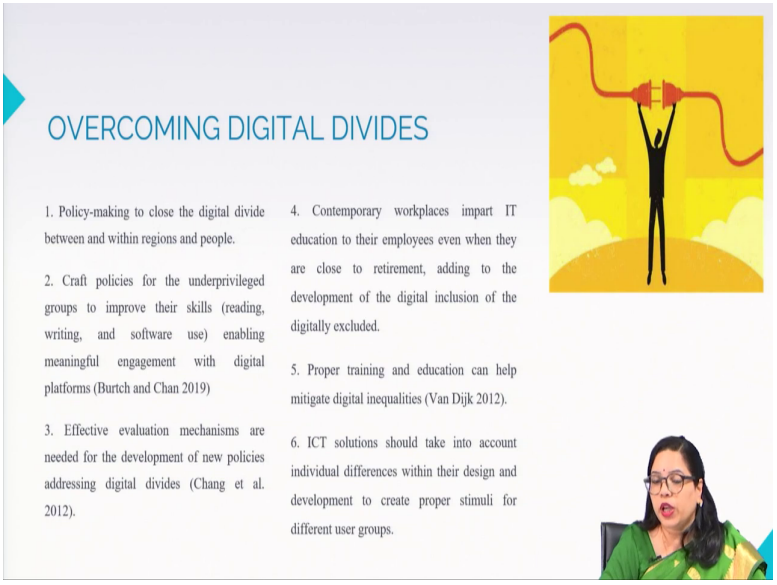

Thus to bring in the digital inclusion policy should be formulated to close the digital divide between and within the region of people, crafting policies for the underprivileged group to improve their skills like reading, writing, and software use would enable their meaningful engagement with the digital platforms as were suggested by Burtch and Chan. Effective evaluation mechanisms are also needed for the development of new policies addressing the digital divide, as suggested by Chan and others.

Some studies have also found that contemporary workplaces impart IT education to their employees, even when they are close to retirement, adding to the development of the digital inclusion of the digitally excluded. Proper training and education can help in mitigating digital inequalities as suggested by Van Dijk.

Further ICT solutions should take into account individual differences within the design and development to create proper stimuli for different user groups with different capabilities, considering the digital divide. When we consider smart cities then, there lies the concern of digital inclusion, which tends to influence the growth of smart citizens, but who are the smart citizens, let us first discuss them.

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To define smart citizens, they are the ones who use the internet regularly and effectively, acknowledging the degree of responsibility in using the technology and ways of participating within the Digital community. These consider the degree of digital literacy etiquette online safety and then acknowledgment of the private versus the public information, as suggested by Karen Mossberger.

Shadowy and Shekar call such a form of use in daily life and social-political setting smart citizenship. In times where wellbeing accompanies digital inclusion, it is essential to equip citizens with technologies to know how that could render the proper exploitation of the smart human capital making use of their digital capital. However, smart citizenship has been observed to favor the well-off, ignoring the technologically illiterate and the poor, and the marginalized.

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According to Shelton and Lodato in their article existing smart citizens, experts, and non-participation in making the smart city explain that smart citizens can be considered active participants, passive recipients and entrepreneurs a consumer, an obligation, or business opportunities, smart citizens have been categorized in the form of general citizens and absent citizens. According to them, the general citizens are a vessel of stereotypes a means by which the status quo is preserved.

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And the absent citizens are the non-participants in the making of the smart cities, or the citizens absent in the substantiative element of the Smart Cities. These citizens face exclusion in discourse and material practice while also comprising the excluded and the ignored

sections and those who do not participate in the functions of the Smart Cities. Further, the citizens are mostly invoked by the auspices of stewardship.

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However, according to the Scholars existing smart citizens might not exist at all, smart citizenships exist for the one holding power and expertise. Thus, the discourse and the practice miss the actual participation within the power geometry and the need for democratic citizenship and city-making.

According to Jane Lee, Orlando Woods, and Lily Kong in their article "Towards more inclusive Smart Cities reconciling the divergent realities of data and discourse at the margins"- they explained that smart citizens can be considered active and passive in nature. Further, this suggests that the digital divide is an issue that influences the nature of smart citizenship, as mostly the urban elites are favored in this context.

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According to Sadoway and Shekhar, there is a need to reprioritize the local necessities rather than re-engineering the cities and the citizens. Here they find the essence of smart cities become an antithesis to the smart citizens due to the exclusionary nature of the commercialized smart city policies.

The authors highlight the need for a more complex civic cyber intelligence system, where the system should be democratic and equitable. Also prioritizing civic decision-making within the processes, respecting community needs, and covering the requirement of political accountability.

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The authors applied the perspective on the case of Chennai smart city in India to access or assess how citizens might reassert or reinsist their voices and visions in the ICT-linked urban planning and governance. The work of the transparent Chennai was analyzed, for this reason, the transparent Chennai exemplar demonstrates and potential for smarter or more engaged and transparent governmentality.

While the main approach of community mapping and public advocacy held in countering the threats of commercialized smart city agenda, the research thus highlights the essence of community-defined infrastructure needs and priorities, such as poor access to the public toilets or growing threats from the automobiles to the pedestrian safety and the urban quality of life.

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Another example to understand the idea of a smart city can be witnessed through the exploration of the material participation of the urban bottom-up movement in Amsterdam. This has been given by Sabine Neiderer and Ruurd Priester. In their articles, Smart Citizen explores the tools of the urban bottom-up movement, and from their exploitation, the authors have concluded that the phenomenon of material participation through the use of the website for the urban bottom-up movement exists in Amsterdam and is growing rapidly since 2010 in terms of the number of websites.

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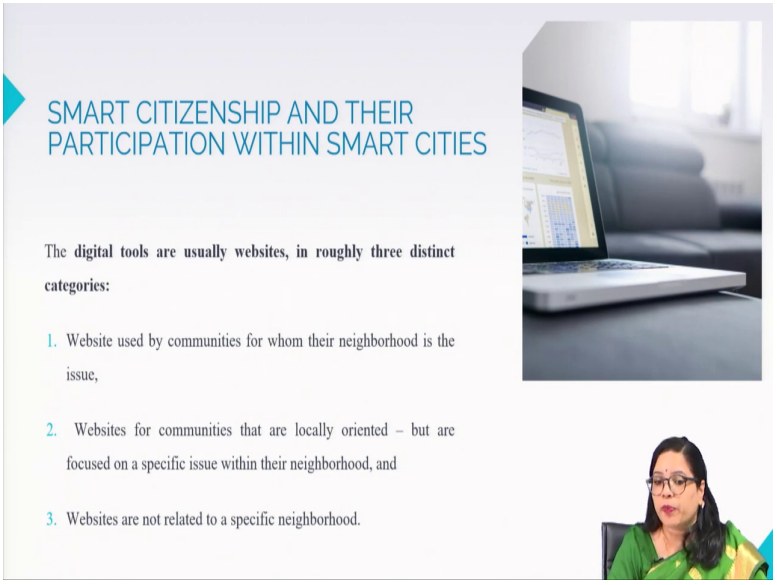

The digital tools are usually websites in roughly three distinct categories, a website used by communities for whom their neighbourhood is an issue. Next comes the website for communities that are locally oriented but are focused on specific issues within the neighbourhood. And the last are the websites that are not related to a specific neighbourhood.

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Florian Schneider states that the smart community is the new digital utopia. When we talk about the digital community, its idea is defined by what a smart citizen itself should be. According to Schneider, the main characteristics of Smart Cities are being efficient, creative, and engaged in the digital domain.

Further, the scholars also state that a smart community should look to be resilient, connected, and sustainable within the urban areas. Schneider introduces the idea of digital feudalism derived from the different studies undertaken in Singapore, Hong Kong, Japan, and India, where the study concludes that elites co-opt the idea of community to push their solution paradigm for urban and social development.

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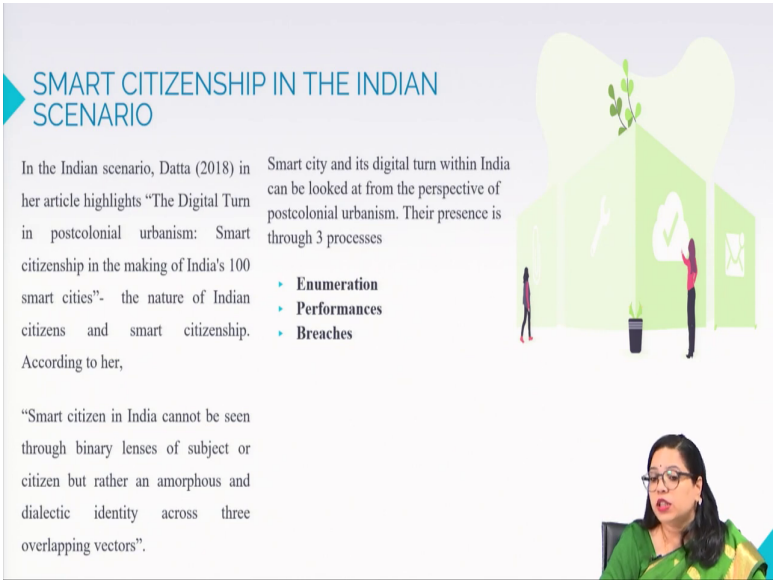

In the Indian scenario, Datta in her article, the digital turn in post-colonial urbanism smart citizenship in the making of India's 100 Smart Cities highlights the nature of Indian citizens and smart citizenship. According to her smart citizen in India, cannot be seen through the binary lenses of subject or citizen, but rather an amorphous and dialectic identity across three overlapping vectors, smart cities, and their digital turn within India can be looked at from the perspective of post-colonial urbanism.

The presence is through three different processes. First is the enumeration like the fast-track citizens' action and mentioning several things one by one, for example, through citizen consultation of a digital population that has been hidden. The second is performances. This aspect depicts how citizens are becoming smart citizens. This is mainly through an online practice of how to become smart citizens online practices. The third one is the breaches these aspects open up the space for pirate modernity, which refers to the subaltern citizens who refuse to participate in the data governance.

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In the last process of breaching, a transition takes place giving rise to what Dutta terms the Chatur citizen. According to Datta, the Chatur citizen speaks from the position of subalternity to challenge power and replicate the very form of power. Therefore, both a compliant subject and an active citizen moving beyond these two possibilities, Datta highlights the need for further research along these lines, which lies in the assessment of subaltern citizenship from the urban and the digital lens.

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Along these lines, me and my Ph.D. student Maitrayee Mullick have worked on the gap and developed a paper that is under peer review, which highlights the perspective of citizen inclusivity within the Indian smart cities, through the theoretical lenses of shelving stages of

the digital divide and the right to the smart city by the Kitchin and Cardullo. Within this analysis, our study finds that the presence of Datta discursive Chatur citizen tree in certain scenarios, then in the pandemic, management within the Smart Cities of India were analysed.

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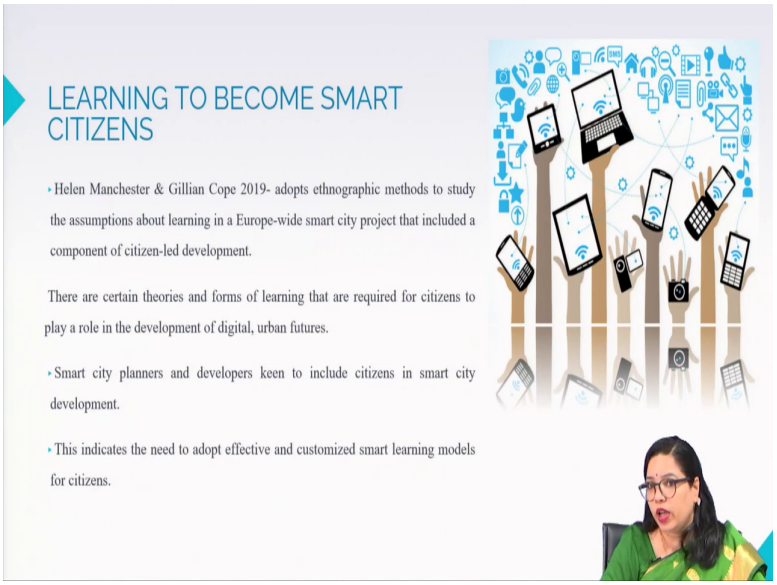

According to Helen Manchester and Gillian Cope, who adopted the ethnographic method to study the assumption about learning in Europe-wide smart city projects that included a component of citizen-led development. They found that certain theories and forms of learning are required for citizens to play a role in the development of digital urban futures and the t city planners and developers are keen to include these citizens in the smart city development. This indicates the need to adopt it effectively and customized smart learning models for the citizens.

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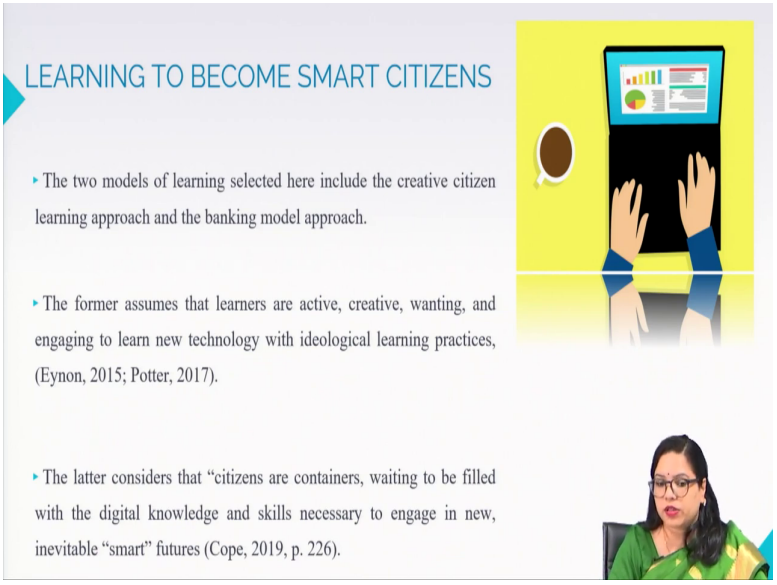

The two models of learning selected here include the creative citizen learning approach and the banking model approach. According to the scholars, the former assumes that learners are active, creative, waiting, and engaging to learn new technology with ideological learning practices. While the latter considered the citizens are containers waiting to be filled with the digital knowledge and skills necessary to engage in new inevitable smart futures.

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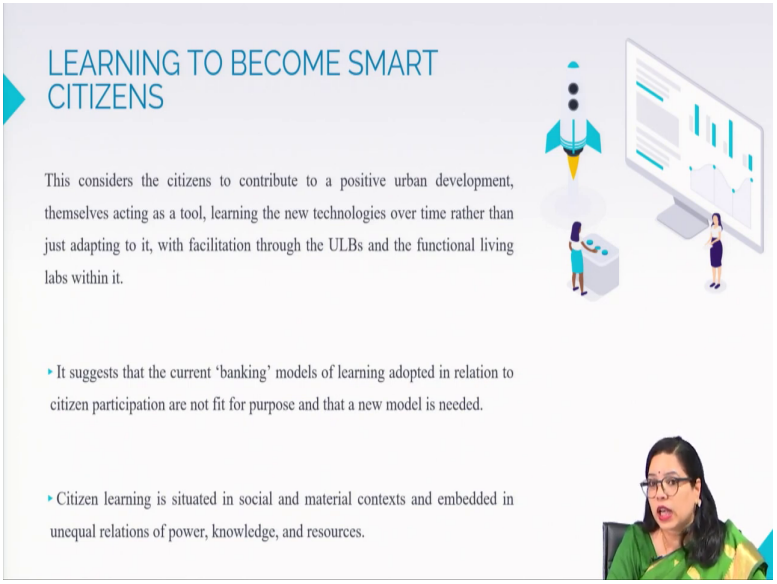

This considers the citizens to contribute to a positive urban development, themselves acting as a tool, learning the new technologies over time rather than just adopting it with facilitation through the ULBs and the functioning lab or functioning living labs within it. It suggests that the current banking models of learning adopted about citizen participation are not fit for the

purpose and that a new model is needed. This needs to recognize citizen learning as situated in the social and material context and embedded in unequal relations of power, knowledge, and resources.

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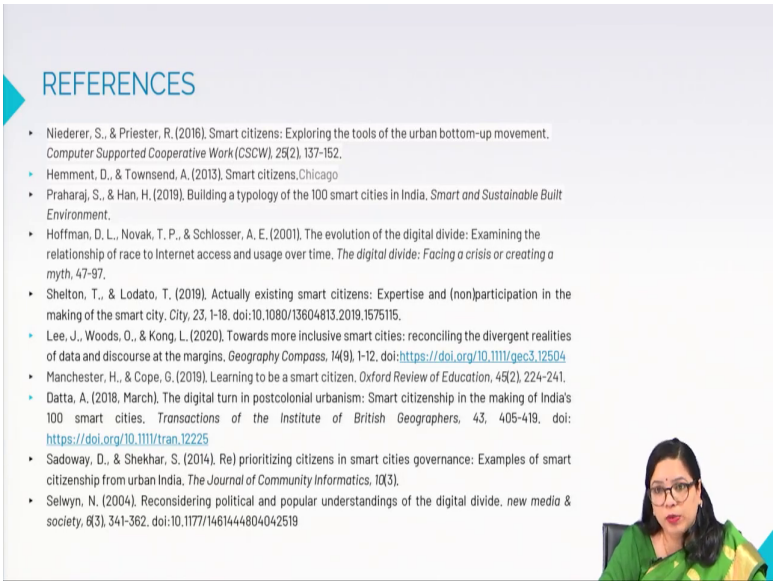

In the next lecture, we will be covering another interesting dimension which is the urban comments. Thank you for listening and have a great day ahead.