After watching the video titled, “Sustainable Livelihoods: Tribal Women of Odisha”, I believe that an ICT project can be proposed that would help these women. The main ICT project that I think would be most beneficial to these women would be setting up internet connections, setting up a means of storage and distribution, and giving the villagers access to proper technology to be able to display and sell their leave plates online. Throughout the course of the paper, I will explain each of the four classic theories; The Capabilities Approach (CA), the Sustainable Livelihoods Framework (SLF), the Choice Framework, and Critical Theory (CT), and explain how each of theories would work as a tool to be used in order to understand and implement the ICT project as means of improving the lives of the women of Odisha.

The Sustainable Livelihoods Framework builds upon the Capability approach we learned in week four. The framework offers a more formal model that includes constructs such as the vulnerability context, livelihood assets in various forms of capital, and transforming processes and structures. This framework starts with an analysis of people’s livelihoods and how these have changed over time; fully involves people and aids them in achieving their own livelihood goals; focuses on the impact of different policy and institutional dispositions on people’s livelihoods; and, seeks to influence these dispositions so they promote the goals of the poor (Farrington et al 1999). Furthermore, the idea of assets is central to the sustainable livelihoods approach. Rather than understanding poverty as simply a lack of income, the sustainable livelihoods approach considers the assets that poor people need to sustain an adequate income to live. These different types of assets or capitals are human capital, social capital, natural capital, physical capital, and financial capital. Human capital is the skills, knowledge, health, and ability to work. Social capital is the social resources that people use to make a living. These resources are relationships, connections, being part of an organization. Natural capital is the resources that humans draw on from the environment/nature. These resources include land, water, air, forests. Physical capital is the basic infrastructure people need to make a living, and the tools and equipment they use. For example, shelter, sanitation systems, and transportation would be considered physical capital. Lastly, financial capital are savings, in whichever from, access to financial services, and inflows of money. Understanding the different types of capitals is important and was highlighted in the readings, because the more assets any household has access to, the less vulnerable they will be to negative effects of the trends and shocks, or to seasonality, and the more secure their livelihood will be. Also, typically increasing one type of capital will lead to an increase in other amounts of capital.

The framework that I believe provides the best explanation for why this ICT project is helpful, is the SLF. I think the assets described in the sustainable livelihood framework fits my chosen project idea the best, because I noticed natural, human, social, and financial capitals being used throughout the video. Natural capitals were shown in the leaves and plants they were collecting to eventually sell. Human capital was their ability to turn the leaves into plates and also pinpoint which plants, mushrooms. were most suitable to sell for profit. They displayed social capital in their ability to work together in groups to sell the leaf plates. Lastly, financial capital was explained in the profits they make/lose. A vulnerability context trend is the producer and consumer prices. It seems that the consumers aren’t fully paying the producer prices. A method for this would be price and economic. Also, perhaps rainfall and or temperature would damage the leaves the women need which in turn would affect their ability to create and sell the product. If we were to implement the technology required to be able to sell products online it would require an understanding of all the different assets required to make it happen. The main strength of the Sustainable Livelihoods framework is that it draws upon an understanding of not just poverty, but also on other streams of analysis, relating for instance to households, gender, governance and farming systems, bringing together relevant concepts to allow poverty to be understood more holistically, through the five assets listed earlier. The main weakness of the SLF is that it focuses mainly on assets and while this was a strength it could also be seen as a weakness because each asset isn’t fully developed and expanded upon. For example, social capital is very generalized and doesn’t offer a description on how individual choice affects social capital.

The Capability Approach is a theoretical framework that entails two normative claims. The first claim is that the freedom to achieve well-being and a good life is of primary moral importance. The second claim is that well-being should be understood in terms of people’s capabilities and functioning’s. Capabilities are defined as the actions that people can achieve if they choose to do so. For example, being well-nourished, getting married, being educated, and travelling would be capabilities people can do. functionings are capabilities that have actually been realized. “Whether someone can convert a set of means - resources and public goods - into a functioning (i.e., whether she has a particular capability) crucially depends on certain personal, sociopolitical, and environmental conditions, which, in the capability literature, are called ‘conversion factors’ “(Robeyns, Ingrid, Byskov 2020).

In regards to the ICT project I listed above, I think the Capability approach is another strong tool that can be used to better understand and implement the ICT project and help these women reach a good life. Their notion of a good life is being able to collect leaves, turn them into plates, and sell them. They want to do this to be able to make money and hopefully send their children to college. Also, they want to be successful with their groups so that they can further improve upon the village and hopefully become recognized by the government which might eventually seek to help them. It seems that people in their village aren’t paying them what they are owed. I think this is an ethical understanding that needs to be worked upon by their customers. For the group itself they might need to improve their social and personal capabilities to be able to earn more money instead of relying on leaf plates. In the video some mentioned selling plants, but maybe there are even more alternatives. In turns of explaining underdevelopment and pointing to a solution I find the capability approach easy to use in explaining the underdevelopment and pointing towards solutions based on the video. I think understanding what their notion of a good life is and then explaining what capabilities they need in order to develop that good life is a useful method and a strength of the CA. However, I think a weakness is that the CA would require more information in order to actually implement the ICT. In the SLF one could point out the different assets that would be needed and also the assets that would be affected. However, the CA focuses more on completing actions to reach certain functionings. I think this would be harder to measure and implement than assets. I think the CA would require greater amounts of information. The reason for this is the ICTD project can easily incorporate all of the SLF assets required for the project. However, It would require much more planning, time, and knowledge in order to fully understand and incorporate the CA into the ICTD project. This would make the project take longer since not every capability is used and trying to incorporate them all would be hard.

The Choice Framework is comprehensive in its forming of the complex relationships between agency, structure, degree of empowerment and outcome, and this automatically calls for a trade-off with the depth of acceptance of each element. I find the Choice Framework harder to simplify and understand, but essentially it is a ‘living tool’ which clearly positions ICT usage not as an end in itself, but ICTs as being linked to different elements. These elements are embedded in structures, influencing agency, affecting dimensions of choice and as being, potentially, also a part of a complex mix of outcomes an individual may aspire to (in Sen’s terms, their capabilities). Furthermore, Klein explains, “In such a systemic framework which maps processes of development, ICTs are transversally relevant and widespread (not ubiquitous) but they are neither an end in themselves nor on their own effective levers for creating social change. ICTs are profoundly linked into social, political or economic interests and in this combination obtain power to transform societies. However, as multi-purpose tools, many of them have possibilities for unplanned and subversive uses” (Klein 2009). In my own words I believe this means is that ICTs are useful as a means of development, however, by themselves they are not effective enough to induce societal change. ICTs are also powerful and often have outcomes that weren’t expected.

Using the Choice Framework as a tool for the ICT project to help improve the lives of the women in the video would be very useful. Similar to the activity we did in class with the video titled, “Forest Heroes of Cambodia”, the different variables in the choice framework can be broken down. The structure that the ICT project would provide, is use of institutions and organizations through an internet provider, amazon, shipping company, etc. Each company would have its own policies which the woman may or may not be able to have discourse with (perhaps the internet provider might charge more if the women are selling goods at a quicker rate later on). The main structure that’s important is the technologies and innovations including: access to ICTs. The availability, affordability, and skills needed in order to use internet to sell their products will likely be what most affects the capabilities of the women and their degrees of empowerment. The more degrees of empowerment these women feel, then the more likely their development outcomes and achieved functionings will be reached. Development outcomes would be easier communication amongst their group and customers, increased knowledge of trading and seeing, increased income that will enable them to send their kids to college, more voice, etc.

The last of the 4 classic theories we’ve learned so far is the Critical Theory. Critical theory plans towards transforming social practices to realize the liberating and emancipatory potential of ICTs, but often these views lead to the opposite effect. In realizing the more power and influence technology has, it could be used to influence social practices for negative and immoral reasons (my own take). Critical theory also views technology as capable of institutionalizing power and generation empowerment (Week 8 slides). Critical theory also deals with the concepts of ideologies and hegemonies. In the text, *Zheng and Stahl (2011) Technology, capabilities and critical perspectives: what can critical theory contribute to Sen’s capability approach? Ethics in Information Technology, vol. 13, pp. 69-80*, Ideologies are described as, “particular and dominant worldviews that advantage some and disadvantage others (Freeden 2003; Hawkes 2003; McLellan 1995).” Good examples of ideologies are stereotypes linked to race and gender since it advantages some and disadvantages others. Furthermore, the text mentions what hegemony is and how it relates to ideologies, “Ideologies can only persist if they evade critical questioning and analysis. They must blend into the background in order to remain stable. The mechanism by which this is achieved is sometimes called hegemony. Hegemony renders ideology invisible, often by rending it natural and beyond discussion.” I found the description of hegemony to be confusing still but what I got from the quote, was that hegemony is a mechanism by which ideologies avoid critical questioning and discussions, which the text explains that it leads to people subjecting to oppression without questioning it.

Out of all the theories, I think that as a tool for use of the ICT project, Critical theory would be the worse/ hardest to use. Rather than explaining assets, choice, or the capabilities and functioning’s of the women, critical theory instead focuses on the concept of empowerment and liberation. In a sense introducing a way for women to sell their product for full price to members outside their village would provide many benefits and create a sense of liberation and unity amongst their group. However, even with critical analysis of why it s that the men in the village think they can buy the plates for a cheaper cost, I don’t think that would necessarily change anything. I think it is probably a mean-spirited ideology that customers think it’s ok to basically rob these women, but no assessment will necessarily change that. For this reason, I think the ICT project would help these women reach that sense of liberation and freedom and empower them to sell their products confidently. I understand that my analysis of the critical in relationship to the ICT project I proposed might be lacking in many areas (the reading was honestly a bit difficult to follow and understand), but I still believe the critical theory would be the least applicable theory to use for the ICT project.

Throughout the process of writing this paper I learned a great deal on tying different theories together and looking at solving the ICT project through each of their “lenses”. For instance, I looked through the SLF “lens” in order to figure out how I could implement the framework as a means to understand how assets would affect the ICT project and the overall lives of the women in Odisha. I did this for all of the theories and learned a bit on how they each differ from each other in regards to the comparing them to both the ICT project and the video. I found that the SLF, CA, and CF would all be useful in implementing an ICT project that seeks to improve the lives of the women through means of selling various goods online. However, the Critical theory would be a “blurrier” lens to look through if we wanted clarity on how we can better understand or implement the project. In completing this paper I’ve also realized just how complex the relationship between technology and development is. There are so many theories (and even more we will learn) that explains the different variables and or nuisances that can impact how technology and development correlates to further improve or ruin societies and or individuals. Throughout the paper I had various aha moments when it came to viewing each theory through a different lens and then comparing them to each other in my head. For example, I noticed that I do see connections between critical theory and the choice framework. Both theories deal with the idea of “empowerment” and also both deal with choice and the idea trying to have a good life. Critical theory draws upon the idea that knowledge is shaped by human interests of different kinds, rather than standing objectively independent from these interests. I see that as similar to the choice framework because once there is an established structure, then it leads to development of different choices or individual agency an individual can enact upon to reach a development outcome. Overall, there was a lot of things I learned and I enjoyed coming up with my own project idea and explaining how each of the theories could or couldn’t support the project.

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