Inclusion and Technology Design
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Lecture - 05
The Political Nature of Technology Design

So, I think we are not meeting the objectives of the work shop yet. One of the objective is that I had in my mind is (Refer Time: 00:21) unit scheme. So, that you reduce so, certain things that are going on which will not make you comfortable, yeah, and will affect your sleep at least for one night, yeah. So, only he the sleep (Refer Time: 00:39). Any particular connection through the sessions?

Student: Future planning's.

Future plans, ok. But, are you generally comfortable in whatever we covered yesterday?

Student: Yes.

Yeah, or anything you will found new or this was something that develop you anyway new. Anything novel in whatever was covered this like you were not aware of even whatever you are doing right now or whatever training you have gone through till now, ok.

So, we looked at technology yesterday right, we looked at technology, we looked at design and we looked at questions of inclusion largely from the perspective of general, right. So, let us step back and try to understand what do you mean by technology. What is technology? What comes to your mind when this term is occurred? Bangalore is a dash technology cluster.

Student: (Refer Time: 01:49).

High technology cluster, lower technology cluster?

Student: High sir.

No, neither two of this. Silicon Valley is a dash technology cluster.

Student: I already completed.

Why?

Student: Because the clusters are generally technically adapt.

Student: Why are (Refer Time: 01:15).

Student: Clusters meaning clusters of people (Refer Time: 02:18).

Equal yeah, place.

Student: So, I guess, Bangalore standard out being low tech.

Good.

Student: I did, it was supposed to be in a pensioner's paradise.

Good.

Student: And here it was supposed to be the pensioner's paradise. (Refer Time: 02:33).

So, when it was a pensioner's paradise it was low tech.

Student: It was yeah.

Now, its pensioner's hell when it has become high tech.

Student: High tech, yeah. So, I observe.

So, what does it do to the abilities of the pensioner's incomes of technology the definition circulated talking about?

Student: Say, it again.

It is definitely not progress.

Student: Ok.

Yeah, at least having this, paradise and hell assuming, paradise is better than hell.

Student: Yes.

Yeah. So, and if it is from low to high if it is lead to Bangalore becoming a hell that is probably not progress.

Student: In some definitions.

Ok.

Student: (Refer Time: 03:22).

So, let us see, Silicon Valley Bangalore is a nearby district called Tumkur, yeah, and within Tumkur there is a taluk called Srinivaspur, yeah. So, in terms of high low how will you rate them?

Student: (Refer Time: 03:47).

If it is high Silicon Valley, then Bangalore, then may be Tumkur, then Srinivaspur. What will you do so read them on the spectrum high low?

Student: In propogancy mechanic or can be of the higher chemistry technically obvious saying that high technical. They are more reliable on technical gadgets not on their own ability getting towards rural areas. People are more reliable on their own abilities than dependent on the technical gadgets. We can say that simply.

Student: And we have to (Refer Time: 04:23) are toughly depend on what type of technology we are talking to, comparing it is like bananas with oranges something like that.

Yes.

Student: The type of technology we used in Silicon Valleys, where different number of rules in a village.

Ok.

Student: In village technology might be a innovative verification project that they build on themselves or water harvestation or type c they are still used in towns since in some other (Refer Time: 04:47) that is also technology.

Right.

Student: So, we cannot compare this.

We cannot compare.

Student: We cannot (Refer Time: 04:53).

Student: As we rule that is you take place. That is what we assume that Silicon Valley it was the.

I am not sure anymore.

Student: But the group assume that the Silicon Valley is antics, he has Srinivaspur is a low tech place.

Sorry, we have to looks of their faults.

Student: Always live the nouns, there is a high tech place and there is a low tech place; simple restriction would be people in a high tech place are more dependent on the technology based things and people in a low tech place are less dependent on the.

So, if you are more dependent on technology.

Student: Yes.

We are high tech, for the technology that we are dependent on is high tech.

Student: The base is high tech.

Base is high tech.

Student: Yeah.

So, when we are looking at technology policies it was the Silicon Valley and not the phonological.

Student: If we consider a project that he has pointed out. The project we have to find out if there is a feasible project we cannot (Refer Time: 06:05) to Srinivaspur as well because maybe they may not be a revenue of any base. There may not be, I am not saying that we must deny that cannot be there may not be a revenue of I agree based project is Silicon Valley, but there can be a.

So, we generally do not we agree that this high-tech, low-tech could be a problematic without more information. Yeah. What is high? What is low?

Student: What is this?

Could be problematic unless we know more about how I we are defining high and how we are defining low. But in general in popular perception through main stream media, we have come to associate through this politics of this course. Say, we have come to associate Silicon Valley, and Google, and microscope was created right, Srinivaspura and Tumkur and Mangalore in Ghat noted as low-tech right. And therefore, and even the high is better than low, right, high is better than low in the value that this attached through the benefits of technology or progress the notion of progress that comes with technology, we would want to go from low to high, right and therefore all these issues, right.

So, high low values are dependent on context. They are not universal claims. Similarly, there could be technologies, other values good bad, this is good technology, this is bad technology. Difficult problematic unless you will know more about the parameters that are being adopted to define what is good, what is bad. And within that we will have all this inventions of general we will have inventions of people who have a particular kind of physical ability; we will have aspects of income all that right. So, is it ok to say that technology is cannot be neutral? No technology is neutral is a claim that I make. Are you fine with that or you would want to concur it?

Student: I must (Refer Time: 08:48).

Please go ahead.

Student: Sir, because technology cannot be biased the people who are in inventing they may be biased.

So, technology cannot be biased.

Student: Technology itself cannot be biased. Computer program will do never go against what you have programmed and though he has a programmer.

And you keep bias?

Student: Yes, I keep the bias.

So, what goes into that technology?

Student: Biasness induced by the person, but a machine cannot be by themselves are not biased.

What is by themselves? Can you detach technology from the people who are associated with that technology?

Student: Maybe, the area of part of (Refer Time: 09:40). Its high definition of technology where we need was technology is simply that (Refer Time: 09:49) associate with that whatever way you can do.

So, let us just stay on that. You are saying your abilities. You are able to see and therefore, the (Refer Time: 10:04) of your ability will assume that someone will be able to see. Maybe Ajeez is not able to see the same way as you are, so in that sense it is your concern that may not be applicable for him. So, are you, and your bias sense of who people are and what their abilities are coming into designing what the technology that you want to?

Student: That is the question. My biases get into the (Refer Time: 10:41).

So, is that bias does that bias not get coded to technology? So, then why are you saying technology cannot be particular or technology can be neutral?

Student: Let me try to give you an example of (this complicated thing. Let us take a camera, ok. Camera is a technology for print. For Ajeez (Refer Time: 11:06), so standing pointed to camera. So, we can question the motives of the inventor of the camera or the deliberately or subconsciously can it be caught into it in created timer because Ajeez has used it.

Whether he had Ajeez in mind I do not know, whatever he had he was not neutral. What I am trying to say is technology production is not an neutral process and therefore, technology cannot be questioned because technology production involves people, people cannot be neutral. So, other assumption I make people cannot be neutral.

Student: We can say that is how do that (Refer Time: 11:56).

Right, technology in a proper way.

Student: Yeah how to use. See for example, you could (Refer Time: 12:07). So, people also don't know (Refer Time: 12:10) some people know before (Refer Time: 12:12) you mean some people does not know which is (Refer Time: 12:17).

Right.

Student: The usability it is, so (Refer Time: 12:21) like this photograph. So, for me position how he use to capture the photo as (Refer Time: 12:27) like (Refer Time: 12:28). They might be just (Refer Time: 12:30), they could use different (Refer Time: 12:32).

So, such say user who is that fault if he or she is not using it, the way the designers wanted him or her to?

Student: He want (Refer Time: 12:43), he could (Refer Time: 12:47). He usually to (Refer Time: 12:50) then you can improve the (Refer Time: 12:51).

So, this is another dimension that you are telling. You are saying that one you agree with him that or maybe you are you agree with the technology can be neutral and its use is what reach different people to say do different things with technology.

Student: But, then are you.

Yeah.

Student: Expecting a certain section of the society.

We will just come back to you. Yes.

Student: I (Refer Time: 13:19) by saying that technology is always socially (Refer Time: 13:22), we act the user created for it to be meant to be used in a certain way always takes the (Refer Time: 13:29) variety in terms of the other sections. Like, ma'am explained us like that you read a technology the very acts in English language means that Bihari person in that (Refer Time: 13:39) cannot use it unless you knew the technology to that particular language. So, that is nothing (Refer Time: 13:44) about the technology that is (Refer Time: 13:48) it is always socialized.

Ok.

Student: Sir, saying is that this kind of a user (Refer Time: 13:51) missing, there will be everybody will have the claim that, I designed it for certain section of the people other people do not have access, so what is my problem will be. This way we will have multiple technology been created for small (Refer Time: 14:05) of people, but coming to some (Refer Time: 14:08) solving social problems he is (Refer Time: 14:10), they have never worked by with it you can afford sort of like a iPhone. Somebody is going for either that is fine, but if so technology has to be inclusive at a broad base it has to take care of that, that everybody can use it, ok.

Student: So, I this could be (Refer Time: 14:26) as of.

Hold on. So, we will not talk of not in (Refer Time: 14:34), only neutral is what we will talk of rather that you guessed into (Refer Time: 14:38) is notion of tool, ok. So, technology as a neutral tool is what I am trying to contest, same. I am contesting the neutrality of technology and now I am also contesting the tool nature of technology. So, when you say it is a tool; that means, people or those who are using that tool, they depends on their abilities and their capacities and how they useful. It does not provide or it does not ascribe any agency to the technology.

What I am trying to say is technology cannot be a neutral tool, technology is a political actor, right. Technology is not a neutral tool, technology is a political actor. The difference between tool and actor is actor has agency, yeah, so it will make users do things in a particular way.

If it is a tool it will not make users do things in a particular way, the users will have their agency to use it in ways they would want to, right. So, that ways, this tool actor the perspective is something that I am trying to questioned. And I am also trying to question the neutrality and political nature of technology, yeah. So, from technology as a neutral tool, I am trying to make a claim that technology is a political act.

Student: Sir, (Refer Time: 16:12) we shall present (Refer Time: 16:14) that whenever we are doing something for particular group particular community particular section then unintentionally the other group or the other community is left out. This is though

unintentionally, but it is bearable. We are designing something for particular group based on their needs. So, obviously, we are not taking care of the needs of the other groups.

So, it is perfectly fine. . I am not saying it should not be it should be a universal, and I will not mind to say technology should be universal because I will do not feel that technology can be neutral. Something can be universal only when it is neutral. But technology I do not think it can be neutral and therefore, it will have a political.

Student: Yeah, it cannot be neutral for sure because the worst thing before designing that but people will (Refer Time: 17:16) says background and associate with what I am saying rotate at a life cycle and design ways comes after requirement analysis. Requirement analysis is done only to find out what is the need to waste this product we created too (Refer Time: 17:32).

Student: Need it has to (Refer Time: 17:32) coordinates.

Student: Yeah, it has to address needs of particular audience. So, cannot be a universal and if we say that something that is not universal is not permanent.

So, it has a few, it has a particular group of people in mind. So, when you are designing anything, you will have some audience in mind, we will have some targets segment able (Refer Time: 18:01) what which you will be designing. So, that is a political exercise. Is it not?

Student: (Refer Time: 18:07) it is already designed to (Refer Time: 18:14), it can be (Refer Time: 18:20) which is not invented by (Refer Time: 18:24) and this (Refer Time: 18:27).

No, why cannot it to. Why is it for someone who does not have fans, assuming your naive has requires due to have a hand.

Student: I mean need to perfect.

I will be a not.

Student: (Refer Time: 18:43).

I am not at all uncomfortable with a notion of not everyone being able to use technology and that is what I am trying to highlight. That it has a political nature inherit. So when you say that and this fascination that will make a technology which will be applicable universally and in the same degree is a false, yeah.

So, when we say that everyone should have high speed broad band connection, we probably not we do not understand why should we need or why is it that people will not need that high-speed broad band connection, yeah. The assumption that goes in is high speed broad band connection is good for say public services for delivery of public services, yeah.

Now, broad band and high-speed broad band probably has not been designed with a particular with this kind of use and this category of uses in mind. And we need to be at least aware of that before designing high speed or before designing a project which incorporates high-speed broad band into delivery of public service, yeah.

So, while I am not saying that knife cannot be used in say certain in trying to improve how we do certain things, we need to be aware that knife in a particular type of knife has been constructed or even the feature that it has it has been constructed for this group of people in mind and this group of people will be better able to leverage that knife to go about doing your duties (Refer Time: 20:40), right.

And there may be a need therefore, to augment that knife in something else or remove something from that, if we are if we wanted to put it be put to some other purpose, right. So, a high speed, so the internet for example, in a silent form if we want it to reach all our villages and it to lead to people becoming more aware of what is going on needs to change, because the design of internet inlets are informed is particle, right.

Who is who does it benefit today? It benefits the Googles and the Microsofts. The Googles and the Microsofts are not who are going to live in the village trying to access whole day pension, right. So, while that technology has been designed and is available, it may need to change, it may need to change its form completely or you will need some tweets in the way it is being done to be able to appeal to a different kind of users, yeah. And this awareness is something that is important from what I understand, right.

The awareness that technologies are political, they cannot be neutral and therefore, given that they are political, yeah and given that they are because of this political nature they also have an agency they will lead you to do things in a particular way, right. You need to be, if you want to put it into certain news you need to be aware of what kind of politics it in bodies and then incorporate that in the design process to be able to put it to a particular news or to be able to do certain things with that technology.

Student: Is it (Refer Time: 22:44) to the political is the right because it is a (Refer Time: 22:47) insulating (Refer Time: 22:49) are (Refer Time: 22:51) a technology at a (Refer Time: 22:54) contact to be nature of the technology and there is a (Refer Time: 22:58), right. So, in the necessary to use the word called political, if they needed political or is a this is not.

What is political?

Student: (Refer Time: 23:10) have data.

Political is conflict.

Student: A simple word is called conflict self is good.

So, what is the sense of maybe political? That sense is you are including someone you are excluding someone that could lead to conflict.

Student: Political is a way up to I mean (Refer Time: 23:31).

So, political so, as Bidisha used yesterday, the way I use political is including and excluding yeah. So, when we when you can include everyone then you are more or less neutral. So, that is the stream, yeah. When you cannot then you are political. So, include a particular group of people you privilege a particular group of people over us. (Refer Time: 23:58) done.

Student: So, (Refer Time: 24:02) usage of the term political and so far discussion is solution is that we are excluding the some and including some that is it.

Yes.

Student: And that may be outcome, but what is the motive also political or?

I would feel so. I will not I will not agree too much, not, while I agree that they are unintended consequences. I would not gave a lot of benefit of doubt to the designers who are not aware what of what they are doing.

Student: Usually current scenario, the technology is mostly businessman, and business person we live aside all his political (Refer Time: 24:57) is only (Refer Time: 24:59) to meet profit. So, many invests in the R and D before (Refer Time: 25:05) only (Refer Time: 25:08) how much should I invest and how much will get back.

So, that is not political.

Student: Yeah, that is what I am saying, that the outcome might be political, but the motive.

Is political to make more profits. You benefit the shareholders over the consumers or over the environment, yeah.

Student: That is.

If the motive is of the way most of the business are today laid out, there limited liability cooperation's and that the prime motive is maximizing the wealth of the shareholder. You are privileging the shareholders, so what all the other, yeah. So, even if your consumers are worse off, but your shareholders are better off, you are doing what do you want. So, what are you doing? You are including your privileging your shareholders, over your consumers, over your suppliers, maybe over your employees. So, that is political.

Student: In that point of view business is completely political.

Yes, why not.

Student: If I am making (Refer Time: 26:15) why not political statement (Refer Time: 26:16) cannot be (Refer Time: 26:17).

Yes, maybe depending on what features you are packing into that language.

Student: Is it a, I mean is it a streachingly too much to say that (Refer Time: 26:30) people who are (Refer Time: 26:32).

Whether you are anti those people I do not know, but I can definitely say that you are you want to privilege people who have ants, so what people who do not have ants.

Student: (Refer Time: 26:48) that is useful to that does not mean.

So, you have to you will have to be specific about the most of the comment, you cannot say I want to develop a technology that would be use useful for most of the people because when we do that we design the technologies we design the way we did yesterday, yeah. That does not during our discussion, but all the examples that read out, ok. So, we design the Wi-Fi system to be usable by most of the community to useful of women. So, we will have to save your one more design it for men.

Student: Yeah.

Then at least you are transparent in terms of your motives. You cannot hide behind, yeah. So, behind this comfort factor of I am trying to design for most of the people, I do not have any say a negative motives in mind, I do not want to do all that you know. You cannot afford to do that, because if we have been doing that all this while and we are (Refer Time: 27:54) out with Wi-Fi systems which do not allow the women to participate, right.