INDIAN INSTITUION OF TECHNOLOGY GUWAHATI

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Science, Technology and Society

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Let us now but trace the argument which we initially proposed that the social setting of Technology in Contradistinction with technological setting of society that we provided certain examples of political control of technological systems in the form of new artifacts of politics by Langdon Winner technologies knowledge by Edwin let in junior and now we are discussing Donald Mackenzie and Nudy Walkmans reflections on the social setting of Technology okay within McKenzie and Walkmans reflects.

And so on the social shaping of Technology we have already discussed Humes electric light I mean use the way he dwelt upon Edison and his electric bulb the invention of electric light and many other things I mean we have discussed her always reflects and so on cyborg cybernetic organism feminine human technology.

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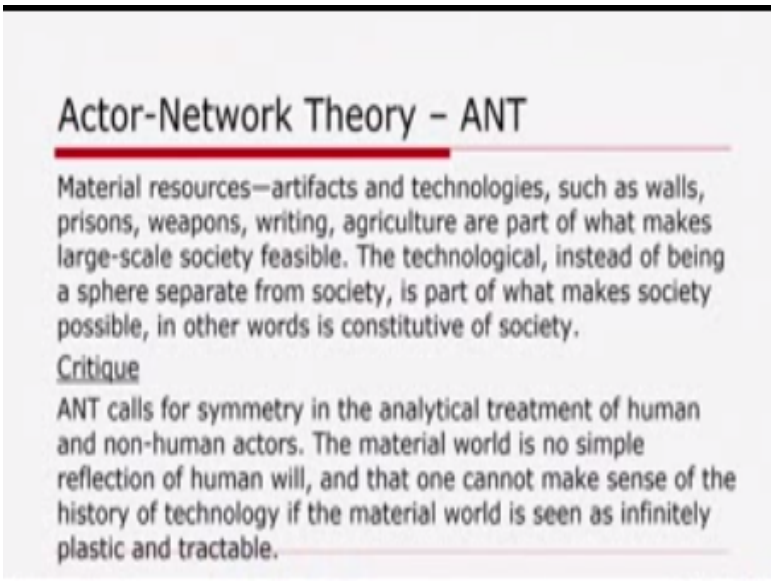

Ethnicity and technology.

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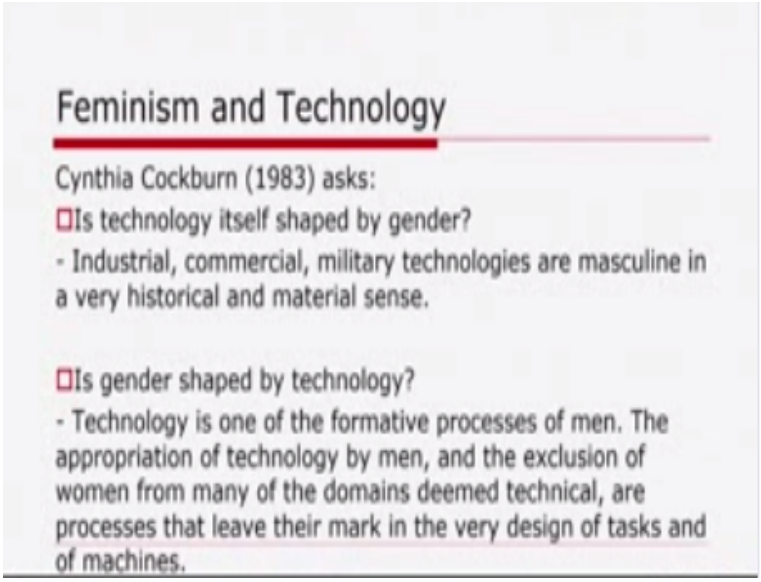

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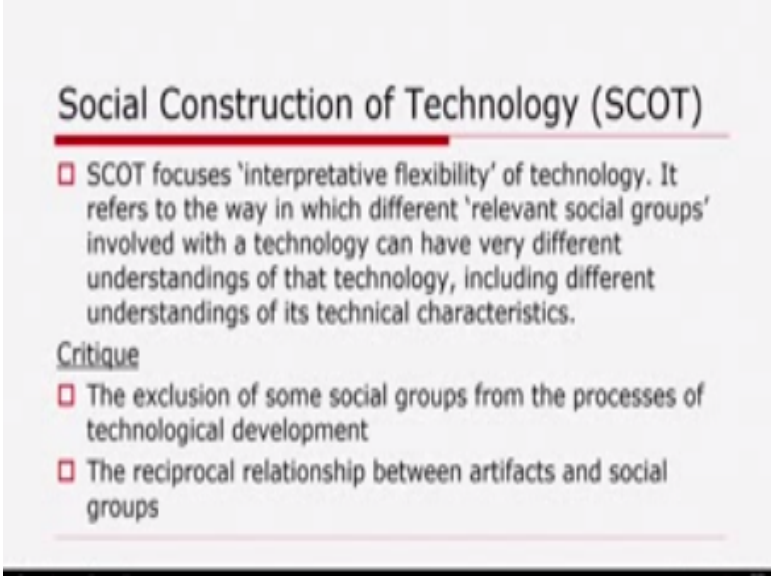

Actor network theory Scot social construction of technological systems.

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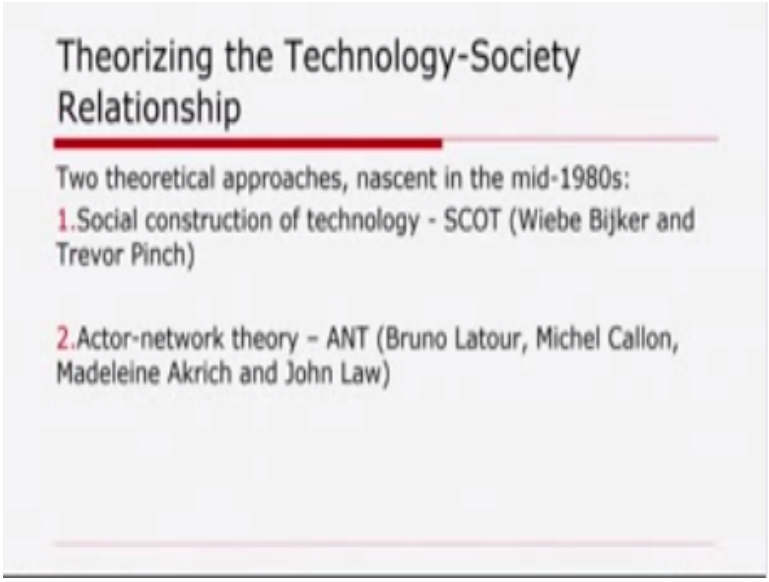

Okay and so.

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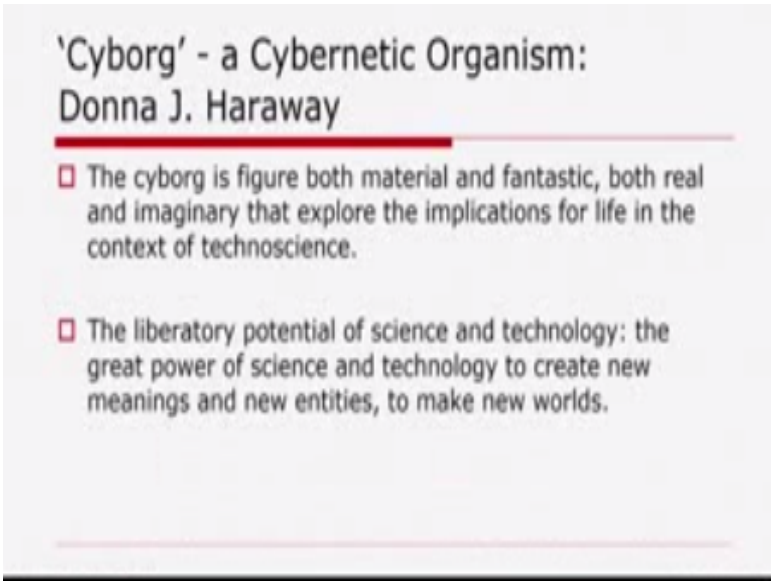

No we will have to but race.

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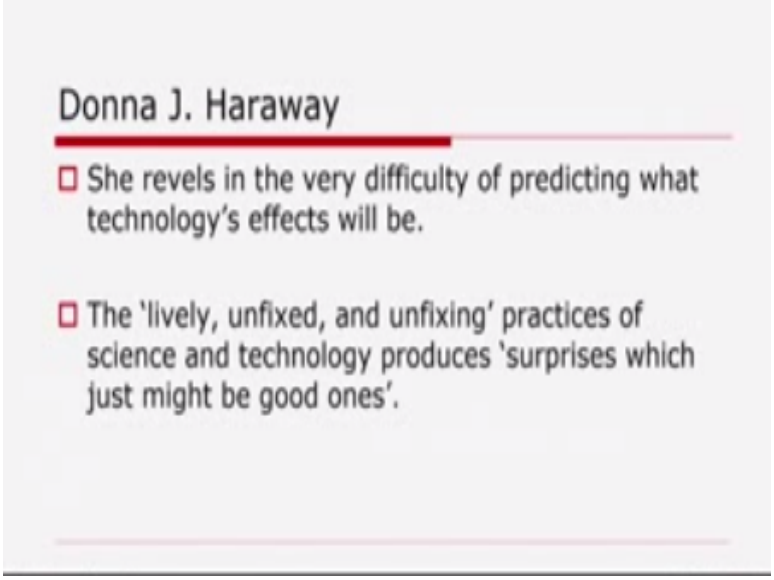

We will have to strengthen.

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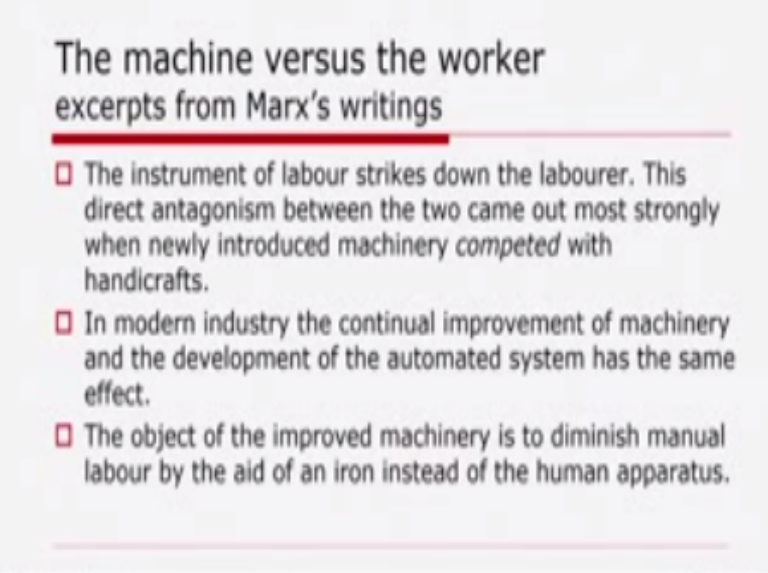

The argument from the classical writings maybe God marks maybe Harry rubber man and so on we are trying to analyze in this lecture certain accepts from marches writings on the machine versus the worker certain excerpts okay the instrument of Labor's strikes down the labor this direct and technology between the two okay I mean the message as well as the laborer or the worker okay came out most strongly when newly-introduced missing competed with handicrafts handlooms handicrafts okay they had a conflicting interest with power handlooms handicrafts they were manually over.

Manually meant where H power room is a is a product which is handled by a machine it is a machine mode product okay and that is how we have come to a point where we'll find that hand rooms and handicrafts on the one hand and the power loop on the other historically and materially there at loggerheads with each other not simply at the technological system but also as a technological system which she is very, very much socially economically politically culturally embedded okay.

In this sense but even in modern industry okay the continual improvement of machinery and the development of the automated system has the same friend okay the object of the improve machinery is to diminish manual labor by the aid of an iron instead of the human apprentice the adaptation of power to machinery heretofore moved by hand is almost of daily occurrence the minor improvements in machinery having for their object economy of power the production of

better work the turning of more work in the same time or in supplying the place of a child or a female or a man.

Are constant and although sometimes apparently of no great movement have somewhat important results okay whenever a process requires a peculiar dexterity and steadiness of hand who is prone to irregularities of many kinds and it is placed in charge of a peculiar mechanism okay so self-regulating that a child can Superintendent okay that is so that is how if you if you look at even Charlie Chaplin's modern times, if you look at Henry Letham critic of everyday life okay you will find different things a man of an individual a man I mean an individual I mean a man or a woman okay.

An individual is reduced to a machine that sir she or he gets alienated from the work that she or he does it amounts to human alienness that is how I lose my own self to be reduced to a messy to be reduced to a technology okay, if you look at modern times by Charlie Chaplin how assembly-line products and how large-scale production has reduced individual workers to machines okay individual workers do not remain do not tend to remain as individual workers rather they are reduced to message in the context of assembly.

Line production edge as was examined by Knox okay even you can look at this you can look at this phenomenon even in 2017 when you when we talk about Walmart in Walmart also you will find that individual workers have been reduced to machines, okay but machinery not only acts as competitor who gets the better of the workplace and is constantly on the point of making them superfluous okay it is it is also a power inimical to them okay and as such capital proclaims it from the rooftops and as such makes use of it.

It is the most powerful weapon for replacing strikes those periodical revolts of the working class against the autocracy of capital okay missing does, so in a manner that you will find it has reduced the power of the striking capacity of the working class okay and in and as such capital as such it has become machinery, machinery has become the most powerful weapon for replacing strikes those periodical revolts of the working class against the autocracy of capital it has replaced the individuals capacity to interrogate individuals at capacity to decent individuals freedom to dissent whenever we talk about democracy it cannot be reduced to only equal opportunities of our equal upon their.

Very important but whenever we talk about democracy freedom to dissent is very much integral to the idea of democracy is very good if I cannot tell if I do not have the freedom to dissent okay then there is no meaning of democracy in any set up that is a freedom to descent I repeat freedom to dissent is integral to the idea of democracy okay for example the steam engine I mean staying on with how necessary not only acts a competitor who gets the better of the workplace and is constantly on the point of making them superfluous.

It is also a power inimical to them and as such capital proclaims it from the rooftops and as such makes use of it is the most machinery is the most powerful weapon for replacing strikes those periodical revolts of the working class against the autocracy of capital against the autocracy of capital one must have the freedom to dissent against the autocracy of the state one must have the freedom to be sent okay.

For example the steam engine was the very first of an antagonist of human power that enabled the capitalists to trade under put the growing claims of the workmen who threatened the newly born factory newly born factory system okay with a crisis this is important okay it would be possible I mean one can go on and on about analyzing these accepts it accepts from Marx's writings when he wrote that it would be possible to write quite a history of the inventions, made since1800 and 30 for the sole purpose of supplying capital with weapons against the revolts of the working class.

At the head of these in importance stands the self acting mule because it opened up a new epoch in the automatic system okay but that is why when we say machines in general invention since 1830 year the most powerful weapons, for repressing strikes or revolts of the working class against the autocracy of capital okay the inventor of steam hammer I mean his name is Nasymth okay Nasmyth was the inventor of steam hammer according to him okay the characteristic feature of our modern mechanical improvements is the is the introduction of self acting to machine what every mechanical workman has now to do is not to work himself but to superintend the beautiful labor of the message the working class that that depends exclusively on their skill is now done away with it.

Okay now if you look at hand loom the skill that is embedded in the handloom sector in the in the production of handicraft in the production of end loop is now done away with is now got rid of precisely because of the introduction of power loom does not have that skill okay although

embed missing more skill is already embedded in the invention of the of the power okay I mean we get I can give you numerous examples I mean when hand mill was there, what Marx wrote in the poverty of philosophy that a handle gives you a society.

With a feudal lord and the steam mill with that of the industrial capitalists when Henry was there and wrongly Marx has been dumped as a technological determinist in this sense but he was more he was more concerned about the changes in the modes of production okay that is very important okay when you look at hand mill it is a marker of feudal in feudal society, but when the modes of production changed what became the hallmark of the industrial capitalist society, not hand not hand me rather steam that is why it is a materialist conception of history.

Which Marx proposed Marx studied and Marx proposed that matter is prior to the formation of the idea we can I mean we have given you examples in the initial lectures that how technology predates modern science I mean, if you look at a particular technology suppose steam engine okay steam engine has insured or her the invention of steam engine or from the invention of steam engine we have come to understand the laws of thermodynamics okay that is how technology changed the direction of basic research.

And that is why the Nasymth who is the invite was the inventor of steam hammer pointed out that the characteristic feature of our modern mechanical improvements is the introduction of self-acting tool machinery what every mechanical work man has now to do, is not to work himself but to superintend the beautiful labor of the machine whether it is I mean I mean that now the labor of the missile has replaced the labor of the individuals as such the labor of machine the activity of the missile has displaced the laborers themselves okay.

That is why the working class that depends exclusively on its skill okay is now removed from is now done away with it is now removed from the production system okay I we can we can give you oh I can give you a few more examples, and I mean how at length a trend capitalist start deliverance from this intolerable bondage namely in their eyes burdensome terms of their contracts with the workmen, in the resources of science and we where speedily reinstated in their legitimate role.

That of the head over the inferior members okay speaking of an invention for dressing rats okay then the then the then the combined mall contents who fancy themselves impregnably entrenched

behind the old lines of division of labor found their flanks turned, and their defenses rendered useless by the new mechanical techniques and were obliged to surrender at discretion okay, with regard to the invention of the self-acting mill Murray says that a creation distinct to restore order among the industries classes.

Andin this invention confirms the great doctrine already propounded that when capital English signs into her service the refractory hand of labor will always be taught the child, that is why the working class the working classes which depend exclusively on they are still okay is now removed in the in the context of the kind of technology that we have in capital okay, from here onward what kind of capitalism and the kind of control that capital is brings in its purview okay must be example.

That we must look at from Harry Braver mans reflections on technology and capitulation control the evolution of machinery from its primitive forms to modern complexes in which the in-depth process is guided from start to finish by not only mechanical. but also electrical chemical and other physical forces and this evolution may thus be described as an increase in human control over the action of tools, and these tools are controlled as extensions of the human organs of war the increasing control by humans over labor processes by means of machines thus for understood is nothing more than an abstraction what is that abstraction then the kind of control.

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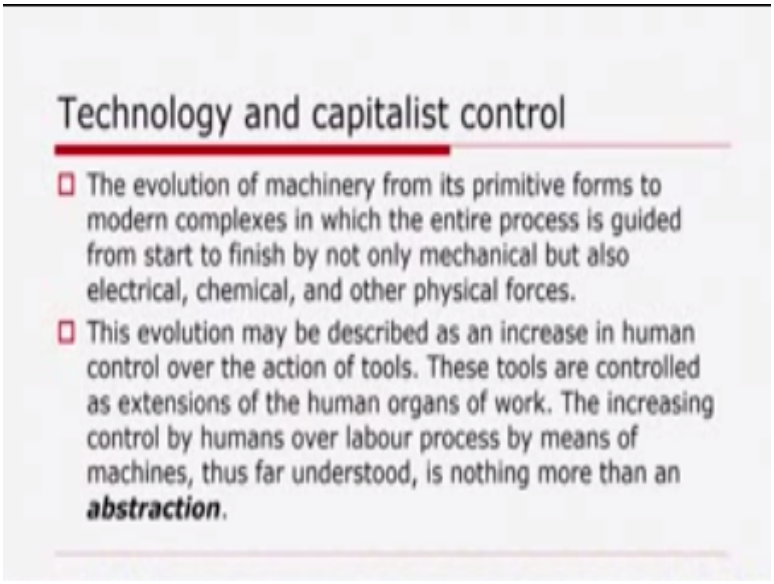

The kind of profit okay that we get from the labor is abstracted from the level itself okay is nothing more than more than abstracts, okay this abstraction this abstraction.

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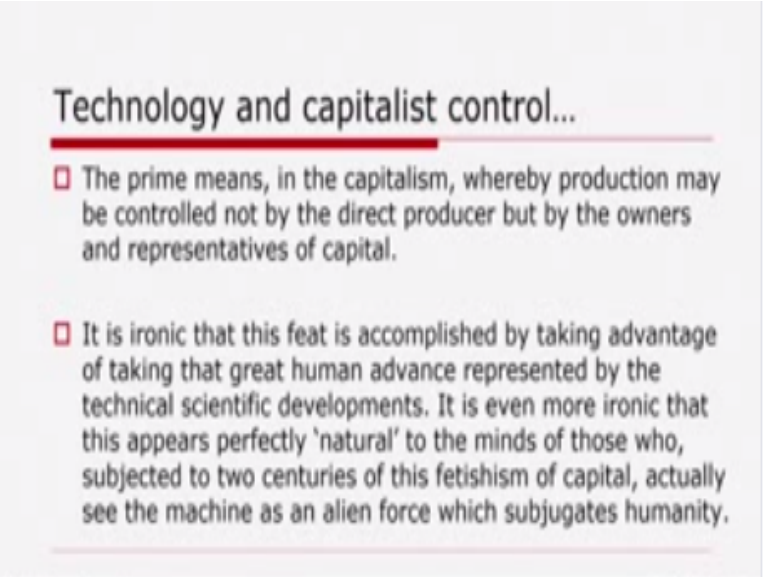

Must acquire concrete form in the social setting in which machinery is being developed and this social setting is and has been from the beginnings of the development of machinery in its modern forms, one in which Humanity is softly divided and nowhere more softly divided in than in the labor process itself the mass of humanity is subjected to the labor process of for the purposes of those who control it, rather than for any other for any rather than any general purposes of humanity as such in thus acquiring concrete for the control.

The control of humans over the labor process turns into its opposite and becomes the control of the labor process over them mass of humans missile early okay machinery comes into the world not as the servant of humanity but as the instrument of those to whom the accumulation of capital gives the ownership of the messes, the capacity of humans to control the labor process through the machinery is feast upon by management from the beginning of capitalism as the prime means the prime means in the capitalism prime means.

In capitalism whereby production may be controlled not by the direct producer but by the owners and representatives of capital it is not the workers it is not the workers who produce become the become the owners and representatives of capital rather, it is not it is not the direct producer who is the owner of the cap or owner of such capital rather it is the powers-that-be it is the capitalists it is the Habs it is the boot doer it is the it is the reach who become the owners and representatives of such capital, okay this in addition to its technical function of increasing the productivity of labor.

Which would be a mark of machinery under any social system machinery also has in the capitalist system the function of digesting the mass of workers of their control over their own labor, it is do not need that this Freight is accomplished by taking advantage of taking that great human heart once represented by the technical scientific developments, it is even more ironic that this appears perfectly natural to the minds of those who subjected to almost 2-3 centuries of commodity fetishism or criticism of capital.

Okay actually see the machine as an alien force which subjugates humanity the evolution the evolution of machinery represents and expansion of human capacities and increase in an increase of human control over environment through the ability to elicit from instruments of production, and an increasing range and exactitude of response but is in the nature of machinery and a corollary of technical development that the control over the missile need no longer be vested in its immediate operator.

Okay this possibility this possibility is seized upon by the capitalist mode of production and utilized to the fullest extent what was mere technical possibility has become, since the Industrial Revolution and inevitability okay that devastates with the force of a natural calamity, although that is nothing more natural.

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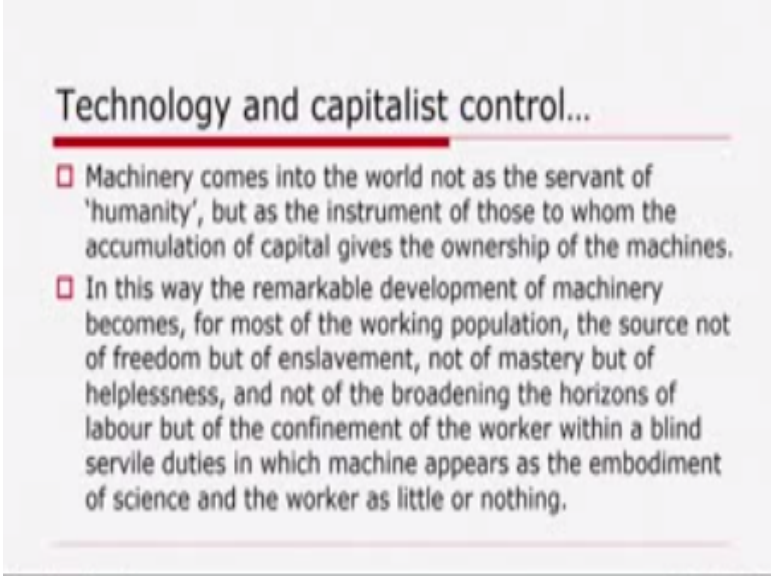

About it than any other form of the organization of Labor okay, before the human capacity to control machinery can be transformed into its opposite a series of special conditions must be met which have nothing to do with the physical character of the machine, the machine must be property okay, not of the producer nor of the associated producers but of an alien power it may be the capitalist State maybe the corporate sector and soon okay, such a lien for the interests of the two must be interpreting the interests of these two classes.

The that the haves and the have-nots the butcher and the proletariat the capitalists and the working classes okay, the manner in which labor is deployed around the machinery from the labor required to design build okay repair and control it to the labor required to feed and operate it, it must be dictated not by the human needs of the producers, but by the special needs of those who own both the Machine and the labor power and whose interest it is to bring these two together in a special way.

Now what I am producing okay what courage a laborer is not my own it is being controlled by some alien power by the state by the corporate sector by the owners of the means of production, okay and what kind of owners whether it is naturally mediated alright if you see le mediated okay that is a different question on how somebody has become owners of means of production how somebody has not become owner submit means of production must be examined in a more historical and material sense okay.

In this that is why along with these conditions a social evolution must take place which parallels the physical evolution of machinery a step by step creation of a labor force in place of self-directed human labor that is to say a working population confirming to the needs of this social organization of labor in which knowledge of the Missal becomes a specialized and segregated trait, while among the mass of the working population there grows only ignorance in capacity and thus a fitness for machine servitude in this way the remarkable development of machinery.

Becomes for most of the working population the source not of freedom not of freedom working class does not enjoy freedom, okay in this sense when it comes to owning the means of production, but they become slaves of the means that is why it is in this way the remarkable development of machinery becomes for the most of the working population the source not of freedom part of enslavement not of mastery, but of helplessness and not of the broadening of the horizon of labor.

But of the confinement of the worker within a blind round of servile duties in which the machine appears as the embodiment of science and the worker as little or nothing but this is no more technical necessity of machinery then appetiteease in the in the what her whether ambrose bierce said yet an instinct thoughtfully implanted by Providence as a solution to the labor question okay, machinery that is why machinery comes into the world not as the servant of humanity but as the instrument of those to whom the accumulation of capital gives the ownership of the missiles.

Okay that is why I repeat in this way the remarkable development of machinery becomes for most of the working population the source not of freedom, but of enslavement not of mastery but of helplessness and not of the broadening of the horizons of labor but of the confinement of the worker within a blind survival duties in which machine appears as the embodiment of science the worker has little or nothing missionary, missionary offers to management the opportunity to do by only mechanical means that which it had previously attempted to do by organizational and

disciplinary means the fact that the fact that missions maybe paced and controlled according to centralized decisions.

And that these controls may thus be in the hands of management removed from the site of production to the office these technical possibilities of just as great interest to management.

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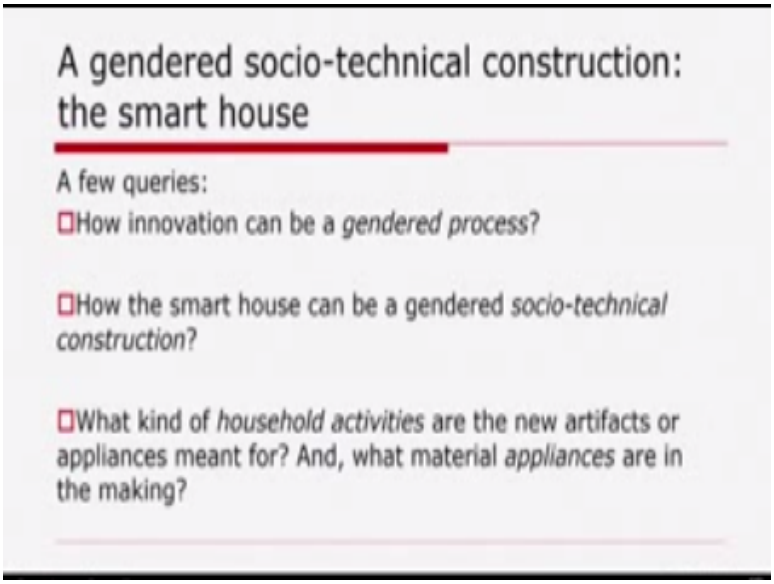

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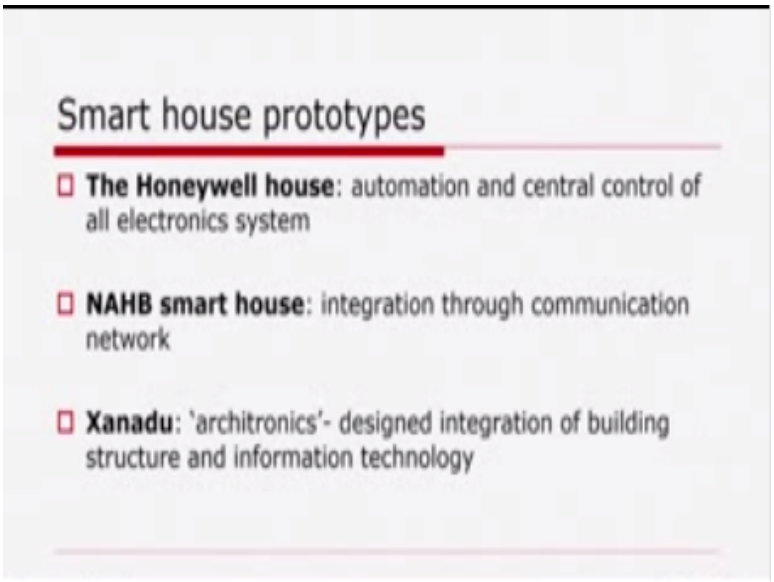

Management okay.

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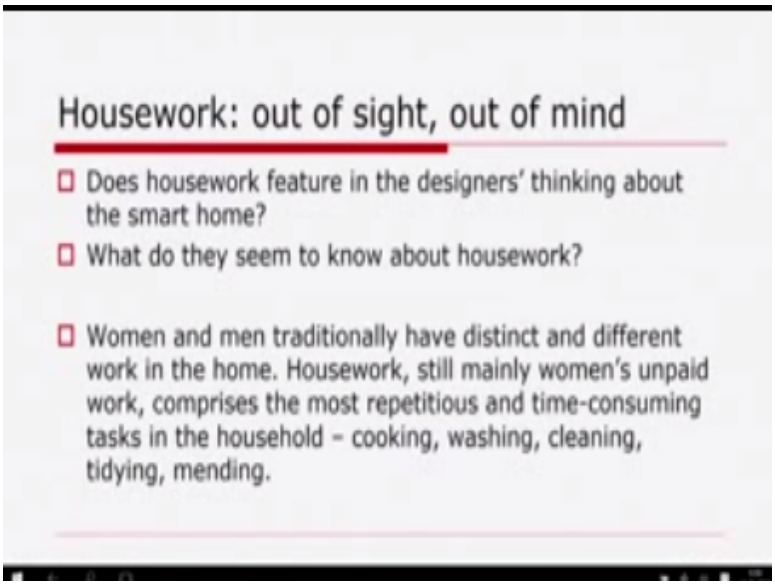

The fact that the fact that many machines may be paced and controlled according to centralized decisions and that these controls may thus be in the hands of management removed from the site of production to the office, these technical possibilities are of just as great interest to management as the fact that the machine multiplies the productivity of labor, it is not always necessary for this purpose that the mission be a well developed or sophisticated example of its kind the moving conveyor when used for an assembly line though it is an exceedingly primitive piece of machinery.

And serves perfectly to the needs of capital in the organization of work which may not be otherwise mechanized its space is in the hands of management and is determined by a mechanical device, the construction of which could hardly be simpler but one which enables management to seize upon the single essential control element of the process, okay in this from now from the accepts of Marx's writings on the machine versus the worker and from the works of Harry Braver man on technology.

And capitalist control we have come to appoint that that technology also serve certain class interests earlier we have seen how technology serves the interests of certain racial groups technology serves the interests of certain I mean technology they sincerely masculinist okay technology has also become has also become an instrument a tool which serves certain classes of living many.

Many marginalized sections in drudgery, now let us let us stick I will discuss two more examples and then we will stop in social shaping of technology and we will move on to the information society issues and allegiance by David Lang okay, now what are these two examples one each a gendered socio technical construction the smart house, okay and secondly and secondly what we are going to discuss it is basically the decline of the one-size-fits-all paradigm or how the productive scientists try to cope with post knowledge.

The first one a gendered socio-technical construction the smart house is and John under owned Burke and the decline of the one-size-fits-all paradigm or how the productive scientists, now try to cope with pushed modernity by Nellie, now also or sure okay. now it gendered socio-technical construction the smart house.

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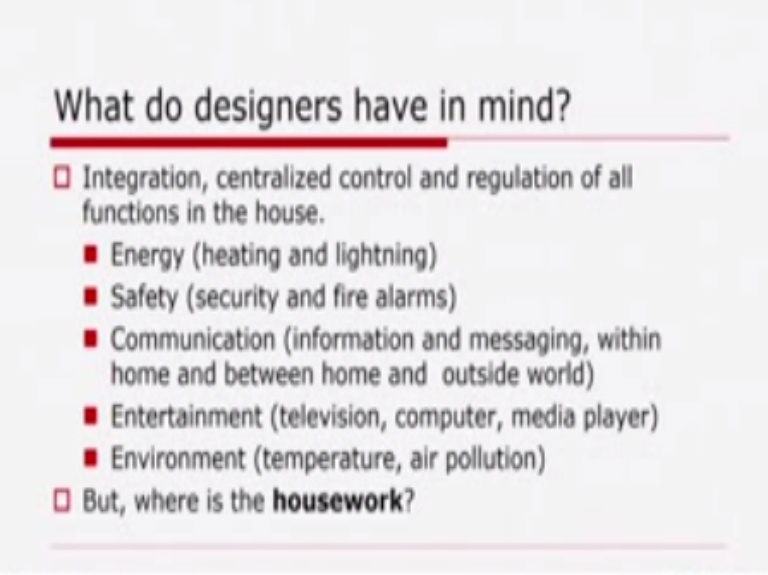

In this section we are going to discuss smart house prototypes okay what do designers have been mind okay, what are the components when we look at what are the components which are kept in mind you know when we look at designing the smart house maybe energy safety communication entertainment environment and so on, but where is the house work then housework is out of sight and out of mind house work is essentially done by women, which is significant relevant social group but is absent in the case of designing a smart house okay.

That is why smart house is a masculine construct then we'll discuss the decline of the one-size-fits-all paradigm a history of contraceptive technologies the institutionalization of women as the.

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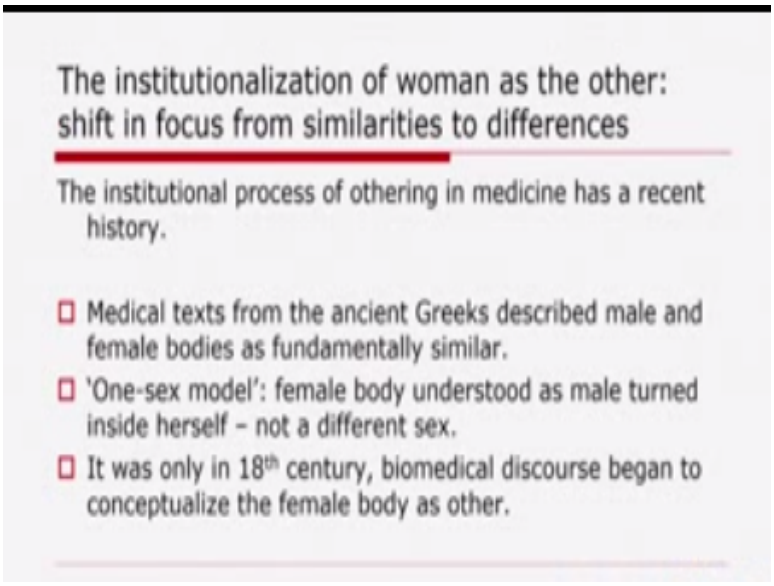

Other shift in focus from similarities to differences okay.

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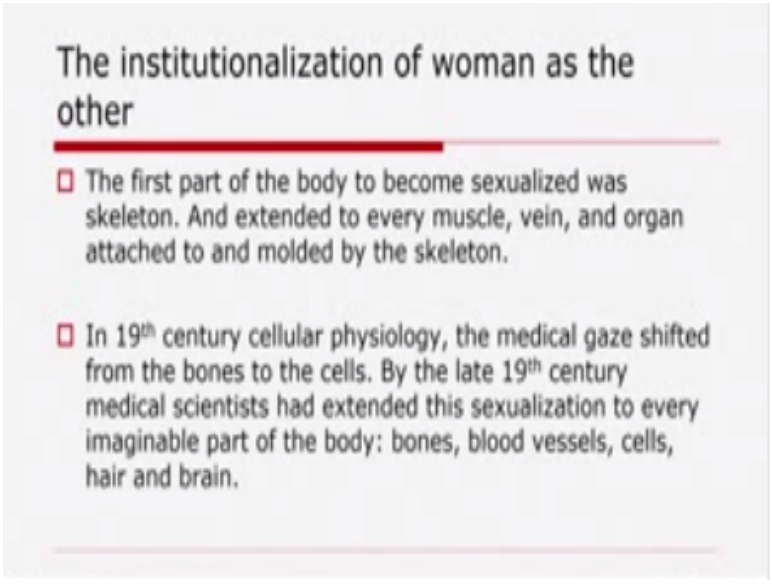

The institutionalization of women as the other.

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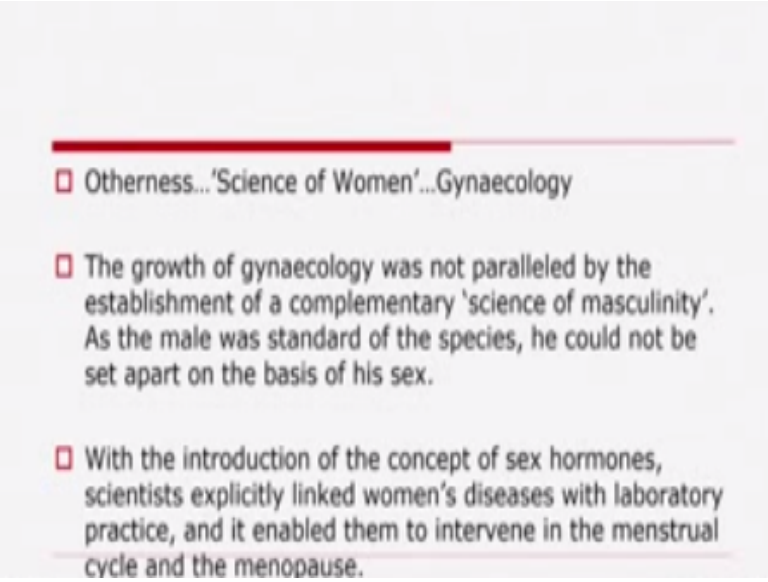

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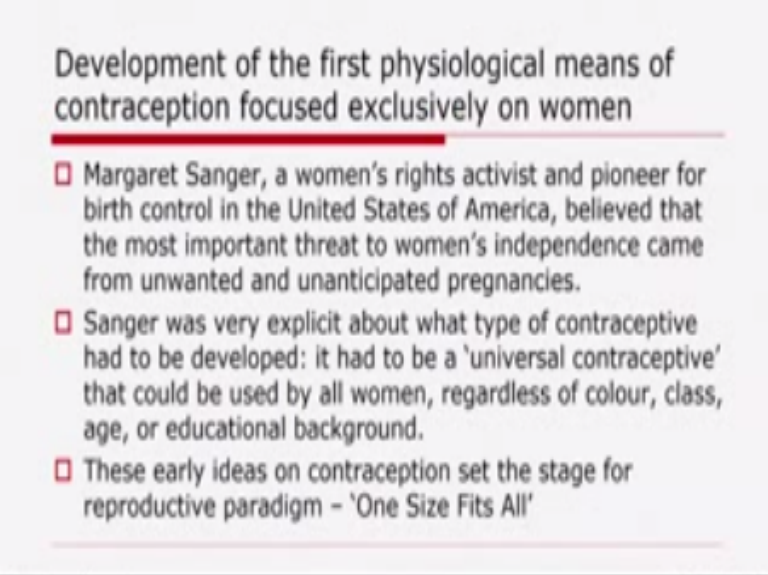

And development of the first physiological means of contraception focused exclusively on women.

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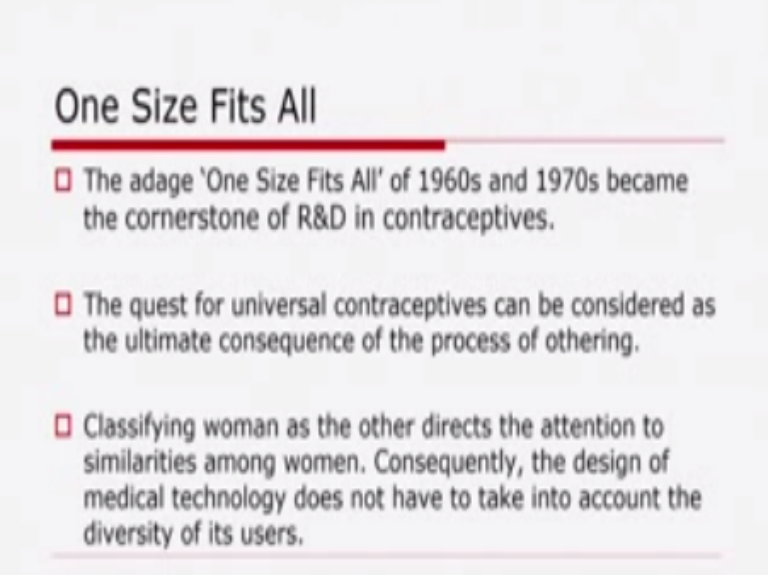

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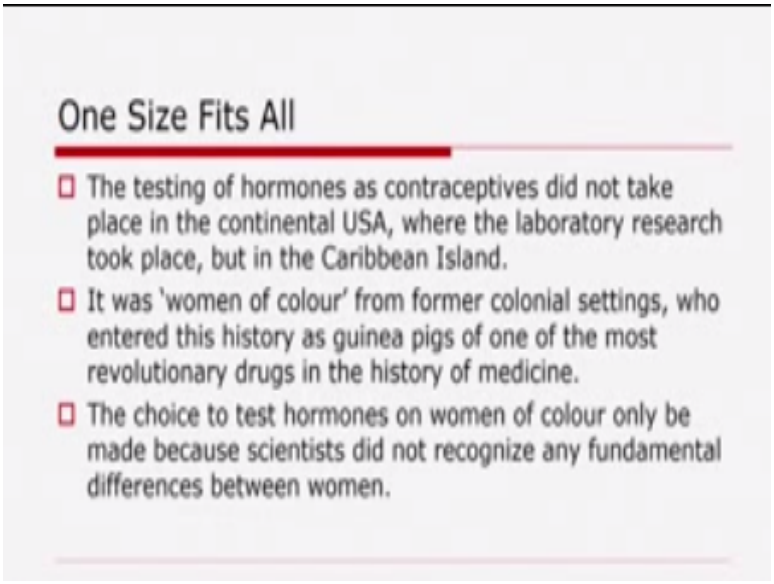

Fits all must be interrogated.

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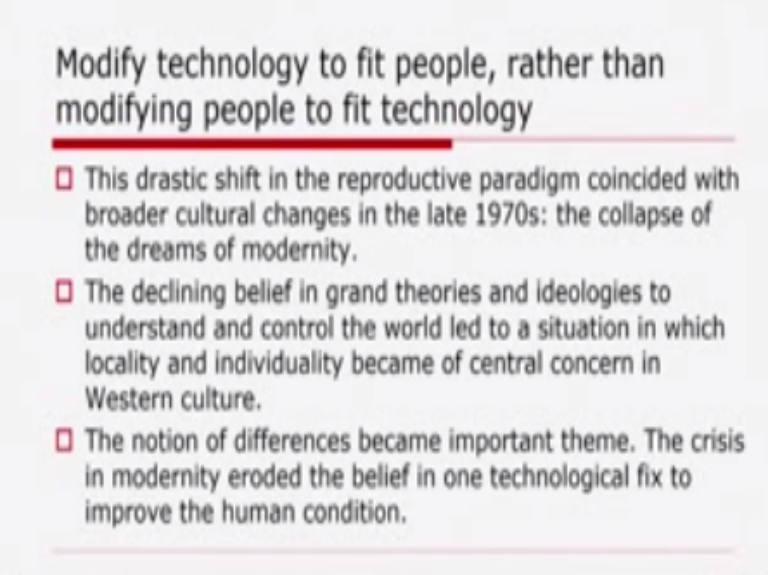

And whether we are going to modify technology to fits people rather than modifying people to fit technology what, what should be done what should we done , we should modify people to fit our hitherto existing technological patterns or we should modify technology to fit our existing purpose.

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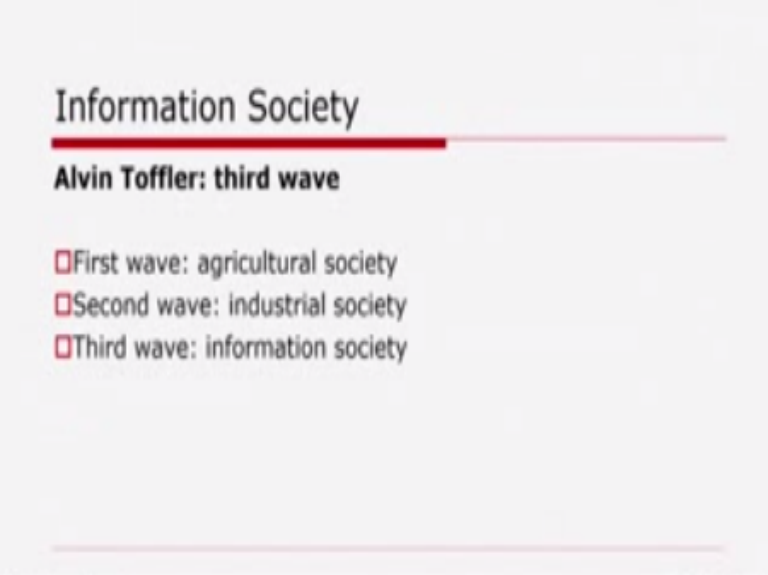

Okay before moving into the information society issues and we will start with I mean there will start with Alvin Toffler then Daniel Bell Manuel Kessel's, now James Martin and soon and then we will move on to David Lee okay, now let us start the discussion on a gendered socio-technical construction thus Matos this lecture this is the lecture on the gendered on a gendered socio-technical construct Sanders in the context of the smart house by any George Duroy Maude bird points out the shaping of the innovative home of the future and the importance of gender in the process in that process for several reasons but concentrates on a specific version of the home of two more.

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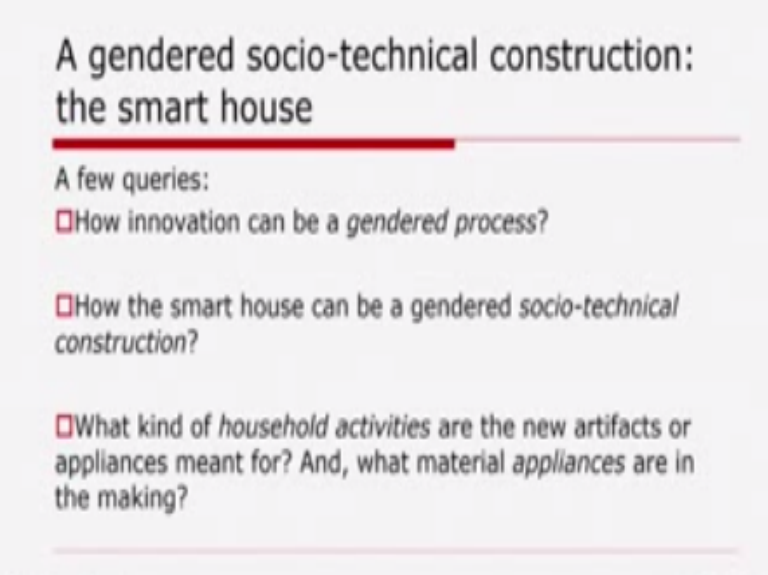

The smart house, okay first it has information technology that is the new technology but it is not secondly, okay as publicly projected it resembles the popular scenarios of the 1900 and 80s in presenting new technologies as gender neutral, whether IT is gender neutral or not that also is a serious question third several of the big international electronic corporations are already creating prototypes the smart house okay, the smart house is interesting because it is beyond the stage of unbridled imagination.

It is already at pre-production stage as serious IT homing the make okay what birth did, so far as the smart house is concerned together information through the snowball method it is a qualitative research method if one wants to read, but I am not going to discuss much on snowball method here okay, one man go ahead with this I mean if one wants to if somebody registrants will address this okay it is a threw a snowball method that one source of information leading to another the lack of snowball method very in its generality.

Let me tell you suppose I want to what is that method it is a qualitative method within social science research if I want to gather some information on suppose BT cotton okay, I will go and talk to a scientist I will talk to a group of scientists I will talk to group of farmers I will go and talk to a group of civil society organizations okay suppose if I go to a particular scientist x then the scientist x gives me provides me with some information and the particular scientist ax may direct me to go to scientist Y okay.

Which initially might not have been in the initial list okay that is a snowball you tend to one source of information leads to another the lack of empirical and theoretical social research which bird points out on gender and innovation particularly on the smart house made such an exploratory risk approach appropriate, and bird interviewed designers producers systematically analyzed advertisements and other kinds of written material and visited the three North American guest houses described.

I mean I mean three North American test houses and bird formulated three main questions to which he hoped might reveal the relationship between gender and technology in the design of the smart house these questions have their origins in the existing sexual division of labor it is important first the material appliances are actually in the making today, I mean first what material appliances are actually in the making today okay, scenarios are not always to be trusted as a guide to the future second what kind of household activities are the new artifacts.

Or appliances meant for third who are the consumers the designers and producers see as their target okay, now there are a few queries how can innovation be a gendered process you need a gendered process or not we will see because iceberg points, out that it is very much innovation I mean technological innovation is very much a de gendered process it is based on sexual division of labor okay, and how can the smart house being the agenda socio-technical constructs and as a corollary.

What kind of household activities are the new artifacts or appliances meant for and what material appliances are in the making, okay this is these are and who are the consumers the designers and producers see as their target I mean Venice when you build a smart house there are there are different social groups, I mean involved in this so the designers the producers they must be looking at certain consumer certain class of consumers you see the smart houses which are built today by the designers or the producers okay.

You will find that they do not keep cobblers or pond wall of metals of people okay they do not keep them in mind they keep the interests of particular classes that is our technology serves certain male Fox as well as certain concepts okay, for whom exactly are they making this new home for which category of lasses these three topics these three questions these three queries must be addressed in the research in various ways, with the aim of exposing to analyze analysis how innovation can be said to be a gendered process.

How the smart phone house can be seen to be a gendered socio-technical construction okay when you look at smart house prototypes, there are there are three types which Burke come pointed out the Honeywell house it is the automation and central control of all electronic systems okay, then NAHB smart house that is the National Association of Homebuilders the National Association of Homebuilders and Jana do I mean which is located in Orlando Florida us okay we will discuss these three very quickly okay.

And then we will come to what do designers I mean have in mind while well design kind of one is the Honeywell house, Honeywell is a multinational corporation producing control systems and services including thermostats air cleaners burglar and fire alarms the home is not honey well is only market, but its various control appliances are already installed in more than 60 million one family houses in the United States of America Honeywell has been interested in home automation since 1979.

Its first laboratory was built in natural surroundings in a residential area but it proved too difficult to test and change the infrastructure of the house in such a location the current Honeywell test house is there for inside the laboratory okay, it embodies the honey well products and services linked together through the central programmable communication network the integration system honey well aims to develop a flexible, now package that can be adjusted to individual homes to suit different life situations and lifestyles.

When you look at the National Association of Homebuilders it is an association of producers and suppliers of different products for their home the Association has about 1.5 lakh members which makes them an organization to be count with in the struggle over standardization to which we sell I mean we can question we can we can discuss it has its own National Research Foundation which fostered the idea of developing the smart house, from 1986 they intensified and restructured their research effort turning smart house not to surrounding into an independent business the smart house development venture.

The national Association of Home builders is located in a large long-distance truck, so that it can be moved from place to place from the outside it resembles less a house than large Caravan they associated RND Woltz R&D work is carried out in a nearby building where the house is also modeled in a miniature in miniature the house consists of entrance small kitchen living room and

bedroom the rooms to natural size are arranged in a linear plane linear plant one adjacent to the next each is in fact only half a room.

But together they embody all the functions found in a normal house the main focus of the National Association of Homebuilders smart house system is on the communication network, next time it is integrated through communication the whole infrastructure of the home is going to change and I mean the designers and the producers claim their cable system integrates all kinds of power independent of the energy source the National Association of Homebuilders, okay they are particularly competing to influence standards for signal transmission in networks made for homes.

When you come to John ado it is located in Orlando and Florida in the United States it is it is owned by private investors and used edges so case for different suppliers to display and demonstrate their various products, unlike the Honeywell house and the National Association of Homebuilders smart house okay, jonno embodies architectural innovations we say our atonics okay its external appearance is unique the unconventional form is supposed to express symbolically the normal thinking in the infrastructure of the house.

One of its founding fathers the architect I mean Roy mash in invented the turn market atonics okay to signify the designed integration of building structure and information technology, general due to as a central control unit that integrates various appliances it is described as an analog of the human brain emphasizing differences in function between left and right hemispheres the interior of the house since unfinished, it has no comprehensive style each application stands alone and fells to blend into the futuristic unity promised in the brochures.

I am in Bern points out where edge in the Honeywell and the National Association of Homebuilders smart houses systems the control network is not designed for application to an existing structure in Jannah do the Nate integral with its innovative restructure and is thought of mainly, now as applicable to new constructs okay having discussed these three types of three forms of smart house construction, let us see whenever we talk about technological developments in the construction.

Of smart house what do designers have in mind one may say that your there are there are there are technologies in the honey way how Honeywell house there are technologies embedded in the

National Association of Homebuilders smart house construction there are technologies embedded in general do okay, I mean men there are many things you can you can look at okay I mean in Honeywell house you will find automation and central control of all electronic systems in National Association of Homebuilders smart house constructs and you will find how it is into how everything is integrated.

Through communication networks and in general systems you will find our Archie tonics as Roy Mason coined this term which is to signify the design integration of building structure and IT information technology, okay then what do designers have in mind then our first question concerned the appliances in the home of the future the list of what we what one can find as testable prototypes disregarding the near future possibilities is neither extensive nor impressive as Bob examines the innovations.

I mean integration centralized control and regulation of all functions in the house okay such innovations okay amount to control of energy safety, communication, entertainment, environment and so on, okay when I say energy I have been hitting enlightening when I say safety I mean security and fire alarms when I say communication I mean information and messaging within home and between home and outside the world okay, outside home when I say entertainment television computer media players I mean so many other things okay laser a negative environment when I say I mean temperature air pollution and soon.

Now such parameters none of these technologies I mean so far as energy safety communication entertainment environment are concerned none of these technologies differ radically from technologies, already inexistence all are available a little bit un integrated on the market all that is new about these smart houses is the integration itself how you integrate okay, integration itself thinking different appliances in a central local network variously called a small area network home.

Bus okay or house brain this is the designer's dream therefore integration centralized control and regulation of all functions in the home this is the core of the smart phone as a socio-technical construction many different companies and organizations today are engaged in R&D projects for such home networks and the battle over standards into occupying all the big electronic forms and other contenders such as the National Association of Homebuilders okay, then but when you look at energy safety the communication entertainment environment and so on.

Well but when you construct a smart house what is the house walk what bird points out that perhaps the house world while constructing a smart house is out of sight is out of mind does housework feature in the designers thinking about the smart home, what do they seem to know about housework okay, I mean women and men traditionally have distinct and different to work in the home housework still mainly women is unpaid work comprises the most repetitious repeaters and time-consuming tasks in the household.

Namely cooking how was in cleaning tithing mending child-rearing and so on okay you will find that that the precise activities preoccupying the designers of smart house we must post these questions at least two questions, the housework feature in the design designers thinking about the smart house or what do they seem to know about housework, now these are important things whether it is Honeywell or it is the National Association of Homebuilders smart house construction or general which suggests that house to serve him.

I mean let us from these two questions that does housework feature in the designers thinking about the smart home and what do they seem to know about housework these two questions lead us to the third question that just whom then do the designers have in mind in their as their target consumer, I mean relevant social group is a term used by Trevor inch and we may biker in the in the context of the social construction of source technological systems to denote institutions and organizations to denote institutions and organizations as well as organized or unorganized groups of individuals.

For whom an artifact has a shared set of meanings they emphasize specifically that the social group of consumers or users fulfills, such a requirement and should be included in the analysis of a technological development women are relevant social group in the development of smart house they projects important skills for and knowledge about the home that should be a resource in the designer design process okay, and secondly since the home is women is traditional domain women could be seen as an important target in the marketing of the smart house often.

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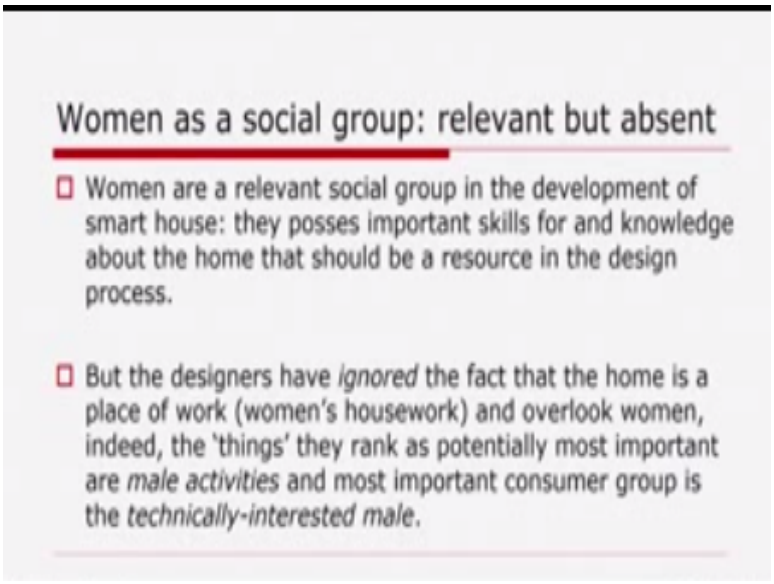

The when the designer when the when the user producer relationship is discussed in connection with technical design it refers to a relation, where the users competence based on task related experience knowledge and skills could guide the development of a new tool or machine for factory or office in as similar way woman is competence in housework could constitute an important, innovative resource for the development of home oriented information technology.

When asked about the relevance of users in the design process okay producers out of the or of I mean when Burke tried to interview certain designers, not winter will be generous rather producers okay, not actual producers but the owners of the means of production okay they found it and it an interesting idea such an interest would seem self-evident okay, after all how can one expect a product o sell x except by insuring it corresponds to consumer needs and demands okay.

But the designers have ignored the fact that the home is a place of work woman's housework and overlooked women and indeed the things they rank as potentially most important or male activities and most important consumer group is the technically interested men, who exactly do the producers see as the as the target purchaser of their smart house it proved difficult to pin them down anyone and everyone seemed to be the answer there.

For example the in the case of National Association of Homebuilders they had at least decided to concentrate on the one family house the other said to only vague pictures of potential consumers honey will see they see the user as the owners synonymous with them with the man of the house, it is the owner who will no longer have to think about how things are done.

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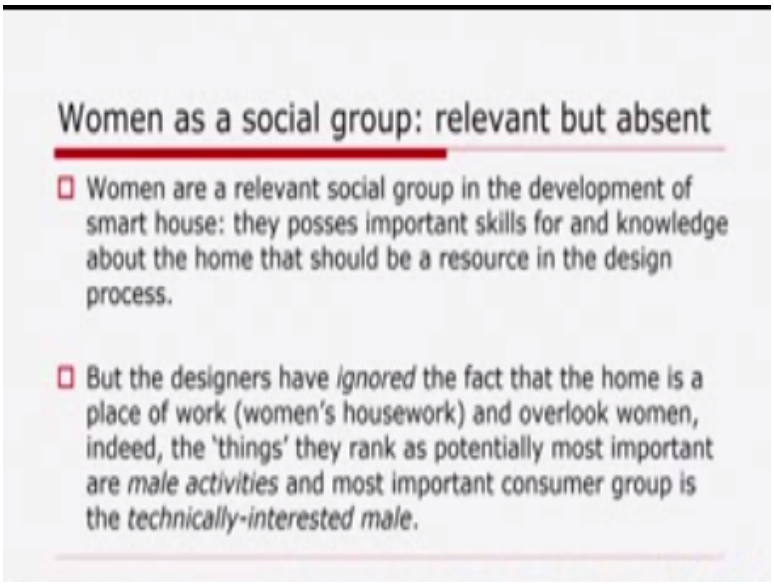

The things they are ranked as potentially most important in the house market are male activities and the most important consumer group is the technically interested male okay, as a consequence of which what we have come to know that the such smart house is atypical case of technology pose in contrast to consumer pole, is its inspiration lies not in the practices of everyday life but in a fascination with what is technically possible not desirable, but only possible but what do we see as a matter of social change it is not simply the possibility.

But the desirability that which is very important to bring about social and economic changes cultural changes political changes right, there is a crucial difference between a house and a home it is women in the men whose work and skills make the former into the letter okay I mean it is the women who try to make home who know how to turn a house to home who know how to

make a home from a house the smart house is no home okay, smart house prototypes resemble their literary for forerunners those scenarios of the 1900 L it is.

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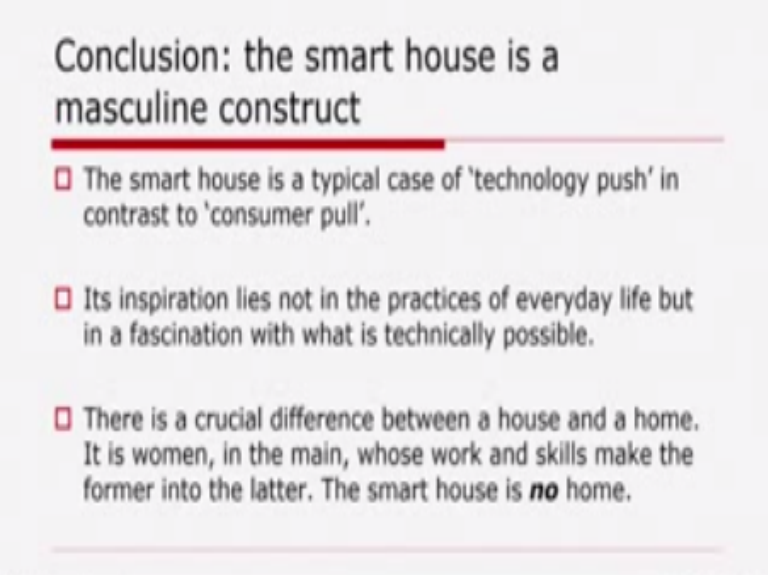

That that presented home oriented Information technologies as gender-neutral okay smart house prototypes are one of the several kinds of attempt to create today, the technical technological home of tomorrow the nature of that future home has serious implications for women technology as an element in so selection has the power to change or to preserve today's gender relations including the sexual division of labor, this particular societal socio technical construction is transparently not intended to change gender inequality to say the smart house.

Is a masculine construct and leave it at that however is unnecessarily defective technologies should not be understood as ready-made artifacts which use is non-negotiable, a technology in a technologies in I mean the impacts of our technology are never in deadly determined by its designers and producers intentions or inscribed regions, rather technology should be seen as a process, it must be any technology I mean whether it may be a smart house construction it must be seen it should be seen as a process.

Open to flexible interpretation by its various user groups which even my current page also pointed out interpretive flexibility okay, to look at the eventual application of a technology to see

what users make of it for the smart house still at prototype stage we cannot yet see it and in you despite the non fixed nature of a technology however is to observe its gendering in those early stages before, it reaches the user is of vital importance for understanding what happens subsequently.

The smart house is a typical case of technology posts in contrast to consumer pool its inspiration lies not in not in the practices of everyday life, but in a fascination with what is technically possible okay, the gender implications of this are clear technology is traditionally masculine is traditionally a masculine domain and an interest in technology is seen as constitutive of masculinity when technological possibilities lead as they do in us in the social construction of the smart house.

The house that results is somehow somewhat like missing for living a highly masculine concept conversely, okay conversely decor and style are traditionally a feminine domain and creative flair in home making has been described as an important part of feminine identity, there is a crucial difference between us house and home it is women in the main domain I mean in principle and, if you it is the women which work and skills make the house of home decor and style.

Have no place in these prototypes the smart house is no home okay, in the in the next lecture we are going to discuss okay we are going to discuss the decline of the decline of one-size-fits-all paradigm or how reproductive scientists try to cope with post modernity okay, it is very important and we will end with this article by out zone out soon that that will end with this article our section on the social setting of Technology okay.

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