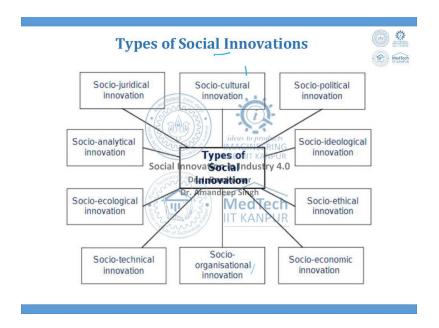
Social Innovation in Industry 4.0 Professor J. Ramkumar Professor Amandeep Singh Department of Mechanical Engineering and Design Indian Institute of Technology, Kanpur Lecture 09 Types of Social Innovations

Welcome to the next lecture on Types of Social Innovation.

Introdu	ction
Social innovation plays a crucial role in addressing societal challenges driving positive social change. Understanding the different types of social innovations is essential, for developing effective solutions strategies	in Industry 4.0 kumar Med Tenn IIT KANPER

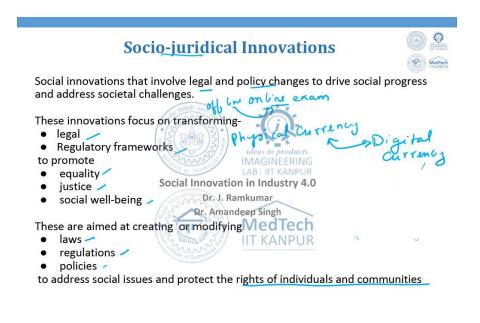
Social Innovation plays a crucial role in addressing societal challenges. It helps in driving positive change to the society. Understanding different types of Social Innovation is essential for developing effective solutions and strategies.

There are several types of Social Innovation. In this lecture, we will try to see all these innovations.



To name them, we will start in a circular manner. Socio-Cultural Innovation, Socio-Political Innovation, Socio-Ideological Innovation, Socio-Ethical Innovation, Socio-Economic Innovation, Socio-Organizational Innovation, Socio-Technical Innovation, Socio-Ecological Innovation, Socio-Analytical Innovation and Socio-Juridical Innovation. These are different types of innovations which are part of Social Innovation.

Many a times you will not have exclusively one, there will be a blend of many. For example, you will have Socio-Cultural Innovation attached with Socio-Ethical Innovation, attached with Socio-Juridical Innovation. These three can be together to develop a solution. Same way, political scenario, ethical scenario, organization scenario and analytical innovation can be part of one. They are clearly distinct, but they will have a combination together to come to an innovative solution.



So, what is Socio-Juridical Innovation? Socio-Juridical Innovation, the Social Innovation that involve legal and policy change. Legal is until the age of 17, you cannot enter the college or until you finish 10 plus 2, you cannot enter college or 18 years and above are eligible for getting a driving license.

So, Social Innovation that involves legal and policy change, policy changes say, for example, there is anybody who has cleared 10th standard, they are eligible for getting a driving license. So, now the initial thing was 8th standard, now they have changed it to 10th standard, why? They wanted to have a IQ level improvement, maturity level improvement, emotional quotient better. They said there is a policy change, henceforth people, who are above 18, are eligible to get the driving license. So, policy change was earlier 15 8th standard now it has become 18 or pass, vears old.

The other policy change is India decides to conduct all the entrance examination through online portal or online exams, a policy change, from an offline it became online. People all thought that how will people, who are coming from a very very rural background, will be able to use a computer, they would have not even seen a computer, but 5, 6 years down the line, they have improved, and today all the national competitive exams happens online, a policy change.

It is eco-friendly, it is sustainable and it has the advantage of traceability and adaptability, a policy change. Offline exam becoming online. To drive social progress and address societal changes, majority of the time, this policy change of going for online exam came into existence because the dependency on paper is reduced.

Once the paper dependency is reduced, the errors are reduced, the paper dependency is reduced, deforestation is reduced. So, once by making a policy because of deforestation,

you are able to have a climatic control, you are able to get clean unpolluted air. So, all these things, soil erosion is avoided. You see all these things are an impact just by one thing, on converting an offline exam to an online you get so much of benefit, to drive social progress and address societal challenges.

Societal challenges are for example, there are a community of people who solely depend on honey high, or they solely depend on extraction of a rare nectar from trees for medicinal aspect. So, moment these trees go away, the societal challenge is, they are livelihood is questioned.

See societal change is something very very important or societal challenge is something very very important. To drive social progress and address societal challenges, these innovation focus on transforming legal and regulatory framework.

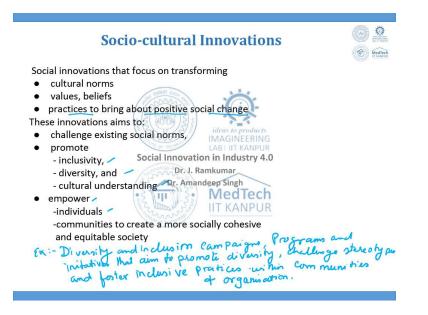
Regulatory framework is very important moment. You have a framework, then following the framework, the policies can be derived. The regulations can be made. A framework is making who is responsible for what and how is he going to execute, if there is a mismatch, what is to be done, how do we handle such situations. A complete framework is given.

To promote equality, justice and social well-being. Social well-being means it is trying to be inclusive, trying to accept people inclusive. So, these are aimed at creating or modifying laws, regulations and policies.

So, policy change, I have just given you offline to online. Banking, physical currency to digital currency. It is a sustainable solution, the energy for producing or for printing currencies are reduced. The authenticity of the currencies which always is a problem. So, now that is reduced and you have everything digital, it everything gets into a digital wallet, easy to move, easy to commute, and it has lot of protection. Physical currency to digital currency is a major policy change, many people did not accept it so easily.

Now, slowly-slowly, including me, I have started enjoying digital currency paying through digital money is becoming more easy for me. So, this is a policy change. When the policy is changed, it has to aim in creating and modifying laws.

So, regulations and policies to address social issues and to protect the rights of individual and community. Without sacrificing the rights of individual and community trying to come up with an innovative solution, to meet out a requirement of fulfilling unmet needs of society is nothing, but Social Innovation.



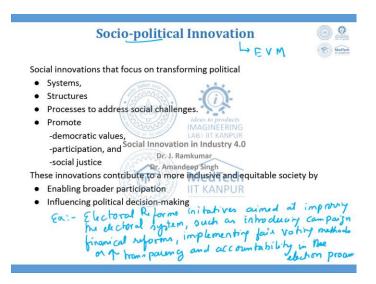
The next one is going to be Socio-Cultural Innovation. Social Innovation focuses on transforming cultural norms, values, beliefs, practices to bring about positive societal change or positive social change. So, this is very important, practices of bringing about positive social change. Gender inequality getting reduced.

Today, there are games which was earlier thought about only men, only women, now they are talking about mixed doubles, mixed women and gents. It was initially thought of in tennis, now they are thinking in other games also, positive social change.

Accepting girl students coming to college, making literacy common to both men and women, it is a positive change. Bringing education, delivering education at an economical price at their doorsteps is digital education, that is a Social-Cultural Innovation. This innovation aims to challenge existing social norms. The bad practices in the society will be removed and good practices will be imbibed by doing some innovative changes.

So, challenge existing social norms, promote inclusivity, diversity, inclusive means accept everybody, have a society where it is diversified, then cultural understanding is very very important. Trying to respect each other's culture, language is very important, then empowering individuals communities to create a social cohesive and equitable society.

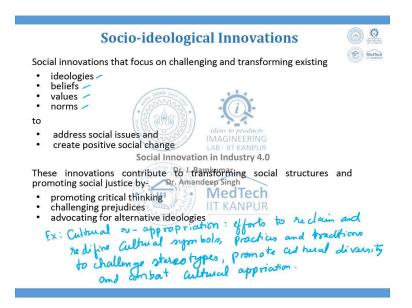
For example, diversity and inclusion campaign programs and initiatives that aim to promote diversity, challenge stereotypes and foster inclusive practices within communities and organization. Diversity and inclusion campaigns programs and initiatives that aim to promote diversity. That is what I said inclusiveness, diversity and cultural understanding is very very important.



Next is Socio-Political Innovation, by the way the electoral machine is also a Socio-Political Innovation. Socio innovation that focus on transforming political system, structure, processes to address social challenges, promote democratic values, participation, and social justice which is part of Socio-Political Innovation.

This innovation contribute to a more inclusive and equitable society by enabling broader participation and influencing political decision making. If we take an example, the electoral reforms initiative aimed at improving the electoral system, such as introducing campaign financial reforms implementing fair voting methods or increasing transparency and accountability in the election process. So, this is a Socio-Political Innovation.

Trying to bring in electoral reforms by initiating the online or electoral machine. So, the advantages, the paper consumption, is reduced, the transparency is increased, the traceability is increased, the election results are announced much faster and there is not much of tampering which could happen on the machine. So, that is a Socio-Political Innovation. So, here it is electronic voting machines EVMs.



Next is Ideological Innovation. Social Innovation that focus on challenging and transforming existing ideologies, beliefs, values, and norms, transforming existing ideologies, beliefs, values, and norms to address social issues and create positive social change.

These Socio-Ideological Innovation contribute to transform social structures and promote social justice by promoting critical thinking, challenging prejudice, advocating for alternative ideologies. So, if you see an example cultural re-appropriation effort to reclaim and redefine cultural symbol, practices and tradition to challenge stereotypes, promote cultural diversity and combat cultural appropriation. So, cultural re-appropriation is part of Socio-Ideological Innovation.



Next is Socio-Economical Innovations. The Socio-Economic Innovation seek to redefine economic systems and practices to prioritize social well-being. It reduces inequalities, it promotes sustainable development. These innovations offer alternative models, that can be created more inclusion and equitable societies by integrating social and economic goals.

So, example here are microfinance, you can read. The assignment for this lecture will be study something on microfinance. So, microfinance service is nothing, but a Socio-Economic Innovation. Self Help groups are all working on microfinances. So, please read it as part of the assignment. That you will appreciate Socio-Economic Innovation.

Socio-organizational Innovation	ONS
It refers to changes and advancements in the ways societies ar • operate • interact • address social and environmental challenges These innovations can occur at various levels, Merring • from local communities to global institutionsry 4.0 Dr. J. Ramkumar These innovations contribute to a moreleep Singh • equitable • resilient future \mathcal{E}_{x} : Place ble work Arrange mut \rightarrow te mole dog in \rightarrow work from home.	nd organizations

Next is Organizational Innovation. It refers to changes and advancements in the way societies and organizations operate, interact, and address social and environmental challenge.

These innovations can occur at various levels from local community to global institution. You make an organizational change; you try to reduce the number of administrative levels which are involved in running an institute.

This innovation contribute to a more equitable and resilient future. So, here the example is flexible work arrangement. So, here what do we do? We allow remote login, or working, or work from home. So, that is Socio-Organizational Involvement. The working hours are flexible, and then you can do job sharing, then you try to have a balancing of load.

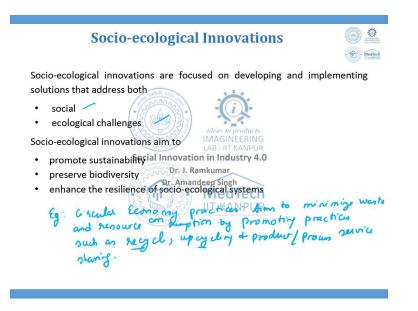
Socio-technical Innovations	(a) (b) (b) (b) (b) (b) (b) (b) (b) (b) (b
It refers to the development and implementation	
of new technologies in a way that considers and	
incorporates social factors	
Socio-technical innovations aim to	
address social needs	
 improve productivity 	
anhance well being	
Pr. Amandeep Singh MedTech	
These innovations aim to create more inclusive, user-centered, and	
Gri Til mediane + Remote Health Care .	
Ex: Tele mediane + Remote Health Care: La consulting/ dia g no sig + breat munt	
., 0 .	

Next one is Socio-Technical Innovation. It refers to the development and implementation of new technologies in a way that considers and incorporates social factors.

The Socio-Technical Innovation aim to address social needs, improve productivity, and enhance well-being. These innovations aim to create more inclusive, user-centered, and sustainable solutions.

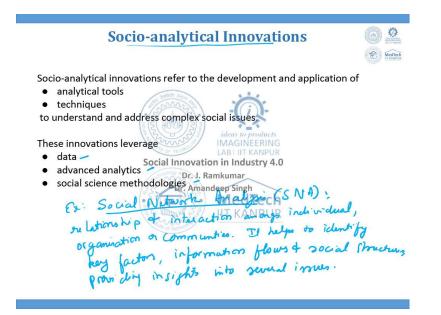
So, example for this is telemedicine and remote health care. Telemedicine leverages digital communication and technologies to provide basic medical consultation. So, here in telemedicine it is consulting, it is also used for diagnosing, and it is also used for treatment.

So, the Socio-Technical Innovation, it promotes telemedicine and remote health care. So, you see there Socio-Technical Innovation aims to address social needs, improve productivity, enhance well-being.



So, basically the example is going to be circular economy practices. This is part of Social-Ecological Innovation. Socio-Ecological Innovation are focused on developing and implementing solutions that address both social and ecological challenge.

Socio-Ecological Innovation aim to promote sustainability, preserve biodiversity and enhance the resilience of Socio-Ecological Systems. The circular economy practices is part of Socio-Ecological Innovation. So, here the circular innovation aims to minimize waste and resource consumption by promoting practices, such as recycle, upcycling and product/process service sharing. That is what is Socio-Ecological Innovation.



The next one is Socio-Analytical Innovation. So, here the Socio-Analytical Innovation refers to the development and application of analytical tools, techniques to understand and address complex social issues. So, what is the example here?

Example here is Social Network Analysis is nothing, but SNA, which examines the relationship and interaction amongst individual, organization or communities. It helps to identify key factors, information flow and social structures providing insights into several issues.

So, this is Social Network Analysis which is part of Socio-Analytical Innovation. So, here if you see Socio-Analytical Innovation, it is a very very important tool, which tries to leverage data, social advance analytics, and social science methodologies. It is used in Socio-Analytical Innovations.

Summary	
ial innovation drives positive change in society across vari	ous
aboration, inclusivity, and diversity of perspectives are cial for successful social innovation in products LABI III KAMPUR	
hnology can be si plowerful tool when designed with socia siderations and ethical principles mar Dr. Amandeep Singh	
tainability and environmental stewardship are integral to ating a better future.	
Anisoment: Micro prance P	sustain up sca

To summarize, the Social Innovation drives positive change in society across various domains. The collaboration, inclusivity, and diversity of perspectives are crucial for successful Social Innovation.

Technology can be a powerful tool when designed with social consideration and ethical principles. and sustainability and environmental stewardships are integral to creating a better future. I have already given the assignment in this chapter is try to understand what is microfinance and how does this model sustain, how is it up scaled, how does it work.

So, please understand and the government today is promoting lot of microfinance groups. So, these microfinance groups are to be sustained, are to be up scaled, how is it working? So, this is a good learning. If you try to do a proper learning and try to make a three page write up about this. So, then you will try to appreciate Social Innovation.

Thank you very much.