Workshop on "Development in the Information Society – Exploring a Social Policy Framework"

January 18th – 20th, 2007
Bangalore

A New Development Paradigm for ICT or ICT for a New Development Paradigm

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United Nations Development Programme
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International Development Research Centre

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An Extended Abstract

Problem with any paradigm is that it associates with it a set of *a priori* "givens" and therefore the discourse is expected to follow these givens. In this paper, I would like to first address these un-stated assumptions and then discuss some aspects of the current scenario of ICT.

The first set of givens is the concept of ICT: there is information and communications technology, which are seen to be as a kind of dyad. The abstracting out two elements – presumed to be discrete but intimately linked -- sets a particular frame in place. While it is easy to see the connections between information and communication technologies, it is important to note what is being abstracted here. Information is assumed to be digitised information and communications implies the flow of this digitised information over a worldwide telecommunications network. Joining together information and communications in this form implies that these are the aspects of information and communications that we want to explore.

While abstracting the givens in this form, let us also look at what is not being done. We are not looking at other possible relationships: information to entertainment, or information to intellectual property for example or triadic relationships. The triadic relationship in this case would be quite interesting as Information, Communications and Entertainment (ICE) are all perceived as new age technologies. I will transgress some boundaries here and extend the topic for this session to cover some of the above as well.

A triumphalist account of ICT that assumes that advances in technology would automatically lead to a better future and misses out the complexity of both the society within which such changes take place as also the complex relations between technology and society. Technologies that can lead to human development, can also lead to increasing the intensity of exploitation. In a world where information is power, those who have better access, can leverage this power to create sharper disparities. Both societal development and sharpening of the social divide can even run side by side. For the purpose of this paper, I will exclude such naïve accounts, which see ICT as technological fix for any of the social problems that we face today. Instead, I will try and examine the more complex terrain of how society and technology develops together, one in turn influencing and being influenced by the other.

If we look at what constitutes development, we immediately enter contested territory. To some, development itself is the enemy; the enemy of traditional ways people have interacted with nature. Therefore ICT enters here as a form of guerrilla weapon, to be used but clearly belonging to the enemy. The territory which is sought to be privileged is the non-digital one, where the digitally enhanced Internet using aliens may enter, but only after paying obeisance to those higher beings who do not use such props. The issue is not so much as how to bridge the digital divide but how to use advanced technology to defeat the juggernaut of development.

To others, development is somehow neutral and the only issue is one of ownership. If we can return the ownership of resources -- natural, human-made or intellectual – to the people, everything would be perfect. The nature of development is distorted from some ideal form, which is immanent in new technologies. The distortion is perceived to be due to ownership by capital of technology; all we need to correct is this distorted development by taking over control from capital. In this model, the

only struggle is the political one between labour and capital and not in the forms of technological development.

Personally, I not only do not subscribe to either of these prescriptive models. I believe that the contention is also about the nature of technological development. We can ask development or (the waves) to go back, but this is a loser's game. Instead, we need to look at how the future is being shaped and intervene in the process of development itself. The struggle between labour and capital – in this view -- is a far more complex one and is being waged at many different levels. Without doubt, the most important and visible level is the political one, but this does not preclude battles at other levels as well. It is important for some of us who are also professionally active to register and intervene in the other forms of struggle that are being waged today.

One of the most interesting forms of struggle that is being waged in the information world is of monopoly over information. Capital enforces monopoly over information in a variety of ways while arguing for freedom of information. Intellectual property – over artistic products such as music, films, written matter – are all part of this monopoly. The instrument is not merely one of copyright, but it also through channels of distribution: TV channels coming "freely" over the airwaves. Control over the satellite, terrestrial broadcasting stations, the telecommunication broadband networks, are all forms of monopoly through which capital exercises its control. Finally, the "free" distribution of content means the consumers accepting to be a global market – advertisements for commodities are the basis of this "freedom"

The monopoly of this kind is being challenged in two different ways. One is of course the peer-to-peer sharing of artistic products. By sharing music and creating a community, which itself is willing to promote new artists, the entire market for music is changing. The communications network – the Internet – allows other channels of communications from that of the earlier broadcast mode to create this possibility. It is therefore not only the challenge to copyright by "pirating" or digital copying as is being claimed by music labels, but also the ability to create "communities" virtually that allows sharing and a different form of distribution. The challenge to monopoly then comes also from this new mode of distribution.

Interestingly, once we recognise information as a commodity, we also recognise that knowledge also can become a commodity. The most blatant form of this monopoly is pharmaceutical patents. What the pharma companies hold is the information about the structure or use of a chemical molecule. The cost of the drug does not come from the cost of its production but from this monopoly that the company holds via patents. And it shares with other forms of monopoly – music, films and software – the attribute that only the first copy has high costs, reproduction has very low costs. Therefore the new struggle against privatising the "knowledge commons".

The challenge over this monopoly is now emerging in different forms than that existed earlier. Communities sharing music and films are only one form of this challenge. The other is creating new content, the use of creative commons licenses, copyleft license and now open-source biology. The paper will deal with these new forms of creating content and tools that depart from the old one of either private domain or public domain knowledge.

The other form is the way such challenges are being exercised. Most struggles require people to come together and work in an organised form. Most of these organisations have clear structures and some chain of command. Today, we have also have other forms of struggles with quite different structures. This is one of loose networks of people who come together on some specific issue or agenda. It can be as simple as sharing music using new peer-to-peer tools (e.g., Kaza) or a more

organised one where people work for developing a new operating system such as Linux. As the world gets more closely networked in the future, we are likely to see much more diffused and networked forms of resistance grow. That the first and most important forms of these protests have been about the technology of networking itself is incidental. The future undoubtedly would see a much larger spread of networks and networked resistance.

The architecture of such protests also provides new ways of development of knowledge or tools of development. The open source/free software community has a model of development, which appears to be new. However, a closer examination would show this is how knowledge has always developed in the past. It is only now that the world of capital perceives information as capital that the mode of development has changed. If we look at how Oxford Dictionary was developed in the 19th century, and compare it to the development model of Linux, we will see that it has a similar architecture. Of course, it is the possibility of networked structures permitted by the communications networks of today that have made possible brining together of very large number of people for different purposes. It is this terrain of networked forms free from monopoly that we must explore if we are to take forward a model of development that will be much more equitable and inclusive.

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