The Internet, Youth and Education in Pakistan:

An Appraisal and Plan for the Future

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In the view of this paper, education planners and academics need to put far more thought into the pedagogical potentialities of the Internet, especially in light of the challenges of developing countries.

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Disclaimer

This paper has been developed by the external Contributing Author, Dr. Taimur Rahman. The opinions, statements and advice contained within this paper do not necessarily represent those of the UN, UNDP nor NHDR.

Introduction

Most scholars are already aware of the problems of market allocation and education. The market will always allocate resources according to ability to pay or what is referred to as effective demand. In the context of education, market allocation always mean access to educational resources will roughly correlate to access to economic resources. This gives rise to a class based system of education. In any society where education resources are allocated along the lines of income disparity, education becomes a social privilege. Moreover, this social privilege in turn can create a vicious cycle where only the privileged have education and the educated are privileged.

In other words, the market will inevitably transform the business of education into an education business rendering those who obstinately refuse to adhere to "good business practices" economically obsolete in accordance with the laws of competition. Thus, just as the law of concentration of capital inevitably leads to monopoly formation, so academic resources can become concentrated in the hands of a few educational entrepreneurs and reserve only for those who can afford to pay.

Public education has been presented as an alternative to the allocation of educational resources through market forces. Progressive academics have of course campaigned with great passion and energy in favour of public education.

However, within the context of the domination of capital, public education does not necessarily fare much better. First and most importantly, there is a question of quality of education being offered in public institutions. Secondly, there is the danger of public education being dominated by the imperatives of state capitalism. Marxist academics have already explored at length the connection between education and "nation building" as an exercise in the training of obedient skilled workers and pliable political actors (see for instance, Gellner 2006). Last and most importantly, one can talk about the education policy of societies that have yet to achieve a semblance of bourgeois popular sovereignty. Such states often hanker after reactionary, ultra-nationalist ideologies through their educational systems. The result is a poisonous ideological concoction that is essentially not education but indoctrination (see for instance Saigol 1993).

However, technological development is increasingly providing societies with a new means of communication with the power to supersede the entire way in which humanity has hitherto organised education. This new

technology is all the more useful for developing countries like India and Pakistan because it can not only significantly reduce the knowledge gap between the developed and developing world but also between classes. It has the potential to achieve the most profound democratisation and universalization of human knowledge ever before in history. This new technology is the application of the Internet to education.

Pakistan Education Profile

The enormous problems with respect to the educational profile of a country like Pakistan are largely very similar to other post-colonial societies. Though individual figures vary, the overall trends and trajectories are largely the same. The education system of Pakistan comprises some 260 thousand institutions with 1.5 million teachers, facilitating 41 million students (Pakistan Education Statistics 2011-12). The official literacy level of Pakistan is said to be at 69 per cent (literacy is defined by the ability to read and write one's name) (ibid.).

**Education for All (EFA) 2012 Report**
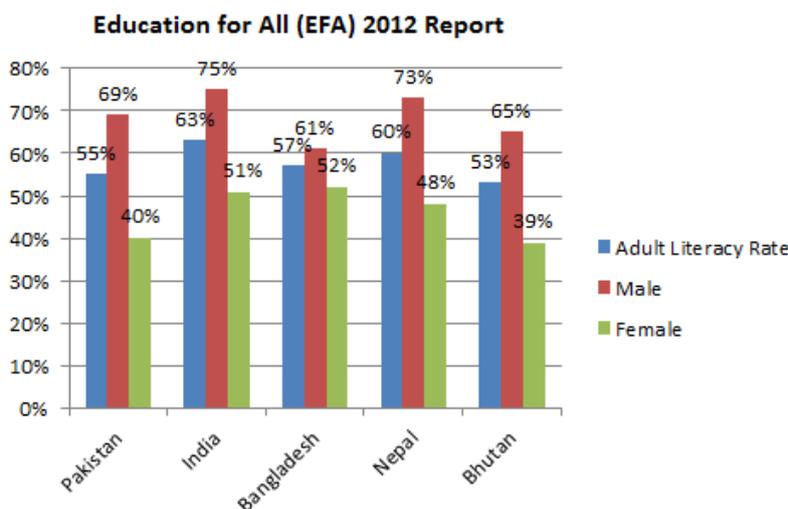
First and foremost, access to education remains a class and patriarchal privilege and in turn secures these privileges. There are entirely different educational systems for different classes. For the children of Pakistan's bourgeoisie, landlords, and urban professionals there is the English medium O' and A' levels system. These institutions are dominated by private ownership. Annual results indicate that about 8,000 children sit for these exams.

For Pakistan's middle classes and skilled sections of the working class is the intermediate and matric system where the language of instruction is mostly Urdu. In this system there is a distinction between public and private education. In the last three decades, private education has seen an unprecedented boom across Pakistan. Private education, despite its enormous variation in terms of quality, is not only in demand in the elite but even in the middle classes and the wxorking class. It is today, a hugely profitable business. At the same time,

government run schools, despite several efforts for improvements with only very modest success, continue to decline in terms of quality and facilities in relation to the size of their student bodies.

Literacy Rate Pakistan (1951 - 2009)
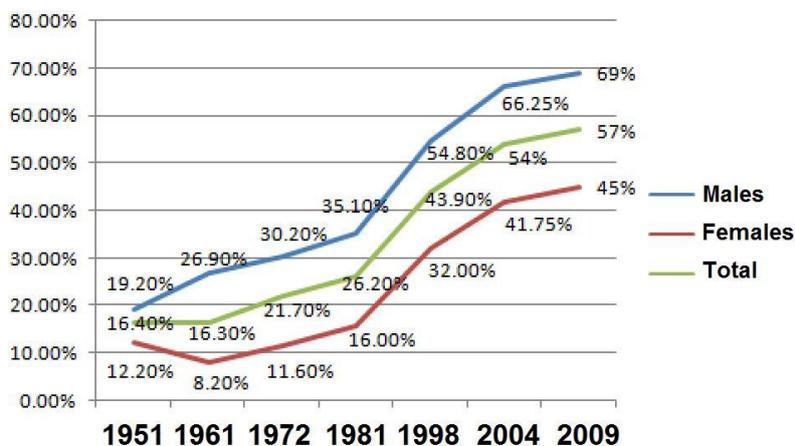
Private education accounts for approximately a third of all educational institutions (approximately 80 thousand out of 260 thousand) but accounts for 47 per cent of all teachers (Pakistan Educational Statistics 2011-12). Which means there is a relative scarcity of teachers in public institutions. There are about 26 million students in the public sector and another nearly 15 million in the private sector (ibid.). About 71 per cent of urban children also attend private tuition (ibid.). Naturally, children enrolled in private schools and taking private tuitions are performing better than children enrolled in government schools. The government school system dominates rural education with 74 per cent of children attending public schools (ibid.). Only 18 per cent of Pakistani women have received 10 years or more of schooling (ibid.).

For those who cannot afford any education, there is a vast madrassah system with some 13,000 institutions all over the country with some 1.76 million students. Nearly all of these are owned by the private sector (97 per cent) (ibid.), although the private sector here refers to organisations that are connected to various international and national religious charities.

Education has always been a very low priority in terms of government and even social expenditures. Public expenditure on education is less than 2 per cent of GDP. Since 1972, public expenditure on education as a percentage of GDP either decreased or remained stagnant for 21 years.
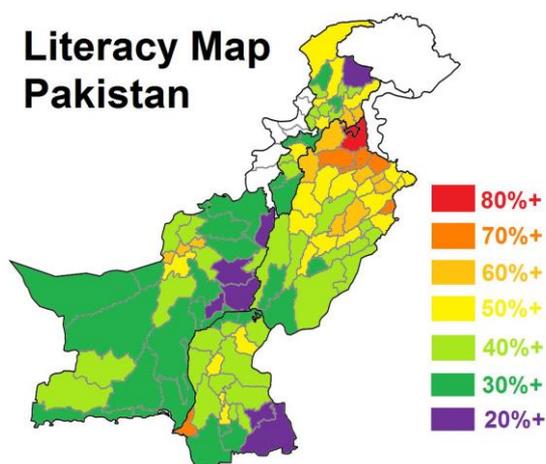
There was a sudden influx of cash after 9/11 when international donors began to fund education in Pakistan in order to prevent it from sliding into extremism. The Higher Education Commission was suddenly awash with cash and set itself very ambitious goals. As a result between 2003 and 2008, University enrolment tripled, research publications increased seven fold, 8,000 doctorate scholarships were awarded, and 51 new universities and institutions were established (Hoodhbhoy 2010). Unfortunately, while the total universities in Pakistan now come up to 131 there is plenty of evidence to suggest that this has occurred at the expense of dramatically declining standards and quality. In fact, as Hoodhbhoy has stated in article after article on the issue, throwing more money into the system without having fixed the basic problems of governance within academia have only magnified the scale of the contradictions that were already present.

The Problem

The main constraint with respect to a radical transformation in the education profile of a developing country is that a large number of teachers and institutions are required in order to educate the millions of people that exist in developing countries.

In the context of Pakistan, 1.5 million teachers are required to teach 41 million students in 260 thousand schools. In order therefore to put the other 25 million out of school children in school would require another million teachers and a 160,000 schools. Pakistan allocates 48 billion PKR, at the very minimum running cost for schools it would mean that the government should allocate at least another 32 billion PKR. But to actually build the schools would be significantly higher (derived from the data in Pakistan's Educational Statistics 2011-12).

Moreover, while an additional 1 million teachers can be hired if the government allocates the necessary financial resources, improving the quality of instruction and teaching cannot be achieved so simply. The available pool of quality teachers simply cannot be bought with money if it simply does not exist, but can only be developed over a long period of time through an educational system itself.

The problem of the lack of a lack of quality teachers becomes even more acute when we examine higher education. The experience of the Higher Education Commission suggests that merely throwing more money at higher education may not be enough to develop the right pedagogical and critical environment that would stimulate learning and thinking. More money is certainly a prerequisite but only in combination with an environment for critical thinking.

The University as a Guild

It is no secret that the entire university system developed out of the guilds and monasteries of the Middle Ages. Max Weber was quite right when he argued that for anything to become a status symbol it has to be made exclusive. Conventionally, universities have been precisely such exclusive clubs and marks of status. They were made exclusive by the high cost of being enrolled and admissions criterion.

Progressive academics and educational reformers struggled and opened up universities to millions of people in the twentieth century. Yet on a world historic scale, the full democratisation of education remains an elusive dream.

Today, a degree from a high-ranking university in the US may cost up to $100,000. However, arguably we may already be in an epoch where that education could be offered to millions of people at an infinitely small fraction of that cost. The transformation of the old university system, the transformation of education as a whole, has in fact, already begun. The present generation already is in possession of a tool that can achieve the end of the complete democratisation of education in an unprecedented manner.

Perhaps we need to rethink our goals as educationists in the context of a world that is increasingly integrated through new technologies of communication. Despite the unprecedented avenues available to educationists as a result of new means of communication, our mode of education remains tied to older models of education. Lets begin by examining the potentialities:

Outreach in Pakistan

The Internet is the most advanced form of communication available to the world today. It has cheapened the transfer of information to a point that it has destroyed not merely the print medium but even technology that's not even a decade old (such as CD and DVD's). As far as access and universalization of knowledge is concerned, the Internet is without parallel in the world today.

Today there are over 3 billion Internet users in the world (World Internet Users and 2014 Population Stats). That means, over 42 per cent of the world's population has access to the Internet (ibid). There are 5.9 billion Google searches every day (Google Annual Search Statistics). Over 409 million people read word press blogs (A live look at activity across WordPress.com), and more than a billion unique users watch 6 billion hours of video everyday on YouTube (YouTube Press Room).

The World Bank estimates that Internet penetration in Pakistan crossed 10.9 per cent in 2013 (Internet users (per 100 people)). The Internet Service Providers Association of Pakistan (ISPAK) estimates 25 million Pakistani users in October 2014 (Internet Facts). Of these there are 11.6 million Pakistanis on Facebook (Annual Social Media Marketing Report 2014). These 25 million users are from an adult population of 116 million (about 35.5 per cent of the total population of 180 million is under the age of 14). That is 21 per cent of the adult population. Granted this is the top 21 per cent of the population. But by contrast, according to UNESCO estimates, Pakistan's newspaper penetration in 2004 was at 50.3 per 1,000 population; that is, 5 per cent of the population (Daily newspapers: Total average circulation per 1,000 inhabitants). It may even have risen substantially since then, but there are no indications that its rate of growth has been anything comparable to the explosion of the Internet.

In other words, Internet today reaches a larger number than print publications in Pakistan. This is because millions, who simply do not read but watch videos, chat with friends, share pictures, listens to songs, also use the Internet and surf the net for fun things.

Even by conservative estimates, Pakistan is already ranked 27th in terms of its Internet use. The fact is that the young people of Pakistan have taken to the Internet as a duck to water. No one can deny the role that social media is now playing even in the national politics of Pakistan. Viral videos of this or that abuse or citizens action become not merely headline news but can even dominate national debate for weeks on end (take for instance the video of Rehman Malik being forced off the PIA flight by passengers).

Similarly, to give another anecdotal example, in the past when this author would meet with workers and peasants they would ask for my cell phone number. Now they ask for my Facebook ID because with access to my Facebook, they can not only get in touch with me, but they can follow my activities.

In a word, the world around us has already changed, but education policy is yet to catch up with these changes.

Elitist Internet

Even a cursory examination of history shows that new technologies are always first and foremost utilised by and for the benefit of the elite. The wheel was used for chariots, metal swords were prized possessions of military generals, and books were the preserve of the clergy.

Even the enormous intellectual opening caused by the Gutenberg press was at first principally beneficial to the intelligentsia. Even when newspapers first came out in the 17th century circulation was only a couple of thousand and as late as the 19th century it rarely went above a 100,000 (Unwin). Automobiles, radios, airplanes, television sets, cell phones, computers, and so on, every single invention of the last period of modernity was at first only enjoyed by the elite. However, as mass production cheapens that commodity the technology becomes available to everyone. The potential outreach of the Internet, however, will reach the majority of the population within a decade through the transformation already underway in cell phone technology.

According to the Pakistan Telecommunications Authority there are 135 million cell phone users in Pakistan (Telecom Indicators). In the last few years, cheap Chinese smart phones that can connect to the Internet have flooded the market. One can even see cheap Chinese smartphones utilised by *bhatta* (brick kiln) workers and the younger generation of these is already connecting to the Internet. These trends imply that within a few years the audio-visual and text material could be provided through cell phones to, potentially directly, three-fourths of the population.

Costs of Using Internet in Education

One of the most fascinating features of the Internet is that there is zero marginal cost of distribution and dissemination of information. Each tactile book or DVD costs perhaps a few hundred rupees to print. A million copies of a book or a DVD, therefore, may cost a hundred million rupees. But even a billion downloads of the same book will cost absolutely nothing extra.

Moreover, there is no transportation cost at all. Books and DVDs and other such things have to be transported to the student. But through the Internet one can gain worldwide instantaneous access to information at the click of a button, now potentially on a mobile phone that even brick kiln workers possess.

This means that that even a small organisation can make ground-breaking information available to millions of people at an incredibly small cost. And while this does not level the playing field completely, it does even out the odds in terms of class polarisation and monopolisation of educational resources.

It is now possible for one teacher, not merely to teach a class of 50 students, but to teach a class of 100,000 students. And while nothing can ever compete with the benefits of personal contact with a teacher, as far as information is concerned, even a million students can learn directly from one well-designed course by the best scholar in that field.

Unfortunately, the primary application of Massive Open Online Courses have been to save costs, but educational policy makers could press for that fact that those resources that are freed up should be utilised to pull into the educational system those children or adults who are out of school.

Benefits of Using Internet in Education

Firstly, students need no longer rely on text alone. The Internet allows us to communicate ideas to people who may not even know how to read or write but can listen and watch. And this opens up the possibility of teaching people about things in a new and exciting way that allows for ideas to be absorbed and examined in an altogether new and creative way.

Secondly, students can continue to learn at their own pace. It is no longer necessary for students to sit through one lecture that cannot be repeated. Students can watch the same lecture ten times, or study the same thing by three different professors. Alternatively, if they understand a concept, they can skip ahead to the next part. Or they can go into more details about a particular subject. Potentially then, eLearning allows for greater flexibility as far student needs are concerned.

Thirdly, students can learn at times that are convenient for them. Working people, who so often miss out on education because they cannot afford not to be at their jobs during working hours, can potentially engage in eLearning whenever they can find time. Even bonded labourers can have access to vital information about their own movement as well as other social movements as long as they can have access to a cell phone.

Fourth, students can come back again and again to evaluations. It is not necessary for students to be examined only once at a specific time in the academic year. Students potentially could test themselves again and again in order to understand their own strengths and weaknesses with respect to a particular subject. Accreditation could be done conventionally but other evaluations could be used as fun ways to increase learning.

Fifth, the Internet allows for the potential of non-text based learning at a vast scale. Take the example of the impact of the three great documentary series of all time: *Ascent of Man*, *Civilisation*, and *Cosmos*. These documentaries popularised science and art on a hitherto unimaginable scale. What would be the impact of a *Cosmos* level series on every subject we can think of available for free and in every language of the world on the Internet? It would mean that even while millions of working people continue to learn the basics of literacy, they could also learn about more advanced subjects that are not beyond their intellectual comprehension but only inaccessible to them because they cannot read.

Last, the Internet offers the opportunity of multidirectional communication in a way conventional education or documentaries/lectures on television never can. Not only can student and teacher be co-creators of knowledge in the Frierian sense, but more importantly one can potentially think of communities of scholars and students talking to each other on mass forums, exchanging information, holding debates and discussions, submitting and reading papers. All in real time and all communicating on a worldwide level.

This multidirectional communication is vital to learning. It is one of the reasons why the physical presence of the teacher has so far always been superior to merely watching a video. The video cannot give any feedback. The student cannot ask questions to a video. But with the Internet the student can actually interact with the teacher, ask questions, raise concerns, and critically engage with the material at hand. This multidirectional communication makes Internet learning superior to television broadcasts of lectures, provided online courses are planned to take advantage of this feature.

What about Virtual University?

The major effort by the government of Pakistan to utilise these new technologies for education was the establishment of Virtual University. However, the project is, in the opinion of this paper, poorly thought out.

Virtual University has been unable to realise the greatest and most powerful facet of this new technology: that of being a multi-media instrument. Their effort has been restricted to putting a professor in front of a camera and recording the lecture. This is like being behind the wheel of a sports car and insisting on driving it only in the first gear. The great failure of VU is their inability to rethink the lecture itself.

The lecture is a one-way monologue. As such it is itself one of the oldest and most primitive forms of communicating information. But with the power of information technology, cameras, videos, the Internet, education planners need to think about the multi-dimensional power of this technology. Why record a classroom lecture when the subject can be explained by examples from the real world. Why talk about something that can be illustrated with a visual. Why have an illustration when one can show videos, time-lapse footage, and the inner workings of things.

The great weakness of VU is arguably not in the resources that they have put to establish the university but in the way in which they have failed to take advantage of the nature of this new medium. The place to put greater resources is not in developing a physical infrastructure but in developing world-class educational material to flow through that infrastructure. These courses need to be thought out in a way that utilises the full potentiality of the new medium.

In sum, the efforts of education policy makers should not be on investing in infrastructure. In fact, the great advantage of the Internet is precisely that one requires only a virtual infrastructure. The efforts of education policy makers should be in relation to investing in educational material that fully utilises the medium to its maximum potentiality. And here, we find that almost no human resources have been allocated to this more important task. Perhaps this helps to explain why Virtual University has not even begun to reach its true full potential.

The Future of Education

The modern world has made new technologies available to the people on a mass scale that could potentially be used for the purpose of the democratisation and universalization of knowledge on a scale that was previously not possible. Developing countries in particular could potentially close the knowledge gap through these new technologies.

However, these technologies only remain potentialities. A new, creative, and revolutionary educational policy is required to realise this potential. As long as the imperatives of the markets remain in place the technology will only be utilised insofar as that has a direct bearing on costs and monetary advantages. Hence, so far this technology is only being utilised to cut education costs. As a result, academics and teachers who view it as a new means to downsize and replace academics and teachers have resisted the application of this technology.

However, the whole scale rejection of this technology in response to the way in which this new technology has so far been utilised is perhaps just as misplaced as the use of this new technology to downsize teachers.

The technology itself is not the enemy but a great opportunity. Perhaps it is the application of the technology under the imperatives of the market economy that is problematic. Educationists, who have always sought the universalization and democratisation of knowledge, and have every reason to oppose the application of this technology under the imperatives of downsizing, need to embrace this technology. In the opinion of this paper, this requires a rethinking of education, in fact, the rethinking of conventional universities and knowledge sharing and creation.

What cannot be lost sight of is that at the end of the day this technology makes it possible to reach millions of people. To actually engage people in a meaningful way, and to participate in the process of knowledge sharing and creation depends ultimately not on the technology but on the way it is utilised. And this is where education policy makers in Pakistan, in the opinion of this paper, need to think more deeply about how to convert this potentiality into a reality.

Great social transformations come about first and foremost through new ideas. And these new ideas spread through new means of communication. If it were not for the spread of the use of paper, the Arab renaissance would never have had such a far-reaching influence. If it were not for the Gutenberg printing press, the fate of the Reformation perhaps would have been no different from earlier movements that met their end in the Inquisition. The printing press in the hands of the rebels changed the balance of power forever.

In the same way, the Internet has the potential to disseminate education and knowledge on a hitherto unimaginable scale and provide developing countries with a means of communication that if properly harnessed could help us close the gap with the developed world and to also close the gap between classes everywhere in the world. If this potentiality can be turned into a reality, the Internet would be to the modern world what the Gutenberg Press was to the Reformation.

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