

The Science of Happiness and Wellbeing
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Module No # 07
Lecture No # 38
Technology and Happiness

Good morning friends we are approaching the end of our sessions together and unless we talk about the relationship between technology and happiness, we are missing out on a very significant aspect of happiness and well-being because we live in a world which is highly technologized. If you remember when we started our interactions we talked historically about the fact that human beings talked about happiness, human beings explored happiness since languages evolved.

Interestingly human beings also explored technology since the cognitive abilities and language evolved probably they are co-passengers or co travelers and the journey of time and historically very closely linked with one another.

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Concepts covered

- The relation between technology and happiness
- Happiness technologies
- Technologies that impact happiness
- Social innovations and happiness
- How we can contribute



So if you are looking at technology and happiness the areas that we would like to cover, today is the relationship between technology and happiness primarily with the focus on war time and peace time technologies. Will focus on happiness technologies that impact happiness quickly touch upon social innovations but we will deal with it in greater detail in our last session and how we can contribute is something also that we will deal with in the last session.

But they are connected to, this session and that is why I have included them here in the context of connecting them.

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The slide is titled "Technology: War and Peace" and features the NPTEL logo in the top right corner. It contains a bulleted list of technologies and their impacts, a silhouette of a tank, and a video inset of a man speaking.

- Radar technology: microwaves
- Electronic numerical integrator and computer
- Blood transfusion, skin graft
- Antibiotic treatment
- ATOMIC BOMB

Below the list, two additional points are listed:

- War and innovation? – grants increase
- War and technology deeply impact one another

Source:
The science and technological advances of World War II, The National WWII Museum
Willen, A L P, War and its impact on innovation: A cross-national study, MA Thesis, Georgetown University, US
Rolod, A, War and technology: a very short introduction, OUP, 2016

So technology war and peace if you quickly make a list of what happened during the world war what were the key technologies which evolved during the world war. Some of the key components were the radar technology which later on gave rise to microwave which is so much a part of our mobile networks as well as our food, and home cooking. The ability to provide nutritious food. You find that the technology rapidly transformed and evolved in a big way during the world war because radars were required for locating enemy activities on in the air.

Computers were explored well before the Second World War but the electronic numerical integrator and computer machine was created during the world war. And the ability to, develop something machines that could compute in a sophisticated way. Actually evolved through leaps and bounds especially in also relationship with cryptography at this particular point of time.

Things related to human health and medicine blood transfusion, skin graft, antibiotic treatment they all evolved and reached a fine degree of refinement. Again during the World War what an irony that this, machine skill and then tools and technologies evolved for healing the people who have not heard by these processes. And then of course the atomic bomb which has left its deep impact on all of us. Studies have suggested that war and innovations.

If you are looking at it from a historical and cross-cultural perspective the number of grants which came up during the war increased compared to the amount, of grants which are available during peace time. Or even if you are talking about the cold war the grant the defense grants that are available for research would go up dramatically or significantly. If you are talking about the Indian context as well the grants which would be available to various institutes and researchers would grow up significantly when there is wartime tension with other, countries.

So there have been other historical books which deal with warrant technology and Rolod's book which is referred to at the bottom is a book which talks about the very intrinsic relationship between war and technology. Like the fun part of it in terms of the influences that they have is that they have impacted they have influenced one another significantly. In other words technology has, certain kinds of technologies have impacted the way war has evolved for instance.

If you are looking at the current warfare or the pre-current warfare the focus is on aerial combat. Because our ability to reach through missiles through various kinds of aerial vehicles is much more powerful and the kind of devastation that these devices and vehicles can have on people is much higher compared to what, can happen through the seas or on land. So you see that the technology which evolves would decide at what point of time which particular kind of war is very significant at that particular time.

And if you have to get into it looking at things then you see that warfare which is related to networking and connectivity is taking a significant hold. See the next world war not even before through aerial combat or through the navy or through land. But it would be primarily fought in virtual reality or in the networked world of media and social media and internet connectivity.

Because that would decide whether something is able disabled whether devices work they do not work they function at the malfunction. So you find that this relationship is very strong you might wonder to yourself that in a, course on the science of happiness and technology why we have spent the first 5 minutes talking about war and technology? Because you find that it is very important to understand the ethicality of the issue which is that you see technology by itself is ambivalent.

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Technology, development and wellbeing

- The wheel
- The compass
- Printing press
- The telephone
- Antibiotics
- Automobile
- Electricity
- Computer
- The internet

The happiest communities in the world?
Does technology really make a difference?

Do other factors play a role?

<https://www.theexeterdaily.co.uk/news/blogs/10-inventions-have-had-most-impact-human-society>



We will talk about that so if you are talking about technology development and well-being you find that some of the very, significant technologies which emerged the wheel the compass the printing press the telephone across history. Automobiles, electricity, computer the internet by themselves they are neither positive nor negative it is how human beings use them that decide the fate of humanity and the fate of the technology that is being used.

They will definitely give rise to mobility but along with wheels came chariots along with wheels came wars, wheeled vehicles. If you are talking about the compass which allowed us the ability to explore the world it also allowed for warships to be built and to navigate seas to create violence across distant lands. The printing press the propagation of the printed word the text has given rise to spiritual books has given rise to communication across the world but it has also given rise the ability to create propaganda to breed hatred.

The telephone, the mobile it can be connected for good things they can also be connected for bad things for bombing for terrorism. Antibiotics ironically for all the good that it does has the potential if it is misused of developing resistance and creating situations where they do not work and diseases spreading. Automobiles automated vehicles of any kind have played a significant role in wars.




Electricity, computers and the internet if you are looking at each of these factors you realize that it is not technology that creates happiness or unhappiness. It is the people that create happiness around happiness so what are the other factors which play a role? Ideology mental

condition, desires, ideal, hatred all these things the element of power all these things play a very significant role in telling us a driving the technology in specific directions.

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Why does technology, at first glance, not increase happiness?

- Set point effect
- Technology is ambivalent
- Irrespective of technology, how do humans behave?
- Who harnesses technology?
- Can we deny the fact that:
 - *Longevity has increased*
 - *Infant mortality rate has decreased*
 - *Standard of living has increased*
 - *Inequality has increased*
 - *The ability to annihilate the world in one day has increased*



There have been studies so at first glance we realized that technologies do not really enhance our happiness. If you are looking at the development of the world we realize that a lot of things have happened. For instance we cannot deny the fact that longevity has increased we live for a lot longer period of time medicine has evolved by leaps and bounds. Infant mortality rate has decreased standard of living has increased we have a lot more money we have a lot of more of entertainment the ability to spend money.

Along with that of course inequality has also increased the ability to kill everybody in a single day also is something which is very much within our hands but for the last we might say 60 to 80 years. So you see that these things when you start looking at it the point I was making a little earlier about ambivalence of technology still highlighted to a greater extent. But then if you are looking at improving our quality of life, yes technology has improved our quality of life.

But even if it has improved our quality of life in so many ways why; is it that it is, problematic? To begin with we have talked about the set point effect earlier which is that when you get used to something after a point of time you start having more expectations. So if I have AC in my house then after some time when the AC stops operating then I am angry before the AC came to my house there was no question of it operating or not operating and there was no question of my being angry.



But you see that I kind of get used to the comforts so there is a set point effect you see that which sets in we have talked about the ambivalence of technology and what is fundamental is that irrespective technology how do humans behave. For all this discussion about happiness that we have been having probably it cannot be denied that the history of violence as opposed to the history of history is probably a longer history.

If you are looking at the amount of violent deaths that have taken place throughout history probably it is a very painful and unhappy history that we have, rather than reflecting a happy history of harmony in living peaceful. Even today we do not find that with all the War that is going on around us all the unhappiness that we face every day. Intrinsically something somewhere is wrong we have been geared for survival like all the other species.

And somewhere down the line the survival need is no longer that significant but unfortunately the survival instinct persists the role of the negative emotions persist. And we are in a situation where we are not able yet develop the formula of a channelizing them for good. And hence the people who harness technology the, people who finally wield the technology they decide how where the technology is going to create happiness or unhappiness.

And who have noticed technology the powerful people the greedy people the people who have in general a tendency to achieve more and more to grab more and more. In spite of all the other things that happen these human tendencies probably create a lot of unhappiness and when they, are linked to powerful technologies the ability to spread unhappiness also increases.

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Happiness and technology: a re-view?

- Technology and affluence: Is it their job to make us happy?
- Were we asking the wrong question? – *how should we harness the power of technology and affluence...*

Negativity

Power T soc structure H

Positivity



Ref: Levite, A. Technology and happiness, FEE, Aug1, 1988.

But I believe that enough about unhappiness and technology you see that one of the brief articles by Levite about technology and happiness counters this argument that technology and affluence should make us happy. And asks the question is it their job to make us happy? In the earlier slides I talked about the ambivalence of technology has no ethics affluence, enhancement in wealth by itself has no ethics it is how these are welded that determine whether we are going to be happy or unhappy.

So the power of technology and affluence how they are going to be harnessed so you see the technology has always this probability of moving in the direction of happiness. But then there are a series of negative, associated with it a series of positive associations associated with it. And it is probably the social structure the regulations the behaviours permitted or not permitted happening or not happening within a social framework which will finally decide whether technology is leaning heavily in the direction of happiness or is it leaning in the direction of unhappiness.

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The slide is titled "Technologies for happiness" and features the NPTEL logo in the top right corner. It contains two main bullet points. The first bullet point is "Conscious ways of using technology for happiness", which includes a sub-list: "Doing the old things but in new ways", "Network", "Gratitude", "Relationship", and "Communication". The second bullet point is "Technology developed to address happiness", which includes a sub-list: "Social media", "Happiness apps", "Welfare technologies", and "Using technologies for wellbeing assessment". At the bottom left, there is a "Ref:" section with two URLs. On the right side, there is a video inset showing a man in a blue shirt speaking.

Technologies for happiness

- Conscious ways of using technology for happiness
 - Doing the old things but in new ways
 - Network
 - Gratitude
 - Relationship
 - Communication
- Technology developed to address happiness
 - Social media
 - Happiness apps
 - Welfare technologies
 - Using technologies for wellbeing assessment

Ref:
https://www.huffpost.com/entry/7-ways-technology-can-improve-your-happiness_b_6145870
<https://www.happierhuman.com/best-happiness-apps/>

But then that is not the, entire story there are technologies today which are available for happiness. So there is this conscious way of using technology for happiness which has if you browse the net given rise to a huge number of popular articles which talk about harnessing technologies for happiness. And if you start looking at them deeply you realize that many of the things that we talked about in the earlier sessions in, the context of practicing happiness.

Or what can always be harnessed through the medium of technology and these are the elements which are highlighted. For instance we talk about gratitude we talk about building up relationship we talk about the power of networks we talk about the significance of

communication empathy. And when we are looking at the technology which is available to us especially, communication, technology and the technology of being the capability of moving from place to place very quickly of harnessing resources very easily.

You find that many of these people subscribe or prescribe that yes technology can be very significant in the context of creating happiness. So we can through technology network with others I do not need to explain that in a world of social media and smartphones. Gratitude can be expressed in various ways not only through the means of communication but through acts gestures but digital acts and gestures as well because we have multi-modality today at our fingertips.

Relationships can be maintained in a much more powerful way than they could be mentioned earlier and of course communication which is the fundamental thing that we are talking about. But also the ability to harness let us say through social media especially during the times of COVID we have found people using social media and media very powerfully to collect charitable grants to collect funds for social only meaningful acts for helping people out.

So it has been a good time to understand how technology could be harnessed for survival if not happiness. If you are talking about, COVID then we realized that was a period of time hopefully it is behind us. When we are capable not only of connecting with others but doing a lot of things which we did physically from the protection of our homes and this was only made possible through technology.

So but then you find that there are specific technologies which have been harnessed which have been created to take care of to address, our happiness. Social media essential is about relationship and relationship is a very fundamental bonding component in our lives. And true social media has its demerits there are different kinds of addictions that we have use of too much of technology especially communication technology generates stress.

But in spite of all these challenges and negativity we must accept the fact that this is, definitely a positive technology which has made a difference in all our lives. Especially in keeping us connected it definitely gives rise to anxieties as well connection anxieties response anxieties. You send a mail somebody does not respond you send a Whatsapp message you see that the person has read your message has not responded.

We have also added to the kinds of anxieties that we have created, with these technologies no doubt about that. But the positivities are significantly higher people are in the defense connecting with their families being able to talk to them all these things have happened. Welfare technologies we will talk about them a little later but these technologies have developed.

Using technologies for well-being assessment the very fact that we talked about measurement of, happiness is all about technologies start testing from starting from statistics and various survey methods. To fairly sophisticated tools and state of the art tools which measure physiological changes or changes in the behavior pattern through networks and internets and big data analysis. So these are also the ways that technologies have made a significant difference in our lives in terms of our happiness.

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Transformative technologies

- “Tech that can facilitate mental health, emotional wellbeing, and enhanced human thriving.” that can facilitate mental health, emotional wellbeing, and enhanced human thriving.”
- Transformative technology is hardware and software-based tools designed to enhance human psychological well-being, cognitive function, and physical capabilities.
- Intelligent assistance:
- Wearables:
- Healthy space techs:
- Sleep and meditation:
- App tech:



Ref: <https://umamimarketing.com/blog/what-is-transformative-technology-and-what-does-it-mean-for-you-video/>
What is transformative technology? | Definition from <https://www.techtarget.com/whatis/definition/transformative-technology#:~:text=Transformative%20technologies%20are%20done%20as%20of%20what%20is,also%20sometimes%20used%20in%20reference%20to%20disruptive%20technology.eyJTarget>

But then towards the end I would like to focus on what are known as transformative technologies. Technologies that can facilitate mental health emotional well-being and enhanced human thriving sorry for repeating it twice transformative technology is hardware and software based tools designed to enhance the human physical well-being cognitive function and physical capabilities. Two definitions of, transformative technologies what do we mean by transformative technologies transformative technologies can also be considered manipulative technologies. In the sense that they have the ability of influencing you in very significant ways they can manipulate your behavior they can when they link to the concept of

nudging give rise to both positive as well as negative changes but hopefully mostly, positive changes.

So you say intelligent assistance you have you are doing things and technology assists you intelligently helps you with decision making. And this can be significantly powerful in the context of let's say talking communicating with people with different languages across different foreign countries. In the context of people who are physically challenged in various ways.

Wearable, devices health monitoring systems which monitor your mental and physical conditions your bodily parameters. Space technologies which deal with the utilization of space and are linked to proxemics making us aware of various kinds of challenges. Very common example being the kind of sensors we have and the cameras we have in cars which help them backing up protect them against different, kinds of challenges that deal with proxemics.

Sleep and meditation there are tools which enhance these qualities there are also apps which deal in a variety of ways with enhancing these qualities. I remember that at one point of time Prof Mandal and I visited Dubai in the context of a possible collaboration for developing the possibility of developing happiness there. Well it did not materialize, at that point of time but the way we developed it was or conceptualized it and were looking at a prototype was about how nudging could be used in the context of app to enhance physical and mental well-being of the people of those places. Interestingly that broad is in contact with the challenges that they were facing in a very affluent society which was essentially to deal with physical health, and obesity. And the kinds of rewards that would work for the people who have a lot of money because you cannot nudge them with monetary rewards you can.

And then we realized that the youth in Dubai could be nudged by tourist destinations outside of Dubai which fascinates them. And the middle aged people we would tend to be very obese and had in some context not all of them of course and physical, health problems. By forming teams and challenging themselves through social networking in specific ways. Well these tools are available and at each point of time transformative technologies can assist us.

But the important question at all points of time and the important point at all points of time is the human willingness the human desire to use technology for positivity. Technologies can, be used and I being a part of a technology institute I am very aware of it and we try to do that in

our center can be used for positivity. In various ways apps can be developed here we try to develop an app which dealt with mental health being well-being and safety of people. So the prototype was also developed over here what I am trying to say here friends is that technology does help technology, can help make us happy make us positive. There are so many different interventions that can actually take place but the fundamental question is our willingness our ability to absorb and accept it.

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So thank you friends for going through this session on technology and happiness where; we focused on the negativity the positivity dedicated technologies which are used in the context of happiness. And the, fact that many of the technology institutes are people who are oriented to technology can actually think innovatively and harness technology for positivity.

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In fact in the last session we will be talking in more details about it there are a few references thank you very much.