Assessing Student Learning of Systems Thinking Concepts in an Online Learning Module
(Technical Report)

How Socio-Cultural Factors Affect the Wellbeing of India
(STS Topic)

A Thesis Prospectus in STS 4500
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Thesis Prospectus

Introduction

Wellbeing is defined as an individual's or a group's health, happiness and fortune. According to the US National Library of Medicine in the National Institute of Health, wellbeing has eight dimensions: physical, intellectual, emotional, social, spiritual, vocational, financial, and environmental (Stoewen 2017). However, measures of a nation's wellbeing primarily depend on economic measures like Global Domestic Product (GDP). GDP measures economic welfare by summing up the market value of consumer expenditures, government spending, net exports and net capital production in a country. (Giannetti et al.,2015). GDP thus allows for cross country comparisons of economic growth. Yet, using GDP as a measure of national wellbeing brings up several limitations, as GDP does not account for the health, happiness and fortune of a nation.

First, GDP ignores non-monetary factors that improve wellbeing like that of childcare and volunteerism. It also doesn't take into account government instituted programs like emerging housing and healthcare. GDP doesn't account for changes in human capital that may occur through circulation of capital among individuals. GDP does not discriminate between monetary transactions that improve welfare versus those that don't. Furthermore, it ignores the cultural differences among nations' priorities and methods for economic development. GDP also overlooks the socioeconomic inequalities that may result from increased GDP. Lastly, it disregards detrimental environmental effects that increased economic growth can have from industrialization and urbanization. (Giannetti et al., 2015). All these factors and more are not included in GDP and prove to be severe limitations of this metric as a measure of a nation's wellbeing.

A prime example of a nation whose GDP does not show the true wellbeing of the nation is India. India has the fifth highest GDP in the world of 3.16 trillion. However, the nation's socioeconomic gap has been increasing. India's top 1% hold 73% of the nation's wealth, while the nation's bottom 50% (in terms of economic measures of income) only saw their wealth increase by 1% this past year. The high GDP shows signs of high quality of life and great economic prosperity, but the socioeconomic gap indicates that many experience a low quality of life.

This motivated my technical project to spread knowledge about a new metric of national wellbeing. Last year's capstone group created a metric of national wellbeing that focused on how well the United States upholds the 5 pillars of the United States Constitution. My capstone group has been tasked with distributing this knowledge to US citizens through an online education module. The goal of our project is to help our client, the Promise America Alliance, empower US citizens to increase our national wellbeing by upholding the values set forth by the preamble of the Constitution.

My social project is loosely related to my technical project. My social project aims to discover how sociocultural beliefs and norms impact the wellbeing of a nation, specifically that of India. India is an incredibly diverse nation with over 26 different languages in its 29 states. The immense culture thus must play a role in national and individual wellbeing. I aim to examine sociocultural influences on the health and happiness of India.

Technical Topic

My technical project has two goals. The overarching goal is to empower US citizens towards the goal of national unity. The more near-term goal is to spread knowledge about a new

measurement tool for national wellness called PAWS. Both of these goals will be accomplished through the creation of an online course that will educate US citizens about the 5 pillars of the Constitution. As defined by our client, the Promise American Alliance, these five pillars include: Justice, Tranquility, Defense, Welfare, and Liberty.

The Promise America Alliance worked with a capstone group last year to develop a measurement tool that would be useful in assessing the wellbeing of American citizens. As I mentioned earlier, the current national measure of a nation's wellbeing is GDP. However, this has many limitations as GDP only measures the financial wellbeing of a nation. Thus, last year's capstone used the 5 pillars of the Constitution as a basis for defining wellbeing of a nation to develop a new measurement tool. They determined specific metrics that would measure how well the United States performed in regards to each pillar. For example, to measure the justice prevalent in the United States, metrics like solved crime rate were considered; to measure defense, metrics like active military duty were considered (Gerin et al, 2019). After finding different metrics for each pillar, they were able to create a weighting function to combine the measurement methods of each pillar into one measurement tool. Thus, they were successful in creating a national indicator of wellbeing called the Promise America Wellness Score (PAWS).

Now, the Promise America Alliance is working with us to spread information about this new measurement tool. While it would be ideal to propose this change to Congress, such a change would take over 35 years to take place (Promise America Alliance, 2020). Therefore, we aim to use education as a tool to spread information about this constitution-based metric. We aim to create an online course to inform US citizens about the importance of the pillars of the Constitution and their impact on a nation's wellbeing. However, an important factor to consider while making our course is user needs and desires. As part of the human centered design process

for education, user research is the first and foremost step that needs to be taken (Gee 2006). We conducted surveys of our fellow students to see if there was a need or desire to learn about the 5 pillars of the Constitution. From the 20 surveys we conducted, there was a consensus among our participants that, the topic of the course isn't very enticing.

Our capstone group therefore has decided to put greater emphasis on how individual wellness can be improved by implementation of the five pillars in our lives. Individual wellness is an increasingly important topic that is discussed on college campuses nationwide, due to the stressful environments that students often find themselves in. Greater individual wellbeing translates to greater national wellbeing, as it empowers people to take action to help those around them. This in turn creates social capital and helps decrease the prevalent divisions in the United States today. Social capital is defined as "features of social organization-such as the extent of interpersonal trust between citizens, norms of reciprocity, and density of civic associations-that facilitate cooperation for mutual benefit" (Kawachi 1999). Therefore, this idea that social capital increases collective wellbeing in society, helps motivate the primary goal of our capstone.

In order to meet the goals of our client, we need to find online education platforms that would be ideal for the creation of an empowering, informative engaging course. Therefore, we are currently in the midst of completing a gap analysis of different technologies available. By analyzing the features that different platforms provide and don't provide, we can narrow down the possible list of platforms to the few that will fit the requirements of our course. From the user research we completed, we determined that the priority requirements to consider are that the course is interactive, engaging and empowering. Further research into how to empower students through education, led us to look into the Empowerment Institute as a guide (Empowerment Institute 2015). Their methodology shows that the best way to empower is to impart passion

about an issue from one person to another. In education, a great way to do so is to teach through situation-based scenarios, and encourage students to put themselves in someone else's shoes.

Through the process of researching differing online education platforms, we were able to find one that met our requirements most effectively, called Thinkific. While it did not meet all of our requirements it is a good first step, into finding or creating the ideal online education system for our course. We are in the process of creating a prototype for our course in Thinkific, in order to test and obtain user input. Using results from testing, we will iterate through the design process to refine and improve our course.

STS Topic

While my technical project is about educating US citizens how to increase wellness in their society, my STS project will discuss cultural implications on a nation's wellbeing. It is loosely connected to my capstone topic as it looks into factors that influence wellbeing, but through a cultural framework rather than a political framework. Since this is a broad topic and would require extensive cross-cultural comparisons that are difficult to obtain through primary and secondary data collection, I will narrow my research to a specific region of the world. I will complete a case study on how social and culture factors play a role in the wellbeing of India.

Thus, the framework I will be using is that of socio-cultural values. Before understanding how this framework will be used to examine the relationship between culture and wellbeing, it is important to first understand the components that make up a culture. According to Ruth Benedict, in her book titled "Patterns of Culture", culture provides a patterning for people's lives. In her more structuralist view, culture is an outside force that molds us and our patterns. However, a more progressive view is that culture is seen through our interactions with others.

With this interpretation, culture can include activities as simple as placing a napkin on your lap before eating or greeting people with a handshake. Using a mix of these views, culture can more broadly be defined as a structure that not only informs our actions, but is composed of the entities that impact our interactions. It ensures a set of behavior patterns transmitted symbolically through language and other means to the member of a particular society (Wallendorf and Reilly, 1983).

Using this view of culture, we can examine the factors that make up Indian culture. As a nation with over 26 languages and 720 dialects, language must have some impact on the 100s of subcultures that are prevalent(Figure 1). Anthropologist Edward Sapir believes that language is a form that people use to express themselves. It thus informs our interactions, and since interactions are shaped by our culture, language is also a key component of culture. For example, in Hindi, it is the norm for men to call their wives by their first name. However, women generally refer to their husbands in a more formal manner, and in some subcultures, women do not say their husbands' name. This inequality is a direct manifestation of the patriarchal society that exists in Indian culture and society. Another key part of Indian culture re-emphasized through language is the importance of religion and spirituality. In Hindi, when an individual references God, they referenced Him informally, using the word "tu" (informal version of you) instead of "aap" (formal version of you). This indicates the intimate relationship that many people seek to obtain with God, and this reemphasizes the strong ties with religion and spirituality existent within the culture. The importance of religion and spirituality is once again embedded in the tradition of greeting others with the word "Namaste" and with their hands in prayer form. The word "Namaste" is used to tell the other person that "the divine in me sees the divine in you." Different subcultures use different words for their greetings, but most of them are

referencing God in a way to show their respect and reverence for each other. This is one great

example of a behavioral pattern transmitted through the symbolic meaning of prayer hands and
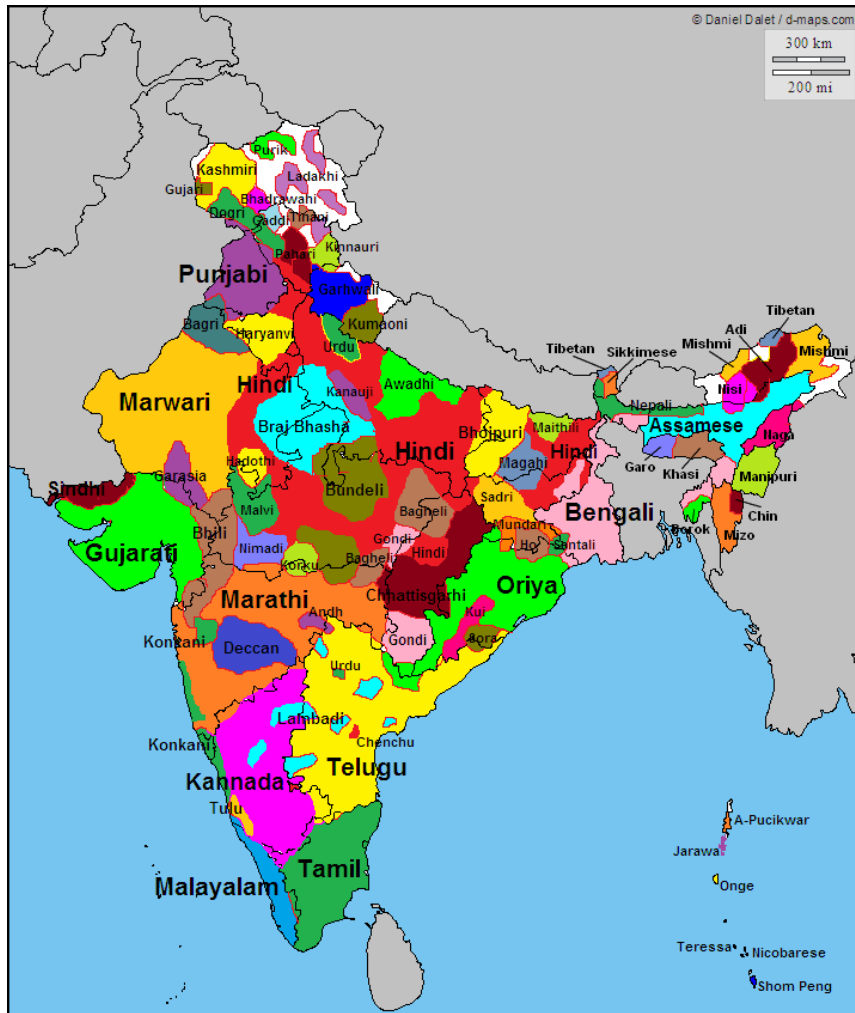
the word "namaste".

Fig 1. Mapping of the languages of India

Dance is another key part of Indian culture, because most classical Indian dance styles

like Bharatanatyam and Kathak were developed as a way to tell stories of Hindu epics. Kathak

itself means "story" in Sanskrit, and was developed as a dance form in Northern India in 400

BCE as a way for travelers to transmit stories of Hindu epics to each other. It was used as a form

of communication and interaction between each other. As it informs people's interactions, dance is a key part of Indian culture. Furthermore, due to the increasing influence of Islam brought in by the Turkish invasions in the 12th century, Katha has evolved into a dance form that conveys stories of Hinduism and Islam. This flexibility in conveying stories of different religions, is shown by the flexibility, elegance, and grace that the dance form emphasizes. It emphasizes the use of soft yet strong movements, in a way that makes the dancer look like they are floating across stage. On the other hand, Bharatanatyam a dance form originating from South India, is a much more structured, powerful, rigid dance form. It focuses on telling stories strictly of Hindu epics through the emphasis on abhinaya(expressions) and mudras(hand forms). The more structured dance form has maintained its traditional roots and has not evolved as much with other cultural or religious influences. This is reemphasized by the lesser presence of Islam and other religions in South India, and a stricter adherence to Hindu rituals and norms by the people in this region.

Therefore, it is clear than entities like dance, language and religion are key components of Indian culture along with the various customs, festivals, foods, forms of music and styles of dress prevalent. Further, the cultural differences existent between subcultures shows the multidimensionality of culture. Since culture can be the distinct set of shared beliefs, values and behaviors of a family, a business, an industry sector, or a nation, (Stephenson et al, 2010), it is importance to understand the subcultures within any wider culture and how the differences between them may lead to different perspectives of wellbeing.

The concept of culture is helpful in seeking greater understanding of wellbeing because it shows how cultural behaviors, norms and practices affect individuals' activities on a daily basis (Stephenson et al., 2010). Norms may influence repetitive behaviors and show patterns in how

sociocultural factors impact wellbeing. The framework suggests that the impact of culture on individual and national wellbeing can be examined by exploring relationships between cultural norms and the different dimensions of wellbeing. For example, according to research done by the Gallup World Poll in 2012, 10296 observations from Indian citizens about wellbeing, gave interesting insights (Biswas-Diener et al., 2012). Participants answered questions in relation to different aspects of life, from having a running water supply, to being satisfied with personal health. The results showed that Indians suffered from inadequate food, shelter and access to non-subsistence agriculture jobs, but had relatively average levels of quality in life (Biswas-Diener et al., 2012). When analyzing data regarding measures of overall life quality, respondents reported a higher number of positive emotions than negative emotions, indicating a high Feelings Balance Score. Furthermore, the Gallup World Poll surveys also found that while material needs were a factor in overall happiness, social relationships were also important (Biswas-Diener et al., 2012). A qualitative analysis by Camfield and colleagues of observational surveys of women living in rural states, showed insights into the social world and community in India. Women reported that their marriage and relationships with their children, gave them greater happiness than material possessions (Biswas-Diener et al., 2012). This shows how the importance of familial relationships and duties in Indian culture has a positive effect on overall happiness.

Using sociocultural frameworks, I can analyze why it is the case that despite low socioeconomic wellbeing and health, there was still a high sense of overall happiness. With the additional data on the importance of familial ties, I can conjecture that strong familial ties are a key part of Indian culture, and contribute to the creation of more cohesive communities built on trust. Using the idea of social capital, and its impact on wellbeing, I can further say that the

strong communal ties that are a key part of Indian culture increase social capital, which does increase individuals' social wellbeing (Kawachi 1999).

While it seems that sociocultural factors have a positive impact on wellbeing, it is only considering the social sphere of wellbeing. When considering the emotional sphere of wellbeing sociocultural factors seem to have a negative impact. There is an immense lack of mental health resources in India, and a negative stigma associated with mental illness. Thus only 10-12% of people struggling with mental health are willing to seek help. (Live Laugh Love Organization 2018). As seen in Figure 2, results from a survey done by the Live Love Laugh Organization in 2018, show that perception of people with mental illness in India is incredibly negative. Therefore, many people neither seek help, nor acknowledge their mental health problems, which can be detrimental. Using the socio-cultural framework, I can again examine the cultural factors behind this repetitive phenomenon of mental illness being regarded as a disgrace to society.

CHART 2   How would you describe a person with mental illness?

Talk to themselves	56%
Depressed	49%
Retard	47%
Crazy/ mad/ stupid	40%
Irresponsible/ careless	38%
Spaced out/ day-dreamer	36%
Cannot connect with others	34%
Easily distracted	33%
Sadness or grief	32%
Cleans too much	30%
Alzheimer's	29%
Born with a brain defect	26%
Prone to violence	25%

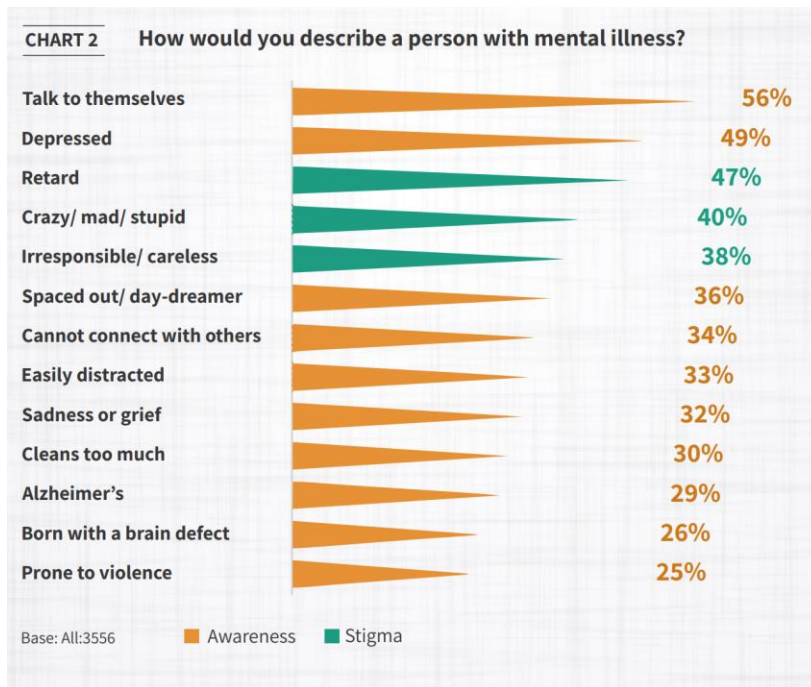Base: All:3556   ■ Awareness   ■ Stigma

Fig 2. A study done by the Live Laugh Love Organization shows the awareness and stigma of mental illness among India's constituents

Going forward, I will continue to research wellbeing of the nation in the 8 different spheres of wellbeing, and use this sociocultural framework to identify what cultural factors may be influencing each individual sphere. This will also call for more in-depth research into Indian cultural norms in the various subcultures of the nation and the history of Indian social culture and systems.

Research Question and Methods

This leads me to ask: How do sociocultural factors affect the wellbeing of India's constituents? India's culture and social structures affect the dimensions of wellbeing in different ways. Therefore, I'd like to answer the question of how India's culture and norms affect the overall wellbeing of its citizens, with culture including religion, spirituality, community, urban vs rural household structures, languages, art, music, dance etc.

The primary method collection tools I'd like to use is that of observations and surveys. There is a significant Indian-American population at UVA, and I could draw on their experiences with culture and wellbeing to inform my research. Specifically sending out surveys asking them to rank their agreement or disagreement with prompts like, "my Indian identity is a key part of my happiness," would help me see how Indian culture affects Indians living outside of India. This would obviously be biased, as Indian-Americans, generally don't have the same cultural experiences as people living in India. They may only be understanding and experiencing the positive components of India culture, and have no knowledge about the negative effects. Another group however, that I could also reach out to, is the International Indian students at UVA. They can provide greater insights into India culture's effect on their personal health and wellbeing.

This may also be a bit skewed, as most international students from India, come from the top 20-30% percent, in terms of socioeconomic status, in the country. Therefore, another resource I could tap into for survey results is that of the family members I have in India. I have strong relationships with family members in rural areas on farms, and others who live in incredibly urbanized cities like that of Mumbai. Asking them and their community members to fill out surveys, could provide greater insight into differences in cultural experiences between urban and rural populations. Doing a comparative evaluation of the results, and analyzing the differences, can help me understand the relative weights of differing social and cultural factors that influence wellbeing.

Conclusion

In conclusion, my technical project will culminate in the creation of an online course to teach US citizens about the importance of the five pillars of the Constitution in unifying our nation and improving our wellbeing. At the moment, we are focusing on finding the ideal online education platform, by performing a gap analysis of differing education technologies. Doing this analysis for one more week, we hope to choose one technology that encompasses all of our requirements most efficiently. We then will move on to in-depth research of the pillars and empowerment methods in education. We want to impart our clients' passion for creating a more unified nation to those who take the course as seamlessly as possible. We will therefore, conduct multiple rounds of testing to ensure that our system meets the needs and desires of our users and our client.

My social project, will culminate in an analysis of the ways that culture affects wellbeing of individuals in India in each of the 8 dimensions. I will first start by conducting research into

India's overarching culture and its 9 subcultures. Doing so will allow me to develop a proper framework and background to properly assess sociocultural factors that affect wellbeing of India's constituents. I will then move on to conduct research into wellbeing in the 8 dimensions among students at UVA from Indian or of Indian origin, and also of family members living in both rural and urban neighborhoods in India. Analyzing how positive or negative the survey responses are for each dimension of wellbeing, will allow me to obtain a better picture of culture's effect on wellbeing.

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