

Studying the Efficacy of Technological Platforms in Creating Empathy

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Abstract - We designed an Empathy Project that walked our users through the life of a sports person in India. The users walked through a text-based game and made difficult choices, similar to the choices made by real sports players in rural India. We surveyed the users, before and after using the project. Users self-reported high levels of empathy and desire to act post using the project. We channelled the user's desire to act to enable them to donate to nonprofit organisations. Finally, we make the case for using technological platforms to create empathy at scale

keywords - empathy, nonprofit, technological platforms, storytelling

I. INTRODUCTION

The Empathy Project is an initiative that was created with the intention to profile incredibly inspiring stories of hope, progress and human achievement. The first rendition of the Empathy Project looked into the trials and tribulations faced by Indian athletes. Deepika Kumari, PT Usha and Kushbir Kaur are amongst the few Indians that have earned a professional career in their respective sport, bringing laurels to the nation under heavily destitute circumstances. This scarcity is something that has been bothering Indians for years and for instance, the recent Olympics had brought up the question - why does India win relatively few medals, despite being one of the most populated countries in the world and amongst the most pre-eminent economies with a GDP of approximately \$2.66 trillion as measured in 2020 [1].

Eventually the answer to that question boiled down to a lack of support and subsequent disregard, whether it was from the government, one's family or the general public as a whole [2]. For instance, a 15 year old Indian Olympian languished in poverty and had to care for her family with the little money that they had despite the success that she had garnered for her nation. Originally, the social justice minister - Gopal Bhargava had promised INR 25,000 for the bronze medals that she had won but ultimately he failed to withhold that promise and the young athlete was constrained to an impoverished position [2]. The Empathy Project delves into a solution for the problem by fostering sensitivity and thereby, collecting assistance for these aspiring individuals.

It takes users on the journey of an Indian sports person through a gamified interface, situating them in the shoes of a young athlete who is obligated to make difficult decisions in the pursuit for success. The development of the project involved significant research to be able to acknowledge the issue at hand and then go on to dispense that information in the form of an interactive story, to increase engagement and thereby develop interest under the assumption that a gamified design would result in such an outcome.

The research was collected amongst openly sourced online information outlets and media records along with the personal experiences of the researcher while the prompts were created with the goal to remain concise and seamlessly convey stories that highlight the gaps in the Indian sports field. The project also includes stories of real life events situated next to the prompts as an attempt to establish ethos and allow users to understand the reality of the matter. Beyond that, the website also comprises of two other elements that are responsible for dictating triumph, which are the chance and will to succeed. The intention with including these components is to be able to provide a more exhaustive insight into the precise impact of certain situations and therefore supply users with a direct objective to pursue in the midst of the game. In order to warrant action in response to potential improvements that the project might have made in inspiring users to support struggling athletes, the website encourages people to volunteer time or money to one of four non profit organisations focused on bettering the lives of Indian sports players.

The Empathy Project provides a narrative that is associated with real events and experiences. Neeraj Chopra, the man who presented India with its first Olympic gold medal in track and field is one whose story is very closely related to the prompts provided in the Empathy Project. Nonetheless, these are the stories that collect little awareness and instead it is the glory and success that is emphasised. Although it is important to celebrate such achievements, one must also acknowledge the gruelling labour that has to be endured in order to succeed, especially for the large population of Indian athletes that are brought up under relatively indigent circumstances. Eventually, the Empathy Project aspires to reduce the lack of awareness with regards to these taxing backstories and instead shed light on the entire journey of an athlete as opposed to the final outcome.

To understand the efficacy of the project, a survey was conducted amongst 60 individuals, provoking them to answer a series of simple questions that began with a prompt to understand their level of knowledge with regards to the issues endured by Indian sportsmen and was then followed by prompts to acknowledge the change in their concern for the matter after going through the Empathy Project. Overall, the survey consisted of both qualitative and quantitative feedback and encouraged candidates to provide suggestions for the improvement of the project. Ultimately, this study discusses the creation of the Empathy Project and similar works along with the results of an online survey in an attempt to recognize the efficiency of technology as a medium for propagating empathy through the use of both primary and secondary sources of data collection.

II.PRIOR RESEARCH

The Empathy Project looks at the role of technology in increasing empathy. There has been limited substantial research in this area. Of special note is “Fear Not”, a 2011 computer-based anti-bullying-programme designed to foster peer intervention. Much like the Empathy Project, Fear Not puts you in the shoes of a student being bullied, and allows you to reflect on how bullying can hurt one's confidence and self-worth [3]. The results of the programme are heartening. The programme was especially successful in converting non-involved children into defenders of students who were being bullied.

I am also deeply inspired by Project Pokerface, a Google internal user empathy campaign that encouraged user-involvement as part of the product development cycle [4]. Although the project's scale (1500 employees across 15 sites) brought about challenges, the program helped Google's global teams break preconceived perceptions, develop new perspectives, and build more empathy for users and confidence in user-centred research.

While both “Fear Not!” and “Pokerface” succeeded, the Empathy Project hopes to take this to the next level. The platform has amassed tens of thousands of unique users, and directed them to support sports players in India. On that account, I am excited to study the impact of such an intervention.

III.METHODOLOGY

The Empathy Project is a platform that outlines the stories of inspiring individuals with the ultimate goal to address a particular cause and spread awareness for issues that garner a lack of recognition. The term ‘empathy’ has been defined by contemporary researchers under two different conventions. The first is known as “affective empathy” and it alludes to the sensations and feelings we experience in response to others' emotions. The second is known as “Cognitive empathy” and it refers to our capacity to identify and understand other people's emotions [5]. In the end, empathy emphasizes on one's ability to acknowledge and share the feelings of those around them. Some scientists have speculated that empathy is determined by mirror neurons, the parts of the brain that respond similarly to observing someone else perform an action as compared to performing the action for ourselves [5]. Ultimately, the first rendition of the Empathy Project focuses on enabling users to take on the role of Indian athletes and act out their actions thereby supplying the means to be faced with a first person experience of the thoughts and feelings that are influenced by their respective lifestyle. In the end, this helps modify the user's behaviour and apathetic disposition. Nonetheless, creating an environment in which the user is allowed to maintain a broad and exhaustive connection with the life of an Indian athlete, either through virtual reality or a virtual simulation, can become quite time-consuming for the participants. Therefore, the Empathy Project is designed as a text-based simulation with the aim to convey a great depth of information while simultaneously sustaining user engagement and reducing the time required to travel through the narrative. The number of prompts in the game range from seven to eleven depending on the choices of the user and consequently take approximately five minutes to complete. Each prompt poses a question in response to an unfortunate incident. The user is then led to select an answer out of two potential courses of action, repeating this procedure until ultimately reaching the end where the user is presented with content that declares whether or not they have been successful in their journey.



Fig. 1 Compilation of screenshots showing choices resulting in failure

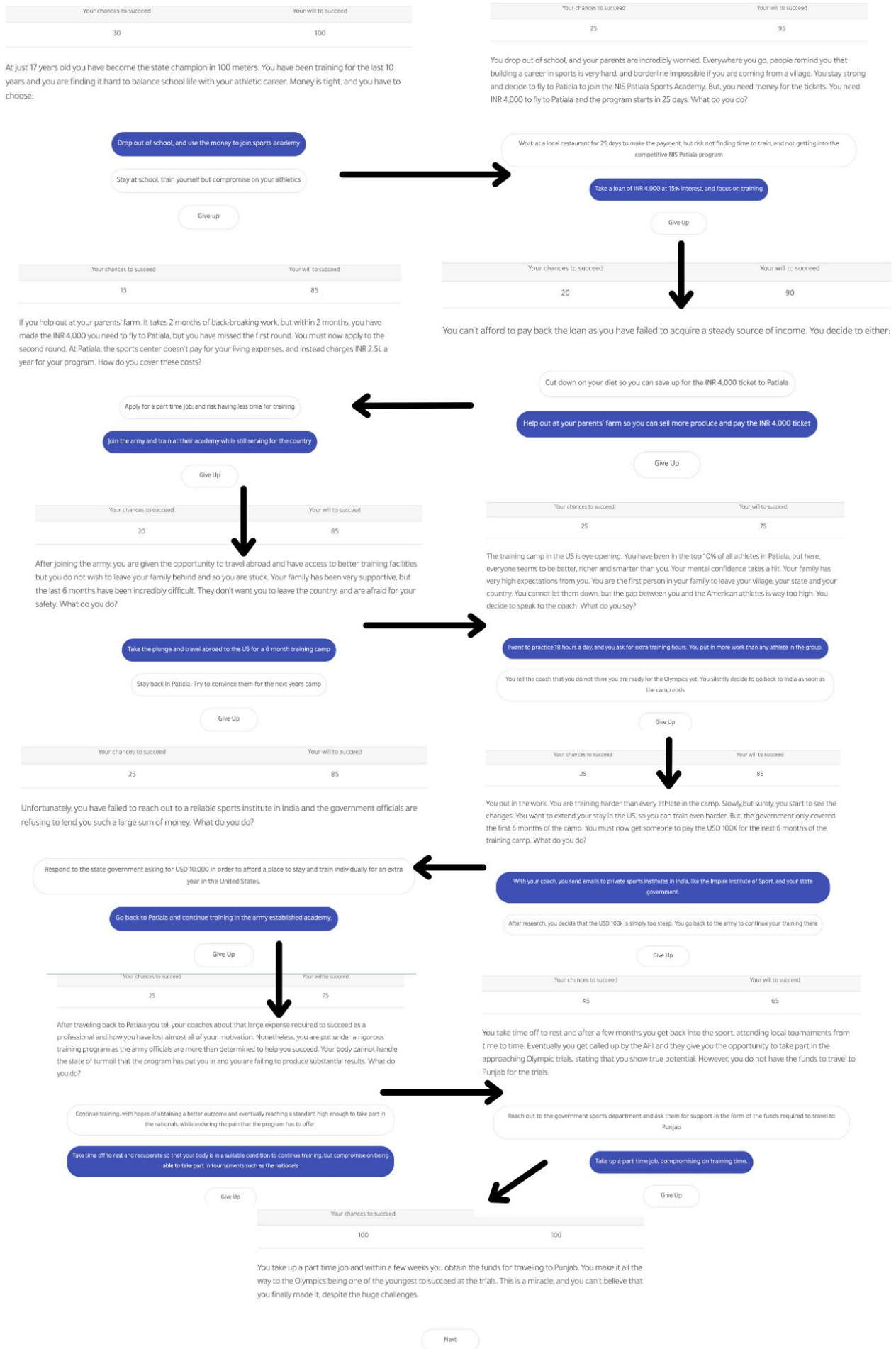


Fig. 2 Compilation of screenshots showing choices resulting in success.

After completing the game, the website guides participants to the final donate page where they are encouraged to donate either time or money to one of four non-profit organisations, striving to support Indian athletes.

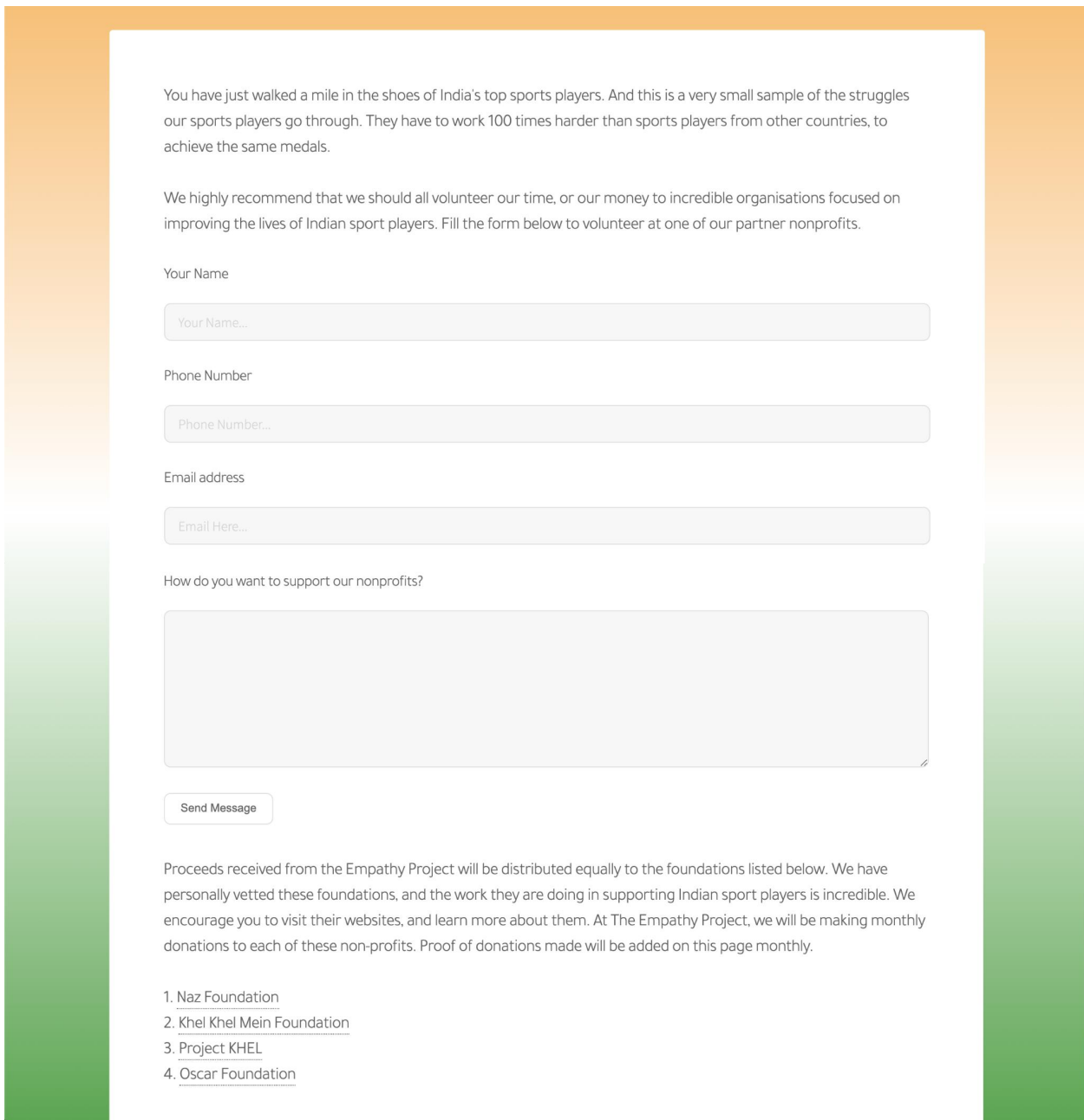


Fig. 3 screenshots of the donate page

The website also includes two additional components, designed to supplement its empathy inducing capacity. The first being the representation of the athlete’s willingness and potential to succeed. These two factors present a direct depiction of the consequences of each act while also assigning a coherent objective for the user to observe. The will to succeed is programmed at 100% while the chances of succeeding are set to 30% at the beginning of the narrative. These values are then modified in response to each action of the participant. Inherently, the main goal for the user would be to increase the chances of succeeding while simultaneously sustaining a substantial level of determination and tenacity. Ultimately, this allows the user to develop an understanding of the difficulty associated with achieving such an outcome and thereby acknowledge the athlete's potential emotional and mental state, having to encounter these events in the real world.

The second key component is the inclusion of real life stories from the journeys of eminent Indian athletes. A few of the prompts are accompanied by a short body of text and an image that outlines the obstacles that various athletes have had to overcome, thereby supplementing the user's apprehension with regards to the reality of the matter and its widespread influence. These texts do not only reinforce the principal purpose of the narrative but also support the evolution of a significant connection between the mentioned athlete and the user.



This former archery champ had represented India in Bangkok, Taiwan and brought home many medals. Yet tragedy struck when her house collapsed in a deluge. She was then forced to sell her archery bow for 50,000 Rs. Her trainer had gifted her the bow which was worth about Rs. 4 lakh. With no financial or logistical support, she eventually quit the sport.

Fig. 4 screenshot of a real life story included in the Empathy Project

Each separate element is included as an attempt to inculcate situated knowledge which refers to the idea that knowledge is most empirical when it is associated with a certain perspective that enhances its credibility. The way in which the Empathy Project exploits this concept is by exposing users to distinct and unorthodox events in which they are able to acknowledge a completely different perspective and build confidence with regards to validity or significance of a particular cause. Nonetheless, in order to understand the potency of the project, a survey was conducted amongst a sample of 60 individuals across a variety of age groups.

IV.RESULTS

The survey consisted of a total of 6 questions which the participant was obligated to answer along with an additional prompt to consider any supplementary feedback that the user may have wished to include outside of the fixed inquisition. The survey primarily analysed the users growth or evolution of empathy after being guided through the website. It began by obtaining an understanding of the level of apathy or disregard that is connected to the issue of insufficient support for Indian athletes and the basis on which such a disposition is built. Overall, the survey aimed to explore the prevalence of the matter at hand and the general success of the Empathy Project in striving to solve it.

On a scale of 1-10, how much do you think you know about what it takes to be a successful sports person in India?
60 responses

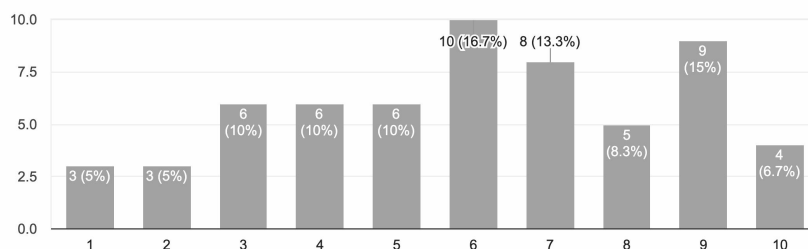


Fig. 5 Bar graph representing data collected from question 1

The bar graph depicted above displays the final results of the first question from the survey which exhibits a relatively diversified outcome. However, it is safe to conclude that the majority of responses were placed on the higher end of the spectrum with exactly 60% of the sample accumulating answers in the range of 6-10. Nonetheless, In order to justify the heterogeneity of the data it is important to address that one of the main influencing factors could have been the variation in terms of the age of the collective sample. Those in the older generation may lack confidence with regards to their knowledge of modern day events and the changes that would have taken place concerning the lives of sports people. What's more is that most contemporary knowledge is distributed across online platforms that tend to be difficult to navigate through for most elders. On the other hand, it would be safe to assume that the participants categorised under generation Z would have a greater grip on matters connected to the modern world especially because of their grasp on present day technology. Having said that, the majority of the survey was distributed amongst millennials and those in generation x. These individuals may represent a more keen propensity to stay up to date and informed about modern issues. Ultimately, alluding to the small yet noticeable

inclination towards a greater apprehension for the current state of sports. In all, it can be concluded that the participants were predominantly well informed of the components required to become a successful sports person. These results would subsequently speak to the assumption that a larger proportion of the population is versed with the problems associated with securing success as an Indian athlete and therefore support these individuals and act with greater sensitivity or at least acknowledge the challenges that they face. However, the results of the following prompt were shown to dispute that hypothesis.

On a scale of 1-10, how would you rank your contribution to helping sportspeople in India?
60 responses

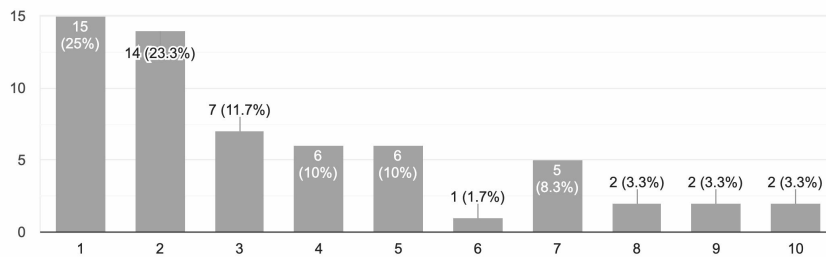


Fig. 6 Bar graph representing data collected from question 2

The data presented in the bar graph clearly displays that the bulk of participants had exhibited a lack of active involvement towards helping sports people in India with exactly 80% of the users devoted to responses in the range of 1-5. In comparison to the results of the previous graph, it is evident that although a larger proportion of the sample is well-versed with the difficulty linked to being a successful Indian athlete, there is little motivation or incentive with which to provide active support or assistance. In other words, this data presents us with the clarity to conclude that there is noticeable apathy for the Indian sports field rather than a lack of awareness or comprehension. Ultimately, this gives way for the Empathy Project to work as a solution for a greatly prevalent cause. Nevertheless, it is also important to address the instances in which those who play a much larger role in the lives of Indian athletes were shown to display similar apathy. For instance, in the 2016 Rio Olympics, one of India's most predominant gymnasts, Dipa Karmakar, was deprived of a physiotherapist as she made her way to Brazil due to the fact that it was 'wasteful'. It was only after she had made it to the finals that the SAI (sports authority of India) had found reason in sending a physiotherapist to accompany Dipa and rushed one to the country immediately [6]. All things considered, one can come to the verdict that even those who are most responsible for providing support to promising Indian athletes are often shown to exhibit distinct passivity and carelessness, thereby alluding to the magnitude of the issue and its widespread residence. On the flip side, The succeeding prompt aimed to explore the reason behind a lack of involvement and further understand the scale of apathy.

Which of these factor(s) have prevented you from helping sportspeople in India?
60 responses

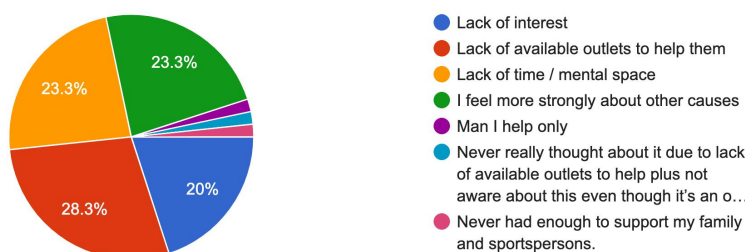


Fig. 7 Pie chart representing data collected from question 3

The pie chart clearly depicts a coalition of four eminent responses, accumulating a total of 94.9% of the final results with the most predominant factor being the deficiency of accessible and suitable outlets through which to provide pertinent aid or assistance. On the other hand, the lack of time and the overall lack of interest along with a stronger devotion towards other relevant causes are the main elements that stand out in leading to a deficit of active involvement. Firstly, the lack of available outlets is an issue that the Empathy Project strives to solve by partnering with 4 befitting non profit organisations, committed to supporting Indian sports players. Secondly, In an interview with CNBC, Arun Navaratna, a well known Indian economist, stated that "Scarce public investible resources have eluded sports (in India). This is further compounded by misallocation, lack of transparency, poor asset management, and an absence of a framework for measuring the impact of public spending" [7]. Naturally, this sheds light on the absence of a coherent mechanism for public contribution through which to sustain Indian

sports thereby. On the other hand, the lack of interest and a stronger devotion towards other causes both allude to the inefficacy of the general public to acknowledge a dire need for change or a significant reason to act in favour of the cause. Ultimately, representing notable apathy and indifference. The former president of IOA, Narayana Ramachandran, admitted that the IOA had not done enough for the athletes. But, he emphasised on the fact that the problem goes much deeper than a shortage of cash or supporting organisations. He believes that “Sport is rarely at the top of anyone’s agenda – and that includes athletes and their families. Sport has always taken a back seat vis a vis education.” [7]. On the contrary, the lack of time and mental space is another significant contributor and one that is hard to argue against. Nonetheless, the Empathy Project is designed such that: rather than rendering stories through a virtual reality or a virtual simulation like most empathy inducing games, the narrative is spread through a text based simulation in order to reduce the time and mental commitment required to complete the game while simultaneously conveying a comprehensive description on the life of a traditional Indian athlete. Lastly, the three remaining options were shown to play a fairly insignificant role, occupying approximately 5.1% of the participants. Thereby, supplying a comparatively insubstantial polarity to be able to draw considerable conclusions. In continuation, the following prompt directed users to progress through the Empathy Project and then answer a question on the basis of its power to instil an exhaustive understanding of the challenges that an Indian sportsperson goes through

You just used The Empathy Project. Did the Empathy Project help you understand the difficulties and challenges a sportsperson in India goes through?
60 responses

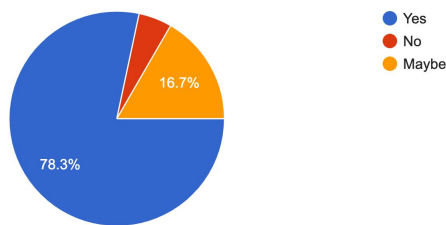


Fig. 8 Pie chart representing data collected from question 4

After walking a mile in the shoes of an Indian sportsperson, the survey prompted users to answer a question on the basis of their new found knowledge concerning the obstacles that an Indian sportsperson has to overcome. The pie chart clearly signifies that the majority of participants had found it to be genuinely effective, with exactly 78.3% answering ‘yes’. Ultimately arriving at the conclusion that the Empathy Project is substantially efficient in inculcating a profound apprehension of the problem at hand and its overall eminence. On the other hand, in order to address the proportion of individuals that did not feel entirely fulfilled with their understanding of the trials and tribulations that an Indian athlete may face, the survey included a prompt to express potential improvements and any suggestions that the participant may have. Nevertheless, before encouraging them to do so, the survey directed participants to estimate the level of influence that the Empathy Project had ensued in inspiring them to foster a greater effort towards supporting the field of sports in India.

On a scale of 1-10, did the Empathy Project inspire you to donate time or money to nonprofits that support sportspeople in India? Please pick 1 if th...<https://abhiveersagar.com/empathy/new/donate.html>
60 responses

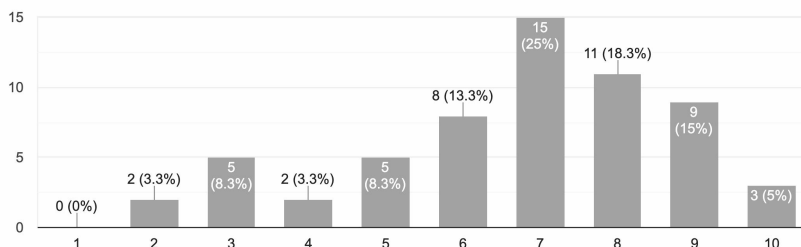


Fig. 9 Bar graph representing data collected from question 5

The data presented above indicates that the majority of responses were allocated in the higher end of the scale, with 76.6% of the answers situated in the range of 6-10. This presents a fairly sizable glimpse on the efficiency of the Empathy Project. Nonetheless, the figure with the most corresponding responses was the number 7. Therefore, suggesting that although the participants were able to empathise to an equitable extent, they did not feel the greatest level of motivation and incentive to be able to classify the project's influence at a 10. For that reason, as mentioned before, the users were prompted to provide suggestions and broad feedback on the project. On the other hand, one must address the occurrence of discrepancies regarding the vast variety of outcomes for each choice and the different influence that they may have on the user. For instance, those who would have failed, might have built a stronger apprehension for the difficulty associated with being an Indian athlete as

opposed to those who may have encountered success. Additionally, the users that would have had to endure a longer chain of events before finally reaching an end to the game, may have experienced a more compelling reinterpretation of the long and seemingly endless distraught that most Indian athletes have to endure. Nevertheless, in order to properly explore the cause for a lack of empathy in some participants, it is important to analyse the results of question 6, which prompted users to provide feedback and judgement.

V.DISCUSSION

In order to supply a well-rounded review of the report, a short summary was formed, including only the most pertinent and applicable responses. The first essential element was the absence of clarity in conveying the exact manner in which individuals can support sports organisations in India and the specific tasks that are of the most benefit to struggling sports persons. Thereby, leading to a deficit of engagement and active interest due to a dearth of understanding.

Secondly, a large number of participants had felt the need for a more audiovisual platform. Although it may have resulted in greater engagement, the aim with developing a text based simulation rather than a virtual reality or virtual simulation was to address the lack of time that individuals may face and provide a programme that is most convenient for the users while simultaneously supplying a comprehensive summary of the hardships affiliated with being an Indian athlete. Nevertheless, the absence of accompanying videos or animations is a factor that could have been addressed without going beyond the time constraint. Therefore, the failure to include greater visual and auditory reinforcement of the ideas represented in the narrative, eventually led to reduced influence and change.

The third most significant component was the difference in the levels of preliminary interest as a few of the participants had pointed out their lack of attraction towards sports and the problems surrounding it. For instance, as represented in figure 6 there was a substantial lack of active support and assistance with just 20% of the responses accumulated on the higher end of the spectrum. Additionally, as represented in figure 5, just 60% of the participants were shown to have a considerable understanding of the distress associated with being an Indian athlete. Therefore, it is reasonable to assume that the final results may have been skewed on the basis of the participants' existing concern or involvement. Ultimately, those who would have already established a comprehensive understanding of the matter may have found it easier to empathise with the athletes. Consequently, an increase in the level of empathy from complete ignorance to substantial apprehension can be regarded as a result that is similar to that of an increase in the level of empathy from considerable acknowledgement to utmost sympathy and awareness. On the contrary, a number of responses had highlighted the potential benefits of including success stories.

For instance, achievement motivation is a social psychology term that describes when individuals are driven, inspired or stimulated by successes or accomplishments [8]. Although viewing others succeed may not have the same effect as succeeding yourself, individuals may still be driven to support sportspeople in India on the basis that witnessing triumph inculcates a sense of hope and optimism, giving them the ability to believe that their contribution can create a largely remarkable impact for a cause that is on the road to redemption. Lastly, many participants had recommended the inclusion of real sports people. In other words, they had suggested to reach out to prominent Indian athletes and urge them to share similar stories from their perspective, either through an interview or a formal address. Ultimately to increase empathy considering that it is a narration of the journey directly from the subject of interest, creating a significantly stronger connection with the user.

VI.CONCLUSION

After conducting a survey amongst 60 participants, the results exhibited a greatly positive outcome. Initially, the first few questions shed light on the notable apprehension for the trials and tribulations that most Indian athletes have to endure and the antithetical lack of contribution towards sportspeople in India. Subsequent to those findings, the answers to the third prompt of the survey had highlighted four major factors that contributed to the lack of active support towards the Indian sports field. Those included a lack of time, greater concern for other matters, a lack of interest and the absence of sufficient outlets through which to provide substantial support. Ultimately, each one of these elements added up to a fundamental understanding of the problem at hand and the potential areas of improvement.

The results of the last few questions brought about the conclusion that the Empathy Project was notably efficient in inducing empathy. The fourth prompt indicated a growth in understanding from 60 to 80% of participants and this was then followed by results that had signified a spike in the level of concern or a genuine will to contribute with a 56.6% increase in the number of participants leaning towards engaging in active support. That being the case, the discussion on the survey looked into the source for a lack of influence on a few participants and the prospective areas of development. This primarily highlighted the need for more of an audiovisual means of communication and the differences in established empathy as a result of varying levels of preliminary interest. The fundamental downsides to providing a text based simulation rather than a more interactive medium such as: virtual reality, meant that it was harder to appeal to the other senses of the user.

Ultimately, this paper emphasises the effects of a text based simulation in developing empathy while also hinting at the efficacy of technology as a means of creating significant connections and lasting affinity. I strongly believe that my work

leads to the assumption that empathy can be effectively induced through technology, amongst individuals of differing interest and concern.

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