

## Can Tech Be Used For Social Good?

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In Silicon Valley, there exists a myth around technology and the notion of “progress.” Silicon Valley justifies its existence by claiming that new innovations in technology contribute to human “progress,” and by its innovative qualities, technology is socially beneficial for society. However, at Stanford’s *CS+Social Good*, we view the social consequences of technologies with a critical eye. We believe that technological innovation is not a panacea to social ailments, but rather a neutral tool that can propagate positive or negative outcomes depending on the circumstances in which technology is developed. When applied critically to certain social problems, technology can help to facilitate significant, positive social change.

We believe that technology does not have intrinsic value; its value lies in its application, which social, political, and economic power structures dictate. Consider nuclear weapons, an often-cited example of a negative technology. In 2013, Soka Gakkai International released the results of an international survey of 2,840 respondents from Australia, Brazil, Britain, Italy, Japan, Malaysia, Mexico, South Korea, and the United States, in which 91.2% of respondents believed that nuclear arms are inhumane and 80.6% would support a treaty banning all nuclear weapons (Soka Gakkai International, 2013). Public opinion overwhelmingly views nuclear weapons as a negative technology, but is it fair to blame the technology itself and not the decision makers who chose to weaponize nuclear power? We believe that nuclear technology was perverted by the politics of the Cold War, which resulted in the weaponization of nuclear technology to satisfy the need for both the United States and USSR to project power and enlist support for their respective ideologies. Likewise, in many other areas, technology is often either blamed or praised for the effects it has on society when, in fact, we should be focusing on the decision-making power structures that directs the use of technology in society.

In Silicon Valley, specifically, we see that the economic incentive structures in place prioritize the development and use of technologies that

can generate profits rather than those that can create impact. Of the thousands of investments that venture capitalists have the opportunity to fund every year, they fund only around 1% along metrics that judge market opportunity, financial projections, competitive advantage, and customer validation (Jacobsohn, 2014). When deciding which technology ventures should be funded, there is rarely a conversation about the ethics, social consequences, and benefits of new technology start-ups. As a result, the vast majority of technology ventures that are given the opportunity to develop are ones that have not been critically vetted in terms of their social impact. Again, technology is a neutral tool, but the Silicon Valley economic structure, which predominantly values bottom-line results, determines how these technologies are applied and used in society.

Furthermore, many technology start-ups and companies often utilize the belief that “technology is inherently good” to claim that they themselves are making a positive difference when, in reality, their underlying motivation is profit generation. Many major technology companies and start-ups, from Snapchat, to Uber, to Zynga, regularly invoke phrases like “changing the world,” “making an impact,” or “disrupting a space” (Packer, 2013). While it is true that such companies might be changing the way we connect and interact, it is disingenuous for them to market themselves as an undoubtedly positive force for good when, in fact, their primary metric for success is financial returns, not impact (impact comes after the fact). Nonetheless, we often buy into these messages because it feeds into the idea that the development and application of new technologies is inevitable and inherently good for society. In Silicon Valley, we often associate past transformative technologies like the personal computer, the Internet, and search engines with new technology start-ups and, as a result, buy into the idea that technology itself has inherent positive worth without critically investigating their effects.

Despite the fact that the technology in Silicon Valley is predominantly motivated by profit generation, there are spaces where technology ventures and nonprofits can critically apply new technology to address important social problems. One example in the social venture space is Pigeon.ly, which makes inmate services affordable and easy to use. They use technology in products to offer cheaper prison phone calls, to send greeting cards and letters, and to share articles and websites with individuals in prison (Pigeonly, n.d.). The co-founders of the company had experiences in the prison system as well, providing them with a unique perspective for how to successfully connect families and loved ones in prison. Pigeon.ly is still a for-profit business, but, compared to other tech start-ups, it is defined, at its core, by a social mission to connect families across the prison divide and judges itself by its performance in that goal.

In addition to the social venture space, many tech nonprofits have also been successful in helping to facilitate social change. One example is SIRUM, a tech nonprofit that uses a platform to allow health facilities,

manufacturers, wholesalers, and pharmacies to donate rather than dispose of unused drugs. SIRUM connects these donors directly to safety-net clinics where such drugs can be used to save lives (SIRUM, n.d.). SIRUM essentially corrects a market failure wherein a surplus of drugs is being produced but not distributed to those who could benefit from them. SIRUM, like Pigeon.ly, dedicates itself to a social mission and its status as a nonprofit allows it to focus directly on social impact metrics. Moreover, SIRUM was developed in a tech nonprofit incubator called FastForward, which incubates a wide array of tech nonprofits addressing issues from education, to environmental degradation, to health access (Fast Forward, n.d.).

Organizations such as Pigeon.ly, SIRUM, and FastForward are proof that there are important avenues where technology can facilitate solutions to a wide variety of social problems. However, despite the existence of this social impact tech space, as Stanford students, we seldom hear about ways to get involved in social impact technology. Partly responsible is the observation that large tech companies, such as Apple, Google, Facebook, and Amazon, dominate the conversation around career planning, while smaller tech social impact organizations cannot afford such a presence on campus. Another observation is that Stanford students, during their undergraduate careers, are rarely encouraged to apply what they learn in their engineering or social science classes to address social problems. Our surveys of this matter suggest that it is hard for students to find the right resources and mentors to embark upon technology social good projects.

We created CS+Social Good to address these problems in the Stanford community. As an organization, we have focused on four main goals in the technology space: building a social-good community, increasing the level of social consciousness in the undergraduate technology culture, providing students with platforms to connect to resources, and developing pathways to social service via industry and non-profit connections.

To accomplish these four goals, we have implemented numerous programs for Stanford students. To develop a tech social good community, we host quarterly mixers for students, professors, and industry leaders to connect on social impact projects and we actively maintain a Facebook page and mailing list to foster discussion. To change the culture and mindset towards technology, we host campus-wide speaker events and bi-weekly discussion sections on social impact topics from educational technologies to technology in philanthropy. To connect students with resources to create impact, we offer a class CS 90SI for students to use web development technologies to help nonprofit partners, resulting in exciting projects. For example, one team is creating a manifesto tracker to ensure politicians in the Delhi government keep their campaign promises. Moreover, our Studio program offers students a chance to build their own social impact tech projects over six months and, in our current batch, we have teams with projects in the fields of healthcare, education, human

rights, and civic engagement. Finally, to develop pathways to social service in tech, we publish interviews with tech and social impact organizations, such as FastForward, through our blog and are organizing a section for CS106X (an introductory CS course) where students can experiment with social impact projects early on in their academic career.

Our belief is that technology itself is a neutral tool. In order for this tool to become a force for positive social impact, we need to construct avenues where students can critically engage with the ethics, consequences, and benefits of various technologies and have a platform to promote the application of technology in ways that benefit society. Technology, in the hands of a dedicated, critically-thinking, and socially-oriented team, has the potential to create immense positive change. At CS+Social Good, we want to make sure that this potential is actualized.

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