

# SOCIAL POLICY

## **Introduction**

Lucinda Platt of the London School of Economics defines social policy as being “concerned with the ways societies across the world meet human needs for security, education, work, health, and wellbeing,” describing this field as “international, interdisciplinary, and applied.” In other words, potentially anything that affects humans could fall under the umbrella of social policy, and thus social policy is made in the interactions between governments, families, the private sector, international organizations, and other entities. To name some examples, these innovations can take the form of public-private partnerships, educational system revisions, and government funding of healthcare research. [1]

## **Background**

Social policy is fundamentally concerned with the provision of resources: accessing healthcare, education, and a good quality of life. Technology can address inequities in these realms and increase efficiency in service delivery. These innovations can spring from a government, a research facility, a private company, the individuals effected – or from some combination of these entities working together.

## **Examples**

### *Healthcare*

Health professionals are integrating new technologies into treatment more rapidly than ever before. These innovations range from revolutionizing organ transplants, to increased data sharing to facilitate more efficient diagnoses and lowered costs to patients, to virtual doctor visits – and beyond! However, no advance is without risk; critics allege that there is a lack of privacy inherent in data sharing, for example, or claim that virtual visits often result in lower quality care. Healthcare technologies can also be applied unevenly and increase already existing health disparities in underserved communities. Despite these potential hazards, current trends in healthcare technology show no sign of slowing down. Governments, which play a large role in funding research, could take these questions of equity into consideration when prioritizing projects. [2]

Though the benefits of healthcare progress enabled by technology are self-evident, skepticism can be merited. Theranos serves as a healthcare-tech cautionary tale. This startup claimed it could conduct full blood tests with a single finger prick, using just 1/1000 of the standard amount of blood necessary for a common blood test. If Theranos had produced this invention, it would have revolutionized the healthcare industry, lowering costs and increasing the efficiency of blood tests. However, after garnering more than \$700 million in venture capital, Theranos ultimately proved to be a scam. The company did not in fact have the technology or capabilities to conduct the blood tests at the level they claimed and committed fraud to hide this fact. Though developing new healthcare technologies is necessary for a better world, Theranos is an Icarus: flying too close to the sun, this start-up overpromised and lied when it couldn't deliver. [3]

However, though caution is necessary, pessimism is unwarranted. The frontiers of healthcare are limitless, thanks to rapidly emerging technologies. The applications of 3D printing are just one example of many. 3D printing has enabled easier construction of custom prosthetics, created 3D printed skin for burn victims, rendered airway splints for babies whose airways are prone to collapsing, and crafted 3D printed casts -- which heal breaks up to 80% more quickly than traditional casts. 3D printing also augments cancer treatment, with scientists recently discovering a biodegradable implant which can cure bone infections and cancer.



Potentially, the field of 3D printing may extend into internal organs, and we may soon see 3D printed lungs, livers, or kidneys. [4]

### *Education*

Technology is shaping the future of education, not only through new technologies and software, but also through restructuring the classroom dynamic and the role of teachers. Inherent in new technologies is a focus on personalization. With artificial intelligence software, students can receive lesson plans that match their abilities. [5]

ALEKS Assessment and LEarning in Knowledge Spaces (ALEKS for short) is an intelligent-tutoring system that may further expand into nationwide K-12 education. In 2010, Hazelwood East High School, an underserved school in Missouri, introduced ALEKS as a pilot program. The school identified incoming freshman who had performed poorly in math and provided them a double block of algebra; first a traditional teacher-led lecture, then a lab with ALEKS. ALEKS diagnosed where students struggled most and prescribed individualized remedies. After five years of integrating ALEKS into the school's infrastructure, the school's algebra-proficiency rate rose, from 6.5 percent in 2010 to 44.8 percent in 2015.

Despite the benefits of these technologies for certain students, it can serve as a distraction for others. An MIT study aiming to assess the impact of computer usage on academic performance analyzed sections of an introductory Economics course that were randomly assigned. Students who did not have access to Internet-enabled devices scored statistically significantly better than the comparison group students ( $g = 0.18$ ). Despite students' reliance on tech as an aid for note taking, it can distract and inhibit the flow of the classroom. [6]

Another failure and risk of implementing tech programs into education is the lack of access across the board. A 2016 report on technology and learning in lower-income families found that of the 23% of families below the median income level, 33% rely on mobile-only Internet access. Among these mobile-only households, 29% say they have hit data limits on their plan in the past year, 24% say their phone cut off in the past year due to a lack of payments, and 21% say too many people share the same phone for them to be able to get the time they need on it. Many teachers in K-12 education assign web-reliant homework, resulting in disparities for students without internet access or the ability to access websites on any device, including their phones. [7]

However, access to technology can also proffer otherwise inaccessible experiences to students. Nearpod, an ed-tech company, has provided a lesson plan management platform for teachers to create interactive lessons with virtual reality field trips in areas of math, science, reading, and writing. Students thus virtually travel the world and augment their learning in a wholly novel way. With the proper grant program, virtual reality field trips in rural and other underserved areas could give students an experience previously available only to the privileged. [8]

### *Poverty*

The United Nations Sustainable Development Goals embrace technology as a means of eradicating poverty. Established in 2016, they are intended to serve as a blueprint for both developed and underdeveloped countries to "banish a whole host of social ills by 2030," with the chief goal being "no poverty." [9]

A number of technologists address poverty. For example, the Stanford Poverty and Technology Lab will be the first lab dedicated solely to developing theories about poverty and crafting accompanying technological solutions. [10]



On the ground, Poverty Stoplight is an app that allows families to take a visual survey to see the details of their poverty, producing a poverty map decision-makers can reference in their outreach, and WeFarm is a free peer-to-peer service that enables farmers to share information and assistance via SMS, without requiring access to internet or leaving the farm. These tools are promising; they provide a means of empowerment for and direct action by individuals living in poverty. [11] [12]

## References

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