



L I M B I T L E S S

LIMBITLESS - A SPECULATIVE DESIGN PROJECT

JULY 2021

**SAMANTHA KRUGER,
RAPHAEL DOUKHAN**



ABSTRACT

Society at present is deeply unaccommodating to people with disabilities. In the labor market, people with disabilities suffer from a lack of accessibility, proper job training, and prejudice. However, assistive technology continues to advance in ways that can alleviate the challenges of an un-accommodating environment. On another note, the acceleration at which society is developing, with an increasingly educated workforce, may result in a lack of skilled workers. We imagine the potential emergence of a society that leverages the needs for more accommodation for the disabled population and the needs of an unbalanced workforce, to work symbiotically, via the “Limbitless” program.

INTRODUCTION

In the United States, a person with a disability is twice as likely to be unemployed as someone without one [5]. This statistic has been replicated in various countries around the world. The Covid-19 crisis has worsened the issue, with one milion disabled workers in the US losing their jobs [9].

A workplace disability is any impairment that requires some form of accommodation by an employer in order for an employee to succeed in their position. Despite the fact that disabilities are complex and varied in nature, many of them fall into one of the following categories: physical, mental health, unseen disabilities.

People with disabilities suffer from discriminaiton and social prejudice. It affects them in all areas of their lives, and specifically holds them back in the areas of work and education. Teachers often invest

less in them, and undermine their capabilities. By the time they reach adulthood and are ready to enter the workforce, it can be hard or nearly impossible to compete in a world that does not accommodate their needs. There is both a lack of workplace accommodation, accessibility, and proper training tailored to individuals' needs.

Even when people with disabilities are employed, ableism affects the growth prospects and creates income inequality. Workers with severe disabilities make around \$1,000 less at their full-time jobs than their counterparts without disabilities do [4]. Employers that claim to have no bias, sometimes perceive potential candidates with disabilities as being less capable.

The need is clear, there are obvious gaps in how accepting and accommodating society is to disabilities, and how far they need to go to achieve a sense of equality.

RESEARCH OBJECTIVES

The research objectives are to explore connection between unemployment amongst the disabled community and lack of skilled labor in the workforce. We utilize historical references, unemployment statistics, and social analysis.

RESEARCH BACKGROUND

For decades, the systematic exclusion of people labeled as "disabled" from mainstream society has attracted increasing political attention within and between nation-states. The general response has been policies clustered around notions of "care" and social assistance with additional programs to bring people with disabilities into paid work. But while there has been some improvement in the employment situation for people with disabilities in some parts of the world, in most countries, unemployment, poverty, and dependency are everyday experiences for the overwhelming majority of people with disabilities [3]. In addition, approximately 2 to 3 percent of disabilities are present at birth, while the remainder is acquired over the lifetime [8]. Indeed, estimations suggest that more than 1 billion people (about 15 percent of the world's population) suffer from "disability" [12].

It is now widely recognized that people with disabilities are disproportionately disadvantaged in the labor market. Various studies from official and unofficial sources consistently show that people with disabilities are much more likely to be unemployed and/or underemployed than non-disabled peers [7].

In most Western societies, since at least the 18th century, the meaning and organization of work have been organized around a particular set of values and principles: the pursuit and maximization of profit and competition among individual workers. Both effectively disadvantage and disable people with any form of disability. But when work is organized around a different set of principles such as social necessity and interdependence, people with disabilities are included rather than excluded from the workplace. For example, during the 1939/45 conflict, previously excluded groups such as women and people with disabilities were drafted into the workforce at various levels by warring countries to assist in the war effort. Immediately after the war ended, many government efforts were made to maintain this situation because of the "social obligation" [7] felt toward these workers. But subsequently, government priorities changed, and labor market policies reverted to pre-war practices [1].

SPECULATIVE RESEARCH

Be inspired by collage

To find inspiration, we made two collages. The first one was an illustrating metaphor of the famous Einstein's quote: *"If you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid."* This first collage allowed us to think about the paradigm of the society we would later imagine in this project: equality for all.

For the second collage, we looked for an idea to close the gap between people with and without disabilities in employment. We imagined a place called "Disability Depot," where people with disabilities purchase advanced assistive technology and prosthetics to give them the opportunities and advantages they need in the job market. Even if this idea evolved over time, it was the basis of our project. Our second collage is an advertisement for the Disability Depot company.



Fig.1 - First collage. *"If you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid"*. A. Einstein.

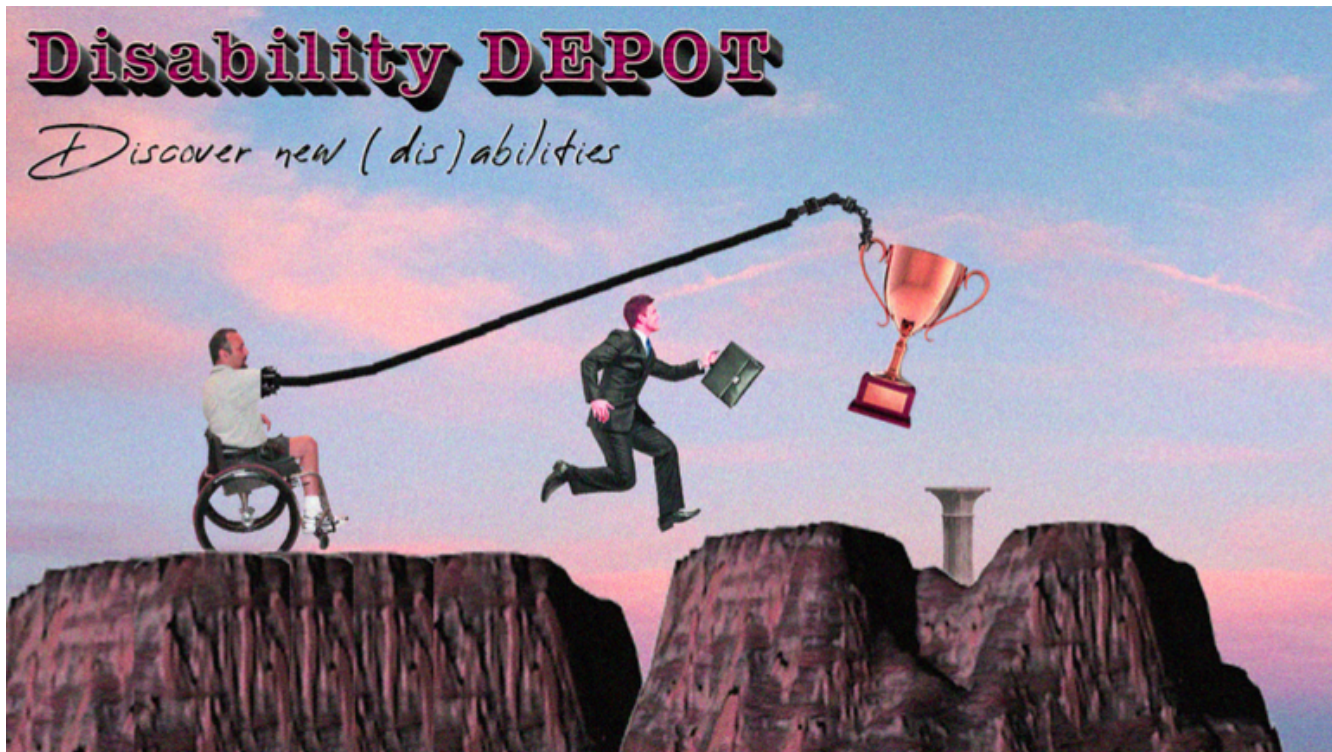


Fig.2 - Second collage. An advertisement for the Disability Depot company.

Speculative Society

The society we propose is a highly futuristic world, with a highly educated and talented population. As a consequence, a majority of the population competes for the top professions, such as doctors, lawyers, software developers, and scientists.

There is a shortage of employees in less desirable fields, such as plumbers, electricians, construction workers, and other skilled working jobs. In such a world, disabled people are severely disadvantaged, because they cannot compete for the top roles, and do not have the mobility and full body functioning that skilled workers need.

Speculative Design Proposal

We propose creating the “Limibitless” program, to cater to the needs of this society. People with disabilities receive access to the Limbitless program when they turn 18. It is a government funded program that offers state of the art body extensions/ prosthetics that are job specific, via an ecommerce website (Fig.3). Limbitless claims to collect data on every individual, to create a perfect “job matching” algorithm based on personal skills and aptitude. However, in reality, this “matching” is created based on societal needs to fill specific roles. Individuals can view their options for body extensions based on their designated profession.

Specialist doctors (designated by the government) diagnose an individual’s Disability Index (DI) based on various scales according to the body part/body system impaired. They diagnose their dysfunctioning on scales 1-100. The more disabled an individual is, the higher the score they receive.

An individual’s DI qualifies them for a certain number of Limbits, the currency used to purchase body augmenting add-ons. The higher the DI, the higher the monthly allowance for Limbits. For example, an individual who is nearsighted and in need of glasses would only receive 20 Limbits monthly to help alleviate them of their mild disability. However, if an individual was completely blind, they would receive as much as 300 Limbits monthly, to compensate for their severe disadvantage, and to have access to constantly upgrade to the latest assistive technology.

Disabled individuals gain a unique edge in the workforce, in exchange for their government service (their labor). They receive new opportunities, and ascend in socioeconomic status, and are utterly unaware as to how their fates were determined.

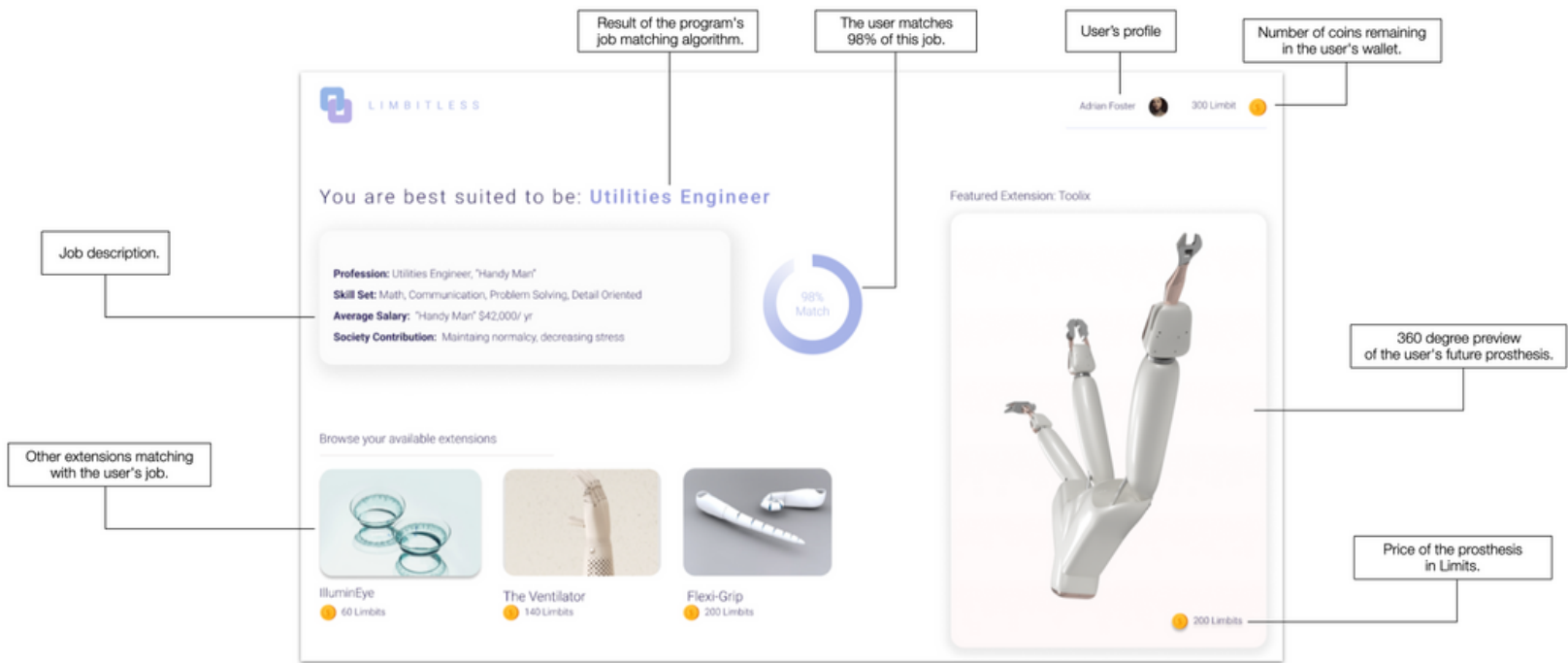


Fig.3 - Explanatory diagram of the Limbitless e-commerce website.

Speculative Spectrum

On a spectrum from democratic to authoritarian (Fig.4), this society falls into the Authorian category, as the government is highly powerful and controlling. The government essentially takes away free will by dictating what disabled people will do with their.

However, since the government is providing very expensive high tech “handouts” to create more opportunities for disabled people, it also reflects more left leaning, (social investing) politics.

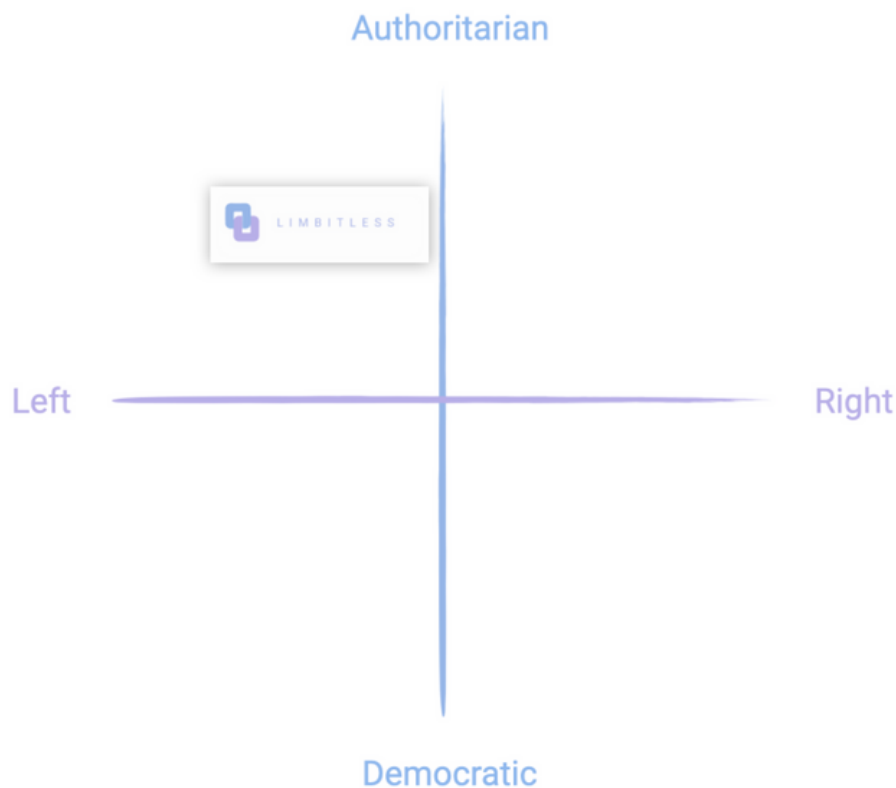


Fig.4 - Speculative spectrum of the society adopting the Limbitless program.

Diegetic Prototype video

A propaganda effort by the government, to encourage participation [6].

Play video



Discussion

The Limbitless society is a speculative design. Our goal is not to solve unemployment among the disabled but rather to present the potential repercussions that such a program can have on our society.

The government uses the cause of unemployment for people with disabilities to solve a more underground problem: the unequal distribution of jobs in our society. Indeed, thanks to the internet and unlimited access to information, we observe an intellectual elevation of our society. The labor force in complex and mechanical jobs is, therefore, in lesser supply. Even if robots have solved a part of this problem by replacing a majority of the automated jobs, some other unattractive jobs still require the presence of humans to be done. The Limbitless program not only offers users jobs that "fits" them, but the algorithm is also updated according to societal needs. Thus the government distributes and harmonizes the job offers so that there is no lack of workers in a field.

Such a program can lead to unaccounted for consequences. Since the government controls job offers instead of supply and demand, some jobs that do not directly affect society, but have implicit and long-term effects, may disappear. For example, art may not be the primary need of a government, even if it has an important impact on our society [10]. Artistic professions may then gradually disappear because of a rare proposal of creative jobs on the Limbitless platform. Even worse, the government could control art by selecting the people who will practice an artistic profession.

As this program "hands out" opportunities, it also raises a black market potential. There would likely be a shift in the status quo of disabled people in society, as they become top earners in the field, thanks to Limbitless. Some non-disabled people may go so far as to mutilate themselves to profit off the program. So called "free loaders" or underprivileged populations are most likely to enter this blackmarket. It can become easier to self mutilate than find a job off of personal merit, as self mutilation guarantees work.

Conclusion

The speculative concept for the Limbitless program attempts to answer to the needs of the disabled community; to guarantee them employment, and grant them biology defying skills. However, it is granted at the cost of giving one's government service, the freedom to choose one's work. This society's attempt to balance the workforce, while controlling it, and inevitably creates new deeper conflicts, while attempting to solve those on the surface.

References

- [1] Barnes Colin (1991), Disabled People in Britain and Discrimination: A Case for Anti-discrimination Legislation, C. Hurst & Co. Publishers
- [2] Beck Ulrich (2000), The Brave New World of Work, SAGE Publications Ltd
- [3] Groce Nora, Kett Maria, Lang Raymond, Trani Jean-François (2011), Disability and Poverty: the need for a more nuanced understanding of implications for development policy and practice. Third World Quarterly
- [4] Hounis Anna Marie (2018), I face ableism in the workplace: What I wish my company did differently from <https://fairygodboss.com/articles/i-face-ableism-in-the-workplace-and-here-s-what-i-wish-my-company-did-differently>
- [5] Kim Sarah (2020), The Disappointing Truth About Employment Climate For Disabled Workers from <https://www.forbes.com/sites/sarahkim/2020/02/25/employment-statistics-disabled-workers/?sh=2a859a236492>
- [6] Kruger Samantha, Doukhan Raphael, Limbitless propaganda video, from <https://www.youtube.com/watch?v=Y7dvondWd58&list=UULo8xcMoCcg4jWKAX7h1SuQ&index=4>
- [7] OECD (2010), Sickness, Disability and Work: Breaking the Barriers - A Synthesis of Findings across OECD Countries

[8] Priestley Mark (2003), Disability: A Life Course Approach.

[9] Smith Allen (2020), A Million People with Disabilities Have Lost Jobs During the Pandemic from <https://www.shrm.org/resourcesandtools/legal-and-compliance/employment-law/pages/coronavirus-unemployment-people-with-disabilities.aspx>

[10] Sung HeeKyung (2015), The Influence and Role of Arts on Community Well-being, Arizona State University

[11] Thornton Patricia, Lunt Neil (1995), Employment policies for disabled people in eighteen countries : a review. University Of York, Social Policy Research Unit

[12] World report on disability (2011), from https://www.who.int/disabilities/world_report/2011/report.pdf