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# How Did Stanford Continue to Foster Growth in Silicon Valley during the Early 2000s?

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Abstract:- This research paper examines the symbiotic relationship between the Silicon Valley and Stanford University and how it has affected the startup scene during the early 2000s in San Francisco Bay. Furthermore, a historical analysis of Stanford and Silicon Valley focuses on the deepened relationship these two entities have set up. Additionally, many companies that started out of the Silicon Valley that changes the world will be named.

Lastly, motivations and future directions of the Valley and Stanford will be explained. The rise of massive open course ware (MOOCs) by universities such as Harvard and MIT send knowledge at no cost and might change the Valley for the time to come.

### I. INTRODUCTION

What do influential companies like Nike, NVIDIA, Netflix, Google, Hewlett-Packard (HP) and Cisco Systems have in common?<sup>1</sup> Besides their estimated \$1.4 billion valuation<sup>2</sup>, these companies have been found and scaled by Stanford alumni near or in Silicon Valley, California.<sup>3</sup> These two factors still drive Stanford students and alumni to produce more companies than any university<sup>4</sup>. However, individual Stanford alumni managed not just by founding companies to change the way we live but also by investing to create one of the largest VC and entrepreneurial networks in the world<sup>5</sup>. Investing in companies such as Palantir which supposedly helped find the location of Osama Bin Laden<sup>6</sup> and OpenAI creating the first ever accessible LLM model for mankind<sup>7</sup>. Besides, some alumni have achieved individually a noteworthy reputation in politics like German-born billionaire Peter Thiel who ran the presidential campaign for Donald Trump in 2016<sup>8</sup> or SpaceX-founder and billionaire Elon Musk who preserved communications of Ukraine's

military through his satellites during the Russian-Ukrainian war.<sup>9</sup>

It is tempting to conclude that the symbiotic relationship between Stanford University and Silicon Valley is enough to attract world-class talent and inspire them to start companies worth millions if not billions and influence the world. But how can this phenomenon be explained? What does Stanford do differently than other universities to foster an entrepreneurial environment that uses the resources of Silicon Valley to its advantage? Why do future entrepreneurs choose to attend Stanford of all prestigious universities? And is Silicon Valley nearby of Stanford just a coincidence?

This research paper will try to explain how Stanford can build multi-billion-dollar companies and how Silicon Valley plays an important role in the process. Specifically, this paper will concentrate on the early 2000s of Silicon Valley and its relationship to Stanford during this time frame. The impact of the American Dream and college admission processes will highlight the difficulties of founding companies in Silicon Valley. Furthermore, this paper will explain the history of Stanford and Silicon Valley and how they persisted over decades. A conclusion will answer the initial question and draw future outlooks for the startup culture at Stanford and Silicon Valley for the years to come. Lastly, the motivation behind writing this paper will be explained.

## II. THE FOUNDATION OF THE STARTUP CULTURE: THE AMERICAN DREAM

The American Dream describes the possibility of achieving success measured by one's standards.<sup>11</sup> This ethos emphasizes equality towards everyone and holds a promise that everyone who works hard and takes risks can achieve their goals in the United States of America.<sup>12</sup> First coined by James Truslow Adams, the American Dream originally

<sup>&</sup>lt;sup>1</sup> Cf.. An Inside Look At Stanford's \$2.7 Trillion Turbo-Charged Money Machine | Inc.com (20.04.2024)

<sup>&</sup>lt;sup>2</sup> Cf.. An Inside Look At Stanford's \$2.7 Trillion Turbo-Charged Money Machine | Inc.com (21.04.2024)

<sup>&</sup>lt;sup>3</sup> Cf.. Study Reports Stanford Alumni Create Nearly \$3 trillion in Economic Impact | Stanford University School of Engineering (21.04.2024)

 <sup>&</sup>lt;sup>4</sup> Cf.. Stanford, Harvard, MIT Still Top The List Of Schools Producing Funded Founders (crunchbase.com) (21.04.2024)
<sup>5</sup>Cf. How Y Combinator Changed the World | WIRED (1.05.2024)

<sup>&</sup>lt;sup>6</sup>Cf. How A 'Deviant' Philosopher Built Palantir, A CIA-Funded Data-Mining Juggernaut (forbes.com) (1.05.2024)

<sup>&</sup>lt;sup>7</sup>Cf. OpenAI | Y Combinator (1.05.2024)

<sup>&</sup>lt;sup>8</sup>Cf. Trump Donor Peter Thiel Backs Down: 'A Lot Of Things I Got Wrong' | HuffPost Latest News (2.05.2024)

<sup>&</sup>lt;sup>9</sup>Cf. How Elon Musk's satellites have saved Ukraine and changed warfare (economist.com) (2.05.2024)

<sup>&</sup>lt;sup>10</sup>Cf. A new student's guide to Stanford's entrepreneurial ecosystem, part 2 (stanforddaily.com) (20.04.2024)

<sup>&</sup>lt;sup>11</sup>Cf. What Is the American Dream? Examples and How to Measure It (investopedia.com) (21.04.2024)

<sup>&</sup>lt;sup>12</sup>Cf. What Is the American Dream? Examples and How to Measure It (investopedia.com) (22.04.2024)

described the United States as a land of opportunities for early settlers who came from Europe for various reasons such as tyranny or persecution<sup>13</sup>. Over time the American Dream changed through the post-World War II era to be an aspiration to own property<sup>14</sup> and today, to pursue an idea in the form of a startup<sup>15</sup>. However, unequal income distributions dampen the promise of the American Dream. <sup>16</sup> This effect can be seen in the admission process of prestigious universities like Harvard, Yale, Dartmouth, and Stanford where the wealth of a student determines his chances of acceptance significantly. <sup>17</sup> The place where future entrepreneurs meet seems to be restricted to the wealthy and influential students<sup>18</sup>.

## III. STANFORD – THE PLACE WHERE FUTURE ENTREPRENEURS MEET?

Stanford University was founded almost 150 years ago with a mission to contribute to society through its academic courses and students. <sup>19</sup> The founders Leland and Jane Stanford founded the university in honor of their deceased child Leland Jr. <sup>20</sup> Today, the prestigious university has more than 120 research institutes with an enrollment exceeding 16,000 students, faculty members, and research staff<sup>21</sup>.

What makes Stanford stand out from most universities is their low acceptance rate: Just 3.68% for the class of 2026.<sup>22</sup> The university justifies its selectiveness by offering its students a strengthened interdisciplinary focus, exceptional faculty, short introductions into other study fields, and an environment beneficial for future startup founders.<sup>23</sup> Programs for future founders at Stanford include ones sponsored by Stanford or created by alumni: Foxhog Ventures Corp., Stanford Technology Ventures Program and Cardinal Futures are a few examples of active incubators and investors at Stanford.<sup>24</sup> Additionally, to the financial

<sup>13</sup>Cf. American Dream | Definition, Examples, & In Literature | Britannica (21.04.2024)

resources founders can use at Stanford, they are provided with mentorship programs and networking opportunities that are held after finishing a cohort.<sup>25</sup> Meeting like-minded people happens through these programs.<sup>26</sup> For instance, the founders of Instagram, Snapchat, and Google met through similar programs.<sup>27</sup>

While Stanford students have lots of resources to choose from to start their company, they can use Silicon Valley's resources as well. Their geographical closeness<sup>28</sup> brings advantages that are unique to Stanford and Silicon Valley. However, to understand the symbiotic relationship, it is vital to understand the creation and establishment of Silicon Valley. But before students can get access to the resources this symbiotic relationship has to offer; they first must attend Stanford.

## A. Admission Process at Stanford

The admission process at Stanford revolves around understanding the potential student very well.<sup>29</sup> Stanford prides itself on its holistic application process which not only takes high school grades into account but extracurriculars, standardized tests, and intellectual curiosity.<sup>30</sup> While it is evident that Stanford requires a high GPA or grade point average<sup>31</sup>, it does not state a minimum GPA.<sup>32</sup> Apart from school grades, the admission process takes intellectual curiosity into special account: Every student wishing to attend Stanford has to write three short essays.<sup>33</sup> These can be writing tasks to portray oneself and one's life experiences and a note to a future roommate.

As stated, Stanford tries to conduct a holistic approach: Affirmative action which aims to help underrepresented students get into top universities disfavors certain races and ethnicities such as Asians from getting into universities like

<sup>&</sup>lt;sup>14</sup>Cf. The New and Improved American Dream | Psychology Today (21.04.2024)

 $<sup>^{15}\</sup>text{Cf.}$  Startups and The American Dream  $\mid$  Built In Chicago (21.04.2024)

<sup>&</sup>lt;sup>16</sup>Cf. Is the American Dream Still Attainable? — EMORY ECONOMICS REVIEW

<sup>&</sup>lt;sup>17</sup>Cf. Study of Elite College Admissions Data Suggests Being Very Rich Is Its Own Qualification - The New York Times (nytimes.com) (21.04.2024)

<sup>&</sup>lt;sup>18</sup>Cf. Do top colleges favor applicants who are extremely wealthy? (insidehighered.com) (21.04.2024)

<sup>&</sup>lt;sup>19</sup>Cf. A Societal Mission – Stanford University (21.04.2024) <sup>20</sup>Cf. Stanford University | Location, Enrollment, & Notable Alumni | Britannica (21.04.2024)

<sup>&</sup>lt;sup>21</sup> Cf. Stanford University | Location, Enrollment, & Notable Alumni | Britannica (22.04.2024)

<sup>&</sup>lt;sup>22</sup>Cf. Acceptance rate drops to 3.68%, majority enrolled are non-white students (stanforddaily.com) (22.04.2024)

<sup>&</sup>lt;sup>23</sup>Cf. Why Choose Stanford University Among Ivy League Schools? | AdmissionSight (22.04.2024)

<sup>&</sup>lt;sup>24</sup>Cf. Top 3 Accelerators and Incubators in Stanford in 2024 (failory.com) (22.04.2024)

<sup>&</sup>lt;sup>25</sup>Cf. A new student's guide to Stanford's entrepreneurial ecosystem, part 2 (stanforddaily.com)

<sup>&</sup>lt;sup>26</sup>Cf.. The billionaire factory: Why Stanford University produces so many celebrated web entrepreneurs | The Independent | The Independent (22.04.2024)

<sup>&</sup>lt;sup>27</sup>Cf. The billionaire factory: Why Stanford University produces so many celebrated web entrepreneurs | The Independent | The Independent (23.04.2024)

<sup>&</sup>lt;sup>28</sup>Cf.https://www.bing.com/maps?&mepi=13~Directions~D efault~Direction\_Main\_Route&ty=0&rtp=pos.37.37749862 6708984 -

<sup>122.06749725341797</sup>\_\_Silicon%20Valley\_\_s\_~pos.37.427 955627441406\_-

<sup>122.17184448242188</sup>\_\_Stanford%20University\_\_e\_&mode =d&v=2&sV=1&FORM=SNAPST (23.04.2024)

 $<sup>^{29}</sup>$   $^{28}$   $^{30}$   $^{31}$  Cf. Holistic Admission : Stanford University (1.05.2024)

<sup>&</sup>lt;sup>31</sup> What is GPA? How is it calculated? What is the highest? (timeshighereducation.com) (1.05.2024)

Stanford.<sup>34</sup> Depending on the student's ethnicity, it can become a drawback in their college application if they identify as a certain race.<sup>35</sup> Moreover, the option to apply earlier for top universities increases the chances of acceptance.<sup>36</sup> This is bound with costs that many low-income students cannot afford and therefore decrease their chances of getting into their dream college.<sup>37</sup>

With universities being test-optional meaning they will not take standardized tests such as the SAT or ACT into consideration, many students lack the certainty to be accepted to go into college.<sup>38</sup> As these tests showed that students were fitting candidates, universities now rely on extracurriculars and national awards to decide who to accept<sup>39</sup>. These parts of the application depend on how many financial resources an applicant can have for supposedly interesting activities.<sup>40</sup>

It can be concluded that applying to college as a low-income student presents difficulties that middle-class and high-income students do not have. Certainly, school grades can be improved upon one's dedication and extracurriculars can be found without a heavy financial investment. However, standardized test scores show deep inequality within the American school systems showing that the higher the income of a student's parents, the higher the estimated score will be. 41

## IV. SILICON VALLEY – HUMANITY'S BIRTHPLACE

Silicon Valley is an industrial region in the south of San Francisco Bay with its "[...] intellectual centre at Palo Alto,

home of Stanford University."<sup>42</sup> The name is derived from the concentration of the electronic and computational revolution that sparked up in the mid-20<sup>th</sup> century.<sup>43</sup> Now, Silicon Valley shifted its focus from manufacturing computers to software development and research.<sup>44</sup> Nevertheless, the valley is remembered for its importance during the Internet and the digital age.<sup>45</sup>

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Before Silicon Valley became important for the digital economy, it was dominated by agriculture and its universities like Stanford were no important players in cutting-edge research<sup>46</sup>. Electrical engineer Frederick E. Terman who was a graduate of MIT noticed that MIT actively involved students in industry branches and conducted research through their placements. 47 When Terman returned to Stanford to join their faculty in 1925, he observed the lack of Stanford's engineering department which focused only on electrical power engineering. 48 He was determined to turn Stanford into an important research center for radio and communications and encouraged students to build their companies near Stanford<sup>49</sup>. These companies turned out to be HP and Litton Industries.Inc.<sup>50</sup> Furthermore, Terman invested in these startups showing his aspiration to bring the university closer to the industry nearby<sup>51</sup>.

After World War II ended, Terman focused on attracting high-tech companies. Through his leasing offers, he was able to unite industry and academia into a miniature of what Silicon Valley was yet to become: industry leaders taught at Stanford and companies hired the students. <sup>52</sup> The rising popularity of the valley attracted more corporations and

<sup>&</sup>lt;sup>34</sup> <sup>33</sup> Cf. The Ivy League battles an assault on its admissions policies (ft.com) (1.05.2024)

 $<sup>^{36\ 35\ 36\ 37\ 38}</sup>$  Cf. Opinion | 2024 Was the Year That Broke College Admissions - The New York Times (nytimes.com) (2.05.2024)

<sup>&</sup>lt;sup>41</sup>Cf. New SAT Data Highlights the Deep Inequality at the Heart of American Education - The New York Times (nytimes.com) (2.05.2024)

<sup>&</sup>lt;sup>42</sup>Silicon Valley | Tech Hub, California, USA | Britannica (23.04.2023)

<sup>&</sup>lt;sup>43</sup> <sup>44</sup> Cf. Silicon Valley | Tech Hub, California, USA | Britannica (23.04.2024)

<sup>&</sup>lt;sup>45</sup>Cf. Silicon Valley | Tech Hub, California, USA | Britannica (25.04.2024)

startups that found it easy to hire staff, avoid bureaucratic difficulties, and find investors in a short amount of time.<sup>53</sup>

The Silicon Valley was born. Although it did not reach its height comparable to the early 2000s, it began to play the role intended by Terman. Bringing together entrepreneurs, students, and an environment for startups and industry leaders, it established the foundations of companies like Facebook, LinkedIn, and many more.54

## A. The Silicon Valley During the Early 2000s

Companies such as "[...] Atari, Apple, and Oracle were all founded in the area in the 1980s, [...]"55 making Silicon Valley the center of the computer industry. eBay and Yahoo are some examples that followed the 1980s companies with Facebook, Tesla, and Uber joining them in the early decade.<sup>56</sup> This rise in technological advances and founders attracted more interest from investors in the valley. During the 1990s and the early 2000s, the Internet was commercialized leading to the high valuation of companies in Silicon Valley and all over the US.57 The most sought-after companies were "dotcom" 58 companies staggering their value through market speculation, investment surpluses, and overconfidence in the market. The Nasdaq, the stock index for technological companies, rose as a result up to 400% from 1995 to 2000 and companies going public on the stock market gained high valuation after days.<sup>59</sup>

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These volatile investments led to the dot-com bubble in March 2000.60 Most tech startups went bankrupt; the public lost their investments and few companies that have been established like Uber and Amazon survived the dot-com bubble.61 Nevertheless, the dotcom bubble proved to be useful in laying the groundwork for telecommunication: "[...] the excess of fiber in the years after collapse and the severe overcapacity in bandwidth for Internet usage [...]"62 lead to a decrease in the cost of using fiber for telecommunicate technologies and internet usage.

After the dot-com bubble, Silicon Valley took this crisis as a warning and shifted its focus to more practical technologies while diversifying its workforce at the same time. 63 After all, only 48% of startups survived the bubble burst.64

### HOW DID STANFORD CONTINUE TO V. FOSTER GROWTH IN SILICON VALLEY **DURING THE EARLY 2000S?**

Stanford has provided Silicon Valley with the most employees to be hired by tech firms and with the most founders over the last 14 years. Stanford also owned property worth \$19.7 billion in 2018 making it the majority holder of property in the area. 66 With the owned real estate, Stanford can lease their homes to top talent under the market price who otherwise would have not joined Stanford as a faculty member or as a graduate student.<sup>67</sup> The downside of

<sup>46 47 48 49 50 51 52 53 54</sup>Cf. Silicon Valley - Tech Hub, Innovation, Growth | Britannica (2.05.2024)

<sup>&</sup>lt;sup>55</sup>History of Silicon Valley in One Animated Timeline (businessinsider.com) (3.05.2024)

<sup>&</sup>lt;sup>56</sup>Cf. History of Silicon Valley in One Animated Timeline (businessinsider.com) (3.05.2024)

<sup>57 58 59 60 61</sup> Cf. Dot-com Bubble Explained | Story of 1995-2000 Stock Market (finbold.com) (3.05.2024)

<sup>62</sup> Dot-com Bubble Explained | Story of 1995-2000 Stock Market (finbold.com) (3.05.2024)

<sup>63</sup> Silicon Valley: Dotcom Bubble: Lessons from Silicon Valley's Rise and Fall - FasterCapital (4.05.2024)

<sup>&</sup>lt;sup>64</sup>Cf. The Dot-Com Bubble Burst and the Companies that Survived | Mental Itch (4.05.2024)

<sup>65 66 67 68</sup> Cf. Stanford and Silicon Valley: Storied past, uncertain future (stanforddaily.com) (8.05.2024)

Stanford owning a large share of real estate in its area is the negative effect on the local community which is not able to use a wider pool for their housing since Stanford owns it all.<sup>68</sup> However, it is hard to deny the positive effect of attracting highly qualified employees who enrich the economy through their ideas through Stanford's housing programs.

The way Silicon Valley operates which is by turning ideas fast into profitable firms gives the area a disproportional advantage in attracting founders.<sup>69</sup> Comparable areas might have the same scientific breakthroughs and resources, but what differentiates Silicon Valley from other startup hubs is the support from the government and its founding-friendly legislation.<sup>70</sup> Extensive research and world-class facilities make it possible for researchers to establish companies fast. In the early 2000s, approximately 5000 companies founded by Stanford alumni have been traced back to this intersection between research and industry.71 Additionally, the strong entrepreneurial spirit coined by the former dean of the engineering department at Stanford, Frederick Terman, pushed students and professors alike to pursue interests and to found companies in the Stanford Research Park which brought industry leaders, students, and faculty members together.72

All in all, these factors contribute to fostering growth in Silicon Valley during the early 2000s. Coupled with a renominate reputation for Stanford and Silicon Valley, it is easy to attract employees, inspire them based upon other successful startups to start their own, and uniquely combine research and industry to allow for fast adoption of ideas. Moreover, Stanford students create a sense of urgency for themselves to leave their studies and work on their startups.<sup>73</sup> While these characteristics indicate strong growth for the foreseeable future, startup hubs are growing all over the world namely in three regions: India, China, and Israel.<sup>74</sup> And with Stanford giving free access to its materials through online courses on platforms such as EdX75 and Coursera76, the benefits of studying at Stanford can be delivered to anyone worldwide without any costs. It can be inferred that the next generation of technological entrepreneurs will still graduate from Stanford and begin their work in Silicon Valley. Even so, the technical progress of Silicon Valley will come to an

end eventually.<sup>77</sup> John Markoff, an American journalist,

speculated that the future of Silicon Valley depends on the

Stanford played a crucial role in the development of the valley. As discussed, several points were important for the establishment of the symbiotic relationship that brought mankind inventions changing life on a great scale. So far, Silicon Valley has been a one-of-a-kind habitat for iterating on ideas.80

Apart from organizations, the aspect of individualism must be touched on. "Hackers, founders, and freaks"81 were the founding blocks of the valley. Small founder groups like the "PayPal Mafia" went on to create well-known companies without the help that a Research Park at Stanford could have given them.<sup>82</sup> After this group had merged with their competitor X.com and became PayPal with Elon Musk as their CEO, they sold PayPal in 2002 for \$1.5 billion.83 Next, the founders departed and went on to invest in their old partner's firms or start their own. LinkedIn, Neuralink, Palantir, Founders Fund, Clarium Capital, and YouTube were built as a result.84 This success was dependent on the connections the founders, Peter Thiel and Max Levchin, had and understood how to use it to their advantage.85 Additionally, the PayPal Mafia valued technical expertise more than any business credentials, which resulted in the acceptance of other employees and founders who were not Stanford alumni.86

Based on the results this group achieved, it may be said that a degree from Stanford and proximity to Silicon Valley do not magically turn any undergraduate or graduate into a multibillion business owner. This is not to deny the importance of Stanford but to suggest alternatives. Studying and living at Stanford is costly with an average cost of

demography.<sup>78</sup> The younger a society is, the more it can innovate and keep its place at the frontier of science and technology. The average age of a developer in the valley is about 28 years old, enough to innovate to have a market advantage.<sup>79</sup> Conclusively, the future of the valley remains unknown. A. Was Stanford Important to the Silicon Valley?

<sup>&</sup>lt;sup>69</sup> <sup>70</sup>Cf. Silicon Valley Edge, The: A Habitat for Innovation and Entrepreneurship | FSI (stanford.edu) (8.05.2024)

<sup>&</sup>lt;sup>71</sup> <sup>72</sup>Cf. Stanford and Silicon Valley - Best Practices in State and Regional Innovation Initiatives - NCBI Bookshelf (nih.gov) (8.05.2024)

<sup>&</sup>lt;sup>73</sup> <sup>74</sup>Cf. The Interdependency of Stanford University & Silicon Valley (hackerrank.com) (8.05.2024)

<sup>&</sup>lt;sup>75</sup>Cf. Stanford University | edX (8.05.2024)

<sup>&</sup>lt;sup>76</sup>Cf. Beliebte Stanford University-Kurse – University online lernen (coursera.org) (8.05.2024)

<sup>&</sup>lt;sup>77</sup> <sup>78</sup> Cf. John Markoff: The past, present and future of Silicon Valley | Stanford University School of Engineering (8.05.2024)

<sup>&</sup>lt;sup>79</sup>Cf. Silicon Valley's Obsession With Youth, Summed up in One Chart (businessinsider.com) (9.05.2024)

<sup>&</sup>lt;sup>80</sup>Cf. Silicon Valley: Definition, Where It Is, and What It's Famous for (investopedia.com) (8.05.2023)

<sup>&</sup>lt;sup>81</sup>Silicon Valley: Definition, Where It Is, and What It's Famous for (investopedia.com) (8.05.2024)

<sup>82 83 84 85 86</sup>Cf. The PayPal Mafia: How a Tight-Knit Group of Innovators Went on to Shape Silicon Valley - History Tools (8.05.2024)

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\$74.570 per year.<sup>87</sup> Living near Silicon Valley turns out to be one of the most expensive areas to live in with a median salary of \$75.282 after taxes to live a comfortable life.<sup>88</sup> Now, with the rise of AI and other technologies, entrepreneurial activities have increased worldwide costing nearly nothing to utilize them.<sup>89</sup> New business models strengthened by the use of accessible technologies could change the way startups operate fundamentally, leaving Silicon Valley behind.<sup>90</sup> As tools and knowledge become more accessible, the necessity of a certain university and location tends to be neglected. It has become optional to operate like the 2000s. Now, teams can operate like the PayPal Mafia: Using every resource they have, no matter from where.

## VI. REFLECTION: MOTIVATION, CHALLENGES AND OUTLOOK

## A. Motivation

Choosing the intersection of Stanford and Silicon Valley as my research paper topic was of great interest to me. Ever since I began reading books like "The Founders: The Story of PayPal and the Entrepreneurs Who Shaped Silicon Valley"91 and "Zero to One: Notes on Startups, or How to Build the Future"92 by Peter Thiel, I found the idea of bringing an idea to life fascinating. The struggle to gather a team, create a business plan, and create a minimum viable product (MVP) to present to VCs seems much harder than anything else I could do in life. Watching Y Combinator's startup advice on YouTube, I learned quite a lot about what makes startups successful and what negatively impacts their growth. Yet, theory must be put into practice before one can understand its meaning behind it. Researching Silicon Valley allowed me to put my knowledge to the test and to challenge myself with unsuccessful startups and their stories. But my interest goes beyond speculating about startups in theory: I am currently volunteering for a social entrepreneurship program (SIA) where I am currently exploring different methods of helping young startups. Additionally, I pitched my business idea during an SAP-held competition where my idea was awarded for the most impactful idea which I will try to continue to develop as far as my skills enable me to. Ultimately, the path of building a company is not easy even in the early stages. Finding the right people, the right tools and the right location to work in is harder than theory could teach me, yet it is thrilling to pursue one's passion against all odds. Or as Jeff Bezos once put it: "One of the huge mistakes people make is trying to force an interest on themselves. You don't choose your passions; your passions choose you."93

## B. Stanford

Instead of researching Stanford, I could have researched UC Berkley as well as other universities near Silicon Valley. Choosing Stanford occurred to me not because of its prestigious name, but rather for the bachelor's degree only they offer: Symbolic Systems.<sup>94</sup>

This interdisciplinary field is concerned with how symbols can be used and interpreted through the computational, neurobiological, linguistic, and philosophical levels. Not only does this field offer a lot of career opportunities, but researching fundamental truths about our perception comes in handy when solving problems. Specifically, philosophical, and biological issues can be solved in novel ways through abstract and minimalistic thinking. While getting accepted into Stanford is difficult, getting access to the course syllabi is not. This intersection of a rich layered science cannot be studied in full at home but can provide me with self-studying material I could use to advance my knowledge.

Additionally, Stanford produced more founders and billionaires that I am familiar with than any other university. While I am familiar with a couple of founders, I have read the biographies of founders who graduated from Stanford such as Peter Thiel or Sam Altman. Researching a university, I was not interested in would serve me no benefit in understanding Silicon Valley and its future. Stanford was interesting and important enough to be researched about.

## C. Challenges

The biggest challenge that occurred was time management. Initially, I wanted to use the easter holidays to begin structuring and writing about the topic I chose. While I was away, the only productive measure I could take was to write down keynotes that I could work later with. They proved to be helpful in the aftermath, but I should have used more keynotes and, more brainstorming units to craft more differentiated ideas.

Finding materials was no problem. I had great resources at home and watched a few documentaries about Silicon Valley and for the Stanford research, I used their home page and infographics summarizing the most important facts. To answer the question, I had to search for fitting articles that did not stray too far from the topic which took a while. Due to the dotcom bubble which I covered; it became evident that the early 2000s were dominated by this crisis. To understand how Stanford shaped Silicon Valley, I had to go back in time to the 1990s and build my thesis from there. Moreover, implementing the American Dream was only possible at the

<sup>&</sup>lt;sup>87</sup>Cf. It costs \$74,570 to go to Stanford—but here's how much students pay (cnbc.com) (9.05.2023)

<sup>&</sup>lt;sup>88</sup> Cf. Salary Needed to Live Comfortably in the 25 Largest Metro Areas - 2022 Study - SmartAsset | SmartAsset (8.05.2024)

<sup>&</sup>lt;sup>89</sup> 90Cf. The Future of Entrepreneurship: What to Expect in the Coming Years (aicontentfy.com) (9.05.2024)

<sup>&</sup>lt;sup>91</sup> The Founders: The Story of Paypal and the Entrepreneurs Who Shaped Silicon Valley: Soni, Jimmy: 9781501197260: Amazon.com: Books (7.05.2024)

 <sup>&</sup>lt;sup>92</sup> Zero to One: Notes on Startups, or How to Build the Future
Thiel, Peter, Masters, Blake - Amazon.de: Bücher (7.05.2024)

<sup>&</sup>lt;sup>93</sup> 42 Entrepreneur Quotes To Motivate and Inspire You | FounderJar (7.05.2024)

<sup>&</sup>lt;sup>94</sup>Cf. Symbolic Systems | Stanford University (8.05.2023)

conclusion. It would not have contributed significantly to the understanding of the history of Silicon Valley or Stanford. Nonetheless, mentioning the American Dream and how it limits or ends the dreams of young students to go to their dream university was important to note. The US still envisions a world where the most capable, the most intelligent, and the most talented can build a fortune if they work well enough. Silicon Valley is supposed to play the perfect example which is overshadowed by unfair admission processes. Defining this idea took me longer than expected, partly due to my denial of the disadvantage for certain groups of society.

In conclusion, researching Stanford and Silicon Valley proved to be as interesting as I expected it to be. With all these difficulties I mentioned, I would still have picked the same topic.

## VII. CONCLUSION

Stanfords low acceptance rates and emphasis on interdisciplinary studies help create a critical thinking environment conducive to entrepreneurship. Moreover, the symbiotic relationship between Stanford and Silicon Valley provides students with unparalleled work and entrepreneurship experiences. An important factor is the American Dream nurturing dreams and skills of future generations to start in Silicon Valley. With the rise of more technologies, Silicon Valley and Stanford continue to foster growth and innovation sustainably.

## REFERENCES

- [1]. <sup>1</sup> Cf.. An Inside Look At Stanford's \$2.7 Trillion Turbo-Charged Money Machine | Inc.com (20.04.2024)
- [2]. <sup>2</sup> Cf.. An Inside Look At Stanford's \$2.7 Trillion Turbo-Charged Money Machine | Inc.com (21.04.2024)
- [3]. <sup>3</sup> Cf.. Study Reports Stanford Alumni Create Nearly \$3 trillion in Economic Impact | Stanford University School of Engineering (21.04.2024)
- [4]. Cf.. Stanford, Harvard, MIT Still Top The List Of Schools Producing Funded Founders (crunchbase.com) (21.04.2024)
- [5]. Cf. How Y Combinator Changed the World | WIRED (1.05.2024)
- [6]. Cf. How A 'Deviant' Philosopher Built Palantir, A CIA-Funded Data-Mining Juggernaut (forbes.com) (1.05.2024)
- [7]. Cf. OpenAI | Y Combinator (1.05.2024)
- [8]. Cf. Trump Donor Peter Thiel Backs Down: 'A Lot Of Things I Got Wrong' | HuffPost Latest News (2.05.2024)
- [9]. Cf. How Elon Musk's satellites have saved Ukraine and changed warfare (economist.com) (2.05.2024)
- [10]. Cf. A new student's guide to Stanford's entrepreneurial ecosystem, part 2 (stanforddaily.com) (20.04.2024)
- [11]. Cf. What Is the American Dream? Examples and How to Measure It (investopedia.com) (21.04.2024)

- [12]. Cf. What Is the American Dream? Examples and How to Measure It (investopedia.com) (22.04.2024)
- [13]. Cf. American Dream | Definition, Examples, & In Literature | Britannica (21.04.2024)
- [14]. Cf. The New and Improved American Dream | Psychology Today (21.04.2024)
- [15]. Cf. Startups and The American Dream | Built In Chicago (21.04.2024)
- [16]. Cf. Is the American Dream Still Attainable? EMORY ECONOMICS REVIEW
- [17]. Cf. Study of Elite College Admissions Data Suggests Being Very Rich Is Its Own Qualification - The New York Times (nytimes.com) (21.04.2024)
- [18]. Cf. Do top colleges favor applicants who are extremely wealthy? (insidehighered.com) (21.04.2024)
- [19]. Cf. A Societal Mission Stanford University (21.04.2024)
- [20]. Cf. Stanford University | Location, Enrollment, & Notable Alumni | Britannica (21.04.2024)
- [21]. Cf. Stanford University | Location, Enrollment, & Notable Alumni | Britannica (22.04.2024)
- [22]. Cf. Acceptance rate drops to 3.68%, majority enrolled are non-white students (stanforddaily.com) (22.04.2024)
- [23]. Cf. Why Choose Stanford University Among Ivy League Schools? | AdmissionSight (22.04.2024)
- [24]. Cf. Top 3 Accelerators and Incubators in Stanford in 2024 (failory.com) (22.04.2024)
- [25]. Cf. A new student's guide to Stanford's entrepreneurial ecosystem, part 2 (stanforddaily.com)
- [26]. Cf. The billionaire factory: Why Stanford University produces so many celebrated web entrepreneurs | The Independent | The Independent (22.04.2024)
- [27]. Cf. The billionaire factory: Why Stanford University produces so many celebrated web entrepreneurs | The Independent | The Independent (23.04.2024)
- [28]. <sup>28</sup>Cf.https://www.bing.com/maps?&mepi=13~Directions~Default~Direction\_Main\_Route&ty=0&rtp=pos. 37.377498626708984\_- 122.06749725341797\_\_Silicon%20Valley\_\_s\_~pos. 37.427955627441406\_- 122.17184448242188\_\_Stanford%20University\_\_e\_ &mode=d&v=2&sV=1&FORM=SNAPST (23.04.2024)
- [29]. <sup>28</sup> <sup>30</sup> <sup>31</sup> Cf. Holistic Admission: Stanford University (1.05.2024)
- [30]. <sup>32</sup> What is GPA? How is it calculated? What is the highest? (timeshighereducation.com) (1.05.2024)
- [31]. 32 33 Cf. The Ivy League battles an assault on its admissions policies (ft.com) (1.05.2024)
- [32]. 34 35 36 37 38 Cf. Opinion | 2024 Was the Year That Broke College Admissions The New York Times (nytimes.com) (2.05.2024)
- [33]. <sup>39</sup> Cf. New SAT Data Highlights the Deep Inequality at the Heart of American Education The New York Times (nytimes.com) (2.05.2024)
- [34]. 40 Silicon Valley | Tech Hub, California, USA | Britannica (23.04.2023)
- [35]. 41 42 43 44 Cf. Silicon Valley | Tech Hub, California, USA | Britannica (23.04.2024)

- [36]. <sup>44</sup> Cf. Silicon Valley | Tech Hub, California, USA | Britannica (25.04.2024)
- [37]. 46 47 48 49 50 51 52 53 Cf. Silicon Valley Tech Hub, Innovation, Growth | Britannica (2.05.2024)
- [38]. <sup>54</sup> Cf. History of Silicon Valley in One Animated Timeline (businessinsider.com) (3.05.2024)
- [39]. <sup>55</sup> Cf. History of Silicon Valley in One Animated Timeline (businessinsider.com) (3.05.2024)
- [40]. 56 57 58 59 60 61 Cf. Dot-com Bubble Explained | Story of 1995-2000 Stock Market (finbold.com) (3.05.2024)
- [41]. <sup>62</sup> Cf. Dot-com Bubble Explained | Story of 1995-2000 Stock Market (finbold.com) (3.05.2024)
- [42]. <sup>63</sup> Cf. Silicon Valley: Dotcom Bubble: Lessons from Silicon Valley's Rise and Fall FasterCapital (4.05.2024)
- [43]. <sup>64</sup> Cf. The Dot-Com Bubble Burst and the Companies that Survived | Mental Itch (4.05.2024)
- [44]. <sup>65</sup> 66 67 68 Cf. Stanford and Silicon Valley: Storied past, uncertain future (stanforddaily.com) (8.05.2024)
- [45]. <sup>69</sup> <sup>70</sup>Cf. Silicon Valley Edge, The: A Habitat for Innovation and Entrepreneurship | FSI (stanford.edu) (8.05.2024)
- [46]. 71 72Cf. Stanford and Silicon Valley Best Practices in State and Regional Innovation Initiatives NCBI Bookshelf (nih.gov) (8.05.2024)
- [47]. 73 74 Cf. The Interdependency of Stanford University & Silicon Valley (hackerrank.com) (8.05.2024)
- [48]. 75 Cf. Stanford University | edX (8.05.2024)
- [49]. <sup>76</sup> Cf. Beliebte Stanford University-Kurse Stanford University online lernen (coursera.org) (8.05.2024)
- [50]. 77 78 Cf. John Markoff: The past, present and future of Silicon Valley | Stanford University School of Engineering (8.05.2024)
- [51]. <sup>79</sup> Cf. Silicon Valley's Obsession With Youth, Summed up in One Chart (businessinsider.com) (9.05.2024)
- [52]. <sup>80</sup> Cf. Silicon Valley: Definition, Where It Is, and What It's Famous for (investopedia.com) (8.05.2023)
- [53]. <sup>81</sup> Cf. Silicon Valley: Definition, Where It Is, and What It's Famous for (investopedia.com) (8.05.2024)
- [54]. 82 83 84 85 86Cf. The PayPal Mafia: How a Tight-Knit Group of Innovators Went on to Shape Silicon Valley History Tools (8.05.2024)
- [55]. <sup>87</sup> Cf. It costs \$74,570 to go to Stanford—but here's how much students pay (cnbc.com) (9.05.2023)
- [56]. <sup>88</sup> Cf. Salary Needed to Live Comfortably in the 25 Largest Metro Areas - 2022 Study - SmartAsset | SmartAsset (8.05.2024)
- [57]. <sup>89 90</sup> Cf. The Future of Entrepreneurship: What to Expect in the Coming Years (aicontentfy.com) (9.05.2024)
- [58]. <sup>91</sup> Cf. The Founders: The Story of Paypal and the Entrepreneurs Who Shaped Silicon Valley: Soni, Jimmy: 9781501197260: Amazon.com: Books (7.05.2024)
- [59]. <sup>92</sup> Cf. Zero to One: Notes on Startups, or How to Build the Future - Thiel, Peter, Masters, Blake - Amazon.de: Bücher (7.05.2024)
- [60]. <sup>93</sup> Cf. 42 Entrepreneur Quotes To Motivate and Inspire You | FounderJar (7.05.2024)

[61]. <sup>94</sup> Cf. Symbolic Systems | Stanford University (8.05.2023)