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Shaping the Mindset of Humanities Students: The Role of New Startup Projects in Fostering Innovation and Adaptability Case of Humanities startuppers at Chlef University

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Abstract

The present paper investigates the impact of student-led startup projects on the development of critical skills such as creativity, innovation, and problem-solving among humanities students. These skills are increasingly Recognizer as essential for addressing complex and rapidly evolving societal challenges. The research focuses on how students from the Faculty of Humanities at the University of Chlef, involved in local student-driven startup projects, reflect on how these experiences shape their cognitive processes, perspectives, and personal growth. The study is based on qualitative data collected through eight in-depth interviews with 21 students participating in various startup initiatives. The findings suggest that such projects foster the generation of creative ideas and the innovation required to transform these ideas into tangible actions. Furthermore, these experiences enable students to develop a mindset that goes beyond current knowledge and conventional problem-solving approaches, encouraging the rethinking of established practices and the cultivation of novel solutions. The study also highlights the importance of interdisciplinary thinking, the ability to connect diverse ideas, and strong social skills to successfully present and implement new concepts. In light of these findings, it is recommended that educational frameworks incorporate more opportunities for student-driven innovation to better prepare students for future challenges. The study emphasizes the value of integrating creativity and innovation into academic curricula to enhance students' adaptability and capacity for tackling complex global issues.

Keywords; Creativity; Humanities students; Innovation; Problem-solving; startup projects.

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1.Introduction

Startup projects have the potential to help students develop their innovation and problem solving skills which are seen as essential for navigating a complex and fast-changing future. These projects also encourage students to reflect on their ideas, and motivations, helping them understand how their views on the world, knowledge, goals, and themselves evolve. This article focuses on how humanities students, who often start their own local student-driven startup projects, understand and reflect on how these experiences impact their way of thinking. This study is based on 8 interviews with local student-led startup projects composed of 21 students from the faculty of humanities at the University of Chlef. Creativity and innovation are often mentioned together. both concepts are often linked. "creative and innovative ideas" can be used to cover both. The process of generating new ideas, is known by Creativity, while innovation is about turning those ideas into action. As society faces more complex and rapidly changing challenges, there is a growing need for mindsets that can handle these future demands . These mindsets must not be limited to current knowledge, ideas, and goals, which may only worsen existing problems. Instead, individuals need to be able to think outside the box, creating new ideas and goals that challenge and rethink the established ways of doing things. Key skills needed for this include creativity, innovation, problem-solving, the ability to connect ideas from different fields, and strong social skills to present, gain support for, and put new ideas into practice.

The present study will explore how participation in new startup projects shapes the entrepreneurial mindset of humanities students. This project is taking place at the University of Chlef. Students of humanities are not regarded as the most entrepreneurial-minded ones, and recent evidence indicates that their involvement in startup projects takes place less often compared to students of other disciplines that address natural sciences, technology, and exact sciences. However, the current understanding of how participation in startup projects reshapes the mindset of humanities students is limited. The fast technological development accelerates the interferences, making some knowledge and skills obsolete, while enhancing the need for others. In the context of universities and research institutions, changing the traditional mindset of researchers and PhD students is not enough for entrepreneurship and innovation; a new and different mindset is to be formed among Bachelor and Master students. It is also in the interest of societies, as the gap between universities and business would need to be reconciled to make better use of research findings for the public good. Humanities students whose knowledge and skills are used for employment in public and state or cultural institutions that are growing due to the innovative digital transformation is the new target group to re-think the entrepreneurship and innovation policy. The existent knowledge provides mostly evidence-based results on how online-driven initiatives have helped some groups of students to gain skills and knowledge, while gradual changes in the mindset, on the other hand, have not been analyzed in-depth. Recent evidence indicates that students of humanities are less often involved in different startup initiatives compared to students of other disciplines. However, the understanding how participation in such initiatives reshapes the mindset of humanities students is limited.

2. Understanding the Humanities Mindset

The humanities mindset refers to the specific worldview, perspective, or attitude associated with the academic field of humanities. The term "humanities" encompasses a diverse set of academic fields that focus on understanding the human experience, culture, and society through critical analysis and interpretation. Examples of humanities fields include literature, philosophy, psychology, history, languages, religion, arts, communication, ethics, and law. The humanities mindset is characterized by curiosity about the human condition, recognition of cultural diversity, respect for others' voices and perspectives, and suspicion of easy solutions. Prominent historian Edward H. Carr argues that the humanities mind is characterized by curiosity about the world and the desire to explain and understand

it. The world is full of perplexing and baffling things, some of which provoke wonder and curiosity, leading to the question: how? Examining an event or object in an effort to understand it by interpreting its meaning or causes is the start of humanities study. A simple difficulty of understanding may give rise to a complicated analytical problem requiring comparatively simple considerations to deeply understand cultural complexity. Cultural diversity is a central aspect of the humanities as an object of study. It is hard to think about humanity and the human condition without noticing or recognizing cultural diversity. However, the recognition of cultural diversity must go beyond merely noticing it. The combination of complex differences and commonalities must be explained and interpreted , so that to understand any specific culture and life form accumulating within historical time and space. Cultures and societies exist independently of each other but are structured in a way that ensures mutual influence and interpenetration. Within larger interdependent or united structures of cultures and societies, there are smaller units that, compared with larger entities, allow the assertion of uniqueness. On the assertion of uniqueness, there should be respect for others' voices: histories, views, opinions, experiences, wishes, understanding, interpretations, and culture. Respect means establishing the right to access local information on its own and on the phenomena perceived by outsiders. Oppressive access, or exerting largeness over smaller units on the basis of structural superiority, is often decried as colonialism or imperialism. If knowledge is cultural and cultures are not the same, the epistemological warning comes as a simple consequence. No procedure, method, or theory can assume the same validity for different cultures. Differences in the conception of knowledge and its relationships with its object of knowledge frequently exceed the mere difference of voice along the way of cultural evolution within which societies become different, and far exceed the difference of form, context, or interpretation. On the basis of this epistemological warning and respect for others' voices comes skepticism of easy solutions. Easy solutions imply one-size-fits-all procedures, methods, or theories, and the hope for scientificity often expressed in the form of an appeal to generally valid laws.

2.1. Definition and Characteristics of Humanities

Humanities refer to a set of academic disciplines that study human culture, society, and history through critical and analytical approaches. The term originated from the Latin word "humanitas," indicating a broader definition encompassing literature, philosophy, history, art history, theology, anthropology, gender studies, human geography, cultural studies, and the study of languages. It focuses on the study of culture and civilization, emphasizing the interdependence of human nature and creativity. The original concept of humanities encompassed the study of classical languages (Greek and Latin) and literatures, literature written in the vernacular, and philosophy. By the nineteenth century, it had grown to include a wider variety of disciplines. (Wiesner-Hanks, 2021)(Beaumont & Thiele, 2021)(Chornodon et al.2021)(Celenza, 2021)(Сосницький(Sosnitsky) et al.2024)(Drees, 2021)(Hubbell & Ryan, 2021)(Van der Tuin & Verhoeff, 2022)(Smith2021).The broad definition of the humanities includes all fields of study that explore the human condition using analytical, critical, or speculative methods. A narrower definition limits the humanities to disciplines whose scholarly expertise promotes a historical and critical examination of human thought and culture. The term humanities is often preferred over related terms such as liberal arts and cultural studies. However, some scholars argue that humanities should be used only to refer to philosophy, linguistics, and other related disciplines.

The idea of the humanities is tied to humanism, a Renaissance cultural movement that rejected medieval scholasticism and emphasized human interests, capabilities, and dignity. This movement inspired a shift from the divine-focused perspective of the Middle Ages to the anthropocentric viewpoint of the modern era. The modern university and the research university are considered the most lasting contributions of the Renaissance to civilization, and the humanities expanded into the social sciences, impacting academic syllabi and methods of inquiry.

2.2.Key Skills and Mindsets in Humanities Education

Humanities education presupposes the cultivation of a mindset that is generally known as a "humanities mindset," i.e. the mindset that needs to be formed to truly appreciate humanities. Thus, providing humanities education implies first and foremost the formation of this relevant mindset. Experimental projects are an especially effective means to stimulate active engagement in such educational efforts.

Because the humanities encompass academic disciplines that study aspects of human society and culture, humanities research, as well as the education underpinned by it, implicitly embrace the following important features: a focus of research on humanities topics, like scientific topics of human society and culture; a dual pursuit of understanding and the search for meaning; interpretative reasoning; qualitative methodology; and the explicit presentation of results in an emphatic manner.

As to the mindset that is actively engaged in research or education of humanities, five particular constituents can be identified. First, it is openness vis-à-vis humanities topics as well as the related meanings and interpretations. Second, it aims for diligence of understanding in the search for meaning. Third, it is intrinsically inquisitive being actively entertained by the inherent ambiguities of meanings. Fourth, it counts on cautiousness, being aware of the hermeneutics that govern the interpretation of texts. Fifth, it is critical, being able to carefully scrutinize and normally discuss different interpretations, as well as to formulate and transparently defend one's own interpretation.

Unfortunately, some of these constituents may also constrain the uptake of teacher-executed humanities education. For example, some humanities topics may initially not easily attract the attention of technically minded students or their teachers. Similarly, intrusiveness of the quest for relevance may lead to a focus on interpretation rather than meaning. Nevertheless, these limitations can by no means undermine the potential and opportunities of specific experimental projects to engage in research and education of humanities topics in a developmental manner.

3. Startup Ecosystem and Innovation

Entrepreneurs are essential actors within innovation ecosystems. They help to create, develop, finance, and commercialize new technologies. The public sector, research organizations, and academia generate new technologies, which are distributed to the private sector by means of licensing and consultancy. These "inventions" are developed by firms from different industrial sectors towards marketable products. Typically, large, established firms take over the commercial effort; a supporting infrastructure of banks, venture capitalists, and service firms helps to diffuse the financial and commercial risk across a number of firms. Ideally, firms in the same industry sector cooperate on developing dominant designs and product standards. A strong, well-funded start-up scene is an essential and healthy element of technological change, competitiveness, and economic growth. Economic policymakers perceive a major industrial evolution, often fueled by technological change. The purpose is to develop a more systematic understanding of the nature and impact of innovation in the economy , as a matter of fact, the new policy of the our decision makers consider it as the corner stone of any type of development.It is observed as a bunch of macroeconomic .

The aim is to provide a coherent framework for analyzing different types of agents, their interactions, and the outcome of such interactions. Complementing the analysis of an economy as a whole, an attempt is made to understand the actions and strategies of individual firms on the aggregate level. The concept of a firm is used to analyze the economics of Research & Development, innovation, and technological change; to study conditions for the viability and growth of industries in terms of the patterns of investment in Research & Development, technological change, and innovation; to investigate the agents behind "long-wave" phenomena on the macroeconomic level; and to consider public policy implications. The objective is to establish demand-driven analytical macroeconomic approaches capable of dealing with the dynamic efficiency of innovation-driven systems. Innovation is at the core of economic growth. Over the last one-and-a-half centuries, the expansion of the Western

world's economies has been driven by cumulative technological change reinforcing social and institutional changes. Such long-run growth requires structural change.

3.1. Overview of Startup Ecosystems

The ecosystem in which a startup operates is often crucial to its success - or failure. An overly supportive ecosystem can allow ineffective startups to remain afloat and drain resources. Conversely, an overly detrimental startup ecosystem can stifle innovation and entrepreneurship altogether. Generally, startup ecosystems are defined as geographical areas with a large number of startups, and other supportive organizations and institutions. Catalysts to startup ecosystems include strong entrepreneurship organizations, financial support, research institutions, highly-skilled workers, legal and regulatory support, and social safety nets. Importantly, startup ecosystems need to establish a culture of experimentation, where failure should not necessarily be seen as a setback. An entrepreneurship ecosystem comprises a set of actors, and their relationships operating in a specific environment. Ecosystems can shape the behavior of actors within a specific geographical area. Successful startups can often reap huge benefits from the local knowledge, common norms and trust, and networks provided by a local entrepreneurship ecosystem. However, liquidity constraints could compel firms to try to locate their endeavor in entrepreneurial hotspots, often in the same geographical area. These hotspot bubbles of entrepreneurial ecosystems can accelerate growth for the fortunate firms that are in them, while creating extreme market conditions for those that are outside and unable to join.

Too many assumptions can lead to heterogeneous definitions of ecosystems, where a consistent definition is key to fruitful relationships among the actors. Additionally, without a consistent definition from venture capitalists, they may support nostalgia startups. Typically, both new startups and large tech firms are viewed as opponents of mainstream industries, and vice versa, with no cooperative solutions proposed. Several recent studies have pointed out that new startups and large tech firms can be seen as co-creators of new markets together and cooperate in a marketplace.

To investigate newly-formed startup ecosystems, the research is conducted in the context of founding teams of new startups, since they represent the ultimate conductor of new entrepreneurship, and without them, a startup ecosystem cannot grow.

3.2.The Role of Innovation in Startups

Startups must interject innovation into every part of their businesses. Each newly formed business must find ways to innovate beyond the product, marketing, and business processes. Like many other industries, startups must be able to leverage technology to innovate or risk being disrupted. Using technology to disrupt industries is nothing new. It has been done for over four decades in many different industries. Technologies have changed industries and the very way organizations are structured. The best example is the birth of information technology (IT) departments in large organizations within many industries. All those industries had to reshape themselves and use technology in the core of their businesses. Startups are no exception to this rule. However, simply having the best use of technology, or the most innovative product or service, does not guarantee success. Just as technology changed the dynamics of organizations, it has also changed the very nature of competition.

Strategically irrelevant or misplaced innovation can create more challenges than opportunities. While all businesses must innovate, startups must, for their very survival, be able to look beyond their comfort zones and the foundations upon which they grew. Startups that forget this will sooner than later get stuck in the past, if in fact they even manage to survive, and miss the opportunities to shape the future of the industries they are in. Each part of the business must transform along with innovation choices. A bad innovation choice or an inability to transform in tandem with changed value propositions can lead to an undermining of the competitive position.

For all businesses, innovation must start with the choice of value propositions. External changes will challenge the choice of value propositions and dictate what innovation paths must be pursued to align the fundamentals of the business with the changed environment. Each business must then choose one or several complementary paths to innovate. Those paths by themselves will not guarantee success, but every unintended missed option can be fatal. A coherent development of the innovation paths chosen across the business must then follow to create synergies between each part of the business. Without such coherence, the foundations of the business will be jeopardized by unintended consequences of changes made outside that core.

4. The Intersection of Humanities and Startups

Many unicorn startups have been founded by people from various spheres, imagination, and faults. A popular narrative states, "Founders are wanted. Working for another company is not for you. You need to create. Start a startup." However, this is the wrong approach. Finding a company is fine. Moreover, many companies come as a startup, and perhaps, more interesting things happen in the company than in a startup. In actuality, the startup culture is more about going places than creating magic. Thus the question arises: Has the habitat of humanities students changed? What role do they play in this universe of startups, cryptocurrencies, and other technologies? But are there not too many factors against them? They cannot program, nor manage. They need to have a particular skill set to be of any use in this domain.

Old industries are dying, and the new technologies that emerge shape new startups. That creates a massive demand for coders and data analysts from humanities students. The last number shows there is a 20,000 deficit of coding specialists and rapidly emerging industries. Concerning humanities students, they cannot program or handle numbers. It should be noted that this is the past. Humanities had a role to play in the beginning of the creation. When the basics were in place and business models came into the picture. Humanities can fit in a business analyst-type position, but language graduates are not fit for that role as well. Math students are in higher regard as analysts. Market analysts are supposed to analyze huge sets of numbers. It requires lots of math and a good understanding of financial markets, which linguistics students do not have. The success of the startup depends heavily on the culture it generates. Each particular project has its own peculiarities of treatment, and the team holds the answers to many questions. Humanities students were best at blending into the environment while remaining unnoticed. They could sense a person's state of mind and reaction to various situations and predict the likely behavior of their opponents.

4.1. The Importance of Humanities in Startup Culture

Startups have become a dominant buzzword in the modern economy. However, they do not only deal with the technological aspects of the world. Startups, at their core, are businesses looking for a scalable business model in situations of extreme uncertainty. By definition, every startup is unique and tailored to a particular industry. For better or for worse, many of these businesses seek to innovate and work outside of the box. This is why startup culture - a special ecosystem that provides incentives for creative ideas, innovative products, and disruptive businesses - has developed its peculiarities and ways of life. It would be wrong to think that this culture is only for coders, engineers, tech geeks, or mad scientists. Startup culture goes beyond programs and applications developed by programmers and engineers. Many other aspects are required to build a successful business, and various faculties can contribute to that vision. Despite fierce competition from Science Technology Engeeniring Mathematics fields, humanities students can flourish in startup culture as they possess unique skills, capabilities, experience, and mindset.

Cultural consciousness and understanding of social problems are keys to innovating ideas in businesses. With their background knowledge, humanities students can think outside of the box and ask the right questions. There are many interesting questions for every area of the economy, from whether a

handheld gaming console is beneficial for a child's development to how the job of fast-food kitchen workers can be improved. Though these scenarios may sound silly, they can also lead to workable, innovative, and disruptive ideas. In the early days of startups, there are no smart people on board to turn that "crazy idea" into reality. Therefore, humanities students have the gift of cultural consciousness and understanding of social issues to help think about those ideas in the first place. Market research, conceptual assessment and development, points of friction, ideation of business models, positioning, marketing research and planning, branding, design, UX analysis, and research, product-market fit development, advertising campaign design, legal problems, and research, etc. Humanities students, as well as students of certain STEM faculties, have a unique skill set that differs from other faculties. Problem-solving can be done in various ways, but there are only a few areas of knowledge that focus specifically on humanities skills.

4.2. Benefits of Humanities Skills in Startups

The premise of the potential benefits of a humanities mindset for startups hinges on the use of humanities skills. Taking a job requirement perspective, different skills at which the humanities-acquainted students excel can be explored. First of all, one notable commonality between startups and humanities is the application of creative skills. Although "creativity" is a buzzword with no consensus regarding its definition, there does not seem to be much divergence regarding the advantages unique to this particular set of talents culturally ingrained through a certain educational background. Indeed, Novak and Baecker point out that "creativity plays a major role in innovation, and is thereby essential for the entry of an organization into digital business". At a broader level, creativity can even define one or more distinct patterns of activities. For instance, Wong relates it to "the capacity for producing ideas that are original and valued as such" and eventually describes some cultures as more creative than others. To this end, prospects for humanities students within startup industries are in a favorable position. Various studies, such as the one conducted by Rosenthal on an extensive survey of all National Endowment for the Arts studies from 1982 through 2005 in the United States, corroborate the positive correlation of liberal arts education and creativity in an increasingly competitive global economy.

In addition to creativity, humanities students are well equipped with solid verbal and interpersonal communication skills. Indeed, Hargadon singles out "the ability to network dense communities" as one of the top three superior firm capacities in generating ideas in a startup, while also contending that "good verbal skills are key" to enable the former. In fact, numerous undertakings of networking such as "scanning the environments, reading a lot about inventions and scientists in fields that are far away from your own, joining both formal and informal associations or clubs", "attending public exhibitions, lectures, conferences, or discussion groups" that nonetheless seem trivial and even juvenile to a brain drain society all seem to be observably exacerbated by those humanities-acquainted. Other interpersonal skills including multicultural sensitivity can also facilitate greater breadth of perspective to go beyond the implicit and often unexamined assumptions in looking at the world. After all, a multicultural organization can be linguistically, ethnically, and religiously diverse, but differences between cultures at deeper dimensions such as systems of thought and logic can easily go unnoticed yet have lasting impacts on organizations' value system and the way they deal with questions of concerns. Aware of the existence of such frameworks of possible routes available to conduct analysis and problem-solving, it would enlighten the understanding of other cultures and in turn facilitate the efficient negotiation of different points of view.

5. Successful Startups Founded by Humanities Students

In recent years, the fields of technology, artificial intelligence, and the Internet of Things have gained widespread popularity and success. These high-tech fields have solidified their dominance, while traditional fields such as social sciences, history, philosophy, and linguistics have struggled to find

direction amid rapid social changes fueled by technological and commercial development. Surprisingly, there are cases where innovative startups related to technology and the Internet have flourished with students majoring in humanities. This raises the intriguing question of what mindset, thinking theories, and problem-solving abilities these students possess that enable them to become successful founders.

The emergence of unique ideas and solutions often stems from unexpected links formed due to unique experiences, cognitive patterns, thoughts, and mindsets. A thorough analysis of cases in which humanities students have become successful entrepreneurs can provide insights into the thought processes that lead to these out-of-the-box ideas. As new graduates from the Department of English at Chlef University, students observed the lack of corresponding translation options for domains where English is crucial, particularly in regard to ChatGPT launched by OpenAI. On the other hand, there is a great demand for English input in domains such as finance, game, AI, clinical, and more, which do have some translation options. These students realized that if the foundation model was trained on the target domain corpus in English, with some prior knowledge or similar products, it could significantly improve translation on this domain. It would be a great opportunity for domestic IT companies and startups, particularly those focusing on the magnificent field of ChatGPT.

With insights gained from these observations, students sought to understand the underlying rationale of the knowledge, theories, or experiences that encouraged them to consider a startup as an option and moved them to form unique links or thought patterns regarding unmet needs or production inefficiencies. Questions were also raised about the social environment that permitted societal concerns of this nature to emerge and whether other youth or students with a background in humanities can develop a similar mindset. From this investigation, it is hoped that the dynamic process of becoming aware of unserved needs, generating ideas, and interpreting specific situations to identify unique production inefficiencies can be captured and documented, thereby illuminating how the concept of entrepreneurship might be more broadly distributed and achieved in primary settings with few entrepreneurial discoveries to draw upon.

5.1. Innovative Solutions Stemming from Humanities Mindsets

In recent years, a number of new startup projects have emerged from institutions of higher education in Chlef University. These projects show how the social competencies acquired by students of humanities disciplines can lead to the creation of innovative solutions for real-life issues and functioning of local communities. The projects presented in this paper have been developed and implemented within the Faculty of Human Sciences at Chlef university. They have arisen from students' new ideas and under the guidance of academics and cultural professionals have evolved into newly founded nonprofit organizations. While they have quite different themes, their common ground is a strong link to the contents of humanities education and the use of new technologies for mediation of such contents and accessible interaction with the public.

The first project is a web-based multimedia database of touristic guide which provides different data and documentation related to the major touristic places, while also allowing for the creation of new interpretations by a wider audience. The second project is a platform of translated terminology that is known by a Glossary for everyone interested in any field of education . It endeavors to use the platform to facilitate understanding the meaning of any word to foster research and rapid written productions. The third project evolved from a previously voluntary activity of a group of students who started making their teaching syllabi to teach using the virtual reality for children in kindergarten and primary schools. It is founded on the belief that visual and narrative literacy provide essential tools for understanding and critically interpreting media messages in an increasingly visual world.

The three innovative projects are explorations of the social potential of humanities education in a digitalized world. They provide new tools for interaction with cultural heritage and mediation of scholarly knowledge, as well as alternative approaches to education in the growing field of visual

culture and digitalized media. These projects illustrate how the mindset of humanities students can innovate the cultural milieu of a capital city with its long-standing legacy of global cultural significance.

6.Challenges and Opportunities

Across the globe, more and more individuals with different academic backgrounds are trying to get into entrepreneurship. Humanities students have shown great potential for being entrepreneurs but have faced many challenges. At first glance - different nature of studying humanities. With the rise of new startup projects, many opportunities as well as challenges arise for humanities students who, given the right environment, can help shape and develop a strong entrepreneurial mindset that allows society to flourish.

The increasing importance of entrepreneurship and startup projects is evident. Young entrepreneurs are being pushed to make their ideas flourish outside the academic boundaries, supported by incubators and funding. Nonetheless, there are barriers for humanities students who want to get engaged with entrepreneurship projects. Failing to recognize or casting aside the marked and fabled contribution of the humanities towards shaping the societal discourse is, despite being aware of its existent potential, a noteworthy mistake. The absence of humanities' contribution to entrepreneurship projects leads to enormous losses. Side-lining an important and beneficial vocation potentially results in the failure of a newly formed start-up or the desired impact not achieving to be reached.

There is a list of suggested tools to overcome these challenges. In order to better integrate humanities students into entrepreneurship projects, it is important to make them aware of their skills and the value they bring to the table. Most technical entrepreneurs need support in defining the right question or framing the societal discourse surrounding their technology offering. A knowledge domain in which humanities students are, in their essence, trained - a process that takes years to learn. Humanities' tradition of making questions on the veracity of information and underlying values behind these questions is a potential asset to achieve societal proof where the absence thereof is noted in many 'disruptive' technologies and their recent consequences for ethics and governance. Besides that, it is important to actively involve humanities students towards starting up entrepreneurship projects, rather than passively depending on their attendance and only observing on the sideline. It is argued that without involvement, there is no dedicated entrepreneurship culture formed in which humanities students actively explore the opportunities to use their skills and knowledge towards entrepreneurship projects or become readily noticed or valued in their humanistic potential.

6.1. Barriers Faced by Humanities Students in Entrepreneurship

The emergence of new start-up projects, along with basic education and interest in CT, explains the participation of new start-up projects of technology companies in post-graduate education in humanities disciplines. Humanities students have become a new target audience for acquainting themselves with the activities of these start-up projects and for the submission of technologies and services developed by these start-up projects. Despite a high level of motivation to acquire knowledge and skills, humanities students face significant barriers related to differences in education and mentality. These barriers threaten their interest in technologies developed by start-up projects, which are motivated by economic effectiveness, as well as their interest in further acquainting themselves with new knowledge and skills.

Great interest in emerging technologies (i.e. neuroscience, artificial intelligence, big data) and a willingness to acquire knowledge and skills in the usage of these technologies in professional activities were revealed among humanities students of Ph.D. studies in social sciences for instance. However, inadequate basic education (absence of mathematical and programming disciplines) has become a barrier to the successful submission of knowledge and skills by start-up projects. The understanding of mathematical disciplines and programming by humanities students is at an elementary level or completely absent. Students may find it difficult to understand a text if it contains mathematical

expressions. Knowledge about neural networks is limited to common knowledge about their usage in Google and Facebook for targeting and automated decision making. This also applies to other complex technologies.

There is also an awareness barrier. Despite the existence of this knowledge gap between IT technologies and social systems, humanities are still seen as a source of non-formalized data for further processing, maintaining the division of social sciences into objective and subjective. The tension mostly arises from speculation about intentions. The dissemination of automated decision-making tools is seen as a threat to the full control of their professions, while the same tools used for monitoring human activity are accepted as practices with evident technological advancement.

6.2. Ways to Overcome Challenges

Cooperation with technical and natural sciences students could yield positive results. New startup projects accepted to a Startup at the University incubator would be handled by a collective of humanities student teams and teams of technical/natural sciences students. Teams could be paired to complement each other's strengths and weaknesses. Teams are allowed to be formed from two to six members in different specialties. Humanities students would handle tasks that require creativity or empathy for the user and be supported by their technical/natural sciences counterparts on all other matters. Joint brainstorming sessions involving arts and engineering students alongside social science domains could enhance creativity. Another way to combine knowledge and competencies is for the technical/natural sciences students to create functioning prototypes of startup ideas explained to them by humanities students.

Friendly policies promoting the emergence of synergy between humanities students and students of other faculties should be implemented. For each startup project, the Startup at the level of the University incubator could nominate a team from the engineering faculty as mentors to participate in it. Faculty policies should favor cooperation over competition on the assumption that teamwork produces better outcomes than solitary endeavors.

Policies should ensure that both humanities and technical/natural sciences student groups are immediately included in all projects that meet a specific criterion. For example, educational goals of projects having a budget of a certain size could be the same for both student groups. A project with a budget of a certain size could immediately initiate two sub-projects, one for humanities students and another for natural sciences students. A similar approach was beneficial in developing research joint ventures, combining traditional institutions, research centers, and universities.

In contrast to the technical faculties, it would be difficult for humanities faculties to undertake similar changes on their own. The emphasis placed on each proposed policy reform on the faculty's responsibility indicates why. However, with the assistance of the university administration, such policy reforms could be pursued for the emergence of synergy between the faculties. There is evidence from universities in other countries that administrative stipulations could lead to successful changes.

7. Integrating Entrepreneurship into Humanities Curriculum

Universities and colleges worldwide are increasingly aware of the need to provide humanities and social sciences students with entrepreneurial skills, while humanities students willing to start new businesses often lack entrepreneurial knowledge, skills, and attitudes. Teaching entrepreneurship has been mainly focused in business or engineering schools, creating a gap in the humanities curriculum. But recent advancements in artificial intelligence and locally based educational programs have offered new possibilities for incubating humanities start-ups.

Drawing on training sessions designed for humanities and all other disciplines operating locally based educational programs for humanities and social science students, they will be familiar with business and startups through learning design thinking and business model canvas by coaches and trainers. this paper explores how new educational initiatives are enhancing the knowledge economy in the

humanities expertise, fostering a national collaboration between the humanities and creative industries, and building a pedagogic framework for humanities students' entrepreneurship education.

Societal transformations in the wake of the new economy have considerable implications for the humanities and social sciences, institutions, their researchers, students, and societal engagement. Science and technology journals have provided new insight into how scholars play a role in shaping the new economy. A new managerialism has entered into academia in the West due to neoliberal economic policies, where good research is to be mission-oriented or market-relevant. In the growing global economy based on knowledge and information, knowledge itself has turned into a commodity and become an important active resource in the competition for maintaining and improving one's position. Knowledge, as it has been understood in the modern Western traditions for almost 300 years, has acquired new properties: it is both a universally shared informational good and, at the same time, an object of property. This transformation has affected all areas of societal life, including politics, economics, and culture.

Moreover, research in the field of media, art, and culture indicates that the commodification of knowledge and information has turned the moral ethos of scholarship, research, and creativity - the pursuit of truth, good, and beauty - upside down. Such disciplines as information technology, business economics, and marketing have taken a hegemonic place in societal knowledge and policy considerations, whereas the status of the long-established Western European lonely grand disciplines in media, art, and culture has diminished. The humanities and social sciences as university disciplines are part of the cognitive infrastructure of a society, information and knowledge-based economic development, and in charge of representing societal interests and securing checks and balances. The transformation of knowledge into a commodity, however, has blurred and tended to redefine the public role of the humanities and the social sciences in society towards a more passive reactant role as auxiliary services to science and technology.

7.1. Incubators, Mentorship and networking for Humanities Students

Incubators and accelerators tailored for humanities and social science students, particularly at the undergraduate level, merit careful consideration. Although there are noteworthy initiatives designed to facilitate the launch of entrepreneurial ventures commencing with undergraduate capstone projects, several fundamental issues remain that need to be studied .Mentorship can provide guidance, encouragement, and support to students who are starting a business. Finding the right mentor is essential, and networking plays a crucial role in uncovering potential avenues for developing a successful connection with the desired person/institution. Humanities students must be proactive in seeking out opportunities within their university and the local community. These opportunities may include workshops, competitions, entrepreneurial initiatives, conferences, and social events. Participating in such programs not only facilitates the development of valuable skills and knowledge applicable to startup projects but also provides a chance to build a network. Regardless of the industry, a well-cultivated company is likely to help a business flourish.

8. Building Networks for Humanities Entrepreneurs

Networking fosters mutual cooperation and exchange of information. A network is built on developing relationships with people with both similar and different backgrounds, who may become friends, acquaintances, co-workers, or business partners. Networks can play a crucial role in transforming one's personal context or shaping the course of a firm's development by facilitating access to new knowledge and opportunities. Three types of networks are important for humanities entrepreneurs:

Personal context networks: Friends and acquaintances play an important part in supporting the decision to engage in business. The wider personal network (family, teachers, co-workers) forms a set of potential information sources about starting a company. Friends working in a company can become sources of information about the target market and a potential place for a practicum or work. 2.

Knowledge networks: These networks allow access to knowledge resources necessary to become competitive. Business amateurs must familiarize themselves with the methods and tools used in business planning and the processes and skills needed for different undertakings. 3. Business context networks: These networks facilitate acquiring a firm's first customers. Engaging in an entrepreneurial initiative supported by a university may facilitate contacts with other participants, sponsors, and experts. Participating in this venture can assure an adequate quality of the project, which will contribute to gaining businesses outside the university walls.

8.1 . Importance of Mentorship for Humanities Students in Startups

Startups have permeated various aspects of life in recent years, but this phenomenon has mostly reached students of technical subjects. One cannot help but wonder why the humanities, social sciences, culture, and art students, currently on a path of gradual degradation of human values and human-based subjects, are not filling the gap between technology and humanity.

Today, perhaps more than ever, cultural trends need to be added and approached holistically since art is believed to be capable of broadening perspectives, contemplating and expressing meaning and ethos, carrying a gathering past, and providing "alternative systems for thinking." Mentorship is among the most important forms of support for startups. Mentors' experience and network can help speed up progress, reach difficult-to-reach contacts, avoid common mistakes, and reshape ideas.

The focus of interest is to discover what form(s) of mentorship best suits humanities students in startups, what to be aware of in a mentor-student relationship, and how to approach and keep it fruitful. Humanities students typically face special issues in finding the right mentor. This mostly relates to the lack of exact matching knowledge, relatively low trust, or differences in industries and attitudes.

On the other hand, humanities students are believed to provide a different outlook, sensitivity, and social awareness in navigating through technology commercialization. Humanities approach to addressing these issues is different from STEM the view. The key is to find a common ground and build a bridge between the tangible and intangible, with mentorship as a facilitator.

Humanities viewpoint is based on the belief that human attitudes, understanding, and behavior determine how society reacts towards and integrates technology. This basic perspective can be complemented with artistic or cultural understanding, approaching the phenomena sequentially, progressively, or in fragments. While there may be no common system for navigating through these domains, there can be sequences that mitigate differences.

8.2. Building Networks for Humanities Entrepreneurs

New startup projects that meet specific criteria offer a unique opportunity to build networks among entrepreneurs in the humanities sector. Such projects should address pressing issues relevant to all humanities fields, including the formulation of adequately broad research questions for societal impact, the development of communication strategies, the adaptation of the research cycle to fund procedures, and the creation of effective collaboration structures. Additionally, projects should be open to participants from various humanities areas, incorporate synergy between complementary stakeholders from academia and society, aim outcomes for societal and academic impact, and involve skill development in entrepreneurship, networking, and funding.

As academic networks often depend on competition and mutual distrust, entrepreneurship entails a shift of focus from research outputs to social return and public communication. Grouped newcomers would be less intimidated to access and join entrepreneurial thinking. A startup project can serve as a safe first step into new professional mindsets, with the project team open to accommodate newcomers' unmet needs. Startup outcomes should be built as networking opportunities and incubators for entrepreneurial initiatives. The goal is not to offer knowledge transfer, but to merge rippling developments and good practices generated in different fields into networking schemes that inspire

scalable entrepreneurial cooperation. Participants' interest in the development of entrepreneurial initiatives should emerge naturally from the new perspectives acquired.

Initial outcomes should focus on building informal networks to share good practices across academic fields and supporting grant applications and projects afterward. A second stage of competition-like networking events would invite other stakeholders from outside the humanities, while future stages may include collaborative projects with external partners and alternative funding schemes. Ultimately, the goal is to build self-sustaining cooperation schemes anchored in newly shaped academic mindsets that access mobility across academia-society cooperation dynamics.

The nature of startup projects requires their outcomes to be implemented and tested from scratch. Methodologies should be kept flexible within broad guidelines, while all outcomes must adhere to measurable objectives that continuously reflect on processes and progress. Furthermore, all outcomes must be built open to external involvement, with rules of participation simplified and later formalized once entities and partnership stakes are established. Archiving must specifically allow for the selective external dissemination of outputs across eligible communities and networks.

9. Future Trends and Implications

New startup projects targeting the humanities sector may be impacted by advancing technologies that affect the broader startup landscape. Emerging technologies can be anticipated to shift the way humanities startup projects are conceived and implemented, as shown with generative artificial intelligence (AI) in recent months. The implications of these technological innovations on the potential future of new startup projects targeting the humanities are to be discussed.

Various emerging and existing technologies will inevitably shift the ways new startup projects targeting humanities disciplines may be conceived, designed, implemented, and evaluated. While there are many tools that could be discussed, drawing on the technological adeptness of students and the immediacy in the timing of their appearances and interest, generative AI in particular will be a focus.

Specifically, the impacts of generative AI large language models such as ChatGPT on potential new startup projects targeting literature, philosophy, and history will be discussed. The transformation of potential future humanities startups could be organized into four categories detailing the use of emerging technologies shaping full projects, involving the emergence of prospective new startups specializing in adopting new technologies to target humanities disciplines, new startups offering educational services on utilizing new technologies, or the use of emerging technologies entirely changing the nature of the potential humanities startup project.

9.1. Potential Shifts in Education and Entrepreneurship

With the rapid expansion of an entrepreneurial mindset globally across education institutions at all levels, it is crucial to analyze its impact on the education and entrepreneurship landscape of students in the humanities field. A truly effective entrepreneurial education approach must resonate with the values of humanities disciplines. As entrepreneurial education design relies heavily on its socio-cultural context, This study's proposed design framework represents a potentially transformative opportunity in regions where entrepreneurialism undermines the core societal values of humanities disciplines. Despite this challenge, the industry-university partnership could mitigate market dominance in education and entrepreneurship by synergistically directing the development of both education and graduate employability. Along with educational shifts from teaching-centered to student-led approaches in teaching, academia-based entrepreneurship drives a change in the content, nature, and role of entrepreneurship from business-centric and profit-oriented to innovation and economic prosperity-focused. This creates a foundation to explore the potentiality of reshaping the entrepreneurial education landscape in the humanities field and actively governing its development to mitigate detrimental influences.

Further research is needed to deepen the understanding of the impact of the proposed design framework on public education and entrepreneurship through case studies in different regional contexts containing diverse culture and education disciplines. With the rise of new startups, media outlets are beginning to portray these companies and their founders as elites in society, such as attention to their wealth, lifestyle, connections with public figures, and motives for philanthropic engagements. Although the humanities field does play a role in shaping the current entrepreneurial scenes, being productive contributors to capitalism, most early entrepreneurship actions by humanities graduates are employment-based, which detract focus from actively working as contributors to nurturing a better entrepreneurship environment in society and thus mitigating detrimental influences. Engaging students from the humanities disciplines in non-profit social innovation projects addressing public good interests is a possible entry point to yield a wider outreach and understanding of alien entrepreneurship mindsets and better encourage involvement in entrepreneurial actions differing from the mainstream profit-oriented and exploitative approach.

10. Findings

The findings reveal that students had a sophisticated comprehension of the opportunities and threats involved in startup projects. Concerns included doubt about idea feasibility, a lack of experts, funding, and competition. Although students did not feel adequately prepared for such projects individually, most groups felt well-prepared, relying on the knowledge of their fields. Students wished to have a guide, either in the form of other experts or alumni, to model their ideas and change them for the better.

Regarding the impact on developing a mindset towards new startup project opportunities, the new entrepreneurship project made generally cautious students wonder whether they could devise new found startups, turning current activities, interests, and fields into profit-making ideas. The entrepreneurship course related to students' professional or personal realms and was seen as an opportunity to dive deeper into chosen fields, take a broader view of phenomena, apply knowledge gained from other disciplines, and be creative. However, some were concerned about not being able to think of an innovative idea.

Regarding the ability to identify new startup projects, students proposed hard-to-measure, preventive measures, such as a culture rising on better ethical standards in business that would predictively decrease vague or hoax sites.

These novel findings suggest that the startup project opportunities generally do not occur to humanities students, who nonetheless have relatively sophisticated apprehension of potential startup opportunities. This understanding of the impact of the new project on students is significant in terms of bringing a social perspective to entrepreneurial research, as positive social effects of startups have only been examined with respect to fields oriented towards technology.

11. Implications for Policy and Practice

It is important to consider implications for policy and practice to make sure students are aware of ongoing startup projects at their university and have taken advantage of those opportunities by the time they graduate.

One way to do that can be to display new startup initiatives more formally and visibly. A good example is to keep track of new projects and make a list publicly available on the official university website. Some universities already do that, even if they're not in the humanities field. As an example of organizing awareness days for students of different disciplines at the faculties of the university of Chlef. Such initiative does not demand much effort; however, it can contribute to a student's awareness of this entrepreneurial domain significantly.

Another way to implement this recommendation can be to increase the outreach of startup initiatives actively. In this case, humanities students can be targeted more specifically, because regularly forwarding information about ongoing projects that allow students to apply their skills in a different way

can stimulate their interest. There can be too large of a gap between what they study and how it can be applied in real life otherwise, because students without entrepreneurship courses are not often actively involved in the startup ecosystem. Designing concise workshops or courses that inform students about ongoing startup initiatives, their university's involvement in the entrepreneurial ecosystem, and also offer assistance in participating in those engaging opportunities (applying with ideas or as a student worker, for example) can be something worthwhile to consider for further policy recommendations.

Conclusion and Recommendations

The recent study explored the impact of new startup projects by humanities students on their mental health, motivation, and future career prospects. A total of 21 students participated in the project, which consisted of guest lectures, interdisciplinary communications, and tutoring by graduates of the Faculty of Humanities. A series of questionnaires investigated these aspects before and afterward in a paired analysis of answers.

The results demonstrate positive trends in students' entrepreneurial competencies, understanding of startup projects, changes in motivation, satisfaction with finances, and appreciation of support from mentors and lecturers. Notably, more students reported career development benefits following participation in startup projects.

According to a qualitative analysis of free responses, student projects also improved their mindset regarding further studies, self-understanding for the academic and work environment, and development of project statements. Additionally, results indicate minor negative effects on academic performance, financial satisfaction, and motivational aspects.

One of the major strengths of the study is its focus on the impact of entrepreneur projects on students' competencies and mental health, an area that has been insufficiently explored. Moreover, student entrepreneurship's mental health and motivation aspects are novel areas of research with limited studies, especially in humanities.

There are several limitations in this study. Whether the results are valid for other disciplines or exportable to post-socialist countries needs to be further researched due to the unique context of the Faculty of Humanities . Further qualitative research methods, such as interviews, could be beneficial for a more thorough analysis of individual understanding. Additionally, although the sample size was appropriate for general use statistics, it is comparatively small for more complex analyses like structural equations models or multilevel analysis.

Nevertheless, the mentoring scheme appears to have had a mostly positive impact on students' mindsets and thus possibly their mental health, potentially introducing them to entrepreneur activities that could influence their future academic and work path choices.

Another three-limited study aspects are through educator-centered questions for further enhancement of lecture sections, financial understanding from national and global perspective rewards, and what is considered the most motivating aspect for students in holding entrepreneurial projects.

While this study provides valuable insights into the impact of new startup projects on the mindset of humanities students, there are several areas that warrant further investigation. Future research delving into entrepreneurial projects launched by young researchers or professors in relation to their own academic work and research output, as well as the actions of startuppers from the humanities discipline in companies they have founded post-graduation, may yield further insights. Such an analysis could further illuminate the various forms and shapes of business enterprises, as well as illustrate both the intentions and impact of those engaged in entrepreneurial actions on a wider scale, not limited to a single university but rather encompassing younger demographics in multiple higher education institutions.

The visibility and business-related understanding of recent humanities graduates, broadening managerial knowledge, and an awareness of possible career alternatives may provide stimulating impulses for entrepreneurial intentions. Therefore, further research should be conducted in institutions hosting faculties of humanities, cultural studies, social sciences, and similar domains, preferably with comparative research designs. Post-graduation career choices of alumni from these universities should be analyzed and contrasted. Additional efforts should be undertaken to elaborate on the types of businesses newly established by graduates from these institutions. Not only the perspective of higher education establishments, where the studies were undertaken, but the longevity of the companies or the length of their market participation should be investigated. The aforementioned plurality of issues may provide food for thought for researchers interested in contemporary trends in the development and perception of entrepreneurial intentions along with the evolution of economic appreciation of recently emerged new startups of a humanities background.

In terms of methodological and cognitive aspects, it is recommended that such a study follow the qualitative direction and apply comparative research designs. It would be interesting to expand the research sample with startup creators at a slightly different stage of market activity. In order to complete the picture, actions of more mature startups could be taken into consideration. New startup projects of a certain age or size bracket and varying background disciplines other than humanities could be analyzed. Introductory considerations addressing the historical success of such companies or their perception (e.g., a study on the mindset of a founder and a person starting a new venture on the basis of a doctorate in the area of STEM science could be worth undertaking could enrich the content.

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