

Pathway for Innovation, Inclusion and Quality (EEPIIQ)

# PBL Handbook

Enhancing Entrepreneurship Education #2







## Contents

INTRODUCTION	5
Why this Handbook?	5
Purpose, Scope and reflections for new generation learners	5
The changing nature of learning – reflections for University Professors	6
Importance of Entrepreneurship and Innovation for Tomorrow's Graduates	7
Thinking and reflection deck	8
Case studies in the Higher education sector	9
Case Study 1: Stanford University's d.school	9
Case Study 2: University of Cambridge's Entrepreneurial Ecosystem	9
Case Study 3: Massachusetts Institute of Technology (MIT) – MIT Media Lab	10
Case Study 4: University of California Berkeley – SkyDeck Accelerator	10
Implications of the above cases for Higher Education Institutions in Georgia	11
Thinking and reflection deck	11
Case studies in the Tourism and hospitality sector	12
Case Study 1: Airbnb's Disruption of Traditional Hospitality	12
Case Study 2: Marriott International's Digital Transformation	12
Case Study 3: Booking.com's Global Expansion Strategy	13
Case Study 4: AccorHotels' Commitment to Innovation	13
Implications of these innovations to the professionals in the tourism and hospitality sector Georgia	
Thinking and reflection deck	14
Case studies in Medicine and Health sector	15
Case Study 1: Telemedicine Expansion during COVID-19	15
Case Study 2: Wearable Health Technology	16
Case Study 3: Pharmaceutical Innovations through Crowdsourcing	17
Case Study 4: Blockchain in Healthcare	17
Implications of such innovations in the young Georgian Healthcare professionals and stakeholders.	18
Opportunities for Young Professionals	18
Implications for Professors	18
Thinking and reflection deck	19
Case studies from the Humanities and Social Science field.	20
Case Study 1: The Role of Digital Humanities in Education	20





	Case Study 2: Participatory Action Research (PAR)	20
	Case Study 3: Social Entrepreneurship Initiatives	21
	Case Study 4: Cultural Heritage Preservation Projects	21
	Case study 5: Grameen Bank (Bangladesh)	22
	Case study 6: Teach for All (Global)	22
	Case study7 : Fair Trade Movement (Global)	22
	Case study 8: The Ocean Cleanup (Netherlands)	23
	Implications for young graduates and Professors in the social enterprise space	23
	Thinking and reflection deck	24
C	ase studies from the Natural Resource Management (NRM) sector	25
	Case Study 1: Eco-Entrepreneurship in Water Management	25
	Case Study 2: Renewable Energy Initiatives	25
	Case Study 3: Sustainable Agriculture Practices	25
	Case Study 4: Circular Economy Models	26
	Implications for students and Professors in the natural resource's management space	26
	Thinking and reflection deck	26
C	ase studies from the architecture sector / field	27
	Case study 1: Architizer	27
	Case study 2: Katerra	27
	Case study 3: Matterport	28
	Case study 4: Procore Technologies	28
	Case study 5: Space10	28
	Case study 6: Zaha Hadid Architects (ZHA) - Digital Design Innovations	29
	Implications for students and Professors in this field	29
	Thinking and reflection deck	29
C	ase studies in the Economics Sector	30
	Case study 1. Stripe	30
	Case study 2: Robinhood	30
	Case study 3: TransferWise (now Wise)	30
	Case study 4. Square	31
	Implications for students and Professors in this field	31
	Thinking and reflection deck	32
C	ase studies in the Communications and PR sector	33





Case study 1. Slack	33
Case 2. Hootsuite	33
Case study 3. Buffer	33
Case study 4. Canva	34
Case study 5. Mailchimp	34
Case study 6. WhatsApp	35
Case study 7. Telegram	35
Case study 8. Signal	35
Case study 9. Zoom	36
Implications for students and Professors in the sector	36
Thinking and reflection deck	36
Cases studies in the media sector	37
Case study 1. Netflix	37
Case study 2. Spotify	37
Case study 3. BuzzFeed	38
Case study 4. TikTok	38
Case study 5. Medium	39
Implications for students and Professors in the field of media	39
GENERAL LESSONS FROM THIS HAND BOOK	40
Lessons Learned from These Case Studies	40
Integrating Case Studies in local Curricula and learnings at HEIs	40
Conclusion	40
Additional Reading	41





## **INTRODUCTION**

#### Why this Handbook?

This hand book is an additional piece of work to support the learnings in handbook 1. While hand book 1 can best be used for instruction purposes by the university Professors as they implement PBL (Problem / Project Based Learning), this hand book on the other hand provides real examples of cases of startups and enterprises that have changed the way work is done world over. The idea for this text is to create amongst learners at the University and their Professors a think out of the box yet in context of their own realities. Build in them the ability to think away from the usual and become enterprising, innovative and ready to embrace the unknown opportunities in tomorrow's world.

In a rapidly evolving global economy, the importance of entrepreneurship education cannot be overstated. This handbook serves as a comprehensive resource designed to disseminate valuable lessons derived from various global startups and enterprises. By examining both technology-driven and traditional business models, this collection of case studies aims to equip students with the knowledge and skills necessary to navigate the complexities of tomorrow's business landscape.

#### Purpose, Scope and reflections for new generation learners

The primary objective of this handbook is to foster innovation, creativity, and entrepreneurial thinking among students across diverse fields of study, including both arts and sciences. The cases included herein are curated to provide insights that transcend disciplinary boundaries, making them applicable in a variety of contexts, whether in classroom discussions or independent exploration outside formal educational settings. Specifically, the hand book underlines the following primary purposes:

- 1. Diverse Perspectives on Entrepreneurship: Entrepreneurship is not confined to any single industry or sector; it thrives in both tech-driven environments and traditional markets. This handbook encompasses a wide range of case studies that illustrate successful entrepreneurial ventures from various angles. By integrating examples from cutting-edge technology startups alongside those from established non-tech enterprises, we aim to present a holistic view of what it means to be an entrepreneur today.
- 2. Driving Innovation and Creativity: The case studies within this handbook are designed not only to inform but also to inspire. Each narrative shows key ideas behind the innovation, the gap that was existing and the possible lessons students can obtain from the documented cases herein to craft their own journeys independently. Students will find themselves encouraged to think critically about how these experiences can inform their own entrepreneurial aspirations. The emphasis on real-world applications ensures that learners are prepared for the unknowns they may encounter in their future careers.





3. Preparing for Tomorrow's Business World: As we look towards the future, it is essential for students to cultivate a mindset that embraces change and uncertainty. The dynamic nature of today's business environment demands adaptability and resilience - qualities that can be nurtured through exposure to diverse entrepreneurial experiences. This handbook aims to prepare students not just for existing opportunities but also for those yet unimagined.

In conclusion, this Entrepreneurship Education Case Study Handbook 2 is an invaluable tool for fostering a new generation of innovators and leaders. By learning from the successes and failures of various global startups and enterprises, students will be better equipped to contribute meaningfully in an ever-changing world. We invite you to engage deeply with these case studies as you embark on your own entrepreneurial journey.

# The changing nature of learning – reflections for University Professors

In recent years, the landscape of higher education has undergone significant transformations driven by technological advancements, globalization, and evolving workforce demands. These changes have necessitated a shift in pedagogical approaches and curriculum design at HEIs. Professors are challenged to fit within the new dynamics and this handbook pauses the question, what can you to better to prepare tomorrows human resources where tomorrows jobs are largely unknown, and many of today' jobs have been wiped out. The present-day Professor should reflect on among others the following facts: -

- 1. Technological Integration: The integration of technology in education has revolutionized how students learn and interact with information. Online learning platforms, digital resources, and interactive tools have made education more accessible and flexible. This shift allows for personalized learning experiences where students can engage with material at their own pace. As a modern-time Professor, it is incumbent upon you to integrate technology in your delivery.
- 2. Collaborative Learning Environments: Modern HEIs are increasingly adopting collaborative learning models that emphasize teamwork and communication skills. Group projects, peer-to-peer learning, and interdisciplinary courses encourage students to work together to solve complex problems, reflecting real-world scenarios they will encounter in their careers. Students are encouraged as much as their Professors to work on projects together and share knowledge. There is no single custodian of knowledge in modern time.
- 3. Focus on Critical Thinking and Problem Solving: The emphasis on critical thinking skills is paramount as employers seek graduates who can analyze situations, think creatively, and develop innovative solutions. Curricula are being designed to challenge students to engage deeply with content rather than simply memorizing facts. Professors need to rethink their





examining styles and work methods to ascertain if they breed critical thinking and promote problem solving.

- 4. Global Perspective: With the rise of globalization, HEIs are preparing students to operate in diverse environments. Programs that include international experiences or cross-cultural studies help students understand global issues and develop a broader worldview. Being inclusive and enabling local solutions while thinking global is necessary today than ever was the case. Professors must ignite global perspectives from their learners at all times while also enabling local context.
- 5. Lifelong Learning Mindset: The rapid pace of change in various industries necessitates a commitment to lifelong learning. HEIs are instilling this mindset in students by offering continuous education opportunities and encouraging adaptability to new knowledge throughout their careers. No end in sight, that is the truth and Professors should cultivate within their learners a continuous thirst for knowledge and thus lifelong learning.

# Importance of Entrepreneurship and Innovation for Tomorrow's Graduates

While seemingly commonsense, it is our duty to remind both learners and Professors about the importance of entrepreneurship, and more so entrepreneurship education irrespective of the subject one reads, teaches or researches. As the nature of work evolves, entrepreneurship and innovation have become critical competencies for graduates entering the workforce. This is among others important because of the following reasons: -

- 1. Economic Growth: Entrepreneurship drives economic development by creating jobs and fostering competition. Graduates equipped with entrepreneurial skills can contribute significantly to local economies by starting new ventures or innovating within existing organizations.
- 2. Adaptability to Change: In an era characterized by rapid technological advancements and shifting market demands, graduates must be adaptable problem solvers who can pivot quickly in response to new challenges. Entrepreneurial training fosters resilience and encourages innovative thinking that prepares graduates for unforeseen circumstances.
- 3. Skill Development: Engaging in entrepreneurial activities helps students develop essential skills such as leadership, financial literacy, marketing strategies, and project management. These competencies are highly sought after by employers across various sectors.
- 4. Encouragement of Creativity: Innovation is rooted in creativity; therefore, fostering an entrepreneurial mindset encourages graduates to think outside the box and explore unconventional ideas that could lead to groundbreaking solutions or products.





- Social Impact: Many modern entrepreneurs focus on social entrepreneurship creating businesses that address societal challenges while generating profit. This trend aligns with the growing demand for corporate social responsibility among consumers and investors alike.
- 6. Networking Opportunities: Entrepreneurship programs often provide access to networks of mentors, investors, and industry professionals which can be invaluable for recent graduates seeking guidance or funding for their ventures.

Therefore, it is important for Professors to adapt their teaching methodologies to meet the needs of a changing world, emphasizing entrepreneurship and innovation will equip tomorrow's graduates with the necessary tools to thrive in dynamic environments while contributing positively to society. We hope that these case studies offer you great insight into how you can be part of the forces that will greatly impact both Georgia, and the world both near and far. We welcome you to this analytical piece of work. Enjoy it.

#### Thinking and reflection deck

Look with in yourself and ask yourself what contribution you can make to improve processes in your field?

- 1. Do you see any gaps?
- 2. Do you have background theoretical knowledge?
- 3. Do you have like minded network of people you could work with / or is there a firm you might wat to interest in this ide?





## Case studies in the Higher education sector

Innovation and entrepreneurship in the high education sector have become increasingly important as institutions seek to adapt to changing market demands, technological advancements, and evolving student needs. Universities worldwide are implementing innovative practices that not only enhance educational outcomes but also prepare students for entrepreneurial endeavors. This section explores several global case studies that exemplify successful innovation and entrepreneurship initiatives within the education sector, which could serve as beneficial models for driving similar initiatives among university students and Professors in Georgia.

#### Case Study 1: Stanford University's d.school

Stanford University's Hasso Plattner Institute of Design, commonly known as the d.school, is a leading example of innovation in education. The d.school focuses on design thinking - a human-centered approach to problem-solving that encourages creativity and collaboration.

- Key Features:
  - Interdisciplinary Collaboration: Students from various disciplines work together on projects, fostering diverse perspectives.
  - Real-World Problem Solving: Projects often involve real-world challenges faced by organizations or communities, allowing students to apply their learning practically.
  - Prototyping and Iteration: Emphasis on rapid prototyping enables students to test ideas quickly and learn from failures.
- Impact: The d.school has produced numerous successful startups and innovations, demonstrating how an educational environment can cultivate entrepreneurial skills.

For onward discovery and deeper learning, interest yourself in this case by using this link. https://dschool.stanford.edu

# Case Study 2: University of Cambridge's Entrepreneurial Ecosystem

The University of Cambridge has developed a robust entrepreneurial ecosystem that supports students and faculty in launching startups. This ecosystem includes various resources such as incubators, accelerators, funding opportunities, and mentorship programs.

- Key Features:
  - Cambridge Enterprise: This organization helps researchers commercialize their innovations through support services including intellectual property management.





- Startup Incubators: Programs like the Cambridge Judge Business School's Accelerate Cambridge provide training and resources for aspiring entrepreneurs.
- Networking Opportunities: Regular events connect students with industry leaders and potential investors.
- Impact: The university has produced a significant number of successful companies, contributing to both local economic growth and global innovation.

For onward discovery and deeper learning, interest yourself in this case by using this link. <a href="https://www.enterprise.cam.ac.uk">https://www.enterprise.cam.ac.uk</a>

## Case Study 3: Massachusetts Institute of Technology (MIT) – MIT Media Lab

The MIT Media Lab is renowned for its cutting-edge research at the intersection of technology, media, art, and design. It serves as a hub for innovation where students engage in interdisciplinary projects that often lead to entrepreneurial ventures.

- Key Features:
  - Hands-On Learning: Students participate in hands-on projects that encourage experimentation with new technologies.
  - Collaborative Environment: The lab promotes collaboration between students from different fields such as engineering, arts, and social sciences.
  - Focus on Social Impact: Many projects aim to address societal challenges through innovative solutions.
- Impact: The Media Lab has been instrumental in launching numerous startups that leverage technology for social good.

For onward discovery and deeper learning, interest yourself in this case by using this link. https://www.media.mit.edu

# Case Study 4: University of California Berkeley – SkyDeck Accelerator

UC Berkeley's SkyDeck is an accelerator program designed to support student-led startups. It provides resources such as mentorship from experienced entrepreneurs, access to funding sources, and networking opportunities with investors.

• Key Features:





- Mentorship Program: Experienced entrepreneurs guide student teams through the startup process.
- Funding Access: SkyDeck connects startups with venture capitalists interested in early-stage investments.
- Global Reach: The program attracts international talent and fosters cross-border collaborations.
- Impact: SkyDeck has helped launch over a hundred startups since its inception, significantly impacting the local tech ecosystem.

For onward discovery and deeper learning, interest yourself in this case by using this link. https://skydeck.berkeley.edu

# Implications of the above cases for Higher Education Institutions in Georgia.

These case studies here shared illustrate various approaches HEIs particularly universities can take to foster innovation and entrepreneurship among their students. By adopting similar strategies such as creating interdisciplinary programs, establishing incubators or accelerators, promoting hands-on learning experiences, and facilitating mentorship opportunities HEIs can cultivate an entrepreneurial mindset among their students. This would not only enhance educational outcomes but also contribute positively to the local economy by encouraging startup creation and innovation-driven growth.

#### Thinking and reflection deck

Look with in the education sector(as a student, or as a professor) and ask yourself what contribution you can make to improve processes in the sector?

- 1. Do you see any gaps?
- 2. Do you have background theoretical knowledge?
- 3. Do you have like minded network of people you could work with / or is there a firm you might wat to interest in this idea?
- 4. How best can you make an enterprising innovation in the sector using your strengths and unique ideas?





# Case studies in the Tourism and hospitality sector

The tourism and hospitality sectors are a dynamic field characterized by rapid changes driven by technological advancements, shifting consumer preferences, and evolving market conditions. Therefore, understanding global case studies can provide valuable insights into how innovation and entrepreneurship can be harnessed to create competitive advantages in this sector especially since Georgia as a country thrives a lot off this sector.

### Case Study 1: Airbnb's Disruption of Traditional Hospitality

Airbnb revolutionized the hospitality industry by introducing a peer-to-peer rental model that allows individuals to rent out their homes or rooms to travelers. This model not only provided an alternative to traditional hotels but also empowered homeowners to monetize their properties. The success of Airbnb can be attributed to several innovative strategies:

- 1. Technology Utilization: Airbnb leveraged technology through its user-friendly platform that connects hosts with guests globally.
- 2. Community Building: The company fostered a sense of community among users, encouraging hosts to share local experiences with guests.
- 3. Regulatory Navigation: Airbnb has navigated various regulatory challenges by engaging with local governments and adapting its business model accordingly.

For students in Georgia, studying Airbnb's approach can inspire entrepreneurial thinking about how technology can disrupt traditional business models, ease operations and also increase customer satisfaction.

To study more about this innovation, you may use this link https://www.airbnb.com

#### Case Study 2: Marriott International's Digital Transformation

Marriott International has embraced digital transformation as a means of enhancing customer experience and operational efficiency. Key innovations include:

- 1. Mobile Check-In/Check-Out: Marriott introduced mobile apps that allow guests to check in and out seamlessly, reducing wait times at the front desk.
- 2. Personalization through Data Analytics: By utilizing data analytics, Marriott tailors marketing efforts and services based on guest preferences, improving customer satisfaction.
- 3. Sustainability Initiatives: Marriott has committed to sustainability by implementing ecofriendly practices across its properties, appealing to environmentally conscious travelers.





This case study highlights the importance of integrating technology into service delivery while maintaining a focus on sustainability - an essential consideration for future entrepreneurs. To study more about this innovation, you may use this link <a href="https://www.marriott.com">https://www.marriott.com</a>, <a href="https://www.globaldata.com/store/report/marriott-international-enterprise-tech-analysis">https://www.globaldata.com/store/report/marriott-international-enterprise-tech-analysis</a>,

### Case Study 3: Booking.com's Global Expansion Strategy

Booking.com is one of the largest online travel agencies (OTAs) globally, known for its extensive inventory of accommodations and user-friendly interface. Its growth strategy includes:

- 1. Localization Efforts: Booking.com invests in localizing content for different markets, ensuring relevance and accessibility for diverse customer bases.
- 2. Partnerships with Local Businesses: The company collaborates with local tour operators and service providers to offer comprehensive travel packages that enhance the overall customer experience.
- 3. Innovative Marketing Techniques: Utilizing search engine optimization (SEO) and targeted advertising campaigns has allowed Booking.com to maintain visibility in a competitive market.

For students in Georgia, understanding how Booking.com adapts its strategies based on regional differences can inform their approach to entering new markets and ensuring custominsation. To study more about this innovation, you may visit this link <a href="https://www.booking.com">https://www.booking.com</a>

#### Case Study 4: AccorHotels' Commitment to Innovation

AccorHotels has made significant strides in innovation through initiatives such as:

- 1. Digital Concierge Services: The introduction of mobile concierge services allows guests to access hotel amenities directly from their smartphones.
- 2. Investment in Startups: AccorHotels has invested in various startups focused on travel technology, fostering innovation within the industry.
- 3. Flexible Accommodation Options: By offering diverse accommodation types from luxury hotels to budget options AccorHotels caters to a wide range of travelers.

This case study emphasizes the importance of flexibility and adaptability in meeting changing consumer demands - a critical lesson for aspiring entrepreneurs.

To study more about this innovation, you may visit this link

https://group.accor.com/en/Actualites/2019/10/10-innovations-transforming-hospitality





# Implications of these innovations to the professionals in the tourism and hospitality sector of Georgia

These global case studies illustrate various approaches that companies have taken toward innovation and entrepreneurship within the tourism and hospitality sector. For university students in Georgia, analyzing these examples can provide practical insights into how they might apply similar strategies locally or internationally. By understanding these successful models, students can cultivate innovative ideas that could lead them toward entrepreneurial ventures within Georgia's growing tourism landscape.

#### Thinking and reflection deck

Look with in the tourism and hospitality sector(as a consumer or prospective investor) and ask yourself what contribution you can make to improve processes in the sector?

- 5. Do you see any gaps?
- 6. Do you have background theoretical knowledge?
- 7. Do you have like minded network of people you could work with / or is there a firm you might want to interest in this idea?
- 8. How best can you make an enterprising innovation in the sector using your strengths and unique ideas?





#### Case studies in Medicine and Health sector

Innovation in the medicine and health sector is crucial for improving patient outcomes, enhancing healthcare delivery, and reducing costs. The integration of technology, new business models, and entrepreneurial initiatives has led to significant advancements. For university students in Georgia, understanding these case studies can foster a culture of innovation and entrepreneurship.

#### Case Study 1: Telemedicine Expansion during COVID-19

The COVID-19 pandemic accelerated the adoption of telemedicine globally. Companies like Teladoc Health demonstrated how telehealth services could provide immediate access to care while minimizing the risk of virus transmission. Examples of advances in telemedicine include following:

- Online Patient Screening and Engagement Tools: The pandemic accelerated the adoption of online patient screening tools, allowing healthcare providers to triage and monitor patients remotely before they arrive at care facilities. Hospitals utilized online questionnaires to assess suspected COVID-19 cases, which helped minimize exposure risks for both staff and patients. This innovation is likely to persist due to its convenience and ability to engage patients effectively.
- Virtual Waiting Rooms: Healthcare facilities have implemented virtual waiting rooms where patients can check in via text message upon arrival. This allows them to wait in their cars or other comfortable locations until they are notified that it's time for their appointment. This innovation enhances patient comfort and reduces congestion in waiting areas.
- Telehealth Integration with Electronic Health Records (EHRs): The integration of telehealth platforms with EHR systems has improved continuity of care by ensuring that patient data is readily accessible and up-to-date across different healthcare settings. This seamless integration supports better clinical decision-making and coordination among healthcare providers.
- Remote Patient Monitoring (RPM): Wearable biosensors have become a significant part of telemedicine innovations, enabling continuous monitoring of vital signs such as heart rate and respiratory data from the comfort of a patient's home. These devices help manage chronic conditions more effectively and allow for timely interventions when necessary.
- Tele-ICUs: Tele-Intensive Care Units (tele-ICUs) have expanded significantly, allowing intensivist teams to monitor patients remotely using advanced technology like high-definition cameras and telemetry systems. This model has proven essential during surges in ICU admissions, providing critical support even from distant locations.
- Tele-Dentistry: Tele-dentistry has emerged as a convenient option for dental consultations, allowing patients to connect with dentists through mobile apps without needing an in-





person visit. Patients can share images of their dental concerns, receiving personalized assessments remotely.

- Virtual Collaboration Platforms for Specialists: Innovations such as tele-ultrasound enables experienced sonographers or specialists to assist less experienced colleagues remotely during procedures, enhancing training opportunities while ensuring high-quality care delivery across various locations.
- Mental Health Services Expansion: Telemedicine has significantly increased access to mental health services through virtual therapy sessions that provide convenience and privacy for patients seeking mental health support, thus reducing stigma associated with in-person visits.

These innovations highlight how telemedicine has evolved post-COVID-19, improving access to care while enhancing patient experience across various medical fields.

These cases illustrate:

- 1. Market Need: The urgent need for remote healthcare solutions.
- 2. Technology Utilization: Leveraging video conferencing tools and mobile applications.
- 3. Business Model Innovation: Subscription-based services that allow patients to access healthcare professionals without physical visits.

Students can learn about identifying market needs, leveraging technology for solutions, and developing sustainable business models.

To learn more about such innovations you are encouraged to check this link <a href="https://www.teladochealth.com">https://www.teladochealth.com</a>, <a href="https://www.inpart.io/blog/17-top-healthcare-innovations-2023">https://www.inpart.io/blog/17-top-healthcare-innovations-2023</a>

### Case Study 2: Wearable Health Technology

Companies such as Fitbit have revolutionized personal health monitoring through wearable devices that track fitness metrics. This case study highlights:

- 1. Consumer Engagement: Empowering users to take charge of their health.
- 2. Data Utilization: Collecting data for personalized health insights.
- 3. Partnerships with Healthcare Providers: Collaborating with hospitals to integrate data into patient care plans.

This example teaches students about consumer behavior analysis, product development, and strategic partnerships in the health sector.

You can learn more about this innovation by checking through this link <a href="https://www.fitbit.com/global/us/home">https://www.fitbit.com/global/us/home</a>,

 $\underline{https://www.forbes.com/councils/forbestechcouncil/2024/06/11/14-emerging-wearable-health-technologies-transforming-remote-care$ 





# Case Study 3: Pharmaceutical Innovations through Crowdsourcing

The case of InnoCentive showcases how crowdsourcing can drive pharmaceutical innovations by connecting companies with a global network of problem solvers. Founded in 2001, InnoCentive connects businesses, institutions, non-profits and the public, with a global network of more than 160,000 of the world's brightest minds to build innovative solutions in an Open Innovation setting InnoCentive offers several products to meet a client's open innovation requirements which include:

- InnoCentive Challenges: These are unique problems posted by Seekers in the InnoCentive
  Open Innovation Marketplace. Posted challenges solicit solutions from Solvers who are
  registered in the InnoCentive community. The solution that best fits the Seekers criteria is
  awarded remuneration.
- InnoCentive ONRAMP: ONRAMP is a suite of professional services and resources, developed and delivered by our team of scientists, PhDs and consultants tailored to help Seeker companies get comfortable with innovation rapidly and successfully within their organizations.
- InnoCentive@Work: Helps clients create an internal web-based collaborative community for problem solvers. Companies gain experience with open innovation, and InnoCentive then moves their problems to their global scientific community of Solvers.

#### Key points include:

- 1. Open Innovation Models: Engaging external innovators to solve complex problems.
- 2. Diverse Perspectives: Utilizing varied expertise from different fields.
- 3. Accelerated Drug Development: Reducing timeframes for bringing new drugs to market.

Students can gain insights into collaborative innovation strategies and the importance of diverse input in problem-solving.

More about this innovation can be found on https://www.wazokucrowd.com

#### Case Study 4: Blockchain in Healthcare

The use of blockchain technology by companies like Chronicled demonstrates its potential for secure patient data management and supply chain transparency in pharmaceuticals. Chronicled is the custodian of the MediLedger Network, an industry-led, blockchain-powered network within the life sciences industry. Chronicled's role is to provide administration and build solutions on top of the MediLedger Network to facilitate trust and enable automation between trading partners. Important aspects include:

- 1. Data Security: Ensuring patient privacy through decentralized systems.
- 2. Supply Chain Integrity: Tracking drug authenticity from manufacturer to consumer.





3. Regulatory Compliance: Meeting stringent healthcare regulations through transparent processes.

This case study provides lessons on emerging technologies' role in enhancing security and compliance within healthcare systems.

More information about this innovation can be accessed on <a href="https://www.chronicled.com">https://www.chronicled.com</a>

# Implications of such innovations in the young Georgian Healthcare professionals and stakeholders.

As here noted, the health and medicine sector has seen significant advancements over recent years, driven by technological innovations, research breakthroughs, and improved healthcare policies. These advancements encompass various fields including telemedicine, personalized medicine, biotechnology, artificial intelligence (AI), and data analytics. In Georgia, these developments present unique opportunities for young professionals and their Professors among which are.

#### Opportunities for Young Professionals

Young professionals entering the health and medicine field in Tbilisi can expect a variety of new career paths due to these advancements:

- Telemedicine: The rise of telehealth services allows healthcare providers to reach patients remotely. Young professionals can engage in roles related to telehealth technology development, patient management systems, or remote diagnostics.
- Biotechnology and Research: With increased investment in biotechnology research, young
  scientists have opportunities to work on innovative treatments or drug development
  projects. This is particularly relevant as Georgia aims to enhance its research capabilities.
- Data Science in Healthcare: The integration of AI and big data analytics into healthcare systems creates demand for data scientists who can analyze health trends, improve patient outcomes through predictive analytics, and optimize operational efficiencies within healthcare facilities.
- Public Health Initiatives: As public health becomes increasingly important post-pandemic, there are opportunities for young professionals to engage in community health programs focusing on disease prevention and health education.

#### Implications for Professors

Professors in Gerogia's academic institutions will also experience significant implications from advances in the health sector:

• Curriculum Development: There is a pressing need to update medical curricula to include training on new technologies such as AI applications in diagnostics or telemedicine





practices. Professors must adapt their teaching methods to incorporate these advancements effectively.

- Research Collaboration: Professors can foster collaborations with industry partners to conduct cutting-edge research that aligns with global health trends. This could involve joint projects with biotech firms or tech companies specializing in healthcare solutions.
- Interdisciplinary Education: The convergence of technology and medicine necessitates an interdisciplinary approach. Professors may need to collaborate across departments (e.g., computer science and public health) to prepare students for the evolving job market.
- Funding Opportunities: Increased focus on innovation within the healthcare sector often leads to more funding opportunities from governmental bodies or international organizations aimed at improving healthcare delivery systems.

#### Thinking and reflection deck

Look with in the Healthcare and Medicine sector(as a consumer or prospective investor) and ask yourself what contribution you can make to improve processes in the sector?

- 1. Do you see any gaps?
- 2. Do you have background theoretical knowledge?
- 3. Do you have like minded network of people you could work with / or is there a firm you might want to interest in this idea?
- 4. How best can you make an enterprising innovation in the sector using your strengths and unique ideas?





# Case studies from the Humanities and Social Science field.

Innovation in the humanities and social sciences often involves applying theoretical knowledge to practical challenges, leading to transformative outcomes for communities. These fields encompass a wide range of disciplines, including sociology, anthropology, history, literature, and cultural studies. By examining case studies where innovation has significantly impacted lives, graduate students can assemble valuable insights into entrepreneurship and community improvement.

#### Case Study 1: The Role of Digital Humanities in Education

One notable example is the integration of digital humanities projects in educational settings. For instance, initiatives like the "Digital Public Library of America" (DPLA) have made vast amounts of historical and cultural resources accessible online. This democratization of information allows students and educators to engage with primary sources that were previously difficult to access.

- Impact on Lives: Similar projects could be initiated to digitize local archives or cultural artifacts. This would not only preserve Georgian heritage but also enhance educational opportunities for students.
- Learning Opportunity for Graduate Students: Graduate students can learn from this model by exploring how technology can be harnessed to create platforms that promote local culture and history. They can develop skills in digital archiving, web development, or data analysis while fostering community engagement.

More about the DPLA can be accessed on https://dp.la

#### Case Study 2: Participatory Action Research (PAR)

Participatory Action Research is another innovative approach that has transformed communities by involving them directly in the research process. An example is the work done by community organizations in urban areas where residents collaborate with researchers to identify issues affecting their neighborhoods.

- Impact on Lives: In Tbilisi, implementing PAR could empower citizens to address local problems such as urban development or social inequality through collective action.
- Learning Opportunity for Graduate Students:Students can adopt PAR methodologies in their research projects, learning how to facilitate discussions among community members and translate findings into actionable solutions that improve quality of life.

More about the PAR can be accessed from https://www.participatorymethods.org/glossary/participatory-action-research





### Case Study 3: Social Entrepreneurship Initiatives

Social entrepreneurship blends business principles with social goals. Organizations like "Ashoka" support individuals who create innovative solutions to social problems. Ashoka is the world's largest network of social entrepreneurs and changemakers. It aims at reaching the global vision of "Everyone is a Changemaker" for the good of all. They strive to achieve this by creating a dynamic and supporting regional platform for social entrepreneurs and changemakers where ideas can easily grow and spread. They work in three main strategic areas: to select and support social entrepreneurs; empower children and youth growing up as changemakers; and to unleash our partners potential. Ashoka thrives in a community of change leaders: Social Entrepreneurs, Ashoka Support Network Members and Partners who see that the world requires everyone to be a changemaker.

For instance, a project focused on sustainable agriculture not only addresses food security but also creates economic opportunities for farmers.

- Impact on Lives: Students could launch similar initiatives aimed at addressing local issues such as unemployment or environmental sustainability.
- Learning Opportunity for Graduate Students: By studying successful social enterprises globally, students can learn about business models that prioritize social impact alongside profit. They can apply these lessons locally by developing their own ventures that cater specifically to the needs of their communities.

To learn more about Ashoka please visit this site <a href="https://www.ashoka.org">https://www.ashoka.org</a>

#### Case Study 4: Cultural Heritage Preservation Projects

Cultural heritage preservation projects have been instrumental in revitalizing communities by promoting tourism and local identity. An example is the restoration efforts seen in cities like Florence or Istanbul where historical sites are preserved while engaging local artisans.

- Impact on Lives: Focusing on preserving architectural landmarks could attract tourists while fostering pride among residents.
- Learning Opportunity for Graduate Students: Students can engage with preservation techniques and learn about grant writing or project management through internships with cultural organizations.

To learn more about related ideas visit this link <a href="https://www.heritagesites.ge/en">https://www.heritagesites.ge/en</a> to familiarize yourself with how Government of Georgia is making efforts to preserve cultural heritage. You too can concentrate on something small of significant value and market it accordingly e.g. a traditional housing unit, fire place, or kitchen house.





### Case study 5: Grameen Bank (Bangladesh)

Grameen Bank, founded by Muhammad Yunus in 1983, is a microfinance organization that provides small loans to impoverished individuals without requiring collateral. The primary aim is to empower the poor, particularly women, by enabling them to start their own businesses and become financially independent.

#### Lessons:

- Empowerment through Finance: The model demonstrates how access to financial resources can transform lives and communities.
- Community Focus: It emphasizes the importance of community involvement and peer support in achieving financial success.
- Sustainability: The bank operates on a sustainable model where repayments are reinvested into the community.

More information about Grameen back can be obtained from www.grameenbank.org.bd

#### Case study 6: Teach for All (Global)

Teach for All is a global network of organizations that recruit and train leaders to teach in low-income communities. The initiative began with Teach For America in 1990 and has since expanded globally.

#### Lessons:

- Education as a Catalyst for Change: Emphasizes education's role in breaking cycles of poverty and inequality.
- Leadership Development: Inspires young graduates to take on leadership roles within their communities.
- Global Perspective: Encourages understanding local issues within a global context, fostering empathy and innovation.

More information can be obtained from www.teachforall.org

#### Case study7: Fair Trade Movement (Global)

The Fair-Trade movement aims to provide fair prices for producers in developing countries while promoting sustainable practices. This movement has led to the establishment of various cooperatives worldwide.

#### Lessons:

• Ethical Consumption: Teaches the importance of making informed choices as consumers that support ethical practices.





- Community Empowerment: Demonstrates how collective action can lead to better economic conditions for marginalized groups.
- Sustainability Practices: Promotes environmentally friendly practices alongside economic development.

More information an be obtained from https://fairtrade-advocacy.org

#### Case study 8: The Ocean Cleanup (Netherlands)

Founded by Boyan Slat, The Ocean Cleanup develops advanced technologies to remove plastic from oceans and rivers. Its innovative approach combines engineering with environmental activism. Lessons:

- Innovation for Environmental Sustainability: Shows how technology can be harnessed for environmental protection.
- Youth Engagement: Inspires young people to engage with pressing global issues like pollution through innovative solutions.
- Scalability of Ideas: Illustrates how localized projects can have a global impact when scaled effectively.

Make additional findings about this social enterprise from www.theoceancleanup.com

# Implications for young graduates and Professors in the social enterprise space.

Graduate students in Tbilisi can draw inspiration from these case studies by identifying local challenges that resonate with their interests and expertise within the humanities and social sciences. By leveraging innovative approaches such as digital tools, participatory methods, social entrepreneurship models, and cultural preservation strategies, they can become effective entrepreneurs who contribute positively to their communities.

The key takeaway is that innovation does not solely reside within technology; it also thrives within human interactions and cultural contexts. By understanding these dynamics through real-world examples, graduate students are better equipped to enact change within their own environments.





## Thinking and reflection deck

Look with in the Humanities and Social Sciences sector(as a consumer or prospective investor) and ask yourself what contribution you can make to improve processes in the sector?

- 1. Do you see any gaps?
- 2. Do you have background theoretical knowledge?
- 3. Do you have like minded network of people you could work with / or is there a firm you might want to interest in this idea?
- 4. How best can you make an enterprising innovation in the sector using your strengths and unique ideas?





# Case studies from the Natural Resource Management (NRM) sector

Natural resource management (NRM) encompasses the sustainable management of natural resources such as land, water, soil, plants, and animals. The goal is to balance the needs of society with the health of ecosystems. In recent years, innovation and entrepreneurship have become crucial in this sector due to increasing environmental challenges, climate change, and the need for sustainable practices.

## Case Study 1: Eco-Entrepreneurship in Water Management

One notable case study is that of **Water.org**, a nonprofit organization that has pioneered innovative financing solutions for water and sanitation projects in developing countries. They utilize microfinance to empower communities by providing access to safe water and sanitation facilities. This model not only addresses immediate water scarcity issues but also promotes local entrepreneurship by enabling community members to start businesses related to water purification and distribution.

Students can learn from this model by exploring how microfinance can be adapted to local contexts. They could develop business plans that incorporate similar financing mechanisms tailored for Georgian communities facing water management challenges.

More information on this case can be found on www.water.org

#### Case Study 2: Renewable Energy Initiatives

Another significant example is **Solar Sister**, which empowers women entrepreneurs in Africa by providing them with training and resources to sell solar energy products. This initiative not only addresses energy poverty but also promotes gender equality and economic empowerment. The Solar Sister model demonstrates how social entrepreneurship can drive innovation in renewable energy while creating jobs.

Students can analyze this case study to understand how social enterprises can be structured around renewable energy solutions. They might explore potential partnerships with local governments or NGOs to implement similar initiatives focused on solar energy or other renewable sources.

More information case be obtained about here <a href="https://solarsister.org">https://solarsister.org</a>

## Case Study 3: Sustainable Agriculture Practices

The Agroecology movement, particularly highlighted by organizations like the Food and Agriculture Organization (FAO), emphasizes sustainable agricultural practices that enhance food security while preserving biodiversity. Agroecological practices include crop rotation, organic





farming, and permaculture techniques that are both environmentally friendly and economically viable.

As a lesson from this case, university students, engaging with agroecology could lead to innovative projects aimed at improving local agricultural practices. They could conduct research on traditional farming methods combined with modern technology to create sustainable farming models that benefit both farmers and the environment.

Learners are encouraged to visit the FAO site at <a href="www.fao.org">www.fao.org</a> to familiarize themselves with the innovations that they have made possible.

#### Case Study 4: Circular Economy Models

The concept of a circular economy is gaining traction globally as a means of reducing waste through recycling and reusing materials. Companies like Patagonia, known for its commitment to sustainability, have implemented programs that encourage customers to return used products for recycling or repair instead of disposal.

Students can draw inspiration from Patagonia's approach by developing their own circular economy initiatives within the country's context. This could involve creating awareness campaigns about recycling or developing business models that focus on upcycling waste materials into new products.

Read more about the works of Patagonia through this site <a href="www.patagonia.com">www.patagonia.com</a>

# Implications for students and Professors in the natural resource's management space

By studying these global case studies in natural resource management, university students can gain insights into successful entrepreneurial strategies that promote sustainability. These examples illustrate various approaches - ranging from microfinance solutions for water access to circular economy models that can inspire creativity and innovation among students as they seek to address local environmental challenges.

Incorporating these case studies into academic curricula or entrepreneurial workshops will equip students with practical knowledge and skills necessary for driving change within their communities through innovative solutions in natural resource management.

### Thinking and reflection deck

Look with in the Natural Resources Management sector(as stakeholder or prospective investor) and ask yourself what contribution you can make to improve processes in the sector?

- 1. Do you see any gaps?
- 2. Do you have background theoretical knowledge?



#### Case studies from the architecture sector / field

Like other sectors and fields, the architectural sector has seen a wave of innovative startups that have transformed traditional practices through technology, sustainability, and design thinking. Below are several notable examples, along with lessons they offer to university students preparing to enter the industry.

#### Case study 1: Architizer

Architizer is an online platform that connects architects with building product manufacturers and suppliers. It allows architects to showcase their work and discover new products for their projects. *Lessons for Students:* 

- Networking is Key: Building relationships within the industry can open doors to collaborations and opportunities.
- Embrace Technology: Familiarity with digital platforms can enhance visibility and streamline project management.

Consider reading more about this solution on the site <a href="https://architizer.com">https://architizer.com</a>

#### Case study 2: Katerra

Katerra aimed to revolutionize construction through off-site manufacturing and advanced technology integration. Although it faced challenges leading to its closure in 2021, its approach highlighted the potential of prefabrication in reducing costs and construction time. While they filed for bankruptcy, they offer valid lessons in this space from which students can learn one or two aspects.

Lessons for Students:

- Innovate Continuously: The construction industry is ripe for disruption; students should think creatively about how to improve processes.
- Understand Business Models: A solid business plan is crucial; even great ideas need sustainable financial backing.

Take additional interest in this solution through these links <a href="https://www.circulist.com/insight/what-can-we-learn-from-katerras-rise-and-fall">https://www.circulist.com/insight/what-can-we-learn-from-katerras-rise-and-fall</a>,

https://www.hbs.edu/faculty/Pages/item.aspx?num=61521





#### Case study 3: Matterport

Matterport provides a 3D scanning solution that creates digital twins of physical spaces. This technology allows architects and designers to visualize spaces accurately, facilitating better planning and collaboration.

Lessons for Students:

- Leverage Emerging Technologies: Understanding tools like 3D scanning can give students a competitive edge in design accuracy.
- Focus on User Experience: Creating solutions that enhance client interaction with designs can lead to greater satisfaction.

More about this company can be found on this site <u>www.matterport.com</u>

#### Case study 4: Procore Technologies

Procore offers a cloud-based construction management platform that streamlines project communication, documentation, and workflow management among all stakeholders involved in a project.

Lessons for Students:

- Collaboration Tools Are Essential: Effective communication tools are vital in managing complex projects.
- Data Management Skills Matter: Being adept at using data analytics can improve decision-making processes in architecture.

More of this case can be obtained on the site: www.procore.com

### Case study 5: Space10

Space 10 is an innovation lab backed by IKEA that explores sustainable living solutions through design research. They focus on creating concepts that promote sustainability while addressing urban challenges.

Lessons for Students:

- Sustainability Is Non-Negotiable: Future architects must prioritize eco-friendly practices in their designs.
- Interdisciplinary Collaboration: Working across various fields (design, technology, sociology) can lead to more holistic solutions.

More information about space 10 can be obtained from www.space10.com





## Case study 6: Zaha Hadid Architects (ZHA) - Digital Design Innovations

While not a startup in the traditional sense, ZHA has embraced digital technologies such as parametric design software and 3D printing to push architectural boundaries. Their innovative approach has set new standards in contemporary architecture.

Lessons for Students:

- Stay Ahead of Trends: Keeping abreast of technological advancements can inspire innovative design solutions.
- Cultivate a Unique Design Voice: Developing a distinctive style or philosophy can help differentiate oneself in a competitive market.

More information about this innovation can be obtained from <a href="https://www.zaha-hadid.com">https://www.zaha-hadid.com</a>

#### Implications for students and Professors in this field.

These startups exemplify how innovation, technology adoption, sustainability, and collaboration are reshaping the architectural landscape. University students should take these lessons into account as they prepare for their careers - focusing on networking, embracing emerging technologies, understanding business fundamentals, prioritizing sustainability, and fostering interdisciplinary collaboration will be essential as they navigate their professional journeys.

#### Thinking and reflection deck

Look with in the Architectural design sector(as stakeholder or prospective investor) and ask yourself what contribution you can make to improve processes in the sector?

- 1. Do you see any gaps?
- 2. Do you have background theoretical knowledge?
- 3. Do you have like minded network of people you could work with / or is there a firm you might want to interest in this idea?
- 4. How best can you make an enterprising innovation in the sector using your strengths and unique ideas?





#### Case studies in the Economics Sector

In recent years, several startups have emerged that have significantly transformed the economics sector. These companies have introduced innovative solutions, disrupted traditional business models, and provided valuable lessons for university students preparing to enter the workforce. Below are some notable examples:

#### Case study 1. Stripe

Founded in 2010 by brothers Patrick and John Collison, Stripe has revolutionized online payment processing. It allows businesses to accept payments over the internet easily and securely. The platform simplifies complex payment systems, making it accessible for startups and large enterprises alike.

Lessons for Students:

- Focus on User Experience: Stripe's success is largely due to its emphasis on user-friendly design. Students should prioritize creating solutions that are intuitive and easy to use.
- Adaptability: The ability to pivot and adapt to market needs is crucial. Stripe continuously evolves its services based on customer feedback.

More details about this solution can be navigated on www.stripe.com

#### Case study 2: Robinhood

Launched in 2013, Robinhood democratized investing by offering commission-free trading of stocks and cryptocurrencies through a mobile app. This startup has made investing more accessible to younger generations who may not have had the means or knowledge to invest previously. Lessons for Students:

- Disruption of Traditional Models: Robinhood challenged established brokerage firms by eliminating fees, demonstrating that innovation can lead to significant market disruption.
- Targeting Underserved Markets: Identifying gaps in the market can lead to successful business opportunities. Robinhood focused on millennials who were often overlooked by traditional financial institutions.

More details about this solution can be navigated on www.robinhood.com

### Case study 3: TransferWise (now Wise)

Founded in 2011 by Taavet Hinrikus and Kristo Käärmann, Wise has transformed international money transfers by offering lower fees compared to traditional banks. By using real exchange rates





and a peer-to-peer model, Wise provides a transparent way for individuals and businesses to send money across borders.

#### Lessons for Students:

- Transparency Builds Trust: Wise's commitment to transparency regarding fees and exchange rates has earned it a loyal customer base.
- Leveraging Technology: Utilizing technology effectively can streamline operations and reduce costs, which is essential for any startup aiming for scalability.

More information on this application can be obtained from <a href="www.wise.com">www.wise.com</a> There are many such apps on the market in various regions where they are permitted to operate to aid money transfers.

#### Case study 4. Square

Founded in 2009 by Jack Dorsey and Jim McKelvey, Square provides mobile payment solutions that allow businesses of all sizes to accept card payments via smartphones or tablets. Its hardware products like Square Reader have made it easier for small businesses to operate without needing expensive point-of-sale systems.

#### Lessons for Students:

- Innovative Solutions for Small Businesses: Understanding the challenges faced by small businesses can inspire innovative solutions tailored specifically for them.
- Building an Ecosystem: Square has expanded its offerings beyond payment processing into areas like loans and payroll services, illustrating the importance of creating an integrated ecosystem around your core product.

More information about square can be obtained from www.square.com

#### Implications for students and Professors in this field

These startups exemplify how innovation can reshape industries within the economics sector. They provide valuable insights into user experience design, market disruption strategies, transparency in operations, understanding customer needs, and leveraging technology effectively. All present as critical lessons for university students as they prepare to launch their ventures.





## Thinking and reflection deck

Look with in the Economics field (as stakeholder or prospective investor) and ask yourself what contribution you can make to improve processes in the sector?

- 1. Do you see any gaps?
- 2. Do you have background theoretical knowledge?
- 3. Do you have like minded network of people you could work with / or is there a firm you might want to interest in this idea?
- 4. How best can you make an enterprising innovation in the sector using your strengths and unique ideas?





# Case studies in the Communications and PR sector

In recent years, several startups have emerged in the communications and public relations (PR) sector that have significantly transformed how businesses and individuals communicate. These companies have leveraged technology, innovative strategies, and new business models to enhance communication efficiency, effectiveness, and reach. Below are some notable examples:

## Case study 1. Slack

Founded in 2013, Slack is a collaboration hub that connects teams through channels, direct messaging, and integrations with various tools. It has revolutionized internal communication by providing a platform where employees can share information quickly and efficiently without relying solely on email.

Lessons for University Students:

- Embrace Collaboration: Slack's success underscores the importance of fostering collaboration within teams. As students prepare to graduate, they should focus on developing skills that promote teamwork.
- Iterate Based on Feedback: Slack continuously evolves based on user feedback. Students should be open to constructive criticism and willing to adapt their ideas.

More information about this innovative application can be found on www.slack.com

#### Case 2. Hootsuite

Launched in 2008, Hootsuite is a social media management platform that allows users to schedule posts, track social media engagement, and analyze performance across multiple platforms from one dashboard. This startup has changed how brands manage their online presence.

Lessons for University Students:

- Data-Driven Decisions: Hootsuite emphasizes the importance of analytics in shaping communication strategies. Graduating students should learn to leverage data to inform their decisions.
- Stay Ahead of Trends: The rapid evolution of social media requires constant learning. Students should cultivate a habit of staying informed about industry trends.

More information about this application can be obtain www.hootsuite.com

#### Case study 3. Buffer

Buffer is another social media management tool founded in 2010 that focuses on simplifying the process of scheduling posts across various platforms while providing insights into performance





metrics. Its user-friendly interface has made it popular among small businesses and individual users.

#### Lessons for University Students:

- Simplicity Matters: Buffer's success illustrates that simplicity can lead to widespread adoption. Students should aim for clarity in their projects and presentations.
- Build a Community: Buffer has cultivated a strong community around its brand through transparency and engagement. Networking will be crucial for students as they enter the workforce.

More details on this solution can be obtained on www.buffer.com

#### Case study 4. Canva

While primarily known as a graphic design tool launched in 2013, Canva has also impacted communications by enabling users to create visually appealing content easily without needing extensive design skills. This democratization of design has empowered many organizations to enhance their PR efforts.

Lessons for University Students:

- Empower Others Through Tools: Canva shows how providing accessible tools can empower users to express themselves creatively. Students should consider how their future projects can enable others.
- Focus on User Experience: Canva prioritizes user experience in its design process; similarly, students should ensure their work is user-centric.

More information about how canva works can be obtained on www.canva.com

#### Case study 5. Mailchimp

Founded in 2001 as an email marketing service provider, Mailchimp has evolved into an all-inone marketing platform that helps businesses manage customer relationships through targeted email campaigns and automation tools.

Lessons for University Students:

- Understand Your Audience: Mailchimp's segmentation features highlight the importance of knowing your audience when crafting messages.
- Adaptability is Key: The company's evolution from email marketing to comprehensive marketing solutions demonstrates the need for adaptability in business strategies.

More information about this application can be obtained from www.mailchimp.com





#### Case study 6. WhatsApp

WhatsApp was founded in 2009 by Brian Acton and Jan Koum. The application revolutionized communication by allowing users to send messages, images, and videos over the internet without incurring SMS charges. Its acquisition by Facebook in 2014 for approximately \$19 billion highlighted its immense value.

#### Lessons:

- Focus on User Experience: WhatsApp's simple interface and focus on user privacy attracted millions of users quickly.
- Scalability: The ability to handle a massive number of users without compromising performance is crucial.
- Adaptability: WhatsApp continuously evolves its features based on user feedback, demonstrating the importance of being responsive to customer needs.

More information can be obtained off this site www.whatsapp.com

#### Case study 7. Telegram

Launched in 2013 by Pavel Durov, Telegram is known for its emphasis on security and privacy. It offers features like self-destructing messages and encrypted chats, appealing particularly to users concerned about data privacy.

#### Lessons:

- Niche Targeting: Focusing on specific user needs (like privacy) can differentiate your product from competitors.
- Innovative Features: Continuously introducing new functionalities keeps users engaged and attracts new ones.
- Community Building: Creating a loyal user base through transparency and engagement fosters trust.

More information can be obtained about this application from www.telegram.com

#### Case study 8. Signal

Signal Foundation was established in 2018 as a nonprofit organization focused on secure messaging. Signal's end-to-end encryption has made it a favorite among privacy advocates. Lessons:

• Mission-driven Approach: Having a clear mission (in this case, promoting privacy) can resonate deeply with users.





- Transparency Matters: Open-source software builds trust among users regarding security practices.
- Sustainability Models: Exploring diverse funding models (like donations) can support long-term goals without compromising values.

More information can be obtained from the site www.signal.com

#### Case study 9. Zoom

Zoom Video Communications was founded in 2011 by Eric Yuan, who aimed to create a more reliable video conferencing solution. The COVID-19 pandemic accelerated its adoption, making it synonymous with remote work and virtual meetings.

#### Lessons:

- Solve Real Problems: Zoom's focus on providing high-quality video calls addressed significant issues faced during remote work.
- User-Centric Design: A straightforward user interface made it accessible even for non-tech-savvy individuals.
- Market Timing: Recognizing when the market is ready for your product can lead to exponential growth.

More information about this innovation can be obtained from www.zoom.com

#### Implications for students and Professors in the sector

These startups exemplify innovation within the communications and PR sector by leveraging technology to improve connectivity and engagement among audiences. For university students preparing to graduate, these examples provide valuable lessons about collaboration, data-driven decision-making, simplicity in design, community building, audience understanding, and adaptability, all crucial elements for success in any entrepreneurial endeavor.

#### Thinking and reflection deck

Look with in the Communications and Public relations field (as stakeholder or prospective investor) and ask yourself what contribution you can make to improve processes in the sector?

- 1. Do you see any gaps?
- 2. Do you have background theoretical knowledge?
- 3. Do you have like minded network of people you could work with / or is there a firm you might want to interest in this idea?
- 4. How best can you make an enterprising innovation in the sector using your strengths and unique ideas?



### Cases studies in the media sector

The media sector has seen a plethora of startups that have not only achieved commercial success but also transformed how content is created, distributed, and consumed. Below are some notable examples of such startups, along with the lessons they offer to university students preparing to enter the workforce.

#### Case study 1. Netflix

Netflix began as a DVD rental service in 1997 but has since revolutionized the way we consume media through its streaming platform. By investing heavily in original content and leveraging data analytics to understand viewer preferences, Netflix has changed the landscape of television and film distribution.

#### Lessons for Students:

- Embrace Innovation: Always be open to new ideas and technologies that can enhance your business model.
- Data-Driven Decisions: Utilize data analytics to inform your strategies and understand your audience better.
- Adaptability: Be prepared to pivot your business model in response to changing market conditions.

More information can be obtained about this solution from www.netflix.com

#### Case study 2. Spotify

Launched in 2006, Spotify transformed music consumption by introducing a subscription-based streaming service that allows users access to millions of songs without purchasing individual tracks. Its algorithm-driven playlists have personalized user experiences, making music discovery easier than ever.

#### Lessons for Students:

- User-Centric Design: Focus on creating an experience that meets user needs and preferences.
- Monetization Strategies: Explore various revenue models (e.g., freemium vs. subscription) to find what works best for your target audience.
- Collaboration: Partner with artists and other stakeholders to create mutually beneficial relationships.

NB: The rise of streaming services such as Netflix, Hulu, and Spotify has revolutionized how we consume entertainment. These platforms provide on-demand access to vast libraries of content without traditional advertising interruptions.





More information about this solution can be found on www.spotify.com

#### Case study 3. BuzzFeed

Founded in 2006, BuzzFeed has become synonymous with viral content through its innovative approach to news and entertainment. By utilizing social media platforms effectively, BuzzFeed has mastered the art of engaging audiences with shareable content.

#### Lessons for Students:

- Content is King: Prioritize high-quality, engaging content that resonates with your audience.
- Social Media Savvy: Leverage social media channels for distribution and engagement; understand where your audience spends their time online.
- Experimentation: Don't be afraid to try new formats or styles; experimentation can lead to unexpected successes.

More information about this solution can be obtained on www.bussfeed.com

#### Case study 4. TikTok

TikTok emerged as a major player in social media starting in 2016, allowing users to create short-form videos set to music. Its algorithm promotes content based on user interaction rather than follower count, enabling virality even for new creators. In the same vein, social media platforms like Facebook, Twitter, Instagram, just like TikTok have transformed how people communicate and share information. These platforms allow users not only to consume content but also to create it.

#### Lessons for Students:

- Community Engagement: Build a community around your brand by encouraging usergenerated content.
- Algorithm Understanding: Learn how algorithms work on different platforms; this knowledge can significantly impact visibility.
- Creativity Over Production Quality: Focus on creativity rather than high production values; authenticity often resonates more with audiences.

More information can be obtained from this site www.ticktok.com





#### Case study 5. Medium

Medium was founded in 2012 as a platform for writers and readers alike, focusing on quality writing over traditional blogging formats. It allows anyone from professionals to amateurs to publish articles while providing monetization options through its Partner Program.

Lessons for Students:

- Quality Over Quantity: Emphasize producing high-quality work instead of churning out large volumes of mediocre content.
- Diverse Voices Matter: Create spaces where diverse perspectives can be shared; inclusivity can enhance creativity and engagement.
- Monetization Options: Explore various ways writers can earn money from their work beyond traditional advertising models.

#### Implications for students and Professors in the field of media.

In summary, these successful startups illustrate key principles such as innovation, user-centric design, community engagement, quality content creation, and adaptability that university students should consider as they prepare for their careers in the media sector. From this we see that the media sector has undergone significant transformations over the years, driven by various innovations that have changed how information is disseminated, consumed, and interacted with.

Thinking and reflection deck

Look with in the media sector (as stakeholder or prospective investor) and ask yourself what contribution you can make to improve processes in the sector?

- 5. Do you see any gaps?
- 6. Do you have background theoretical knowledge?
- 7. Do you have like minded network of people you could work with / or is there a firm you might want to interest in this idea?
- 8. How best can you make an enterprising innovation in the sector using your strengths and unique ideas?



### **GENERAL LESSONS FROM THIS HAND BOOK**

#### Lessons Learned from These Case Studies

Each of these case studies offers valuable lessons that can inspire university students:

- Embrace Disruption: Understanding how established industries can be disrupted by innovative ideas encourages students to think outside conventional frameworks.
- Focus on User Experience: Prioritizing customer needs leads to better product-market fit.
- Leverage Technology: Utilizing technology effectively can enhance operational efficiency and create competitive advantages.
- Adaptability is Key: The ability to pivot based on market feedback is crucial for long-term success.
- Not all innovations require technology, may will also be possible if people think and act differently from the usual. Just a chance in habbits.

#### Integrating Case Studies in local Curricula and learnings at HEIs

To effectively incorporate these case studies into curricula at universities in Tbilisi:

- Workshops & Seminars: Organize workshops where industry experts discuss these case studies.
- Collaborative Projects: Encourage students to work on projects inspired by these cases, fostering teamwork and practical application of concepts learned.
- Guest Lectures: Invite entrepreneurs who have successfully navigated similar challenges to share their experiences with students.

#### Conclusion

Utilizing global business case studies focused on innovation and entrepreneurship within the technology sector provides university students in Tbilisi with essential insights into modern business practices. By analyzing successful companies like Airbnb, Tesla, and Spotify, students can develop a deeper understanding of how innovation drives growth and creativity in today's economy.





## **Additional Reading**

- 1. Amabile, T. (1998) 'How to kill creativity', *Harvard Business Review*, vol. 76, no. 5, pp. 76–87.
- 2. Anthony, S. D. and Christensen, C. M. (2005) 'How can you benefit by predicting change', *Financial Executive*, vol. 21, no. 2, pp. 36–41.
- 3. Bink, M. L. and Marsh, R. L. (2000) 'Cognitive regularities in creative activity', *Review of General Psychology*, vol. 4, no. 1, pp. 59–78.
- 4. Bower, J. L. and Christensen, C. M. (1995) 'Disruptive technologies: catching the wave', *Harvard Business Review*, vol. 73, no. 1, pp. 43–53.
- 5. Bressler, S. L. and Menon, V. (2010) 'Large-scale brain networks in cognition: emerging methods and principles', *Trends in cognitive sciences*, vol. 14, no. 6, pp. 277–290.
- 6. Bristol, A. S., Vartanian, O. and Kaufman, J. C. (2013) 'Introduction', in Vartanian, O., Bristol, A. S. and Kaufman, J. C. (eds) *Neuroscience of Creativity*, Cambridge, Massachusetts, MIT Press.
- 7. Burkus, D. (2014) *The myths of creativity: The truth about how innovative companies and people generate great ideas*, San Francisco, Jossey-Bass.
- 8. Burkus, D. (2015) *The myths of creativity workbook* [Online]. Available at <a href="https://davidburkus.com/resources/the-myths-of-creativity-workbook/">https://davidburkus.com/resources/the-myths-of-creativity-workbook/</a> (Accessed 22 January 2018).
- 9. Butler, H. A., Pentoney, C. and Bong, M. P. (2017) 'Predicting real-world outcomes: Critical thinking ability is a better predictor of life decisions than intelligence', *Thinking Skills and Creativity*, vol. 25, pp. 38–46.
- 10. Chesbrough, H. (2003) 'The era of open innovation', *Sloan Management Review*, vol. 44, no. 3 (Spring), pp. 35–41.
- 11. Crispin Porter + Bogusky (2016) What does creativity look like in different cultures? [Online].

  Available at <a href="https://issuu.com/cpblondon/docs/creativity\_across\_cultures\_june\_201">https://issuu.com/cpblondon/docs/creativity\_across\_cultures\_june\_201</a> (Accessed 25 February 2019).
- 12. Deal, T. E. and Kennedy, A. A. (1982) *Corporate Cultures: The Rites and Rituals of Corporate Life*, Harmondsworth, Penguin.
- 13. Drucker, P. (1999) Management Challenges for the 21st Century, New York, HarperCollins.
- 14. Dweck, C. (2017) Mindset-Updated Edition: Changing The Way You think To Fulfil Your Potential, Hachette UK.
- 15. Eggers, F., Lovelace, K. J. and Kraft, F. (2017) 'Fostering creativity through critical thinking: The case of business start-up simulations', *Creativity and Innovation Management*, vol. 26, no. 3, pp. 266–276.
- 16. Ekvall, G. (1997) 'Organizational Conditions and Levels of Creativity', *Creativity and Innovation Management*, vol. 6, no. 4, pp. 195–205.





- 17. Freakonomics (2014) *Failure is your friend* [Online]. Available at http://freakonomics.com/2014/06/04/failure-is-your-friend-full-transcript/ (Accessed 17 June 2018).
- 18. FT.com. (n.d.) *Strategic Innovation* [Online]. Available at <a href="http://lexicon.ft.com/Term?term=strategic-innovation">http://lexicon.ft.com/Term?term=strategic-innovation</a> (Accessed 16th July, 2018).
- 19. Gann, D. (2016) 'Kodak invented the digital camera then killed it. Why innovation often fails', *World Economic Forum*, 23 June [Online]. Available at <a href="https://www.weforum.org/agenda/2016/06/leading-innovation-through-the-chicanes/">https://www.weforum.org/agenda/2016/06/leading-innovation-through-the-chicanes/</a> (Accessed 2 April 2018).
- 20. Grant, A. (2013) Give and Take, London, Weidenfeld and Nicolson.
- 21. Grint, K. (2010) 'Wicked problems and clumsy solutions: the role of leadership', in Brookes, S. and Grint, K. (eds.) *The New Public Leadership Challenge*, London, Palgrave Macmillan, pp. 169–186.
- 22. Grossman-Kahn, B. (2013) 'Defining Creative Confidence', *OpenIdeo* [Online]. Available at https://challenges.openideo.com/challenge/creative-confidence/inspiration/defining-creative-confidence (Accessed 16 July, 2018).
- 23. Handy, C. (1991) 'Creativity in management', in Henry, J., Handy, C. and Rickards, T., *Creativity in Management, B882*, Milton Keynes, BBC Radio 4.
- 24. Heinlein, R. A. (2000) Assignment in Eternity, Wake Forest, NC, Baen Books.
- 25. Henry, J. (1994) 'The nature and development of creativity', *Co-Design*, Autumn, pp. 18–25.
- 26. Hess, E. (2017) 'In the AI Age, "Being Smart" Will Mean Something Completely Different', *Harvard Business Review*, 19 June [Online]. Available at https://hbr.org/.../in-the-ai-age-being-smart-will-mean-something-completelydifferent (Accessed 24 March 2018).
- 27. IMI NMC '13 What is strategic innovation? Professor Costas Markides (2013) YouTube video, added by Irish Management Institute [Online]. Available at <a href="https://www.youtube.com/watch?v=WoKhhtO79Ws&feature=youtu.be">https://www.youtube.com/watch?v=WoKhhtO79Ws&feature=youtu.be</a> (Accessed 14 March 2019).
- 28. Jia, X., Hu, W., Cai, F., Wang, H., Li, J., Runco, M. A. and Chen, Y. (2017) 'The influence of teaching methods on creative problem finding', *Thinking Skills and Creativity*, vol. 24, pp. 86–94.
- 29. Kahneman, D. (2011) *Thinking, Fast and Slow*, London, Penguin.
- 30. Kaufman, S. B. (2013) 'The Real Neuroscience of Creativity', *Scientific American*, 19 August [Online]. Available at <a href="https://blogs.scientificamerican.com/">https://blogs.scientificamerican.com/</a> beautiful-minds/ the-real-neuroscience-of-creativity/ (Accessed 18 February 2018).
- 31. Kaufman, S. B. and Gregoire, C. (2015) *Wired to Create: Unravelling the Mysteries of the Creative Mind*, London, Vermilion.
- 32. Kelley, T. and Kelley, D. (2012) 'Reclaim your creative confidence', *Harvard Business Review*, vol. 90, no. 12, pp. 115–8.





- 33. Khanna, T. (2014) 'Contextual intelligence', *Harvard Business Review*, vol. 92, no. 9, pp. 58–68.
- 34. Knell, L. and O'Mara, S. (2017) 'Changing Mindsets in Organisations, One Brain at a Time', *Developing Leaders*, no. 26 [Online]. Available at https://iedp.cld.bz/Developing-Leaders-issue-26-Spring-20171/10 (Accessed 17 June 2018).
- 35. Leonard-Barton, D. (1993) 'Core capabilities and core rigidities: a paradox in managing new product development', *Strategic Management Journal*, vol. 13, pp. 111–25.
- 36. Libet, B. (2004) *Mind Time: The Temporal Factor in Consciousness*, Cambridge, MA, Harvard University Press.
- 37. Locke, C. C. (2015) 'When It's Safe to Rely on Intuition (and When It's Not)', *HBR*, 30 April [Online]. Available at: <a href="https://hbr.org/2015/04/when-its-safe-to-rely-on-intuition-and-when-its-not">https://hbr.org/2015/04/when-its-safe-to-rely-on-intuition-and-when-its-not</a> (Accessed 16 February 2018).
- 38. Markides, C. (1997). Strategic innovation. *Sloan management review*, vol. 38, no. 3, p.9–23.
- 39. Mason, R. O. and Mitroff, I. I. (1981) *Challenging Strategic PlanningAssumptions*, Chichester, Wiley.
- 40. Miller, P. and Wedell-Wedellsborg, T. (2013) 'The case for stealth innovation', *Harvard business review*, vol. 91, no. 3, pp. 90–7.
- 41. NASA. (n.d.) Superelastic Tire: A viable alternative to the pneumatic tire. Available at: https://technology.nasa.gov/patent/LEW-TOPS-99. (Accessed 17th June, 2018).
- 42. Nonaka, I. (1991) 'The knowledge-creating company', *Harvard Business Review*, vol. 69, no. 6, pp. 96–104.
- 43. Nonaka, I. and Takeuchi, H. (1995) *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*, New York, Oxford University Press.
- 44. Paul, R. and Elder, L. (2004) 'The miniature guide to critical thinking: concepts and tools', Foundation for Critical Thinking [Online]. Available at http://www.criticalthinking.org/pages/defining-critical-thinking/766 (Accessed 24 March, 2018).
- 45. Perry, A. and Karpova, E. (2017) 'Efficacy of teaching creative thinking skills: A comparison of multiple creativity assessments', *Thinking Skills and Creativity*, vol. 24, pp. 118–26.
- 46. Peters, T. (1987) *Thriving on Chaos: Handbook for a Management Revolution*, London, Guild Publishing.
- 47. Princeton University (2017) *Some Thoughts and Advice for Our Students and All Students* [Online]. Available at https://jmp.princeton.edu/announcements/some-thoughts-and-advice-our-students-and-all-students (Accessed 24 March 2018)
- 48. Raz, G. (2018) *Dyson: James Dyson. How I built this* [Online]. Available at https://www.npr.org/templates/transcript/transcript.php?storyId=584331881 (Accessed 21 April, 2018).
- 49. Rich, B. R. and Janos, L. (1994) Skunkworks, Boston, Little, Brown and Company.





- 50. Rittel, H. (1972) 'On the Planning Crisis: Systems Analysis of the "First and Second Generations", *Bedriftsøkonomen*, vol. 8, pp. 390–6.
- 51. Ritzer, G. (2015) The McDonaldization of Society, 85th edn, Thousand Oaks, CA, Sage.
- 52. Saxenian, A. (1996) *Regional Advantage: Culture and Competition in Silicon Valley and Route 128*, Cambridge, MA, Harvard University Press.
- 53. Saxenian, A. (2002) 'Brain circulation: how high-skill immigration makes everyone better', *The Brookings Review*, vol. 20, no. 1, pp. 28–31.
- 54. Saxenian, A. (2006a) 'The new argonauts', *Words into Action*, Washington DC, International Monetary Fund/World Bank, pp. 99–110.
- 55. Saxenian, A. (2006b) *The New Argonauts: Regional Advantage in a Global Economy*, Cambridge, MA, Harvard University Press.
- 56. Simons, D. and Chabris, C. F. (2010) *The invisible gorilla: And other ways our intuitions deceive us*, London, HarperCollins.
- 57. Solow, R. (1985) 'Economic history and economics', *American Economic Review*, vol. 75, no. 2, pp. 328–31.
- 58. Sostrin, J. (2017) 'How to Act Quickly Without Sacrificing Critical Thinking', *Harvard Business Review*, 27 April [Online]. Available at https://hbr.org/2017/04/how-to-act-quickly-without-sacrificing-critical-thinking. (Accessed 24 March 2018).
- 59. Statistical Office of the European Communities (2005) Oslo Manual: proposed guidelines for collecting and interpreting technological innovation data, 3rd edn, Paris, OECD Publishing.
- 60. Stokes, D. (2017) 'The Role of Imagination in Creativity', in Paul, E. S. and Kaufman, S. B. (eds) *The Philosophy of Creativity: new essays*, New York, Oxford University Press, pp. 157–184
- 61. *The Life Scientific* (2013), BBC Radio 4, 24 September [Online]. Available at www.bbc.co.uk/programmes/b03bdpl5 (Accessed 26 February 2016).
- 62. Tushman, M. L. and O'Reilly, C. (1996) 'Ambidextrous organizations: managing evolutionary and revolutionary change', *California Management Review*, vol. 38, no. 4, pp. 8–30.
- 63. Watzlawick, P., Beavin Bavelas, J. and Jackson, D. (1967) *Pragmatics of Human Communication: A Study of the Inter-actional Patterns, Pathologies, and Paradoxes*, New York, Norton.
- 64. Wechsler, S. M., Saiz, C., Rivas, S. F., Vendramini, C. M. M., Almeida, L. S., Mundim, M. C. and Franco, A. (2018) 'Creative and critical thinking: Independent or overlapping components?', *Thinking Skills and Creativity*, vol. 27, pp. 114–122.
- 65. World Economic Forum (2016) *The Future of Jobs, Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution* [Online]. Available at http://www3.weforum.org/docs/WEF\_Future\_of\_Jobs.pdf (Accessed 24 March 2018).
- 66. Yoruk, S. and Runco, M. (2014) 'The Neuroscience of Divergent Thinking', *Activitas Nervosa Superior*, vol. 56, no. 1–2, pp. 1–16.

