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Volume 7 • March 2023

A SNEAK PEEK
INTO THE STARTUP CULTURE
AT IIT MADRAS

ENTREPRENEURSHIP INSIDER

THEMED ARTICLE
COLLECTION

- EXPERT SYSTEMS
- HEALTHCARE

PIVOT
LAYOFF
CROSSWORD
AND MORE



E-Cell IIT MADRAS
Powering Entrepreneurship at IITM



E-SUMMIT
2023
ASSEMBLAGE OF CHANGEMAKERS



E-Cell IIT MADRAS
Powering Entrepreneurship at IITM

ADVISOR'S WORD



Dr. Ashwin Mahalingham

Faculty Advisor
Entrepreneurship Cell
IIT Madras

It is no secret that both IITM's and India's entrepreneurial ecosystems have grown in leaps and bounds over the last decade to the point where we are now churning out large numbers of highly innovative and successful entrepreneurs. It is therefore very apt that the theme of our event this year is 'Assemblage of changemakers' as entrepreneurs and enthusiasts can actually gather together in large numbers to discuss how we can take this entrepreneurial journey forward.

We have had several learnings over the past decade, but perhaps the 'great reveal' has been the fact that the youth of India – young men and women – if enabled, oriented and mentored, can achieve things beyond our wildest dreams. It is this confidence that we would like to impart to all of you who are attending this summit. Dream big!

Every entrepreneur's story is different. Some taste success immediately, some wait longer, some fail a few times before succeeding. However, with talent, perseverance and commitment, most entrepreneurs will succeed. We have realized that talent is not the bottleneck in India. What we need to work on is increasing our commitment towards whichever cause we are pursuing and improving our decision-making. These abilities cannot be developed in vacuum, and it is for this reason that IIT-Madras's E-summit is a vital cog in the entrepreneurial wheel. By assembling entrepreneurs together and by allowing them to learn from each other's stories and experiences, we expect to accelerate the journey of tomorrow's entrepreneurial thought leaders.

I hope you have an exhilarating time at the E-summit this year and I wish you all the very best.

HEADS' SPEAK



Bhagyesh Shisode & Nishant Gudipaty

Dear fellow changemakers,

It's with great pride that we welcome you to this year's edition of the E-Cell IITM annual magazine, launched in conjunction with our flagship event, the E-Summit. This year's theme is "Assemblage of Changemakers," a fitting tribute to the tireless efforts of all those who have taken up the mantle of entrepreneurship, take the unconventional path, and set out to make a difference in the world. Bringing together such changemakers, a trailblazing impact can be created!

As we reflect on the past year, we're struck by the incredible progress we've made toward our mission of promoting and empowering the entrepreneur in every person. We have seen a surge in interest in entrepreneurship across the country, with more and more students and young professionals eager to

take their first steps into the startup world.

To support this growing community, we've continued expanding our initiatives and programs, focusing on sustainability. Last year's social campaign was a huge success, with thousands of students and young professionals participating in our events and initiatives around sustainable development. We're thrilled to continue this campaign this year under the name of 'Heal-Thy,' building on the momentum we've gained and continue to push for a more sustainable future.

In the pursuit of establishing the entrepreneurship ecosystem and fostering a culture of entrepreneurship among other colleges, we initiated the Entrepreneurship Development Drive. Through the initiative, we assist colleges in establishing their own Entrepreneurship Cells, allowing students to develop their skills and ideas. This year, we successfully incubated more than 25 colleges, including VIT Chennai and SRM University. We are proud to see our initiative expand and empower the next generation of entrepreneurs

One of the highlights of the tenure was our series of Startup Meetups, held in cities across India. These events brought together aspiring entrepreneurs, investors, and mentors to share ideas, build connections, and explore new opportunities. We're proud to say that we've had a significant impact, with many of the startups that participated in these events going on to achieve great success.

But our work is far from done. As we look ahead to the coming year, we're more committed than ever to building a community for entrepreneurship, not just a platform for participation. We want to create an ecosystem where anyone with an entrepreneurial spirit can find the support, resources, and guidance they need to succeed. To achieve this, we are in the works of developing many new initiatives, including mentorship programs, resource libraries, and Insightful courses!

Words cannot express how grateful we are for the unwavering support, dedication, and contributions to the success of E-Summit by our team, who have truly gone above and beyond to make E-Summit and E-Cell IITM a success. The 250+ membered E-Cell Team and the 21-membered core team have been the backbone of this initiative, and I am grateful for your relentless efforts in making E-Cell what it is today.

I would also like to extend my heartfelt appreciation to Prof. Ashwin Mahalingam and Prof. Thillai Rajan, our Faculty Advisors, for their guidance and support at all stages of this journey. The Dean of Students and the Dean's Office have been invaluable partners in this journey, and I am grateful for their encouragement and belief in our vision. Finally, I want to express my appreciation to our Institute Associations, who have been there supporting us throughout!

In closing, we'd like to thank you for your support and participation in E-Cell IITM. Whether you're an aspiring entrepreneur, an established business leader, or simply someone who believes in the power of innovation and change, we hope you'll join us on this journey. Together, we can create a world where anything is possible.

Thank you.

"Entrepreneurship is not about being a lone wolf, it's about creating a pack."

- Reid Hoffman

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FROM THE EDITOR'S DESK

It's been a while since the E-Insider started and we are glad the time meant fuel, not exhaustion. E-Insider felt like reliving the experiences of all the stakeholders present from the very start. Hand on heart, a gesture of responsibility and compassion to Aryan Sarvate and the team conveying we are following up on Volume 7. Evolution is what well defines the E-Insider. Requirements change, ideas leave the cradle for implementation, and thus, new topics to research and work on. And it justifies the entrepreneurial world, you climb up the ladder and reach the top. It's not done there, the ladder corrodes and you need to weld another one to stay at the top.

2022 was a farewell to the pandemic and invited topics that aided the turbulent scenario, and sector booms supported by virtualism. And thus volume 6 covered, social media and cryptocurrency in brief.

After the fall, 2023 was a new blooming season. In this volume of E-Insider, we have integrated two theme-based collections of articles: Expert systems accounting for the surge in AI and Healthcare, complimentarily overcoming the repercussions of the pandemic. You will also get to walk through the prickly bushes of layoffs and further experience the fragrance of hope via the roses of pivoting. Metaphorically speaking, E-Insider Volume 7 is a vast field with numerous plantations.

And finally, we would like to thank everyone to make this happen, our heads, the design team, the writers, and all the other members without whom it wouldn't have been possible.

Happy walking(reading)
Vatsal Arya and Chaitanya Joshi

E-Cell:

The Entrepreneurship Cell at IIT Madras has been at the forefront of entrepreneurship. At E-Cell, entrepreneurship is not just about the results but the pathway it took to reach there and the mentality that made it possible. E-Cell enables students and faculty to solve global challenges, nurture them and provide them with opportunities for excellence. It also aims to unlock students' latent inventive potential. Not only do we show them the doors of opportunity, but we also equip them to walk through it. We hope to build a network of entrepreneurial enthusiasts through our conferences, social events, lectures, speaker engagements, and workshops.



E-Cell IIT MADRAS
Powering Entrepreneurship at IITM

E- Summit:

With the startup culture in India booming, innovation is getting deep-rooted into our culture. Anyone who takes the unconventional path, thinks creatively, and creates groundbreaking innovations to solve problems, is a Changemaker. With such changemakers present at every corner of our country; Trailblazing impact can be created when they are brought together.

E-Summit 2023 with the theme of "Assemblage of Changemakers", is our annual flagship entrepreneurship fest filled with 4 conclaves - Youth Conclave, Innovator's Conclave, Startup Conclave, and Sustainability Conclave. These conclaves along with our Highlight Speakers and Networking opportunities are curated to serve the audience in all stages of their entrepreneurial journey.



A superb network of seniors who are just awesome this is what attracted me. E-Cell works like a startups, that dynamic nature, freedom to change things experiment and fail and try again, build new things ideate and ofcourse lots of fun stuff this is what attracted me and made me stay with ecell. Opportunity to do things that have a real world impact in the ecosystem which I like and want to learn more about. Network and exposure: the kind of exposure u get especially as a core is humongous- it really builds decision makings, thinking on foot and all stuff. Opportunity to build a stellar team and contribute in building a team culture the most sexiast part. I can go on and on ... at the end of the day it's just love for the people, believe in the vision and hunger to leave a mark.

Shashank Gupta

SS Core

Divya Gupta

AM of E&N

Well, to be honest, I didn't really know about the existence of E-cell initially... That there exists this amazing E-cell fam to deal with the world of entrepreneurship. So, some day in November, my friend pulled me in to attend the fundae session for SS (bruhh seriously it was raining that day but still we both went to attend the session). Ngl, but had my friend not pulled me in that day, I wouldn't have known how amazing E-cell & its initiatives are!! Next, attended another fundae session for E&N n that's when I realized that this is that damn vertical I wanna be a part of.

So, applications rolled out for AMs with E&N being my first preference. Results came in and I was so elated about gettin the vertical I always desired!!As of now, I'm really really happy to be a part of this amazing vertical n hope to give my best for the coming E-Summit '23

Well in all honesty, reasons were "a nice POR", "nice looking team merch". But if the first year me had known the future, I'd have joined for the people and the fun, for the events, for the exciting work and the collabs in between the verticals.

Arambh

MPR Manager

Arnav

E&N Manager

I applied for AM, as PoRs were the talk of that time, and I was rejected. I applied for the role of Manager then to understand what exactly was E-Cell, and what went wrong in my interview the first time. The efforts were worth it.

I joined E cell as I am passionate about innovation and entrepreneurship and hope that I can contribute in betterment of society by working in E cell. I believed that getting into it will help me to enhance my managerial skills as well as I can meet the bright personalities in this field. In past few months, working with Ecell was real learning journey and shall continue to explore more.

Saiprasad Kharinar

AM of MPR

STARTUP ECONOMY

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THE **BIG BANG** OF US

BY-
ANIKA A K & JANANI S K

If you traveled back in time, you would notice many changes. For one, some time-travel theories would be proven right, and for another, the entire landscape of this institution would change. By landscape, we do not mean the trees and lakes that have been here for the past few centuries (you're only ever allowed to go back as far as 1998, I'm afraid) but rather, the people, their thoughts, and energies –you'd have a hard time finding similarities.

Perhaps most devastatingly, our Entrepreneurship cell (thank you very much) would be nowhere in sight, nor would there be phones-smart or otherwise, or even radios (Nope, radios were all the vogue in 1990; we hate them).

That brings us to a beautiful story-how did IIT Madras, an institution so full of people against entrepreneurship in the past, end up becoming the face of Entrepreneurial India, the place of India's first Research Park of its kind?

We set our gaze on two boys pursuing, naturally, computer science degrees in 1998-99 and, in typical IIT-M style, running a business from their hostels secretly. When the news reached the ears of two professors—and this is a true story—they merely winked at the boys and let them go.

One of those professors- Prof. L.S. Ganesan, went on to represent IIT Madras nationally in matters of entrepreneurship in the following years, but before all that came a forum –**the Entrepreneurship Encouragement Forum**—making a brief appearance to foreshadow the existence of E-Cell (RIP Entrepreneurship Encouragement Forum).

As though a phoenix, the entrepreneurial spirit made a strong comeback in the institute after momentarily dying down-owing to one of the biggest booms nationally (except perhaps babies and electronics)-the dot-com companies. Once and for all, the dot-com companies established the importance of entrepreneurship and then began, **C-Tides: Centre for Technological Innovation, Development, and Entrepreneurship Support** –E-cell's precursor.

C-TIDES began by hosting small talks, then workshops, followed by competitions that were all received so well that their wider reach demanded a name change- less than a decade ago, C-TIDES officially became E-Cell. Evolving over years-here

we are, hosting the third largest phenomenon in IIT-M—the E-summit, 2023.

E-Cell isn't the sole propagator of Entrepreneurial culture within IIT Madras. **Nirmaan** - a pre-incubator cell, supports ideas with various resources to reach the incubation stage. When ready for the next step, **the Incubation Cell** of IIT Madras helps startups launch themselves at the IITM Research Park. Incubation cell nurtures new technologies and companies through their startup phase. It provides space and resources to these companies through a Research Park. They support the founders to survive in the competitive atmosphere by sharing resources like space, infrastructure, access to a business support system, mentoring, and training programs to improve their skill sets and to feed funds.

The **Rural Technology And Business Incubator (RTBI)** works towards Doubling India's Rural GDP, facilitating affordable technology development appropriate to the rural context and enabling startup entrepreneurs to build rural inclusive business models.

The Center for Social Innovation and Entrepreneurship (CSIE) at IIT-Madras, founded in August 2010 with a focus on teaching and research related to social enterprise in India, aims to bring together the innovation and entrepreneurship aspects of IITM by creating knowledge and understanding that will be of relevance to the problems that the poor in India face.

GDC (Gopalakrishnan- Deshpande Centre for innovation and entrepreneurship) builds capacity in researchers from STEM universities, incubators, research institutions, and corporates to maximize the impact of deep-tech research through scalable startups. By enabling faculty and researchers in STEM universities across India to commercialize their research ideas and innovations, we help them go from lab to market.

The entrepreneurial division at IIT Madras has successfully transformed the startup ecosystems and, thus, the notion of becoming an Entrepreneur. E-Cell strives to empower entrepreneurship. It's a startup in itself that functions to provide. It is the beginning!



the key startup ingredient



T
E
A
M

“If I have seen further,
it is by standing on the
shoulders of giants.”

The giants that Newton refers to are those who had made contributions to the field of physics before himself. This quote reflects Newton's humility and conveys the significance of contributions from different people in building great things. If it hadn't been for the work of the giants, Einstein's mind-bending (and also space-bending) theory of relativity might not have been discovered - the basis of which was laid in Newton's Principia.

Creating a startup is an enormous task. It starts with an idea with the potential to transform lives. A startup goes through several hills and valleys - from defining, validating, ideating, creating and testing to scaling or **pivoting**. The startup journey is filled with uncertainty and huge responsibilities.

This behemoth undertaking is accomplished only by the contribution of multiple stakeholders - founders, employees, advisors, investors, VCs, customers, manufacturers and many more. Among these stakeholders, the founders and employees comprise the team spearheading the startup. This initial team sets the stage for great things to come.

“Businesses aren't built by
a single person, but by a
team of persons.”
- Steve Jobs

The Beginning

It is fascinating to hear narratives where a startup flickers into existence as the ideas and experiences of a group of people collide. This group might then go on to create a thriving startup.

In most cases, however, startup ideas take shape in one person's mind. More often than not, it also marks the start of an expedition for a co-founder. Before we turn to what makes a good founding team, we need to answer an important question.

Why do entrepreneurs look for co-founders? After all, conflicts are likely when there are differences in opinion; decisions are delayed as it needs consultation of multiple people, and the equity needs to be divided.

Almost every successful company has at least two

co-founders. At the very least, they would have co-creators or a board of advisors.

Collaborating with co-founders allows for the division of tasks and increases productivity. More importantly, entrepreneurship is a lifestyle; working together could make a memorable journey.

How are startup teams different from conventional teams? And what makes a good team?

Before we dig into these questions, let us contrast the context that startups exist against the more familiar corporations.

Corporates vs Startups The playing fields

“A startup is a temporary organisation
designed to search for a repeatable and
scalable business model.”

- Steve Blank

A Serial Entrepreneur and Professor of
Entrepreneurship at Stanford

The main distinguishing factor between a startup and a corporation that follows the above definition is that a startup is trying to devise a new business strategy. A startup's work will focus on creating its business model and testing it with the target market. Meanwhile, a company focuses on executing its business plan.

Startups face much higher uncertainties than corporations. Companies have detailed plans spanning years based on data collected over the years. On the other hand, startups need help to ascertain what they might do in the next few months. For instance, a startup could focus on refining its business model for one month. It could find a similar market where its product has a broader application and might have to focus on pivoting the next month.

Startups do not enjoy the same brand equity as big companies. A low brand equity could negatively influence customer perception and prove to be an obstacle to the growth of a startup.

Unlike corporations, startups do not have guaranteed financial resources. Corporations obtain significant revenue from selling their product or service in the market or through stock investments. Most startups' expenses are covered mainly by bootstrapping and funding from investors and VCs.

Finally, the different sizes of the workforce. Typical early-stage startups have about two to ten people working, while big corporations hire anywhere between hundreds to tens of thousands of employees.

The Work Environment in startups

Startups are known for their **dynamic and fast-paced** environments. The goals and deliverables in startups keep changing rapidly, reflecting the constant influx of feedback.

The scope for the precise definition of roles among the people in startups is limited by the number of available hands to carry out the jobs in the startup. As a consequence of the interplay of the dynamic startup environment and the blurry line of roles, people in startups wear multiple hats. One day they could be a part of ideating a new marketing strategy, while on another day, they would be working on collecting data and feedback from prospective customers.

The responsibility and autonomy one gets in startups are significantly higher when compared to traditional jobs. A decision an individual makes has the potential to grow the startup exponentially but also to close down the startup's operations. These high stakes are what make startups lucrative for some.

The startup work environment is not all roses. It is a highly competitive environment where decisions are made under high pressure. When building a startup, one needs to develop 'thick skin' - a phrase commonly used to describe that founders need to get used to getting rejected repeatedly and yet persevering. And working with a good team could help me overcome tough times.

Things to consider while making a team

1. Complimentary Co-Founders

The most important thing among co-founders is trust. The co-founding team needs to have trust in each and every member. Trust that all of them are doing their very best for the startup. A part of this trust comes from shared values. This is partly why most founding teams are formed from a common social group. The next best thing is a founding team with complementary skill sets. However, skills can also be developed on demand.

2. Motivation

A team member's motivation is crucial in a startup. The motivation should be such that it lets the person take ownership of the situation at hand. In most co-founder teams, equity is the driving motivation to be a part of the startup. Micromanaging team members could consume precious potential when human resources are limited.

3. Know what to expect

A startup journey is, in almost all cases, a bumpy road of setbacks and rejections. Although the very nature of the journey is unpredictable, one needs to be prepared for the unexpected.

4. Communication

Startups are the result of a lot of collaborative effort. It becomes essential to communicate one's thoughts effectively. Albeit this comes with experience, it is important to remember to have those hard conversations with the team.

Conclusion

In the world of startups, the team behind the idea has the power to make or break it. A great team can take a misjudged problem statement and pivot to create a successful business, while a weak team can lead to failure despite the best idea. However, creating a strong team is easier said than done. It's often the hardest part of starting a business, and comes with its own unique set of challenges.

From finding the right mix of skills and personalities to navigating disagreements and maintaining motivation, building a cohesive team is no small feat. However, with dedication and effort, it's possible to create a team that can tackle any obstacle and come out on top.

The debate over whether a solo founder or a team of co-founders is better rages on, but there's no denying the benefits of having a team to share the journey with. Working alongside a co-founder can make the experience more enjoyable, and provide someone to bounce ideas off of and share the ups and downs with.

At the end of the day, building a successful startup requires a strong team. By carefully considering each member's strengths, weaknesses, and compatibility with the rest of the team, it's possible to create a group that can overcome any challenge and achieve their goals. And along the way, they can create memories and have fun together, making the journey all the more worthwhile.

BY-

SWATHI SARAVANAN

Fundaes from Insti Founders

Have those hard conversations with your co-founders

Starting up is not a sprint; it's a long journey, a marathon

Have a support mechanism. Have a life.

Respect your co-founders personal life. They might have their own hobbies. You can't expect everyone to work as much as you or the way you do. You need to be able to adapt.

Startup culture starts from day one. It grows step by step from there.

Build an identity with which the team members can associate with.

Starting up is a maze; you make progress in small steps.

Enjoy working with your co-founders.

Confront differences in the teams

Do not outsource; get a cofounder with core skills.

Doesn't matter how long you or your co-founder work. You're good to go as long as you are making progress, bit by bit.

Some situations call for faster decisions rather than perfect ones.

Frequently optimise the internal processes of the team

Be persistent in getting feedback from the users.

Reflect upon your learnings. Introspect

Learn fast, but also unlearn fast.

Trust comes with shared values.

ENTREPRENEURSHIP & EDUCATION

BY - SOHAM SAWDE

Introduction

There is a notion that entrepreneurship education and training nurtures future entrepreneurs. The article focuses on how governments, development aid agencies, and scholars the world over are convinced that entrepreneurship is central to economic development, employment creation, and improvement of the standards of life of people in different communities and how they are actively taking initiatives to spread awareness about entrepreneurship and inculcate its education among the youth. The article also covers the entrepreneurial intentions behind such initiatives and the psychological traits associated with them.

In a fastly developing country like India, there is a concerted drive by the government through the various schemes to re-orientate the country's higher education system towards equipping students with entrepreneurial skills and attitude as means to curb youth unemployment. The newly introduced New Education Policy (NEP) has encompassed many vocational courses that will boost entrepreneurial spirit among students. Many business incubators, innovation hubs and science parks are being established as part of efforts to nurture nascent student entrepreneurs and innovators in line with the country's modernisation and industrialisation vision by both government and NGOs.

Overview of Entrepreneurship Education

Entrepreneurship education is defined as the development of attitudes, behaviours and capacities that can be applied during an individual's career as an entrepreneur. The notion stretches beyond merely teaching students to start a new business to incorporate other rich learning experiences that are gained from an educational environment. Collectively, these interventions promote "...desire, self-reliance, awareness of opportunity, adaptability to change and tolerance of risk and ambiguity by modifying attitudes, and instilling attributes, intentions, behaviours, knowledge and skills enabling individuals and groups to participate meaningfully in all aspects of life, create something of value, and gain financial independence, or personal satisfaction, or both". Entrepreneurship education is complex as demonstrated by the diversity of its goals and the multiplicity of the ways and contexts in which it is offered. As a result, entrepreneurship-related instructional programmes assume various forms and appellations.

Firstly, education "for" entrepreneurship is designed for individuals who want to start and run a business. Hence the curriculum of such a course emphasises cognate competencies. Secondly, education "in" entrepreneurship stresses the practical side of entrepreneurship. Therefore, participants in such

programmes learn by acting and behaving entrepreneurially. Focus is on the ability to move from idea recognition to creating value for customers. Thirdly, education “about” entrepreneurship as Hoppe, Westerberg, & Leffler say in their journal in 2017 “follows the academic tradition and poses the question: how can we explain and understand entrepreneurship?”. Lastly, education “through” entrepreneurship seeks to equip participants with human competencies that encourage an entrepreneurial approach to the pursuit of societal goals. Thus, participants have to “live” entrepreneurship. In this regard, every member of society, whatever their station in life, is expected to eventually do things entrepreneurially.

Psychological traits

Since it is entrepreneurs who start business ventures (Frese & Gielnik, 2014), the influence of their underlying motivations and traits cannot be ignored when designing interventions aimed at developing future entrepreneurship. Baum, Frese, Baron and Katz (2006) proposed a reconsideration of the influence of entrepreneurial traits if a better understanding of the entrepreneurship process is to be achieved. The same call was made by Carland, Carland and Stewart (1996) who suggested that it is impossible to understand the dance (read entrepreneurship) without first understanding the dancer (read entrepreneur). Arguably, the argument to reconsider individual traits makes sense in the contemporary environment where entrepreneurship-related educational interventions are increasingly becoming popular and the entrepreneur has become a significant unit in modern and innovative society. Thus, the need to understand the entrepreneur’s psyche is critical if effective educational and training programmes targeted at prospective and practising entrepreneurs are to be designed.

There are suggestions that the receptiveness of individuals to entrepreneurship support interventions vary depending on psychological traits (Radipere, 2012). People with traits like need for achievement, risk-taking propensity and locus of control have been observed to be more amena-

to entrepreneurship education outcomes like increased entrepreneurship intention compared to those who exhibit less of those characteristics (Hansemark, 2003), hence the call to concentrate more resources on developing more tractable individuals. Notwithstanding the preceding arguments, there is counter-evidence, albeit ambivalent, which suggests that individual psychological traits are stable and therefore cannot be altered by exposure to external intervention measures (McCrae & Costa Jr., 1994; Cobb-Clark & Schurer, 2012). Other studies have questioned predictive power of personality traits on entrepreneurial intentions (Llewellyn & Wilson, 2003). However, it is important to note that these findings came from studies which over-concentrated on the big five personality attributes (Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism), and also did not precisely define the nature of entrepreneurial intentions under-consideration as many past studies were hampered by definitional ambiguities of the concept (Fayolle & Liñán, 2014; Liñán & Fayolle, 2015). Recent studies have suggested



the following variants of entrepreneurial intention as areas of further research investigation: entrepreneurial goal intention, implementation intention, corporate entrepreneurship intention, social entrepreneurship intention, academic entrepreneurship intention and family entrepreneurship intention. As highlighted earlier on, the variable of interest in the current study is entrepreneurial goal intention.

The appeal of the psychological traits approach in entrepreneurship studies lies in the reality that it provides unique areas of human character which can be investigated in relation to other variables. In the current study, the focus is on the following psychological traits which are commonly associated with entrepreneurship: need for achievement, risk-taking propensity and internal locus of control.

Need for achievement

Need for achievement refers to "the degree to which one sets and strives to reach goals and the degree to which one works hard and is satisfied with the results of the work" (Gerba 2012: 263). In literature, this concept is intricately associated with entrepreneurship (Awang et al., 2016; Dess, Pinkham, & Yang, 2011; Dinis, Paço, Ferreira, Raposo, & Rodrigues, 2013; Ferreira, Raposo, Rodrigues, Dinis, & Paço, 2012; Gerba, 2012; Zhang, Cai, & Li, 2014) where it is presented as compatible with human attributes like desire for independence and persistent pursuit of goals. McClelland (1961) argued that individuals with high need for achievement had more likelihood of engaging in energetic and innovative activities, such as entrepreneurship, that required an individual's responsibility for task outcomes when compared to those with lower need for achievement. McClelland went further to assert that the extent of need for achievement among inhabitants of a country influenced the degree of economic development or decline of the country in question. However, Frey (1984: 126) dismissed this suggestion as "...empirically invalid, theoretically inadequate, and offering little value to those interested in promoting economic growth".

Findings from previous research on the influ-

ence of need for achievement on entrepreneurship-related variables have been inconsistent and contradictory. On the one hand, a number of studies have presented need for achievement as a key determinant of entrepreneurship potential (Zeffane, 2013), entrepreneurship persistence (Wu, Matthews & Dagher, 2007), decision to be self-employed (Caliendo, Fossen & Kritikos, 2014), entrepreneurship success (Rauch & Frese, 2007) and students' entrepreneurship intentions (Crant, 1996; Espiritu-Olmos & Sastre-Castillo, 2015; Paco, Ferreira, Raposo, Rodrigues & Dinis, 2015). On the other hand, Hansemark's (2003) longitudinal study of the predictive influence of need for achievement and locus of control on future business start-ups yielded statistically non-significant results. The methodological approach adopted by Hansemark's study, which is its strong point, is different from the ones used in the earlier mentioned studies that reported positive results. This may well explain the different findings observed. Nonetheless, the influence of need for achievement on numerous entrepreneurship-related issues cannot be dismissed. So long as it remains essential that we first understand the person (entrepreneur) in order to fully comprehend entrepreneurship (Baum et al., 2006), there will be some research space for psychological traits like need for achievement in entrepreneurship studies. Such attributes are of particular interest to entrepreneurship educators especially after the salient observation that certain personality attributes predispose learners to entrepreneurship learning and future entrepreneurial behaviour (Radipere, 2012). Since the attribute of high need for achievement can be acquired through culture and education (Wincent & Ortqvist, 2009; Radu & Redien-Colloot, 2008), it is invaluable to ascertain how an individual's level of need for achievement responds to exposure to entrepreneurship education and if this impacts on entrepreneurial intentions.



Risk-taking propensity

The concept of risk-taking propensity refers to the degree to which an individual is willing to take chances which involve a possibility of loss (Verheul et al., 2015). It encompasses "... the willingness to commit significant resources to opportunities having a reasonable chance to costly failure" (Alvarez, De Noble, & Jung, 2006:390). Such propensity is critical in shaping an individual's decision to engage in an entrepreneurial career rather than pursue corporate employment (Antonic et al., 2015). According to Callaghan and Venter (2011) and (Zhang et al., 2014), risk-taking propensity epitomises an entrepreneurial orientation at both firm and individual levels.

The link between risk-taking propensity and entrepreneurship has a strong foundation in literature. For example, early eighteenth century economists like Cantillon and Say associated entrepreneurial with moderate risk-taking (Muffatto,

2015). Also, findings from recent studies buttress the view that taking risk is a core part of entrepreneurship (Dawson & Henley, 2015; Gerba, 2012; Krueger & Brazeal, 1994; Verheul et al., 2015). Thus, it is sensible to expect potential and prospective entrepreneurs to have a definite risk-taking propensity since the act of initiating a business venture is regarded as a risk-taking deed (Carland, Carland & Stewart 1999). Nonetheless, the extent to which this factor distinguishes entrepreneurs from non-entrepreneurs is a matter of dispute (Carland et al., 1999). Some scholars refute the view that risk-taking propensity is an inimitable feature of entrepreneurs (Brockhaus, 1980; Palich & Bagby, 1995; Busenitz & Barney, 1997; Fitzsimmons & Douglas, 2011). In contrast, results from other studies on the relationship between risk-taking propensity and entrepreneurship intention have consistently shown a positive and significant between the two variables (Ebrahim & Schott, 2008; Sánchez, 2013; Sánchez, Carballo, & Gutiérrez, 2011; Ty-

agi, 2014). These varied outcomes demonstrate that the link between risk-taking propensity and entrepreneurship is convoluted. That being the case, entrepreneurship educators who are tasked to groom future entrepreneurs and are in search of an effective guiding template may find it invaluable to investigate how the interaction between entrepreneurship education and the risk-taking propensity may influence entrepreneurship intention.

Locus of control

Locus of control refers to the extent which an individual believes they have power over events in their lives (Rotter, 1966). Psychology literature distinguishes between internal and external locus of control. People with internal loci of control believe in their ability to control their fate and environment (Lefcourt, 1992). Because of this, they are more prone to throw themselves at personal achievement-oriented tasks like entrepreneurial opportunity recognition and pursuit. On the other hand, individuals with external loci defer to external influence (Littunen & Storhammar, 2000). Put differently, they believe their destiny is outside their control. Several studies have shown that successful entrepreneurs have an internal locus of control compared to ordinary people (Aboal & Veneri, 2016; Antonicic et al. 2015; Brockhaus, 1982; Chaudary, 2017). Moreover, other studies authenticate the positive relationship between internal locus of control and entrepreneurship intentions (Dinis et al., 2013; Vodă & Nelu, 2019). The interpretation drawn from these findings is that a high internal locus of control allows entrepreneurs to withstand disappointments and setbacks, and thus persevere. Notwithstanding the overwhelming evidence of the importance of internal locus of control, other studies have failed to separate entrepreneurs and non-entrepreneurs (Brockhaus, 1982). Given a background of these mixed and in some instances contradictory set of findings, the current study also sought to explore if locus of control is subject to the influence of external intervention measures (i.e. entrepreneurship education) and if the aforementioned variable accounted for significant variances in entrepreneurial intentions.





RESEARCH

THE ROOT OF STARTUPS

BY-
SUDARSHANA K

Are the most successful researchers we know, the most lucky people? Well, As said by Louis Pasteur, chance favours only the prepared mind. Similarly, successful entrepreneurs aren't inherently lucky. Triumphant entrepreneurs carve their own so-called luck. But, an entrepreneur backed by solid research would be surely fortunate to turn into the most profitable tech giant of the globe! Well, "Google" is not a synonym for "Research".

It is estimated that 90% of Indian startups fail, and this high rate is commonly attributed to the lack of innovation in them. The dream of a self-reliant India, can only be achieved by a self-innovative India. As a promoter for research, Mr. Kris Gopalakrishnan believes that Extensive Research could give a sustained growth for In-

growth for India. Mr. Kris, the co-founder of Infosys is currently steering the entrepreneurship towards research in India. Mr. Kris has been constantly supporting research in Indian institutes including IIT-M through various grants and fellowships. Research papers and patents alone, can't benefit anyone. Research, Innovation and Entrepreneurship - is the complete chain backed by Mr. Kris.

With over 100 Indian Unicorns, India is flying high in the Unicorn club. But still, why are experts complaining about the lack of innovation? From E-Commerce - the player of the past Decade to SaaS, B2C startups have proved to be the fastest riders in the unicorn race. With more than 50% of the millennials preferring to shop online and the rising hectic working hours,

there's never been a downhill for these industries that provide services at the doorstep. But tech based R&D startups haven't thrived much. B2C startups also research, but on their market. They utilise the market and address the existing issues with the available technology.

The booming B2C industries have a directing sector working in the backdrop, whose profits and skills are unnoticed by the common. A sector which spins the entire B2C chain, A sector that has revolutionised our everyday experiences and the sector that never settles - The Research & Development. Such R&D startups are led by a class of entrepreneurs who have proved "Startup" doesn't mean "StartAPP" and are turning millionaires the science way!

Every company does a lot of research on the market, to understand the customers and to increase their market share. All these researches are oriented towards getting quicker profits. Are quicker profits and sustained profits analogous? Disproving this, Albert Einstein claims Compound Interest to be The Eighth Wonder of the World. Companies that understand this, are investing heaps of money on R&D anticipating pouring profits.

For example, AirPods that have turned into a cultural phenomenon today is a brainchild of Apple's R&D. Companies nurture innovation and boost creativity among it's employees. Establishing this, Mr. Sarbajit Rakshit, an engineer at IBM is the Indian with the most number of patents. Closely observing and drawing inspirations from the latest tech gadgets available, Mr. Sarbajit has set his research work en route to improve people's lives.

The current Virtual Reality (VR) sensation of Metaverse roots from a startup! Yes, it was curated by Oculus, a startup of a group of VR Engineers. These engineers started creating the present day VR Tech, by just developing a VR headset for video gaming that was inexpensive for avid gamers. It is highly evident that research is that realm of play that sees no big or small players.

IP Rights have also turned into a business weapon that can shake even giants. Intellectual Property (IP) Rights give the ownership and rights for the creations of the human intellect for a limited time period. Every year, India pays a considerable sum of money to foreign companies as a royalty in return for using their innovations. In the technically driven world, protecting your work is as important as creating it. As startups also get IPR protection, this could lay the balance between startups and established tech giants. The major reason why ideas don't get Patents is the high fee. The government of India has come forward to ease the process for budding startups. It has provided facilitators to support during the application process and has also cut down the fees sharply.

Academics and Business that were never in the same line in India, are overlapping their territories. As more academicians are evolving as entrepreneurs, the startup race has more contenders. Unlike startups that are market driven, these Prof-Startups work for a bigger cause, rooting from their research work to branching towards utility for the general public. Startup incubators in the leading tech institutes of the country are boosting the R&D startups. There are more than 200 deep tech startups based in IIT Madras alone.

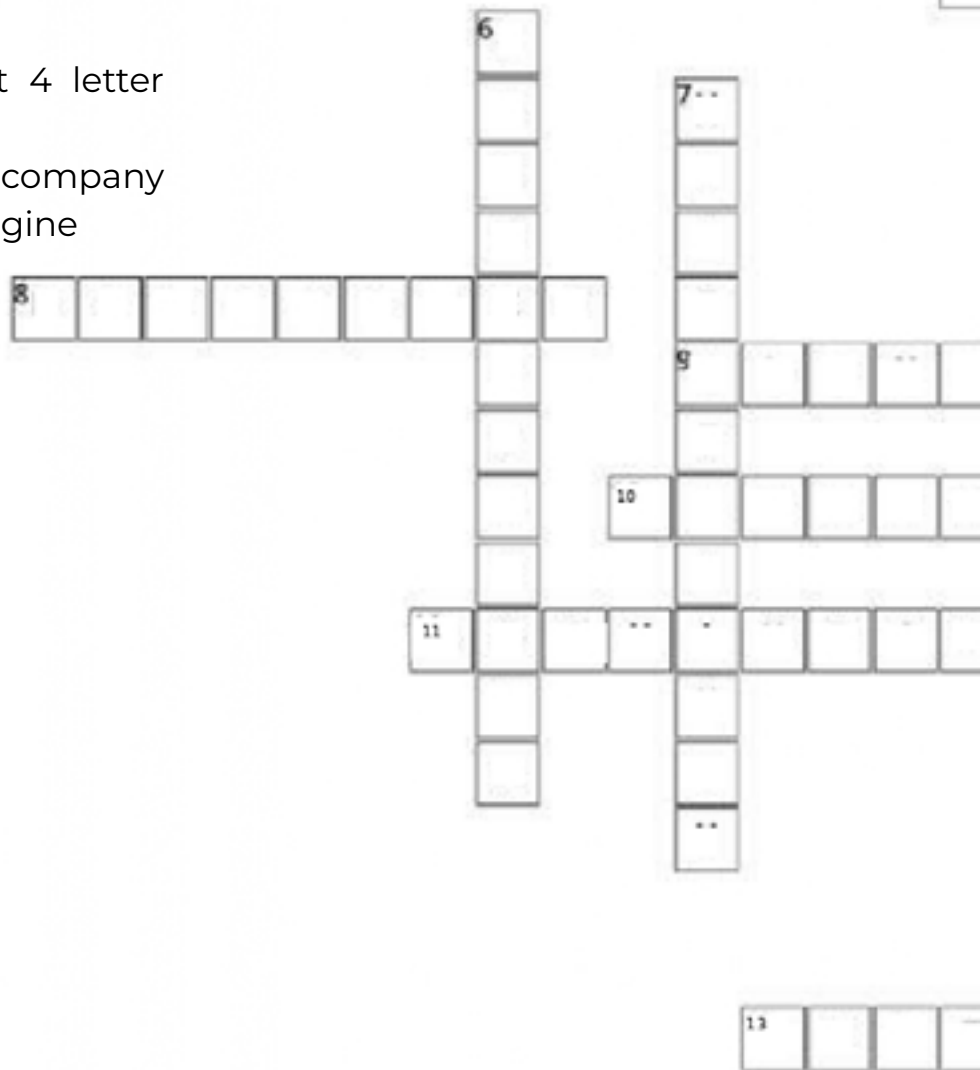
Research is the initializing code for every company that can return gains in never ending loops. Rise in Indian Startups that implement this Research Plan could make India self reliant - the Scientific Way!

ACROSS:

2. Had a real light bulb moment
5. Co-Founder of most advertising music app
8. Small, not hard
9. CEO of Magnetic Flux
10. Is actually an alien from outer space
11. His e-retail company has been bought by a bigger retail company
13. Founder of largest river in South America

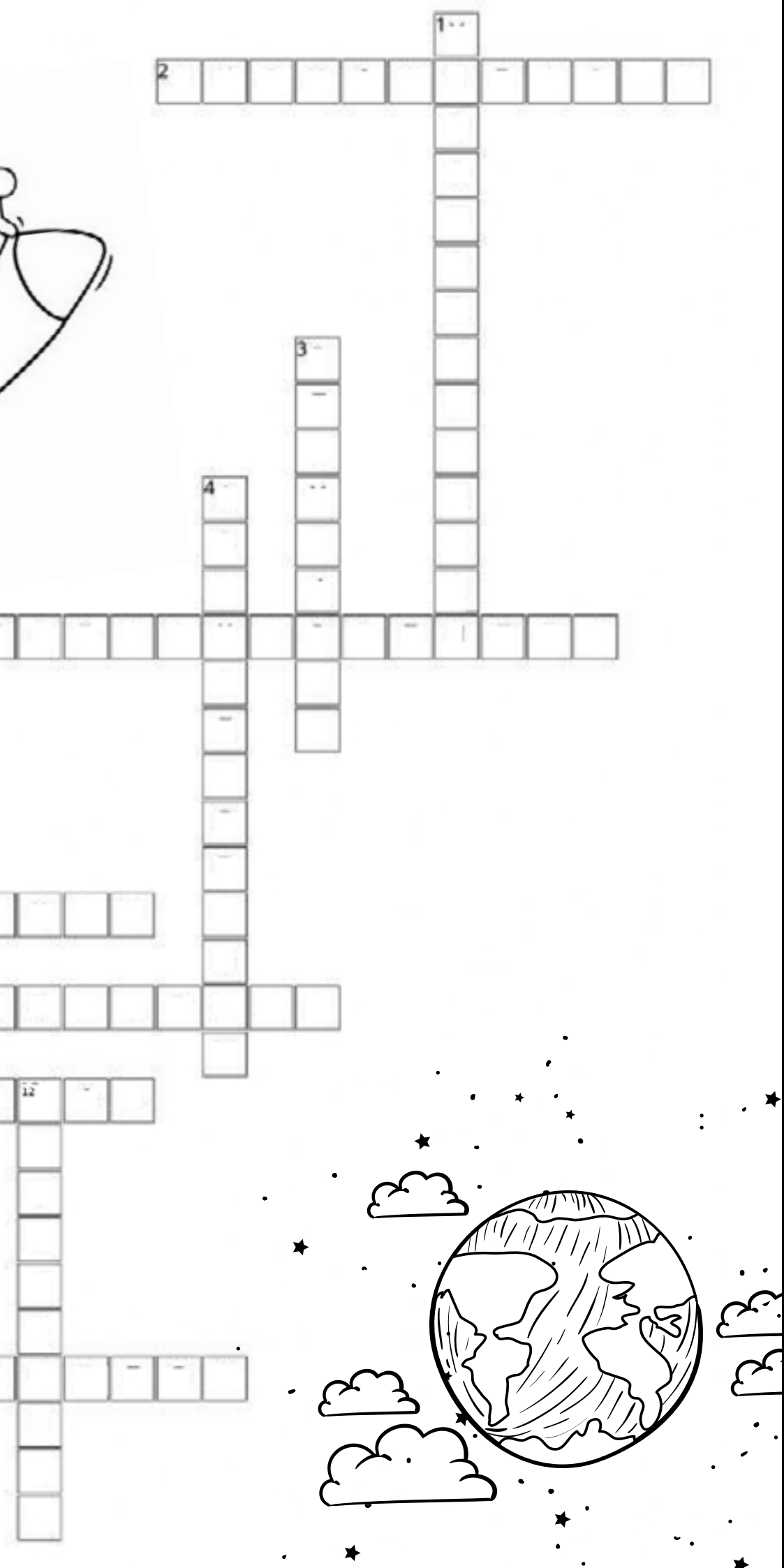
DOWN:

1. Created the taste of India
3. Started a company with a guy with the same name
4. Bhai kya kar raha hai tu?
6. Founder of India's largest 4 letter company
7. Has a very sweet cosmetics company
12. Co-Founder of a Search Engine



ANSWERS
 1. Verghese Kurien 2. Thomas Edison 3. Steve Jobs 4. Ashneer Grover
 5. Martin Lorentzo 6. Jamsetji Tata 7. Vineta Singh 8. Bill Gates
 9. Elon Musk 10. Mark Zuckerberg 11. Sachin Bansal 12. Sergey Brin 13. Jeff Bezos

ENTREPRENEURS AROUND THE WORLD



EXPERT



SYSTEMS

BY- AMIT KUMAR PATRA



J.A.R.V.I.S

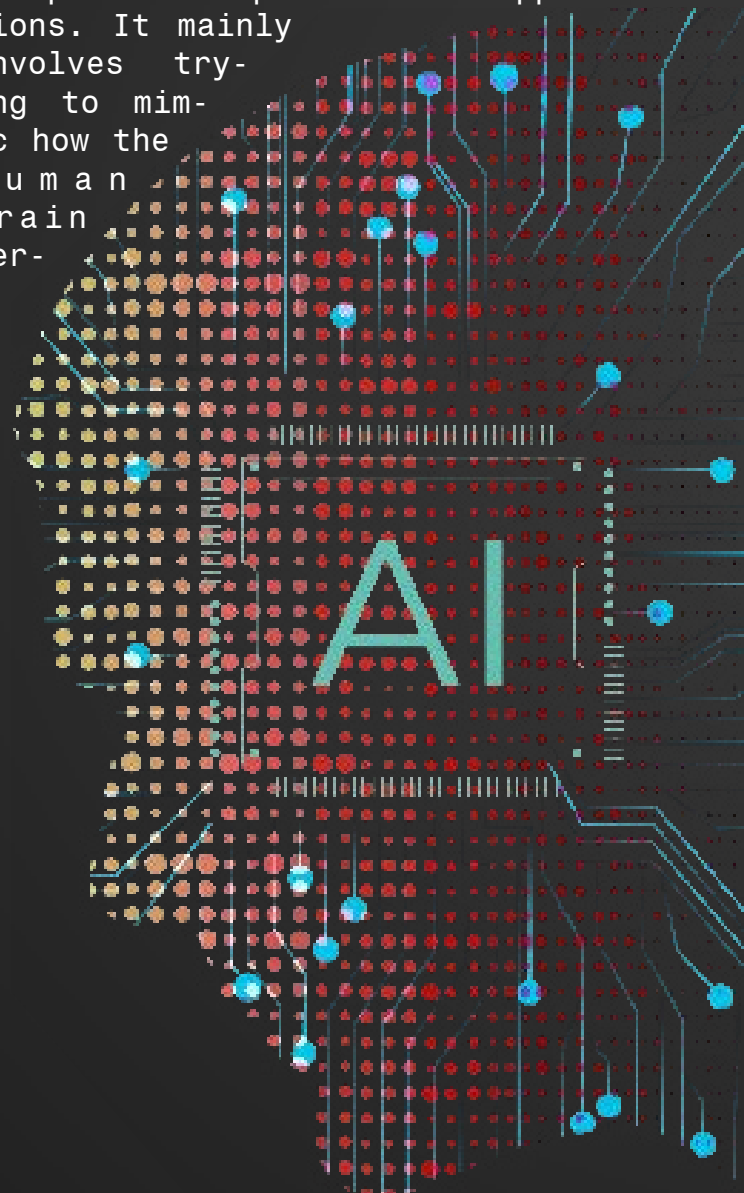
FROM WORKING ON TO WITNESS

The name was first used in the renowned Marvel Studios film "IRON MAN" and quickly became recognisable. However, why is it brought up here? because the AI that controlled the iron man suit was J.A.R.V.I.S. The idea of AI is incredibly intriguing because there are so many different and extensive uses for it. You may have seen the use of autofill in any browser or while writing in your Gmail. This is a common use for NLP (Natural Language Processing). Once more, you may have noticed that, based on your usage, food ordering applications offer you notifications.

Similar videos are queued up while you view a video on YouTube. Any browser's search engine returns results when a specific keyword or material with a similar sentiment is typed in. Similar to all of these instances and the millions of more like them, AI powers models like the Google Assistant, Siri, and Alexa. There are endless examples, but the idea, philosophy, and goal are all focused on making life easier, more diverse, and better for people. We discussed a lot of applications which we come across in our daily life, but one question might be wandering in your brain: what exactly is AI? Before going into it let us brief you about how we are gonna discuss AI. We'll look at the definition followed by the working of it. Then we'll see different categories of it and their applications. Lastly we'll discuss the career aspects of it and conclude this article.

Now, coming back to the question of

What is AI? The answer to this question is provisory. The replication of human intelligence functions by machines, particularly computer systems, is known as artificial intelligence. Expert systems, natural language processing, speech recognition, and machine vision are some examples of specific AI applications. It mainly involves trying to mimic how the human brain performs.



forms a task. Planning, learning, reasoning, problem-solving, knowledge representation, vision, motion, manipulation, and, to a lesser extent, social intelligence and creativity, are among the behaviours that AI systems frequently exhibit.

With the use of sophisticated algorithms, quick, repeated processing, and vast amounts of data, AI enables software to automatically learn from patterns or features in the data. In order to learn from the patterns and features in the data that they study, artificial intelligence (AI) combines enormous data sets with sophisticated, iterative processing methods. An AI system tests and evaluates its own performance after each round of data processing in order to improve.

What Academic Fields Comprise AI? You can think of the various parts of an AI system as sub-fields inside the larger subject of artificial intelligence.

The following industries frequently make use of AI technology:

Machine learning-It is a particular use of AI that enables computer systems, programmes, or apps to automatically learn and improve their performance over time without having been explicitly programmed to do so. AI is now equipped with the ability to use machine learning to identify patterns in data, unearth new information, and enhance the outcomes of any work it has been given.

Deep Learning-Deep Learning is a particular kind of machine learning that enables AI to develop and learn by analysing data. Deep Learning processes information, identifies relationships between the data, and generates conclusions, or outcomes, based on positive and negative reinforcement using artificial neural networks that resemble biological neural networks in the human brain.

Neural network-Neural networks are a method that repeatedly examines data sets to discover relationships and derive meaning from undefined data. Artificial intelligence (AI) systems can process huge amounts of data, find patterns among them, and respond to questions using neural networks, which function similarly to the networks of neurons in the human brain.

Cognitive Computing-Cognitive computing enables computer models to emulate how a human brain functions when carrying out a difficult activity, such as processing text, speech, or images. Cognitive computing is a crucial component of AI systems created to mimic interactions between



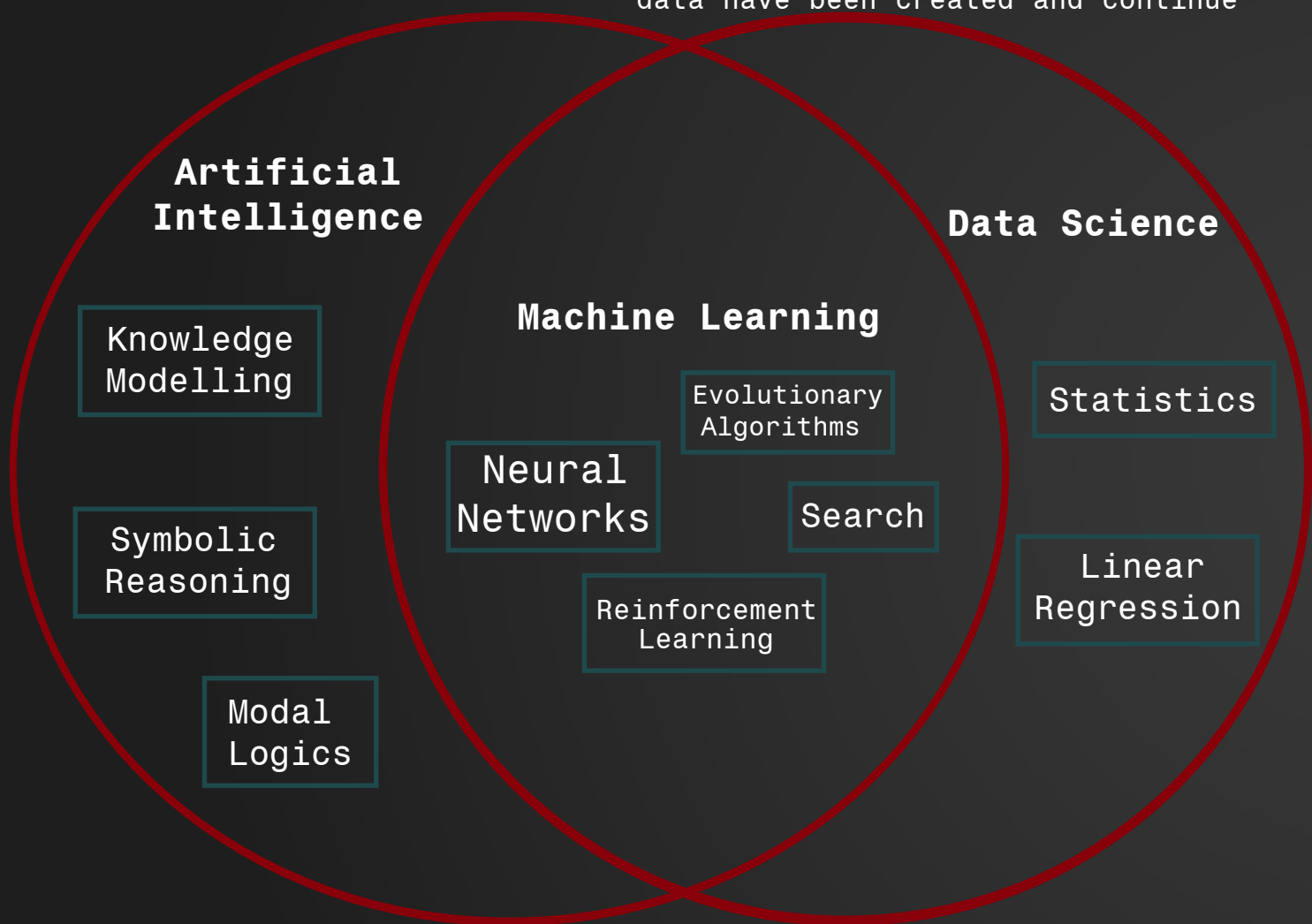
humans and machines.

Natural Language Processing(NLP) -A crucial step in the AI process, natural language processing enables computers to recognise, examine, comprehend, and really grasp spoken and written human language. Any AI-driven system that interacts with humans in some manner, whether through text or spoken inputs, needs to have a strong understanding of natural language processing.

Computer vision - Reviewing and interpreting the content of a picture

The Venn Diagram shows AI broken down into its several components.

While AI does not entirely comprise data science, it makes a significant contribution that forms its foundation. You’ve probably heard terms like data science, data analytics, and data architecture in the modern era. Well, they do have some relationships, but not much. Data science has gained substantial discussion in recent years. Since the majority of global activity went online following COVID-19, enormous volumes of data have been created and continue



using pattern recognition and deep learning is one of the many applications of AI technologies. Like the captchas you’ll find all over the web that learn by asking humans to help them identify automobiles, crosswalks, bicycles, mountains, etc., computer vision enables AI systems to recognise components of visual input.

to be created. Therefore, this is priceless to the businesses. Data scientists, analysts, etc., are in high demand because of this.

How can you get started in AI? The first and foremost step is to find your interest. Don’t just go around and pursue it if you don’t have

- Pick a topic you are interested in
- Look for a quick fix
- Boost your straightforward solution
- Share your resolve
- Steps 1-4 should be repeated for various issues
- Complete a Kaggle competition
- Professionally apply machine learning

Now coming to the very last part of the article, The career aspects of AI to be honest is enormous. Because the rate at which it's getting nurtured the surging demand for AI tech persons makes sense.

The various career options this field comprises are

- Big Data Engineer
- Business Intelligence Developer
- Data Scientist
- Machine Learning Engineer
- Research Scientist
- AI Data Analyst
- Product Manager
- AI Engineer
- Robotic Scientist

The covid and post-covid eras' huge digitalization has resulted in an abundance of data. I can also say that there is a lot of room for growth in terms of employment in this field while keeping in mind the recession. Every digital giant is investing in this sector right now. Therefore, picking this industry as a career will be a smart move since there won't be a drop in the demand for working experts. To support my position, I'd like to offer some statistics and data. starting with ELON MUSK, the person in our society who is the most creative. We can observe ChatGPT in use as evidence that he has been investing in AI. Elon Musk's openAI will receive \$1 billion from Microsoft.

Second, Google revealed a \$1 million grant to IIT-Madras on December 19 in order to create what it called "India's first multidisciplinary

centre" for ethical AI.

Google stated that the research centre would bring together researchers, subject experts, developers, community members, policy makers, and others to "get AI right" and also localise it to the Indian context as part of the tech giant's commitment to creating responsible use cases for AI.

There are numerous instances demonstrating the value and applications of AI. Online sites claim that 2.5 quintillion bytes of digital data are produced EVERY DAY! Future numbers will undoubtedly increase as demand for working experts rises.

From 2023 to 2032, it is anticipated to expand at a cumulative annual growth rate (CAGR) of 35%. In 2023, businesses will place a high priority on generative AI, sustainable AI, and enhanced working.

I'll sum up by saying that there is no harm in thinking about pursuing a job in this area. But to work in this profession, you need to be motivated and disciplined.

ChatGPT - An



Hey! Can you give us some background on ChatGPT's creation?



In 2017, a research paper titled 'Attention is All You Need' was published at the 31st Conference on Neural Information Processing Systems (NeurIPS 2017) under the topic of natural language processing & computational linguistics. Then the obscure, introduced a very new and extremely powerful neural network architecture known as the Transformer. Little did anyone know that post the time halt by pandemic, throwing off the blanket it would gain tremendous importance.

An advanced language model called GPT-3 (Generative Pre-trained Transformer 3) was created by OpenAI, capable of producing writing that sounds like human speech in natural language. It can produce text in a variety of styles and tones and comprehend intricate grammatical structures. It has received acclaim for being able to finish tasks like creative writing and even coding that were previously believed to be beyond the scope of artificial intelligence. Additionally, GPT-3 has been made accessible to coders via OpenAI's API, enabling simple integration into a variety of programmes and platforms.



Could you provide the names of some companies that employ GPT-3?



Copy.ai: This startup uses GPT-3 to generate marketing copy, product descriptions, and social media posts for businesses. The AI-generated content is designed to be engaging and optimized for SEO, saving businesses time and resources.

Fable Studio: This startup uses GPT-3 to create interactive stories and games that respond to the player's choices and actions. The AI-generated content allows for a more personalized and immersive experience for users.

NoCode AI: This startup uses GPT-3 to power a no-code AI platform that allows businesses to create custom chatbots, language models, and other AI-powered tools without any coding skills. **Luminovo:** This startup

Introduction

uses GPT-3 to automate the process of writing product descriptions and user manuals for manufacturers. The AI-generated content is designed to be easy to understand and optimized for SEO.

Viable: This startup uses GPT-3 to generate product recommendations and personalized marketing messages for e-commerce businesses. The AI-generated content is based on user data and behavior, making it more relevant and effective.



Tell us briefly about ChatGPT and how it can be implemented in the entrepreneurial world?



ChatGPT - Generative Pre-trained Transformer or ChatGPT, as it's heavily vocalised, is based on deep learning, a form of machine learning which involves training artificial neural networks to learn patterns in data to make predictions or generate new data. The neural network was trained on a large dataset of text from the internet, which included a wide range of topics and writing styles. The model was trained to predict the next word in a sentence based on the context of the previous words. This process is called "language modeling", a common technique in natural language processing.

As a tool for businesses to offer assistance and customer service, chatbots are gaining popularity. With ChatGPT, companies could build chatbots that can help customers individually and respond to a variety of queries. As a language paradigm, ChatGPT has a variety of applications in entrepreneurship. Entrepreneurs can use ChatGPT to perform market research by training the model on pertinent datasets or by posing questions to it about potential customers for their product or service. Business strategy can be improved by using the insightful data that ChatGPT can offer about customer behaviour, trends, and preferences.

Customers frequently have questions and concerns about goods or services, and it is important to address these. By responding to commonly asked questions and offering fixes for typical issues, ChatGPT can be used to provide customer support.

"Jo dikhta hai wo bikta hai" is a proverb. It demonstrates the value of promotion and publicity. The majority of marketing and branding today

is done through content creation or advertising. ChatGPT can be used to create content for marketing campaigns, social media posts, and blog entries.

All of your connections and networking efforts will be ineffective unless and until you have a specific business concept to work on. ChatGPT can be used to generate new business ideas by feeding it prompts related to your industry or target market. The model can generate new and innovative ideas that you may not have considered before.

A successful firm needs business automation to operate effectively. ChatGPT can be integrated with other software applications to automate business processes, such as lead generation, sales forecasting, and inventory management. This can help improve efficiency and productivity in your business operations.



How can ChatGPT be used in the healthcare industry?



In order to test for mental health problems, provide coping mechanisms, and connect patients to resources for additional support, patients can receive behavioural health support from ChatGPT. We are all aware of how exhausting being an entrepreneur can be and how much mental and physical fatigue one must endure. ChatGPT's capacity for emotional and psychological support can be used to help business owners during difficult times. There's an example also. Wysa, is an artificial intelligence-based coach that offers early intervention to high-risk groups. It uses three different approaches: an AI chatbot, a collection of resources for self-help based on research, and messaging-based assistance from real therapists. For more info on mental health in Startups, DO READ Our Article written by Laasya. (Even chatGPT knows laasya!!- Famous :))



What are the major drawbacks one would face while using ChatGPT?



Although ChatGPT has the potential to be an effective tool for natural language processing, like any machine learning model, ChatGPT is only as unbiased as the data it was trained on. If the model is trained on a dataset that is biased towards certain groups or perspectives, the model's responses could also be biased. While ChatGPT can generate human-like responses to a wide range of topics, it is not always accurate. In some cases, the model may generate responses that are nonsensical or inappropriate. Private data security is a significant duty and concern in today's digitalized world. The use of data by businesses must be made secure and transparent. Because ChatGPT was trained on a large dataset of internet text, there are potential privacy concerns to consider. The model could potentially generate responses that reveal personal information or sensitive data.

ChatGPT is a powerful tool, a limitation in itself that it's just a tool. It carries potential to both irrigate and cause floods. The digital era has transformed the way we communicate and interact with one another. From emails and instant messaging to social media and video calls, the internet has provided us with endless opportunities to connect with people from all over the world. One of the latest innovations in this realm is ChatGPT, a large language model developed by OpenAI that has revolutionized the way we engage in online conversations.



Will ChatGPT replace humans in jobs?



ChatGPT and other natural language processing (NLP) technologies have the potential to revolutionize many industries, including customer service, content creation, and data analysis. However, there is some concern that these systems could replace jobs that are currently held by humans.

While it is true that NLP systems like ChatGPT are able to generate text that is indistinguishable from text written by humans, it is important to note that these systems are not a replacement for human workers. While NLP systems are able to automate certain tasks and processes, there are many tasks and roles that require human interaction and decision-making.

That being said, it is possible that NLP systems like ChatGPT could impact the job market in certain industries, particularly those that rely heavily on customer service and content creation. For example, some companies may choose to use NLP systems to handle customer inquiries and support, rather than hiring human customer service representatives. Similarly, some media companies may use NLP systems to generate news articles and other types of content, rather than hiring human writers.

Conclusion: While there is a possibility that ChatGPT and other NLP systems could impact the job market in certain industries, it is important to view these systems as tools that can augment human abilities, rather than as replacements for human workers. As these systems continue to evolve and develop, it will be important for businesses and individuals to adapt and embrace the new opportunities that they present.

The entrepreneurial aspect of ChatGPT is important because it exemplifies the use of cutting-edge artificial intelligence technology for commercial objectives. A shining example of how businesses can use AI to create cutting-edge products and services that improve user interaction and customer experiences is ChatGPT. Utilizing state-of-the-art technology, the company can measure client satisfaction curves and improve user engagement and interaction.

INSIDE THE DATA ENTREPRE

The launch of Facebook in 2004 marked a new era in terms of the personal data available on the internet. It was pivotal in changing the way society remained connected. Information could be shared with family and friends in a single click through pictures, videos, and biodata. All was unicorns and rainbows till the distressing news of personal data leakage of about 553 million Facebook users. From this incident, several companies and consumers realized data is a valuable asset that requires proper care. Data privacy was then identified as a fundamental right.

Data, today, provides a vantage point in policy making and strategic planning in industries, militaries and government. Even though data provides more helpful outcomes to the consumer and enhances the ease of service delivery, it side-by-side creates a challenge to the privacy of the individual. In the past they may have said "Knowledge is power" but the new reality is that "Data is the new oil".

As a crucial resource, data transgresses almost every aspect of human life like food, traveling, entertainment and perception building. It is clear that any startup in any sector would have to handle data in one form or the other. In these quests, data gathering extends to the most private aspects of an individual which may be critical not merely to his dignity as a human but also to his security as a being. Therefore, the handling of data plays a monumental role in the growth of a startup. It helps them to understand the needs of their customers, identify market tendencies and make informed decisions. In most ways startups are more suited to utilize data, since they're generally more agile and able to act more quickly on data-driven insights.

Any business with a website, a social media presence, and which accepts electronic payments of any kind is collecting data about customers, user habits, web traffic, demographics, and more.

Tracking hashtags, brand mentions, likes and reposts on social media is an effective way of identifying how customers are talking about a brand. Data can also be used to identify influencers who talk about a brand or related topics.

Data can be used to define target audiences and develop marketing strategies that resonate with them. Data can also be used to track marketing Return On investment(ROI) ensuring that their marketing efforts are generating positive returns.

Startups analyze existing customer data to identify buying or product usage habits. They then redefine personas based on these habits to efficiently invest capital in acquiring new customers who align with these trends..

Startups use data to assess KPIs and identify trends that impact daily operations, and eliminate negative processes to improve customer service. Startups can analyze historical sales data to forecast future sales and identify opportunities for growth.



How Startups Harness the Potential of Data

WORLD OF DRIVEN ENTREURSHIP

Surveys are conducted through a physical or digital questionnaire to gather qualitative and quantitative data. This might be the most simplest method but it fails to be optimal because of its tendency to be biased to socially correct responses.

Transactional tracking, used by e-commerce and point-of-sale platforms, collects data every time a customer purchases the product or service. This ensures better understanding of the customer base and the efficiency of targeted marketing efforts.

Interviews and focus groups help gather feedback from people in the target audience. This is widely used in the initial stages of the startup so that they can see the customers interact with their product in real-time and hence decide on further features to pursue.



How Startups amass data?

Behavioral data is gathered through the user's interaction with the website and social media channels. The content can hence be fine-tuned to cater to stuff the user is interested in and hence increase engagement.

Types of data leveraged by startups

Startups exploit various kinds of data in the process of climbing to the top.

Customer Data includes demographics, behavioral analysis, preferences and feedback. The data is utilized to comprehend customer needs, make targeted marketing campaigns and develop products that meet the needs of the customers.

Financial Data includes Revenue statements, cash flows and expenses. These are necessary to understand the spending and profitability of the startup.

Operational Data includes inventory, production and supply chain. This helps in keeping track of inventory that meets demand and optimizing processes.

Marketing Data includes customer acquisition cost, conversion rates, and engagement metrics. This data measures the effectiveness of their campaigns and further helps to optimize their marketing strategies.

Trends are not constant with time hence, as a startup grows, its data needs change. Startups may need to collect and analyze more data to gain deeper insights into customer behavior and market trends in order to retain their customers and compete with similar other startups. Investment in more advanced data analytics tools will be required to extract insights from large data sets. With expanding data size and increasing sensitivity of the data, security and compliance will be needed. Hence, startups may hire data analysts or data scientists to extract insights from their data and develop data-driven strategies.

A recent survey by a cybersecurity startup FireCompass found that cybersecurity preparedness is abysmal among most Indian startups. Small companies scored eight out of a total of 100 for security maturity, and fintech startups were among the worst prepared.

The survey also found that banks and telecom companies are better placed to handle cyber attacks, with a score of 61 each. Startups tend to think they're too small to be targeted by hackers, but it's precisely their size, lack of protection, and storing of information on the cloud that makes them attractive to hackers.



According to projections, cybercrime is forecast to cost the global economy \$10.5 trillion by 2025, reflecting a 15% increase year on year. Consider the case of a single company- Uber. It announced on December 12th, 2022 that a hacker under the pseudonym "UberLeaks" obtained data of more than 70,000 employees. The company believed this data breach was due to a third-party vendor, Teqtivity, who had compromised their mobile device management system. This was not the first time this company was under attack! Firstly, in 2016, Uber was forced to pay \$100,000 to hackers to cover up for a security breach. Later in 2018, the company paid \$148 million in a settlement related to the incident with attorney generals. Uber again suffered a data breach in mid- September 2022, which led to the shutting down of their internal messaging service and engineering systems. This hacker also claimed that it could hack into the company's database. This pushed Uber into a legal battle with thousands of dollars as fees. It becomes imperative that with moving times, startups, especially the nascent ones, do realize that data security is key for organizations. Startups should have a comprehensive data security plan to keep their data secure. Understanding hackers' methodologies can mitigate the imminent threat of data loss. By monitoring trends and new technologies, cybersecurity professionals can prevent the potentially catastrophic damage of a large-scale data breach.

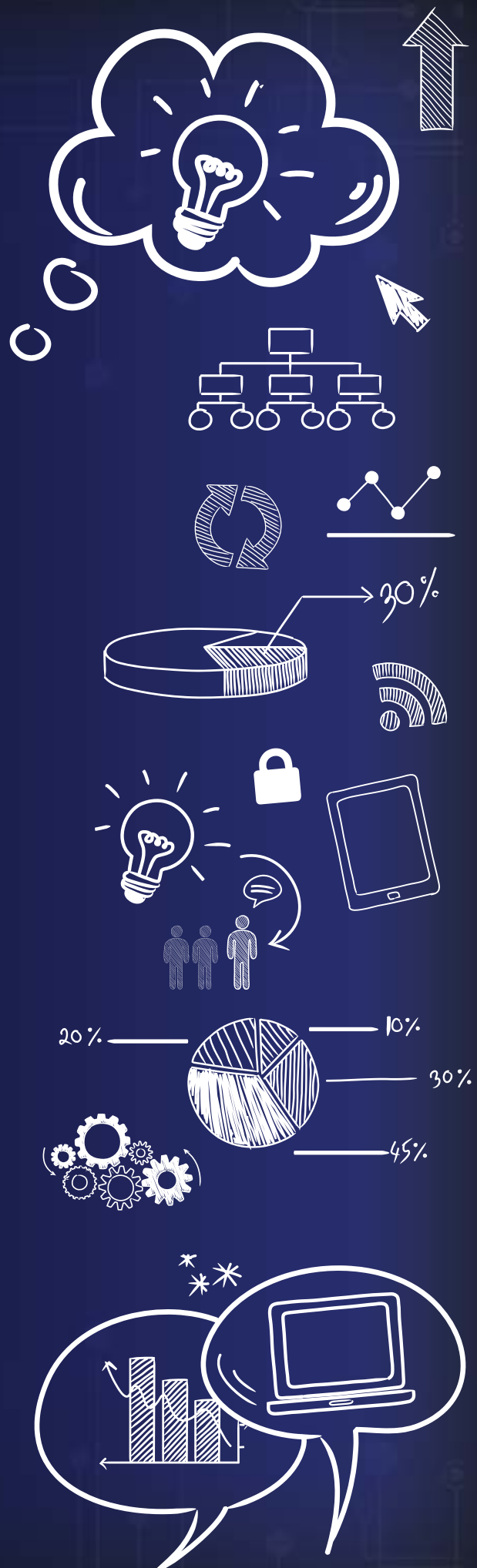
Jaipur-based Wijungle is an all-in-one appliance aimed to replace the existing multiple expensive standalone security products like router, load balancer, VPN servers, firewall, guest management solutions, proxy servers, etc of an organization.

Jaipur-based Wijungle is an all-in-one appliance aimed to replace the existing multiple expensive standalone security products like router, load balancer, VPN servers, firewall, guest management solutions, proxy servers, etc of an organization.

Kratikal has launched various innovative security solutions to tackle the growing threats and risks in cyberspace. These include ThreatCop, an artificial intelligence and machine learning-based simulation product designed for employee risk assessment and cyber awareness, and KDMARC, an email authentication and anti-spoofing tool that aims to address cyber threats posed by email-based attacks. Kotak Mahindra Bank, Aditya Birla Capital, Himalaya Wellness, PVR Cinemas, Fortis Healthcare, Cars24, Pine Labs, and Drivezy, among others.

Securitybulls analyzes a company's site from a hacker's point of view and provides a blueprint for remediation to start or enhance a comprehensive information protection strategy.

BY-
P L S SRI JYOTHIRADITYA



HEALTH



Health : A look

HICARE



different on all

n NEO MOTION

LIVE LIFE TO THE FULLEST

NEOFLEET, evident by the name, is a club of two products: NeoBolt and NeoFly. NeoFly is a personalized wheelchair, based on the size, health condition and lifestyle of the user and terrain. The major highlight of this product is the fact that the person is more visible than the wheelchair itself. NeoBolt is a motorized add-on to NeoFly which converts the wheelchair to a bike. The speed limit of the product allows the user to use it on roads without a license. It allows the transition from indoor to outdoor environment smoothly and the user will have to rely less on others. It is powered by a Lithium Ion Battery that will give 30Km for every charge and recharges completely in just 4 hours.



Through extensive research, the Neomotion team found dissatisfaction with the existing wheelchairs because of their standardized design for all users. This led to incorrect posture and difficulty in propelling. Moreover, wheelchairs were unsuitable for outdoor environments. The user would have to shift to a tri-cycle or a tri-scooter, which was a tedious and highly dependent task. Consequently, wheelchair users ended up staying at home.

But Neomotion set out to change this condition for the people. For instance we have Mr. Shivaji Pawar, who was challenged with inefficient mobility because of polio, but is now self-sufficient and conducts Zomato deliveries with the help of Neomotion, NeoBolt and NeoFly to be precise. With these products, Neomotion aims to provide improvised mobility for those who are challenged by it due to spinal cord injuries, polio, cerebral palsy, amputations, muscular dystrophy and old age.

The roadmap lies with the co-founders- Sujatha Srinivasan, Swostik Sourav Dash and Vivek Sarda. Sujatha Srinivasan intended on studying assistive devices and therefore, started working on the standing wheelchair under R2D2, finally launched by IITM in collaboration with Phoenix Medical Systems in 2019. The project started in 2008 but it was only in 2015 that it took off. It was around this time, Vivek and Swostik joined the workforce under Sujatha Srinivasan which marked the assemblage of the co-founders and the formation of Neomotion.

200 interviews with wheelchair users were conducted in 40 locations in India. Their primary goal was to understand their socioeconomic challenges. This helped in debranching the possibilities and getting hold of the root problem.

The next few years from 2018 were dedicated to design development, R&D, user trials, and product refinement.

The team faced difficulties while finalizing the idea and far down, selling it. The end-users and doctors themselves were unaware of what features would reduce the daily struggle with mobility. This made finalizing an optimal solution a mammoth task. With building blocks all arranged, Neomotion launched its product on 12th December 2020. At the MOBIS factory in Sriperumbudur, Chennai, they distributed their product to the first 50 recipients during the launch. Moreover, MOBIS agreed to sponsor the startup. Since then, the company has de-

delivered more than 2000 products in 32 states. In the years 21-22, the startup got 65% of orders from individuals and 35% from the government and CSR. They had fixed an MRP of rupees 1.18 lakhs for their product (NeoFly + NeoBolt). Through all this, they had earned a profit of 4.7 crore rupees after taxation of 30%.

Post-product development remote collection of measurements for user-based personalization and high prices.

Their attempt to solve it includes an entry level wheelchair that will cost around Rs.1200 to Rs.1500. A modified version of NeoFly that additionally has a joystick to help those with lesser strength in their fingers. Furthermore, the team is in search of partners to expand abroad. Currently, their eyes are on Africa and South-East Asia and they have received a few requests from the Middle East as well. Presently, 150 to 200 products are sold monthly and in order to reduce the product's price, the startup must reach 500 to 1000 sales per month. To achieve this, a 12 month EMI scheme with 0% interest

“ TO ASSESSIZE IS MARKEDLY BETTER THAN TO SOLVE! ”

was introduced in hopes of obtaining an improved user traction.

Throughout their voyage, they received help from many benefactors. IIT Madras incubation cell granted 44 lakhs in return for a 6.5% equity. They received funds from Vilgro- a company backed by venture capitalists. The x factor for their recognition was when they were backed by Shark Tank. Peyush Bansal, one of the judges, granted 1 crore rupees for a 1% equity. It came handy with a condition that he would receive 5% of the profit till he received the 1 crore. This amount was finally donated.

They have had several Corporate partners along the way- TATA Trust, L&T Technology and Services, RR Donnelley, Nilekani Philanthropies, SGS India Pvt Ltd, SBI Cards and Payments (on-going).

To garner, census of India, 2011 states that 121.08 crore people are disabled. Out of the disabled people, 20% are challenged with movement and 12% suffer from multiple disorders like speech and movement disability. This implies that through strategic partnerships and additional features, Neomotion can cater to a further audience of 14.53 crores by integrating aids for the other disabilities with their pre-existing product. An astonishing fact is that 76.4% of the disabled population receive no aid from the government or from outside organizations. Overall, it can be understood that there is a larger market for Neomotion and tremendous scope for it to change the lives of individuals for the better.

BY-

ASHMITHA JAYSI SIVAKUMAR

CHANGEMAKERS

Sujatha Srinivasan

She graduated with a B.Tech Degree in Mechanical Engineering in 1992 and has been working in assistive device development since then. Fifteen years later she came back to teach in the same department. Moreover, she heads the TTK Center for Rehabilitation Research and Device Development at IIT Madras.

Swostik Sourav Dash:

Swostik was always a product builder. During his schooling in Kendriya Vidyalaya, He would eagerly wait to take part in the Social Science and Science Exhibition. In which he had built prototypes and small-scale models of engineering concepts. He did B. Tech in Mechanical Engineering at IITM. Swostik spent the majority of his time at the Centre For Innovation (CFI). He is now the CEO and Co-founder of Neomotion.

Vivek Sarda

Vivek is also a graduate of Mechanical Engineering Department at IITM. He never left the campus and has been working in the disability space for over five years. He innovated the cerebral palsy wheelchair which has won multiple awards like Jed-I Challenge and Gandhian Young Technical Innovation Award at Rashtrapati Bhavan. Presently he is the Co-Founder and Chief Design Officer of Neomotion.

MENTAL HEALTH & STARTUPS

The duality of healthcare is both mental and physical but what travels is just the physical aspect. Mental health is overly talked about but unfortunately, only the surface has been scratched.

According to the National Health Interview Survey (CDC) of 2019, one in every four people worldwide suffers from mental problems. In the first year of the COVID-19 epidemic, depression and anxiety rates have increased by 25% (World Health Organization). This shifted attention to the urgent need for accessible and reasonably priced mental health treatment. There has been a paradigm shift in the healthcare sector recognizing the potential and consumer needs.

Due to expense, distance, or stigma, many persons who have mental health concerns are unable to get standard mental health care. There's a need to provide services that can be accessed remotely, making it more straightforward for consumers to receive care without having to worry about transportation or taking time off from work.

Mental health services can be costly, and insurance coverage for these services is frequently insufficient highlighting the need for economical solutions.

Generalizing the treatment for mental illnesses is like a single prescription for all diseases. There must be plenty of room for choices and the availability of treatment in accordance.

Startups in the mental health care industry confront a number of obstacles. They can impede the growth of startups in the mental healthcare industry and drive up expenses. Startups in the mental health industry deal with sensitive data, therefore privacy and security are top priorities. It might be difficult to secure patient data while still abiding by all applicable rules and laws. Startups in the mental health sector use data to create individualized treatment plans and gauge the success of their interventions. Yet, due to restricted access to data and worries about data protection, gathering and evaluating data can be difficult. Although increased awareness of mental health problems, the stigma persists and can prevent individuals from getting help. Startups in the field of mental health care must combat this stigma and inform the public about the advantages of receiving such care.

Mental healthcare startups have gained traction worldwide in recent years, and India is not immune to them. These businesses are attempting to make the environment more welcoming and helpful for those who are dealing with mental health difficulties.

Wysa is an artificial intelligence-based coach that offers early intervention to high-risk groups. Launched in 2016, it has expanded from India to 30+ countries. It uses three different approaches: an AI chatbot, a collection of resources for self-help based on research, and messaging-based

“I think at some point, I realized that if I am going to fail, I am willing to do it trying to solve for mental health ”
~ Jo Aggarwal

assistance from real therapists. Co-founder Jo Aggarwal wanted to create a safe space for people so they can help themselves using different tools in one-tenth of the time traditional therapy takes.

Interestingly, the birth of Wysa comes due to the failure of another one of Jo Aggarwal's startups, Stayclose. When it was clear that Stayclose would not fit in the current market, she fell into depression. But her problem-solving nature helped her push through and create Wysa.

It has made many think, do those who provide mental healthcare need it as much as we do? Startup founders and entrepreneurs are known for 'having things together' and 'always having a plan'. Contrary to popular belief, this is hardly ever true. In a study conducted by the University of California, 50% of entrepreneurs are susceptible to mental health conditions. The entrepreneurial world is a make-or-break, fast-paced competition that instills the immense pressure of succeeding in many young entrepreneurs and they are in as much need of mental healthcare as we are.

In popular culture, successful entrepreneurs and business executives are held up as role models for others to follow. One such aspect is the Hustle Culture. It promotes the notion that success is the product of sacrifice and hard work, and that everything is achievable with sufficient effort. It is defined by the conviction that one must continuously "hustle" in order to succeed. Hustle culture encourages long working hours and tight deadlines. In addition, startup founders have to deal with the stress of sorting internal strifes within their company and dealing with the customer demands and venture capitalists. Moreover, there is tremendous pressure to succeed and a fear of failure. There is no scope for blunders that cause an obsession with perfection at any cost. This leads to burnout. Combined with the uncertainty of the field and financial stress, many entrepreneurs feel stressed and can easily fall into the dark pit of depression and anxiety.



There are many common symptoms of mental health problems among entrepreneurs. The first and foremost is a lack of work-life balance and strained relationships. This takes a toll on the overall psyche of a person as a good support system is what keeps them in check. This can give rise to poor decision-making and reduced creativity and innovation. As a result, there is a decrease in productivity which pushes startup founders right back into the open arms of hustle culture. This vicious circle is hard to identify and can lead to multiple layoffs and an increase in failure. While this may seem counter-productive, some entrepreneurs might be aware that they might be suffering from a mental health condition but rarely acknowledge it. They feel the need to keep up images and shield themselves and their startup from the stigma of mental health conditions.

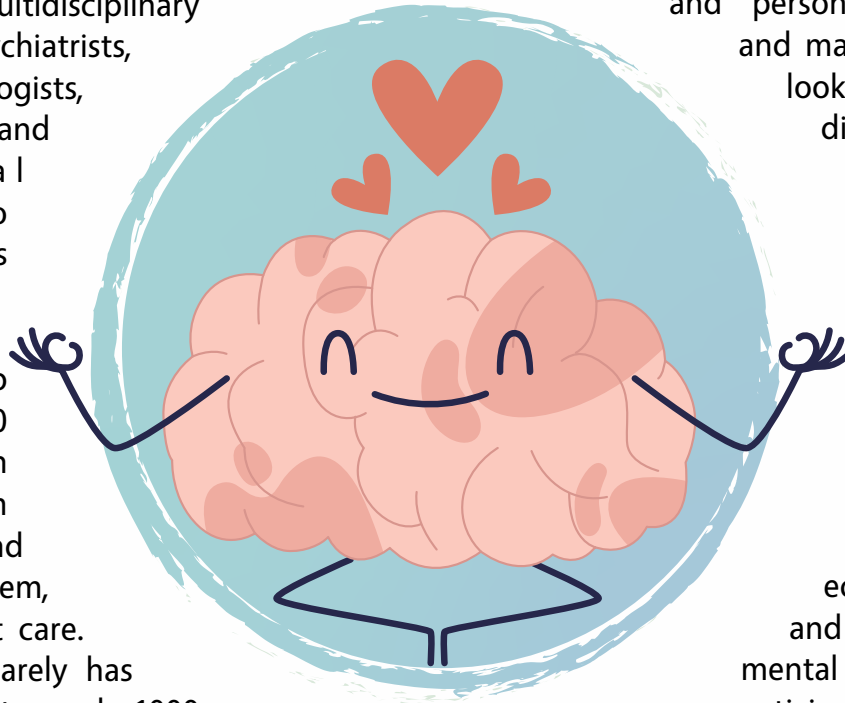
While this may seem all bleak, entrepreneurs and people have become more aware of the negative consequences of letting mental health concerns go unnoticed and untreated. Around 0.8 billion Indian rupees were invested in mental health companies in India in 2021. Additionally, between 2016 and 2020, roughly 1.5 billion Indian rupees were invested in firms focused on mental health [According to Statista]. Mental

healthcare startups worldwide have reported an explosive boom in both funding and profit.

Sukoon, founded in 2020 by Vidit Bahri and Kanishk Gupta is a psychiatric facility startup. It treats psychiatric and psychological conditions. It employs a multidisciplinary team of psychiatrists, clinical psychologists, counselors, and occupational therapists to offer patients individualized care.

The startup estimates that 200 million people in India suffer from mental illness and that among them, 1% need inpatient care. Moreover, India barely has 10,000 psychiatrists and 1000 clinical psychologists in practice. As part of its PAN India mission, the business hopes to extend services to the cities of Bengaluru and Mumbai. By 2025, the Indian healthcare market is expected to reach a value of \$5.5 billion.

There is a long way to go when it comes to mental health care, but the current progress is promising. Many companies and startups have adopted a new workspace environment and have largely discredited toxic work cultures like hustle culture. There have been several new and personalized treatments and many research teams looking into the different types of mental health issues and their possible causes.



Given the significant influence mental health has on healthcare spending, economic output, and quality of life, more mental health businesses are anticipated to launch in 2023 and encouraged.

**BY-
LAASYA AGRAWAL**

DEBMLUJ SORDW

Unjumble the words into the boxes given below.
With letters obtained from the colored boxes, find the final word!

□ □ □ □ □ □ □

M1RDA1E

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MYPTA

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ANSWERS:
1. DREAM 2. PATY 3. BHARATPE 4. BLINKIT
5. SNAPDEAL 6. BYJU 7. FLIPKART 8. STARTUP

ARE YOU THE NEXT ONE TO GET LAID OFF?

Grab a Clock.

Set a Timer.

Start Reading and Start Counting.

By the time you reach the last word of this article five tech employees would have lost their jobs. Had you opened this page yesterday, some other five would have had this misfortune. You delay reading it until tomorrow, five folks are already ready for the drill.

Companies around the globe have picked up a new hobby, laying off employees. Amazon has been really good at this. They alone have fired 18,000 employees this year. Google is a slow learner. They have managed to kick out not more than 12,000. Then there is Microsoft, struggling to stay alive in the race with a score of 10,000.

That is literally everyone right now, trying to master this hobby.

Why this new fad?

The Covid Case: Covid shook the world. We were locked down. Product needed to evolve overnight. Rapid changes required seasoned man power. Companies panicked. They started hiring more. Fast forward to today, products have matured. Steep changes are not required. What do companies do now? Simple, fire people!

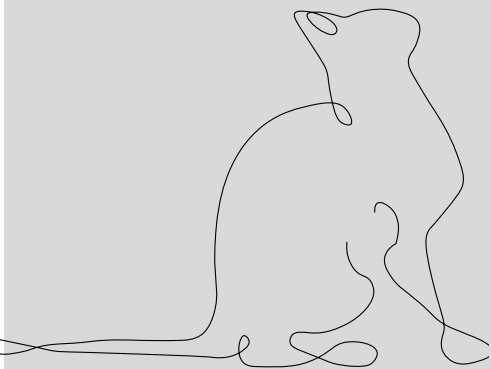
The Pressurizing Investor

Investors breathe growth. They demand quick profits. Easy maths. You see financial profits, you invest. You see a slowdown in growth, you start pressurising. “Too many people, too many ideas, too little urgency.” This is what the letter from Altimeter Capital Chair and Chief Executive Brad Gerstner to Meta’s founder and CEO Mark Zuckerberg read. He advised job cuts and streamlining of operations. What do companies do now? Simple, fire people!



The Recession Fear

Humans are accustomed to fear. Fear is good. Fear gives clarity. Economists fear a ‘classic recession’. The downturn might begin at the corporate level in the first half of this year. “Organisations in every industry and geography exercise caution as some parts of the world are in a recession and other parts are anticipating one.” This is what Satya Nadella said in the letter to employees after announcing layoffs. What do companies do now? Simple, fire people!



The Copycat Behaviour

Man is a social creature. Our surroundings influence us. The rising tech industry layoffs are a result of social contagion. A valid reason is not always asked for. Companies sometimes mindlessly imitate what others do. Everyone, everywhere is reducing their workforce. What do companies do now? Simple, fire people!

Repercussions of this firing spree

Layoffs can be tough, for the victims as well as the survivors. For the former it is not just the loss of income. There are psychological impacts as well. The employee on being laid-off goes through denial, anger, fear and then finally acceptance. A laid-off employee loses trust in long-term work, reducing expectations upon rehire. By all accounts, why should companies even care about the negative impact on their employee’s health? ‘Ex-employee’s health’ to be more accurate.

Survivors experience a mixed bag of emotions. On one hand, they kiss the ground as they still have a job. On the other they feel miserable for their coworkers who had to bid adieu. Layoffs place a heavy burden on the survivors.

*74% of them say their own productivity declines.
69% say the quality of the company's product declines.
87% of them are less likely to endorse the company as a great one.*

Numbers lie though. Math is a myth. The 'layoff survivor guilt' is not real. Companies need not care about their present employees. They should rather follow further downsizing to motivate them to work harder.

A Better Bet

Change is the only constant in life. The current layoff strategy needs to be changed. Cutting benefits and perks is an alternative.

The top 1% of a company usually sees an annual 3.7% increase in wages, compared to the 1% increase allocated for the bottom 90%.

So if this wage chopping takes place at the top, it can help the trunk at the bottom to survive.

Sharing is caring. Work sharing is the next alternative.

It's a win-win proposition for the employers. It's the reduction of working time to span a given volume of work over a larger volume of workers. They work less, they are paid less. Again, elders don't get tired saying two heads are better than one. Also these wage cuts might be partially compensated by government subsidies and other social initiatives.

Life is a cycle of starts and ends. Cyclic furloughs can be the final alternative.

Furlough is a temporary yet mandatory leave of absence for the employees. It doesn't terminate the work relationship but just keeps it and its expenses on standby. Exercising furloughs cyclically prevents one alone from experiencing the financial impact.

Sometimes though, things don't work out. It's called life. All these surrogates might not always work. Laying off could seem the only probable solution. Then the road it runs on better be metalled.

Towards a compassionate layoff

Beyond the actual mechanism of the layoffs, companies promenade to communicate the changes differently. Company leaders might end up seeming to be exorbitantly helpful. To get a fellow rid of his Monday morning blues they get him rid of his job altogether.

The way a message is conveyed means a lot. Of late, given the rise of remote work, the subsequent escalation in virtual layoffs has only aggravated the situation. Being laid off, and on top of it, this chaos being conveyed through an electronic mail is just sad.

Why is an important question. Humanity lives on why.

Leaving employees in the dark about why they lost their jobs is excruciating. Conducting a compassionate layoff that doesn't disappoint anyone would of course be unattainable. However ending this work relationship with active empathy letting them know the real reason for this termination should be the priority.

After all it should always be remembered that people being laid off are humans and not just resources.

**BY-
SHIV PATIL**

STARTUP PIVOT PLAYBOOK

NAVIGATING UNCERTAINTY



Twitter has made headlines several times in the last few months due to its change in leadership and policies. But the world's favorite micro-blogging site wasn't always what it is today. The story of Twitter began in 2005, with a podcasting company called **Odeo**, which found itself crushed by its competition Apple iTunes. They began to look for other revenue-generating opportunities and extensive ideation led the company toward a new direction. Odeo moved on to an SMS-based platform, which over time evolved into the Twitter we know today.

Not only did the company undergo a name change, but also underwent a complete change in services offered and the idea driving it. Odeo '**pivoted**' from a podcast platform to a microblogging service and took the world by storm.

Pivoting in the startup world is not unheard of, but what exactly does it mean to pivot? In the startup world a pivot is a change in some aspects of the startup while keeping certain things the same. Essentially it refers to a deviation from the original plan that the startup intended to follow.

But what kind of changes are referred to as 'pivots'? Some of the most basic aspects of a startup that are usually changed are:

Product:

The company may decide to completely revamp its product or make significant changes to it. The most common reason for it is usually a change in public demand. Certain companies that focus on niche product categories may decide to expand their business to a wider range of products or vice versa. Product line extension may not always be beneficial, but when done strategically by considering the needs of the customers, it can be exactly the push needed. Today the name pepperfry is synonymous with online furniture for most Indians, but that's not what pepperfry originally intended to sell. In early 2011, when Ambareesh Murty and Ashish Shah started pepperfry, it was an online horizontal marketplace that focused on lifestyle products. In 2013, the founders realized that the company was not making enough

profit and decided to pivot to the furniture industry where they expected a profit margin of up to 45%. Their journey hasn't been an easy one. Being the first online furniture marketplace in India, they had to deal with not just the delivery logistics but also face problems like customers thinking that they received second hand products when they were simply vintage themed.

Horizontal Marketplace

refers to a platform that sells all kinds of products to reach the largest number of people. It is a one stop solution for all the needs of the customer.

Consumer Base or targeted market pivot:

A lot of market research goes into setting up a startup, but a company may later realize that their previously calculated consumer base is not as enthusiastic about the product as they expected: or that they overestimated the relevance of their product (to that group of people). In this case, instead of completely changing the product, they could identify the consumer base where the product seems to be relevant and market to them instead.

Established in 2009, RideInSync was a carpooling service based in Hyderabad, founded by Deepesh Agarwal. Due to low prevalence of smartphones during that time, the startup could not reach enough customers. However the founder soon identified the problem of employee transportation that medium and large companies in the city faced. Most of these offered transport facilities to their employees, but this sector was completely disorganized. Grabbing this opportunity, RideInSync became MoveInSync in 2010 and began to focus on corporate transport. By 2019, it was handling over 100 companies and managing about 40,000 cabs in 22 cities across three countries.

Business model :

With the ever-changing market demands and consumer expectations, it becomes imperative for startups to adapt to survive. As a company moves to establish itself, its business model changes several times. The business model of a

company summarizes the way it sells its products/services.

Established in 2015, Rapido is a Bangalore based startup that offers bike taxi services. In April 2020, due to the lockdown they had to temporarily stop operations. However they soon pivoted to deliver essential items like food, medicine and groceries through door to door delivery in 45 cities across the country. After resuming its bike taxi services, Rapido setup Rapido business to continue the delivery service and has seen phenomenal growth. In its last funding round in April '22 it was valued at \$830 million and is included in India's Unicorn list.

**IN LIFE,
CHANGE IS INEVITABLE.
IN BUSINESS,
CHANGE IS VITAL.**

Sometimes all a company needs is a slight change in direction to achieve its goals, cast itself in a positive light, regain a lost consumer base or even rise from rock bottom. There is no place for passive action in business, which is why founders are always proactively looking for room for improvement.



**IN A WORLD THAT CHANGES REALLY QUICKLY,
THE ONLY STRATEGY THAT IS GUARANTEED TO FAIL IS
NOT TAKING RISKS.**

— MARK ZUCKERBERG

Similarly for pivoting startups, it might be demanding to keep up with the short and long-term consequences of the changes made. Before making radical changes, startups need to analyze and predict the consequences it might lead to, both in short and long term. After the pivot, a company may see a surge in its sales, the difficult task is to maintain this momentum and not let the interest

fall in the subsequent months. Imagine a famous cookie company introducing a new but unconventional flavor, some people might be excited to try it out, while others might be reluctant to. Similarly, some existing customers might not like the new directions a company is headed towards, and it becomes important to make sure they are not alienated, rather their confidence is renewed. Hence pivots should not come as a surprise to anyone.

THE SIGNS THAT PEOPLE LOOK FOR BEFORE DECIDING TO PIVOT?

One product seems to be performing much better than the others.

Continuously falling sales over a significant period.

Products are no longer relevant to the customer's needs.

Inability to outperform competitors.

Number of new customers is low.

Existing customers tend to not come back.

There is no innovation in the idea that initially led to the startup.

A change in a major product might include the company in a completely new industry with new competitors. To ensure that it still holds a majority share of the market, the startup must understand and analyze the consumer base and ensure its support before pivoting.

Supposing the startup pivots and begins seeing overwhelming, positive outcomes. It needs to have enough resources, both in terms of operations and finances to cope with this situation.

Pivoting is always a risk, it may or may not be successful.

The bottom line is:

People fail, and startups fail.

No matter how much effort is put in, or what the predictions or estimations say, one must always be ready to deal with failure.

In early 2020, the pandemic hit the Indian economy, disrupting business in almost all industries. But even during these unprecedented times, Indian startups have shown resilience and flexibility and adapted themselves to not just these restrictions but also the new and extremely different needs of the customers.

Based in Bangalore, Workshaala was established in 2013 to provide fully furnished office spaces to companies and individuals based on their requirements. With the rise in popularity of corporate culture and out-sourcing, workspaces were becoming extremely popular and the company was able to grow and expand to several other cities across the country. With the beginning of the pandemic, most offices closed down. Working from home was not particularly easy for people. This is where Workshaala jumped in with a new initiative called Homescapes, through which it sets up simple home offices for people, in a wide price range, to make it affordable for all.

Several other Indian startups have pivoted in recent years, and most of them shifted their mode of operation online to integrate online payments and home delivery services due to the pandemic restrictions. So is pivoting the final way to save your startup? it could be when done well however, not all pivots are successful. Moreover, they can be expensive to carry out because sustaining a radical shift requires significant changes in infrastructure, marketing, and staffing. During a crisis, it is easy to make misguided decisions, which may lead to a poorly envisioned, planned, or executed pivot. Very few companies survive a

second pivot in case the first one fails.

Therefore pivots are not foolproof ways to save a company. But today, pivots don't necessarily have to be drastic, even small changes in policy and strategy are called pivots. And why shouldn't they? Every tiny step toward improvement eventually leads to success.

The startup world is not easy to survive in, yet every year an increasing number of people in India are heading into entrepreneurship. With innovation at an all-time high, it shall be interesting to witness what the future brings.

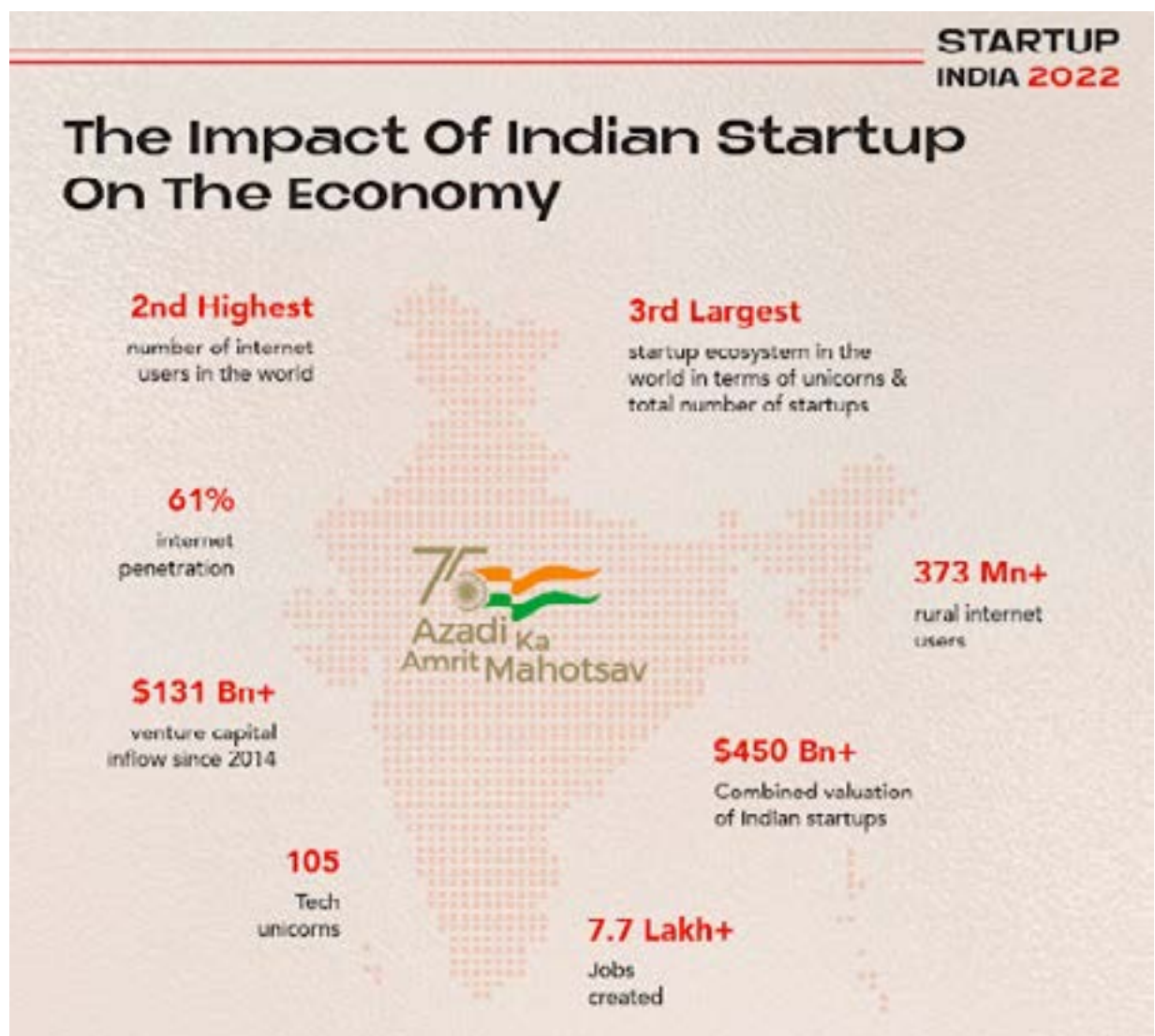
BY-
TANISHA TANDON

GOVERNMENT POLICIES

Introduction to the Indian startup story

India is a growth story, from a nation steeped in poverty and economic stagnation to a nation heralded as a “Vishwaguru” or “global teacher”. An important component of this story is the Indian Startup. India has nurtured startups in several fields, right from deep tech and artificial intelligence to healthcare and agriculture. These startups have not only reserved for themselves a significant market share, but have been instru-

mental in changing the landscape of several key sectors. They have even managed to create entirely new avenues and areas for growth. An important example is the ed-tech sector, which is currently dominated by startups such as Byju’s, Unacademy, Vedantu, etc. Startups provide important services both to consumers and industries, thus improving the standard of living as well as industrial efficiency.



Apart from the economy, there have also been key contributions from startups in job creation, scientific and technological advancements, improving access to credit, modernising the informal sector, etc. Startups such as Agnikul Cosmos are involved in research and development in the key area of space technology. There are several startups in various stages involved in renewable energy technology and climate technology. In this light, it is imperative for the government to take proactive steps to provide opportunities and funding for startups.

The government has taken sustained efforts to fund existing startups and provide avenues for new startups. These efforts have resulted in increasing the number of recognized Startups from 452 in 2016 to 84,012 in 2022. According to Shri Piyush Goyal, the Union Minister for Commerce and Industry, start-ups will change the destiny of modern India in 25 years. Such is the importance given by the government to bolster and energise the startup sector. Two of the most important steps in this direction are the Startup India Mission and the Atal Innovation Mission, both launched in 2016.

The Startup India Mission



उद्योग संवर्धन और आंतरिक व्यापार विभाग
DEPARTMENT FOR
PROMOTION OF INDUSTRY AND
INTERNAL TRADE



Startup India is a flagship initiative of the Government of India, intended to catalyse startup culture and build a strong and inclusive ecosystem for innovation and entrepreneurship in India.

The important objectives of this mission include:

1. Improving the ease of doing business, especially for startups.
2. Setting up the Startup India Seed Fund Scheme (SISFS) to ensure easy availability of capital for early-stage entrepreneurial ventures.
3. Improving visibility by organising the Startup India Innovation Week and several other awards for the best upcoming startups, collectively under the National Startup Awards.
4. Granting startups income tax exemption for a period of three years.
5. Encouraging schemes for women entrepreneurs
6. Setting up of the Government e Marketplace (GEM) to facilitate startups to bid for government tenders and become a seller to the Government through the Government e Marketplace (GeM) and other channels
7. Creating a framework for government bodies to publish their business problems to explore potential solutions from startups. The startups in turn have a chance to win cash prizes, funding, incubation and other kinds of essential support.
8. Building an ecosystem of startups, accelerators and incubators
9. Launching the MAARG platform (Mentorship, Advisory, Assistance, Resilience, and Growth) on Monday, which would facilitate mentorship between startups and entrepreneurs across sectors, stages, and functions.
10. Fast-tracking of startup patent applications, including an 80 percent rebate in the patent filing fees and Panel of facilitators to assist in IP (Intellectual Property) applications
11. Providing the Startup India Kit, a handbook outlining the benefits provided under the Startup India Mission for startups.

The Atal Innovation Mission

Atal Innovation Mission (AIM), NITI Aayog is Government of India's flagship initiative to promote a culture of innovation and entrepreneurship in the country and was set up in 2016.

Its primary focus has been to inculcate a problem-solving and innovation-centric mindset in school students as well as creating an ecosystem of entrepreneurship in universities and research institutions. A few of its flagship programmes are:

1. Atal Tinkering Labs (ATL) to expose students to new-age technologies such as Internet of Things, 3D printing, robotics, etc. by establishing laboratories within schools
 2. Atal Incubation Centres (AICs) established in various universities to foster and support innovation by incubating world-class startups.
 3. The ATL Marathon is Atal Innovation Mission's flagship innovation challenge, where schools identify community problems of their choice and develop innovative solutions in the form of working prototypes.
- Through the above initiatives, AIM aspires to make Atmanirbhar Bharat a reality through startups and inculcating an entrepreneurial mindset among students, with a core focus on technology and innovation.

The AIM and Startup India mission focused on startups solving important social and industrial problems. However, there are several startups involved in science and deep technology, especially space technology. To cater to these startups, ISRO (Indian Space Research Organisation) in collaboration with SocialAlpha has launched India's first lab-to-market platform for Space-Tech startups, known as SpIN.

SpIN (SpaceTech Innovation Network)

SpIN is a one-of-its-kind public-private collaboration for start-ups and SMEs in the space industry. This novel partnership is a significant step forward in providing further stimulus to India's recent space reform policies and will work towards identifying and unleashing the market potential of the most promising space tech innovators and entrepreneurs in India.

SpIN aspires to establish a network where startups, incubators, accelerators and investors, to bridge the gap between technological developments and economic feasibility.



SpIN's approach is to build 'Patient Capital', since deep-tech startups require years of persistent funding to become profitable. According to them, **"There is little or no capital allocation to early stage science and technology based startups from impact investors. This is what we are changing."**

SpIN's primary objectives include promotion of innovation and entrepreneurship in Space-Tech from the grassroots level, accelerating access to product development and validation facilities for Space-Tech startups and creating a network of mentors and subject matter experts and sharing learning in the space, among others.

SpIN's focus areas include Data Science, Artificial Intelligence, Geographical Positioning Systems, Sensor Technologies, Material Processing, etc. which are vital to the functioning of the Space-Tech industry.

Conclusion and Road Ahead

India has grown leaps and bounds as a startup hub in the recent past. The government has played an important role in ensuring that the startup ecosystem of the country remains healthy and thriving. There have been several other initiatives, most notably the establishment of 'startup warehouses' by NASSCOM in various Indian cities. However, there is still a pressing need for the government to do more, especially simplifying the various regulatory complexities that arise in founding startups. Availability of credit, and in particular patient credit, is still a pressing issue for many startups. It could also be that the full scale of benefits the government could offer to startups has not been realised yet. There is an exciting future ahead for India and its startups, and it is imperative that the various components of the startup ecosystem work hand in hand to achieve the true potential of Indian innovation.

**BY-
PRANAV**

THE SOCIAL DILEMMA

where has it reached ?



In 2020, the bell didn't just ring for the pandemic but also a few smart and concerned techies of silicon valley sounded the alarm on the dangerous impact of social networking, which Big Techs use in an attempt to manipulate and influence us. Let's have a look at where the awareness has reached, and what actual change has happened since then and where do we stand now?

Silence Before The Storm

What is the first thing you do in the morning after you open your eyes? And most of us would agree that we check our phones. Humans have come a long way since the stone age, and in the last fifty years the discovery of the internet has accelerated this development race at a rate none of us had imagined. Especially smartphones and social networks. Every coin comes with two sides. Although social media has done a remarkable job in getting in touch with long-lost friends and keeping track of birthdays, instantaneous communication available through smartphones and email, the humankind has to face ramifications in the form of behavior modification, psychological manipulation, misinformation, polarization, political bias, technology addiction, depression, anxiety. But wait who built these things? We, humans! If so, were we totally nonconscious of all of these consequences at the time? The answer's no.

“Never before in history have 50 designers made decisions that would have an impact on two billion people”

says **Tristan Harris**, a former design ethicist at Google.

Then the question is if people working at these big techs are aware about this why aren't they doing anything? Well not really, there might be different reasons for everyone; some just don't care, others love or perhaps need their jobs more than to take a tough bold path but some do! Also when these ideas were born they were born with good intentions, and that shouldn't be forgotten.

**A wake up call:
towards digital well being**

“One of the subjects of The Social Dilemma referenced this technology as a ‘climate change of culture’ and that sort of shattered my brain—that, invisibly, a handful of designers in Silicon Valley are writing code that is shaping the lives of billions of people around the planet.”

~ **Jeff orlowski**
(director of ‘the social dilemma’)

So one might ask what is the solution to these ramifications. A shift towards digital well being in our lifestyles. Sounds simple, though it is a little more. This is where the docuseries ‘The social dilemma’ hopped in, between the problem and its solution, as an appeal to be aware about this and take steps in the right direction before the damages made to humankind reaches its plastic limit. The docuseries was released and spreaded like a fire in the wild. It has been watched by more than 100M people across the globe.

Overall, “The Social Dilemma” highlights the need for greater transparency and accountability from social media companies. It calls for users to be more aware of the ways in which their data is being collected and used, and for governments to regulate these platforms to ensure they are not causing harm to individuals or society as a whole. It is a timely reminder that we need to be aware of the risks and take steps to protect ourselves and our communities.

Bold Moves

Center for humane technology, founded by Tristan Harris and Aza Raskin (also interviewees in the docuseries) is a non profit organization aimed towards radically reimagining the digital infrastructure by driving the shift toward humane technology that supports the collective well-being, democracy and shared information environment.

The Digital Wellness Collective, a global community of digital wellness professionals committed to helping individuals and organizations develop healthier relationships with technology.

Time Well Spent, a movement and advocacy group dedicated to changing the way technology is designed and used in order to promote well-being and reduce harm. Common Sense Media, a nonprofit organization that provides education and advocacy to families and educators on the impact of media and technology on children.

The Center for Digital Democracy, Screen Time Clinic, Digital Detox, The Humane Tech Community, The Human Tech Institute are some other organizations who work in the same sector.

A sneak peek into future

Social media has already had a significant impact on humans in the present, and its impact is likely to continue into the future. Here are some potential ways social media could impact humans in the future:

1. Continued integration into daily life: As social media platforms become more sophisticated and user-friendly day by day, they will likely become even more ubiquitous.
 2. Increased polarization and division: Social media has the potential to exacerbate existing divisions and create new ones by allowing users to easily self-select into communities that reinforce their beliefs and opinions. This can lead to increased polarization and a lack of common ground.
 3. More personalized experiences: Social media algorithms are already highly personalized, but this trend is likely to continue as platforms become more sophisticated. This could lead to even more targeted advertising and content, as well as further customization of users' experiences.
 4. Greater scrutiny and regulation: As social media becomes even more important in people's lives, it is likely to face increased scrutiny and regulation from governments, watchdog groups, and the public at large. This could lead to changes in how social media companies operate and how they handle user data.
 5. Continued innovation: Future innovations could have a profound impact on how humans communicate and interact with each other.
- Overall, the impact of social media on humans in the future will depend on how it is used and regulated.

While social media has the potential to bring people together and facilitate communication, it also has the potential to exacerbate existing problems and create new ones.

Are we really in the matrix?

"What I had hoped to see in #TheSocialDilemma was a sober, evidenced-based dissection of complex realities, not a narrative that depicted social media companies as mind-controlling monoliths. Not true and not helpful!"

~Nir Eyal

The guy claims that he was interviewed by the creators of the docuseries but it turned out his commentary was excluded from the film. Reason being the misalignment in the opinions/

much true this is but this does open a door for a new point of view.

Till now, we looked at the story from 'the social dilemma' perspective. But is this 100% true and does this really have the power to lead humanity to destruction? Maybe not, let's have a look. Are we supposed to believe that we're powerless pawns whose minds are completely controlled by algorithms, that social networks are too big to contain or control, that their insidious tendrils have wormed their way into every corner of human life? No, I would say not yet. Social media is addictive but no one is forcing us to use it. And there are ways we can overcome this. First is habits, and a balanced use of social media. We are far from powerless. Self control is another, in this turning notifications will definitely help. Quitting this loop is the wise but tough choice. Prioritize your goals and loved ones.

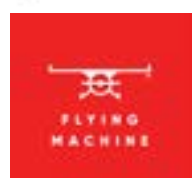
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