



iitmadas

A SNEAK PEEK  
INTO THE STARTUP CULTURE  
AT IIT MADRAS

# ENTREPRENEURSHIP INSIDER

2

INFOGRAPHICS

EXPLORING ENTREPRENEURIAL EVOLUTION  
THROUGH CENTURIES AND ACROSS INDIA

AN EXPLODED VIEW:  
ENTREPRENEURSHIP IN UNCONVENTIONAL  
YET PROMISING INDUSTRIES



E-Cell IIT MADRAS  
Powering Entrepreneurship at IITM

Union Bank  
of India

E-SUMMIT  
2019  
Transcend Your Limits



**E-Cell** IIT MADRAS  
Powering Entrepreneurship at IITM

# MESSAGE FROM THE ADVISOR



## DR. ASHWIN MAHALINGAM

(Dr. Ashwin Mahalingam is an Associate Professor at the department of Civil Engineering IIT Madras. He currently serves as the faculty advisor of E-Cell IIT Madras.)

The Entrepreneurship Ecosystem at IIT-Madras has grown by leaps and bounds over the last few years. The IIT-Madras Incubation cell has of course firmly established itself as one of the leading university-led incubators in the country. In addition, the IITM campus is now home to a pre-incubator - Nirmaan, the Gopalkrishnan Deshpande Center that helps start-ups in the process of customer discovery, the Center for Innovation where ideas are generated, and of course the Entrepreneurship Cell.

All of this has been complemented by a rise in entrepreneurial spirit among faculty, students and staff on campus. A few years ago most students would tell me that they wanted to take up jobs in large companies. Today, a large proportion of these students tell me that they would like to either work in a start-up, or start up themselves! Fostering and nurturing this entrepreneurial spirit, particularly among the student body is now a big challenge, and I am thrilled to see how well our E-Cell has risen to this task.

From conducting sessions that expose inquisitive minds to the potential that entrepreneurship holds, to helping students with early stage ideas think through the business potential of ventures, to organizing events where mature student teams can test the entrepreneurial potential of their idea, the E-Cell has been able to reach a wide spectrum of undergraduate and post graduate students at IIT-Madras and has helped these students take steps in their journey towards realizing their entrepreneurship potential. Further, with the E-summit, we now reach out to students from other institutes as well.

Entrepreneurship at IIT-Madras is now poised to take a giant leap forward and I am sure that the next few years will be as exciting as the last few have been! We invite you to participate in this journey!

# HEADS SPEAK

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## HARSHIT SINGH & PARTHIK SHAH

The past year has been just a historic year with prodigious achievements being accomplished by E-Cell IIT Madras. The number of entrepreneurs inside the campus has grown significantly. There are more than **60 entrepreneurs** working on a spectrum of sectors from deep tech to SaaS to social enterprise. Based on the participation we get for events like Unconference, Bootcamp and E-Series we can proudly say that there are at least **400 more aspiring entrepreneurs**. Now we are in a state where Entrepreneurship is not an unconventional choice of career for a number of students. There were a few final year students who gave up the fat packages of IIT placements for pursuing their entrepreneurial journey.

The reason for such a tremendous growth is because of the ecosystem that IIT Madras provides. **CFI** provides students a place to work on the tech, **Nirmaan** provides pre-incubation along with equity free funding, **GDC** along with its i-Incubate program helps find customers, and **E-Cell** is at the core of all these activities and connected to the students on a personal level. Our vision is to imbibe entrepreneurial thinking among each and every student on campus and that is why we conducted **6 workshops** each covering different aspect of the thinking process over a span of 3 months. E-Cell takes a student through all phases of entrepreneurship from idea generation and validation to making minimum viable product and finding right the product market fit to even raising funds.

Compared to any other student organisation in the campus, E-Cell has proved to be the fastest growing and most innovative body. There has been a **100% year-on-year growth** in terms of the money raised since its inception in 2015, with the budget being **INR 40 lakhs in the year 2018-19**. There has not been a single year since, which didn't see novel initiatives taken by E-Cell. This year, the new initiatives were:

- **Grand Challenges** - Took participants through the complete entrepreneurial journey within a short period 6 months. Eight teams graduated successfully.
- **E21** - Promoting 21st century skills like creativity, innovation and entrepreneurship among school students. Raised awareness about entrepreneurship among 10,000+ school students across India. Four teams from Chennai created their prototypes for display during E-Summit.
- **Entrepreneurship Development Drive** - Developed entrepreneurship cells in five different colleges.

Apart from creating something new, we have also scaled up **Elevate**, a student organized pitching event, which gives the entrepreneurs an opportunity to raise up to **5 crores of funding**. There were **13 zonal rounds** of Elevate conducted in 13 Indian cities which witnessed phenomenal response.

We hope that readers of this edition of Entrepreneurship Insider will gain a more nuanced understanding of entrepreneurship, which will in turn help them as they grapple with existential questions that entrepreneurship often brings about. Hopefully they will be better prepared for the challenges that lie in wait, and successfully overcome them to push the prevailing innovation and entrepreneurship ecosystem to even greater heights.

- E-Cell IIT Madras Heads



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# MESSAGE FROM THE EDITORS

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## SHREYAS & SARAH

Every version of Entrepreneurship Insider seeks to inspire entrepreneurial thinking, to stress the importance of innovative problem solving in today's world and to tell tales of the ones who have been bold enough to take actions that have benefitted countless lives only for the better. The third edition of the magazine brings forth ideas and narratives to simulate the imagination of well-seasoned entrepreneurs working on the next big thing, or novices sitting in their hostel rooms dreaming about how their startup may potentially change the world, or people just looking for a light entertaining read.

This magazine is the combined effort of a group highly motivated and passionate writers and illustrators who have worked throughout the year to capture and inculcate into the magazine their unique insights on entrepreneurship.

The magazine kicks off with the cover story that offers an exploded view of entrepreneurial ventures that exist in four major industries - Energy, Art, Food & Tourism, giving our readers, a rather unconventional view of entrepreneurship. We hope that as you course through these pages, you find yourself completely immersed into this journey of unusual ideas, unique people and the extraordinary results that the combination of the two often leads to.

We hope the interviews of Daniel Ramamoorthy and Praveen Dorna prove to be insightful reads and that you find yourself intrigued by the extensive entrepreneurial trivia we have compiled alongside delightful creative pieces.

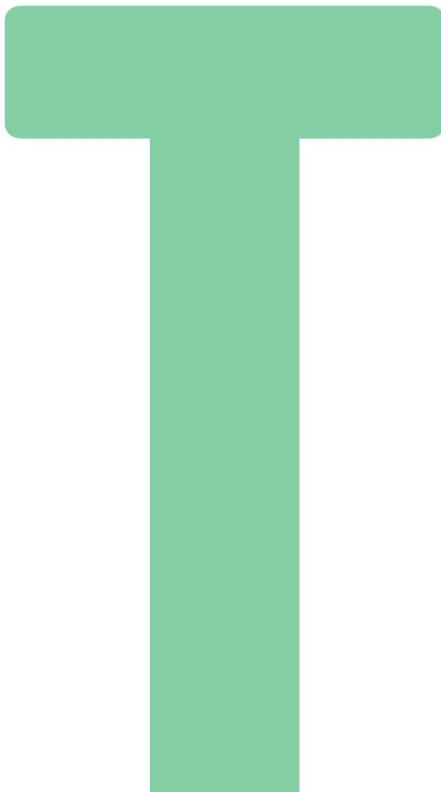
Lastly, we would like to thank everyone who has been involved behind the scenes, from our team of dedicated writers, to Jyotheeswara Reddy, Yash Tamrakar, Rajat Vajpayee, Prajeet Oza and Nikhil Yelamarthy for the design, the E-Cell Heads for their motivation and the entire E-Cell family for their continual support. Happy Reading!

Namaskar!

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# UNCONVENTIONAL ENTREPRENEURSHIP

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## SHIKHAR PRAKASH

Rishi: "I want the most unconventional career in my life"

Srishti: "Take up Entrepreneurship."

Rishi: "I said the most!"

Srishti: "Take up Entrepreneurship in an unconventional niche!"

Rishi: "Perfection!"

That's true! This edition of Entrepreneurship Insider is special. It throws light upon the unconventional avenues that have surfaced in this career path of entrepreneurship, which is still considered "less travelled by". While retaining the salient ingredients of a standard entrepreneurial journey, the recipe for unconventional entrepreneurship incorporates elements of unorthodox methods and ideas that are lesser thought of and often passed on as trivial.

The areas to which the entrepreneurial vibe and innovation have rippled to have trespassed all limits. Startups emerge on all fronts in the corporate world these days, be it music, energy or waste management. We have tried to cover several of these innovative industries, most of which were traditionally considered to be under the umbrella of a single player, a decade or two ago: Government or Private. Entrepreneurship in diverse environments bring new technology and a competitive vigor to the market and the industry, even the novel ones.

Along with this, we have a line-up of creative content, featuring cognition escalating interviews, account of factors that subtly affect entrepreneurship and are often taken for granted (such as brand ambassadors of a company), entrepreneurial trivia and an all-new infographic. With the advent of "techpreneurs", industries as monumental as healthcare and as indispensable as environmental sciences (such as waste production) have been tied together with entrepreneurial venture. We sincerely hope that you find this brand new edition of Entrepreneurship Insider engaging and we appeal to the innovator inside you. By presenting you the "unconventional" career choice through this special edition of the magazine, we wish to burst this very bubble and posit entrepreneurship as exciting and thrilling!

Happy Reading!

# CRUSADES FOR TESSERACT

## ROHAN NARAYAN

### Ignition

A source of energy that can produce gargantuan amounts of energy ad infinitum is the fabric of which the dreams of energy consumers and conservationists are woven. However while the first law of thermodynamics plays truant to their desire, several conglomerates have taken up the energy challenge in attempt to solve the world's energy crisis. These enterprises represent humanity's hope for more efficient methods to produce energy on a larger scale and design mechanisms to ensure its conservation and lead the human race to a brighter future.

It is in the interest of humanity that their *crusades for the tesseract* attains fruition.

### Bamboo Farm

The growth of any civilization is characterized by an increasing demand for energy and the human race is no different. Since the invention of the commercial lightbulb by Edison to the invention of the electric car, mankind's energy consumption has increased significantly. Mankind is now at a stage where reliance on fossil fuel *non cognitas* is not an option due to environmental

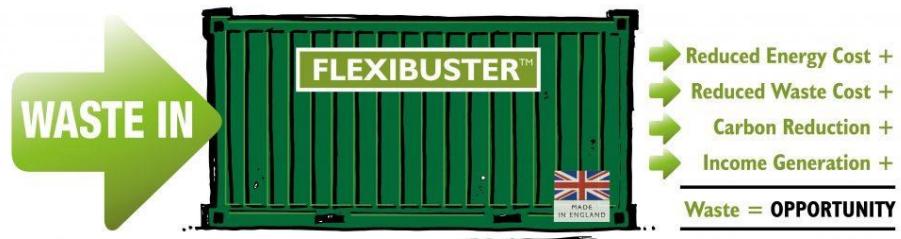
issues and the fact that its replenishment takes millions of years. Thus alternative sources of energy are the need of the hour and the energy sector, having witnessed the emergence of several enterprises working on novel ideas in the field of energy production and conservation, is growing faster than bamboos on a *bamboo farm*.

Entrepreneurial ventures associated with the energy sector are either involved in the devel-

ecosystem. Their development and success is crucial so as to obtain a solution to the world's energy crisis. These are some of the most promising ventures in the field of energy production:

### SEaB ENERGY

"One man's waste is another man's treasure." - SEaB Energy, founded by Sandra Sassow, has brought this maxim into the practical world by the creation of products that convert organic waste into energy. The start-up



opment of new techniques for the production of energy or in the conservation of available energy to ensure optimum usage of available resources.

### Autotrophs

Enterprises committed to the development of new avenues for the production of energy are akin to the autotrophs in an

designed and produced the "Flexibuster" and the "Muckbuster" which convert organic food waste and farm refuse, respectively, into energy. Offering a solution that simultaneously solves the problem of waste disposal and energy generation, it is little wonder that the enterprise has extended its operations to 13 countries.

### KITE POWER SYSTEMS

Simon Heyes must have been very fond of kites as a child for the energy crisis solution his enterprise, Kite Power Systems, has come up with is based on them!

Two kites working in tandem fly in the pattern of an eight and turn the turbine to which they are tethered- thereby producing energy in a manner analogous to a wind turbine. The advantage such a kite system has over the a conventional wind mill is that kites can fly high and reach higher winds.

They also simplify the logistics involved in transportation and construction. The company has proposed the commercialization of a 500 kW kite which is currently in the development phase.

### HUSK POWER SYSTEMS

Husk Power Systems is a start-up based in Bihar and founded by Manoj Sinha, Gyanesh Pandey and Ratnesh Yadav. It provides power by means of a technology that generates electricity using biomass gasifier that uses rice husks as fuel which is easily procurable as refuse from farms in the region. Each plant can supply power to 400 rural households in the region which saves 42,000 litres of kerosene and 18,000 litres of diesel per year. Apart from an ecological impact, the firm has had a massive impact in the social sphere with the villages in the region now being able to receive electricity throughout the day. The establishment of their plants in rural regions has led to the creation of several jobs in the region which has mitigated the problem of unemployment in the region.

### OXFORD PHOTOVOLTAICS

Oxford photovoltaics is revolutionizing the field of solar energy. By coating the silicon solar panels with a thin layer of perovskite, they have increased the operational efficiency by 33% (Absolute efficiency is 28%) with an increase in

development cost of only \$1 per square metre. Their operations have resulted in the fastest ever growth in the efficiency of solar technology since the first testing of photovoltaic properties in 2009.

### CONSTRUCTIS

Constructis headed by Jim Niggs is a company built on the maxim - “If you cannot beat them, join them.”

The enterprise is leading the kinetic energy revolution with a view to building a zero carbon emission roadway power system. Their product – Roadway Energy X (REX) – is a rumble strip box which when buried in a roadway can harvest up to 1,100 W for every 2 axles of a car that passes over it by the conversion of “mass energy” – which is otherwise wasted during breaking – into rotational energy which is converted into electricity by internal alternators.

Though the energy produced is not sufficient to replace existing sources, once implemented on all roadways, it could ,in theory, produce 30 MW -hr of energy per 4 lane roadway per year – which can meet the energy requirements of 6 households over an entire year.

Thus the future of the energy production sector



is in good stead with the emergence of several start-ups that have taken up the challenge of meeting the world's growing energy requirements.

### **Preservationists**

While the *autotrophs* aim to create an alternative source of energy for its large scale production, another way to solve the energy crisis is by using available resources efficiently and ensuring maximum conservation of energy. The *preservationists* are as crucial a crux of the future of the energy sector as the *autotrophs* are.

#### **GREEN INDIA BUILDING SYSTEMS AND SERVICES (GIBBS)**

GIBBS, founded by Arun Shenoy and Mandar Kaprekar, in April 2010 is associated with the building and maintenance of geothermal cooling systems across institutional, industrial and commercial settings. The advantage of using geothermal systems for cooling are both financial as well as environmental. Geothermal systems are 60-65 % cheaper than conventional air-conditioning systems and are eco-friendly as they save electricity and 100% of the water used in conventional cooling systems. They plan to introduce co-generation systems for the heating of water and the use of LED lanterns and induction technology in lighting along with the incorporation of supply side solutions such as solar energy to enable the construction of Zero Energy buildings.

According to the World Wide Fund, geo-exchange solutions, if employed extensively in tropical countries like India, can reduce the national electricity demand by 35%, industrial water demand by 30% and greenhouse gas emissions by 22 million metric tonnes!!! Thus the geothermal energy market bears immense potential and if implemented effectively, geothermal solutions can reduce electrical energy consumption by a large amount.

### **CLARO ENERGY**

Founded by Kartik Wahi in 2011, Claro Energy focuses on meeting the energy requirements of the rural population of India. Having identified that a significant amount of energy is used in pumping water, the company has developed off-grid solar pumping solutions for the same. These reduce the electrical consumption of the rural population and enable them to become self sufficient in terms of energy.

### **BREEZI**

Founded by Tim Seaton, the firm has designed and mass produced AirPulse – a gadget that serves as a fitness tracker for HVAC (Heating, Ventilation and Air-Conditioning) systems. The gadget which can easily be inserted into any part of the HVAC system uses audio sensors and artificial intelligence to systematically evaluate the performance and efficiency of the system so as to suggest measures to preserve the filter and ensure optimum utilization of power. The firm is now designing CoolPulse – a gadget similar to AirPulse for refrigeration systems. Their innovations can aid in the reduction of power consumed by air-conditioning and refrigeration systems – two of the most power intensive utilities in modern life.

### **Atlas**

The burden of meeting the world's dynamically skyrocketing energy requirements is as cumbersome as that which had to be borne by the mighty Titan Atlas. The International Energy Agency approximated the world's total energy consumption per year to a mind-boggling figure of  $5.67 \times 10^{20}$  Joules. This is equivalent to covering  $2.08 \times 10^{16}$  square feet of the Earth's surface area with Oxford Photovoltaics' 250 kW solar panels – even with their increased efficiency – which amounts to an area greater than that of the Earth's surface! For Constructis to be able to bear the brunt of the world's energy requirement, it must bring about  $5.4 \times 10^9$  4-lane

roadways under its scheme which is again logically impossible!

While the Autotrophs are perfectly poised to reduce humanity's dependence on non-renewable sources of energy by providing alternate sources, the emergence of a source of

energy that can meet the world's energy requirements on its own is a long way off. Congruently the Preservationists must develop radical methods of energy conservation so as to bring down the energy demand to a level which can be tackled by the

Autotrophs.

Thus the success of the Autotrophs and the Preservationists will determine the future of the human race with respect to energy production and consumption and consequently the rate of development and progress of mankind as well.

## SUPRIS-O-PEDIA!



### SURPRISE ENTREPRENEUR!

International Russian tennis star

# MARIA SHARAPOVA

Turned her love for chocolates into a premium Candy line named Sugarpova

# ENTREPRENEURSHIP IN ARTS

## NIKHIL YELAMARTHY

Paintings, Sculpting, and Craftwork are few professions which have been prevalent among artists since times bygone. In the more recent era, the world has witnessed artists plunging into a wide range of professions, unveiling the hidden entrepreneur inside them at the same time!

Graphic designing, cartoons, and caricature, interior designing, textile designing, body painting, tattoo designing, sand art, glass blowing, are just a few fields to mention where artists have made their mark.

In the field of arts, only those who go a step ahead and do something unconventional are considered entrepreneurs. Whether it is possible that the freelance lifestyle of an ordinary artist, itself could be defined as entrepreneurial is something to debate. Well, 'entrepreneurship' is defined as the handling of a business successfully to gain profit. From this point of view, only those artists who succeed in creating something unconventional are considered to be entrepreneurs!

It is widely believed that artists' creative expression and unique perspective help them thrive in the market. Walter Isaacson in his book 'The Innovators', explains how Da Vinci, Einstein, and many other geniuses were engaged with both art and sciences, citing this interplay as the reason for their success as innovators.

Alice Loy, the co-founder of Creative Startups, believes that artists bring a unique perspective and creativity that allows them to see market opportunities before others see them and then uniquely go after them. Her company aims to provide a platform for artistic expression to gain

fame and shape the world.

### An Artist's Platform to express!

Painting is not limited to the canvas these days. Paint whatever you can have become the new agenda! From School corridors, Walls at offices and malls, School vans and Flyovers to T-shirts, stationary and mobile cases, nothing has been left!

An American online retailer, Bucketfeet sells canvas sneakers in a variety of styles which feature original art by more than 40k artists from over 120 countries across the world! The artists cover every medium from graffiti and painting to graphic design and photography.



Meow Wolf, an art production company, started as a group of artists with a desire to create a space to host music shows, make art and be expressive in their community. Their creativity and unconventionality in work are what made them stand apart from the rest. Di Ianni, the co-founder of Meow Wolf, says that his experience as an artist helped him prepare for the world of uncertainty that startup founders often faces.

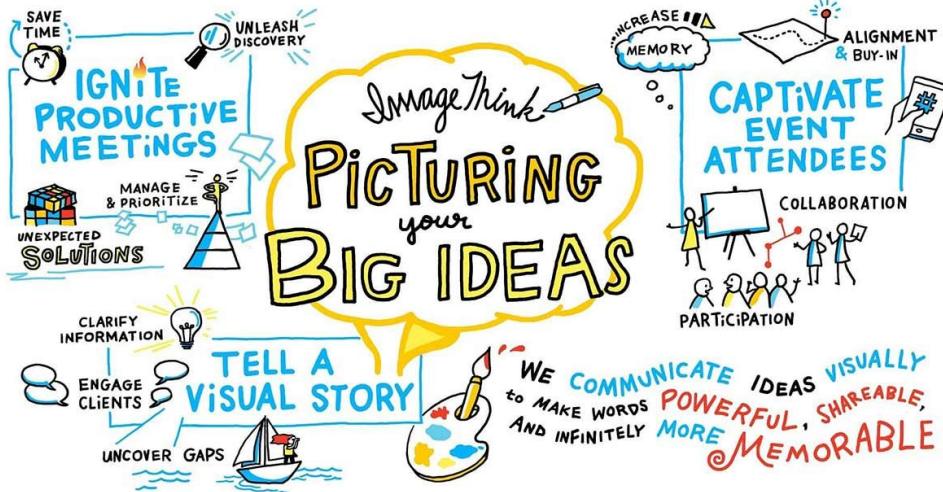
Food also turned out to be a great inspiration for artists! Many creative artists started using food as their medium or muse. One must not be tempted to eat away the yummy artwork!

Keeping in mind, the people who might get bored, watching the same old artwork in their dining rooms for years, the startup Turning Art has brought forward an art-rental subscription service.

#### Fusion of Art and tech:

There isn't any denying that the ever-progressing technology has revolutionized all spheres of life. Technological advances have taken over the jobs of different people. For instance, the Green revolution increased the productivity of farming, and the number of farmers dropped down subsequently. Similarly, when photography was digitized, the role of the film projectionist vanished. On the other hand, the terrain of artistry and abstraction has greatly ameliorated due to the influence of technology- resulting in the rapid development in all avenues of craftsmanship as well as the inception of nouvelle forms of art, more resplendent than ever before.

ImageThink have made it possible to create illustrations, live during meetings and conferences, to help audiences visualize the information from keynote speeches and presentations!



Few startups have resolved to recreate distinguished pieces of art that have been cherished by the masses through the centuries. For instance, imagine the enigmatic portrait of Mona Lisa hanging in your bedroom. Sounds great, isn't it?

Meural offers accessibility to a digital library of famous artworks displayed in a digital canvas. Meural rendered each image, lifelike and textured like a real painting! Artsy is a company working on similar lines which features art from popular galleries, museums, artist estates, and benefit auctions all featured on a single online platform.

Logo designing, Web Designing, and Visual Merchandise are also a few of the activities, artists have engaged in lately.

#### Comics and The Film Industry:

Artists are also involved in film making at many different scales. The role of artists is quite apparent in making an animated movie. Artists also play an important role in film production, storyboarding, costume designing, and makeup.

Loving Vincent, the world's first fully hand-painted feature film, was released in 2017. This animated biopic recounts the life of the famous artist Vincent Van Gogh, with each frame of the

film consisting of an oil painting executed in Gogh's style!

Andy Park is a concept artist who translates the spectacular visuals of Marvel comics into jaw-dropping movies like Thor: Ragnarok and Captain Marvel. "To come full circle in my career and design the look of these comic book characters come to life, the kid in me is just freaking out.", he exclaims.



### The emergence of Social communities for Art:

Several online social communities for art enthusiasts have come into existence in recent times. Few of them include Deviantart, Imgur, and Pinterest.

While Deviantart and Imgur are image hosting and sharing sites, Pinterest is a social media web that operates a software system which organizes images and videos from the internet into what they call as pins. This enables people to view artworks about their interests easily.

*"Entrepreneurship in art has a lot of scope in modern times, with the onset of digital medium rather than traditional medium. Continents like Asia in particular need development in this*

field.", says Ashwath, an undergrad at IIT Madras. He is the founder of Ashnyte, a design agency. He says that his first entrepreneurial lesson dates back to a case-study event during his freshman year. Today, he intends to connect artists via a social platform to enrichen an enthralling and creative ecosystem.



# ENTREPRENEURSHIP IN FOOD

**ADHIL MUSTHAF**A



Today, the world talks about being unconventional and pioneering something new. The people are constantly in search of unexplored niches, and taking risks to conquer them. This has led to a surge in the variety of startups in all marketing sectors - electronics, artificial intelligence, energy systems and many more - and that includes FOOD! There has been rapid growth in the food recycling industry.

Newspapers and BBC crowded with news on world hunger, starvation, malnourished children has become a common yet disheartening sight, and then, out of nowhere, some statistics pop up saying surplus food being wasted in some corner of the world. This food gets dumped into the overflowing landfills - with a goal to convert this wasted food into manure? Maybe food has become a luxury for some people, instead of being a necessity. This exact thought has led to the establishment of the food recycling industry which segregates the wasted food based on the nutrient values and condition and then attempts to cook something edible or convert it into a bio-products or at least share the surplus with the needy. This industry accounts for hundreds of startups, and each is contributing to balance out

the surplus food problem.

One such startup is Olio. Founded by Tessa Cook - it started in England when Tessa wanted to do something about the £13 billion worth of food that the UK sends to the dump each year. It's an app that tries to care for the surplus food in our homes. Just take a snap of the to-be-discarded items and post it on the app. Neighbours will be alerted, and they can request whatever piques their interest. Here 40% of the listings are requested within the first hour, 86% within the first 24 hours, which shows the demand for surplus food. It has more than 225,000 users to date.

Next startup is Industrial/Organic, by Amanda Weeks. She has taken an entirely different angle. She uses waste as a resource. Based in Brooklyn, the startup converts food waste into biological products like household cleaners, fragrances, and organic fertilizers through a multi-step recovery process (anaerobic fermentation). So it's beyond composting, no methane, or any other unwanted odours and also more products.

Keiran Olivares Whitaker's company, Entocycle, also based in England, takes another creative approach to food waste recycling – harnessing the power of nature. Entocycle transforms food waste into sustainable, protein-based feed for the agriculture industry – all using the power of insects. He uses black soldier flies, which transform food rubbish – things like spent beer grains, potato peelings, and fruit and vegetable waste – into viable animal feed pellets.

In Nigeria, Kenya, and Zimbabwe, more than 35 million tons of fruits and veggies are produced

each year. According to a startup called ColdHubs, 45% of this food spoils due to sub-par storage. Across the globe, post-harvest losses of fresh fruits and vegetables affect 470 million farmers and retailers. Hence, Nnaemeka Ikegwuonu started ColdHubs. His startup is a social venture that produces modular, walk-in cold rooms that extend the shelf life of perishable foods – not just by hours or days, but by weeks. The rooms are fueled by solar panels and high-capacity batteries, making this an eco-friendly solution for portable refrigeration. The company designs, assembles, installs, and commissions these rooms, which farmers purchase on a pay-as-you-store subscription model. Ikegwuonuu has long-term goals for ColdHubs -- he plans to have 1,000 units operating in the next five years.

Next is Misfit Juicery, a brand of cold-pressed juices that are now available in 38 locations near Washington DC. They don't boast of how fresh their ingredients are; they don't care if there are brown spots on their apple or knobbly carrots. Their produce, somewhat 70 to 80 per cent are from misshapen or blemished items, that would have otherwise gone to waste.

Some other startups which are trying to tackle the food problems are listed below:

- In Finland, the app Froodly looks to offer consumers a chance to be part of the solution, while also gaining access to discounted food. The app shows users about-to-expire supermarket products for discounts of between 30 and 70 per cent.
- AgriProtein Technologies takes organic waste from food factories, restaurants, and hotels, plus out-of-date produce from supermarkets, and creates larvae feed on it. They then feed the product to fly larvae, which in turn become food for chickens and

farm-raised fish.

- Another obvious use for misshapen produce is making it into jams and chutneys, which became the business model of UK-based Rubies in the Rubble, founded by Jenny Dawson. Because so much food waste comes as a result of large-scale surpluses, preserved foods were an obvious choice, with their long shelf life.

In India, the problems are slightly different - the startups are more focused to find solutions for hunger that's looming dangerously in one corner and tonnes being wasted at the other. So, rather than finding a financial gain or having large turnovers, here importance goes to NGOs or those startups that try to resolve food shortages. Using food as a source of raw materials, composting, etc., they will work for sure, but there is a bigger situation to be taken care of.

GiveAway, founded by Mohammed Asif, Nareshwar Sivanesan and Fahad Khaleel Wallajah, was always concerned about the problem of hunger in the country. As an effort to address the interlinked problems of hunger and food wastage, GiveAway started its journey, in September 2015, by collecting extra and leftover food from households, wedding receptions, restaurants and parties from all over Chennai. They packed the food in safe and sanitary containers before delivering it to the beneficiaries. Soon they started taking requests on WhatsApp.



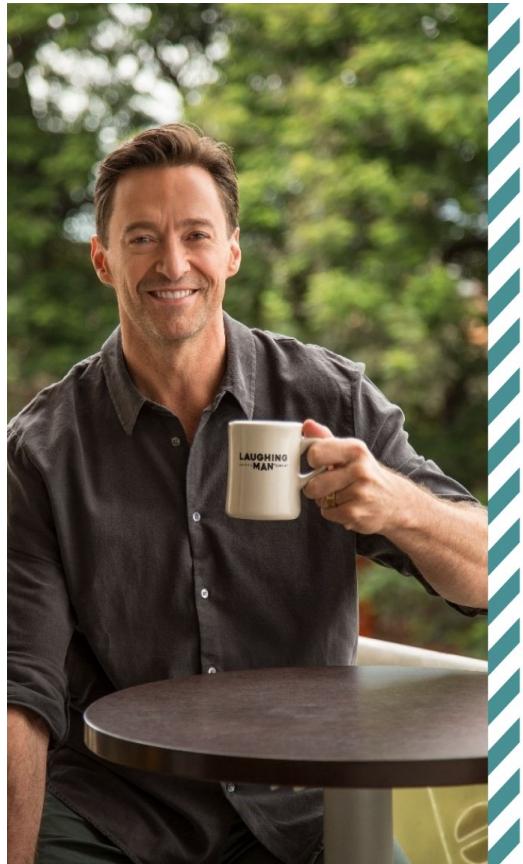
Feeding India is an initiative run by youth, started by Ankit Kawatra, which works to end hunger

& malnutrition. The initiative is headed by a core team of working professionals who come from different backgrounds like consulting, marketing, e-commerce, etc. Their belief is there's no need to create new food to feed the less privileged, but to direct the extra food which is already created. Overwhelmed with the support and love people have expressed for sharing food, Feeding India created a mobile application that makes food donation as easy as it sounds. Using the app, people can now connect with nearby hunger heroes and donate their leftover food.

Other than food recycling, there are other sections in the food industry which are being explored by entrepreneurs - traditional food delivery sector, online food discount ventures, food packaging, and storage sections, etc. A lot of these startups are garnering attention due to the unorthodox approaches and methodologies, yet food recycling sits atop the food industry. As humans who consider food to be a luxury are dumping tonnes of food in the landfills, the prices of food have seen an exponential increase. Thus, food recycling will be a cordial solution.

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## SUPRIS-O-PEDIA!



### SURPRISE ENTREPRENEUR!

A highly talented actor, singer and producer

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# HUGH JACKMAN

---

Also the co-founder of The Laughing Man Coffee Company!

# TREADING THE PATH OF INNOVATION

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## VISHNU PRASAD SHARMA

The tourism sector has always been of great importance for a nation in view of cultural and economic importance. The industry offers a big pool of business opportunities as it is a combination of multidimensional services. The most conventional services are that of travel and accommodation. This field has already set its roots in the entrepreneurial world. With increasing globalization and tourism, the service industry is growing to its fullest. Moving ahead from conventional methods, more innovative ideas are cropping out of the minds of young entrepreneurs. Tourism has been redefined. No more limited to visiting monuments, tourism now has a vast number of avenues to offer like event organisation at tourist spots, organizing adventurous games, trekking, sailing, river rafting, etc. The tourism industry is set to flourish worldwide, thus fascinating young entrepreneurs to grab the best of it.

Comfort and enjoyment of the tourists is of utmost priority. Several startups are coming with ideas which adhere to this principle. One such startup is CCROV. Their product is basically the first-of-its kind underwater robot which records your ‘in-water’ adventures in 4K resolution, making the experience enchanting and elevating the level of thrill. The best part is, such startups are not limited to simply the tourism sector: it can very well be used for research purposes as well. Moreover, there are some startups which fulfill one’s dream to fly.

Health issues during a journey are also concerning. But fear not, the entrepreneurial world has solutions sorted out for this too! The startup app and website ‘[www.timeshifter.com](http://www.timeshifter.com)’ guides the person during journey about ‘when to sleep’ and ‘when to eat food’ while on the go from one time zone to another. Another such website is ‘[thetraveldoctor.com](http://thetraveldoctor.com)’ which suggests and reminds tourists when to take medical pills.

The services including event organisation at tourist places and beaches are also gaining popularity these days. Many startups are going ahead in this field. Besides city safaris, there are companies which make your jungle safari a great experience. Many travel startups have taken responsibility of assigning guides also. Seek Sherpa is a startup dedicated to this. This startup gives local people opportunity to guide tourists, generally at the historical places. Obviously, it pays them accordingly. Such startups are of huge economic value as they help in organising a sector as unorganised, divided and nondeterministic as the one encompassing the tour guides.

### **TransHimalaya.in**

Founded by Mrs. Priyanka Kotiya, this Delhi based startup has reached heights for unconventional approach in tourism. The startup operates in the Trans Himalayan region-1600 km long mountain

range. The startup is a travel aggregator for less explored territories of Ladakh in India, Nepal and Bhutan. The field of specialization of the startup is cultural and heritage tourism, hiking, trekking, mountaineering, rafting, wildlife safaris and mountain biking. It masters in providing special itineraries. Mrs. Kotiya says, "Right now we are working in very less premium and establishing the Brand in High Altitude trekking."

Despite the enormous margin available in this field, by charging a mere 5% of that, the startup has achieved 400% profit of the total investment, says Mrs. Kotiya.

#### A Great Way Ahead in the Industry

The field having enormous margin, as said by Mrs. Kotiya, is going to witness more innovative startups in future. Just like the way that there are some startups which allow customers to compare fares and offers between ticket booking sites (Trivago being a popular example), we may also see startups to pre-book the tourist guides. Drones may find a crucial role in making trekking more thrilling. River Rafting and Sailing are also having potentially tremendous market. This is just the starting of an era where, metaphorically speaking, tourism will attract investments higher than several industries by leaps and bounds and gain revenue the height of the Everest, as more dimensions of this industry are yet to unfold.

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## DID YOU KNOW?

Which marvel movie features a cameo appearance from Elon Musk?

IRON MAN 2

In the movie ,the on screen entrepreneurial big shot ,Tony Stark promises Elon Musk that he will help in making his idea for an electric jet come to reality!

# THE ONE WITH THE TIMING

## SNEHA BHOSALE

Entrepreneurs believe in ‘Fail Fast, Fail Forward’ ideology which subsequently helps them improve for a better onward journey. It is difficult to accept the hard and bleak truth of most startups failing in their journey - with only a fraction surviving to brag about their success. This can be supported by a Forbes prediction, which states ‘9 out of 10 startups will fail’.

A major reason for startups to fail is the mistimed launch of a product or a venture. This has scarred most entrepreneurs, and some have drowned deep into the belief that ‘being early is the same as being wrong.’ The business idea can be exciting and stressful simultaneously. It’s true that the journey starts with an idea, but it only ‘starts’! Many factors are responsible for steering an entrepreneur’s journey, namely team, funding, workspace and how fast the people can adapt to a product or an idea (a.k.a product-market fit). Adapting to an idea may seem trivial, but certainly, it isn’t. Hundreds of entrepreneurs have stressed on product-market fit. One such entrepreneur is Jecin Maltais - probably a great ideator but a failed entrepreneur - and he states, “Talk to people before you build anything!”.

Every successful startup is preceded by a startup which tried to introduce a similar idea but failed to fit in the market. This misfit, in most cases, is due to a seemingly futuristic idea and the market just wasn’t ready for it.

Isn’t it the most unwanted experience to watch others turn billionaires with a similar idea and a better timing? But the world should indeed be grateful to the failed entrepreneurs for pioneering some out-of-the-box ideas which later became an inspiration for others - who made it big

and certainly had the timing in their favour. And that’s life.

A premier example for mistimed startups is Webvan - a grocery e-tailer who failed publicly after raising about \$800 million. It promised delivery of groceries within 30 minutes. The statistics estimate the US grocery industry to be valued about \$603 billion (annual), with a mere 1.2 per cent contribution by online grocers. It’s a tough market for online grocers to penetrate, and it was tougher back in 1999 - the period when Webvan was functional.

One on the many reasons for Webvan’s failure is that it raised a large sum of money in the early stages, as they tried to expand their limits. According to Mike Moritz, a former board member of Webvan said, “(Company) committed a cardinal sin of retail, which is to expand into new territories... before we had demonstrated success in the first market. In fact, we were busy demonstrating failure in the Bay Area market while we expanded into other regions.” And this act of rapid expansion without a proper foundation is the consequence of the GBF (Get Big Fast) ideology that persisted in those days of entrepreneurship. Today, the entrepreneurs believe in MVP (Minimum Viable Product) strategy. It seems the fate of Webvan would have differed if the MVP strategy was adopted.

Failure of Webvan is surely a case of a startup being ahead of its time as e-commerce was not much developed, and fast internet connections was just a dream. Today, Webvan is active, and part of the Amazon family.

Can we imagine our lives without social media

forms like Facebook? Isn't Facebook the first socialising site? Apparently, Facebook missed the feat by seven years. In 1997, sixdegrees.com was founded with the idea to connect people across the globe, and serve as a medium for them to socialise and interact. Facebook is based on a similar idea, but both startups have drastically dissimilar tales to narrate - Facebook had a memorable tryst with its timing, while sixdegrees.com was just unlucky.

The startups - Webvan.com and sixdegrees.com - didn't rise to the heights of their successors. The founders and the investors - unable to bargain for any luck or timing - could barely support the startup during its descent, but they certainly pioneered the niche for other entities to dwell and prosper which has subsequently raised people's expectations and powered the curiosity to explore other niches. And the world labels these startups as unlucky. Sigh.

## SUPRIS-O-PEDIA!



### SURPRISE ENTREPRENEUR!

Presently ranked world No.1 in men's singles tennis

# NOVAK DJOKOVIC

He along with his wife transferred their passion for healthy food into a vegan restaurant named Eqvita in Monaco

# SUPERTEMPORAL

## INTERVIEW WITH DANIEL RAMAMOORTHY

### ROHAN NARAYAN

Daniel Ramamoorthy is a serial entrepreneur, investor, speaker, lecturer and government advisor. Daniel's passion for people, impact, and scale has lead him to found startups and mentor countless many others across 4 continents. His work has led him to advise the Irish government on their National Entrepreneurship Policy, lecture in local universities and run bootcamps internationally on entrepreneurship, and speak at dozens of startup events globally.



#### Why do people call you 'The Ignitor'?

I have struggled a lot trying to find one word that covered all my passions and interests. Over time, I have been a government advisor, a consultant, a recording artist, a radio presenter. And I have worked in so many different companies – I have been a founder, an investor, and it started getting very tough and boring. Also, I think titles are pretty self-obsessed, and I wanted to figure out what is my value to the world. I love the word 'ignitor' because it is about sparking other people's passion and purpose, and also for me that what fulfills me is not the title on the business card or rather what my value is. That's why I call myself 'The Ignitor' because I love to instill passion and purpose in the people that I meet.

#### We live in an era of digital marketing. So what can a company do so as to put themselves in a different field, as any other ways of marketing?

Yes, and marketing is constantly evolving as well. There are new social media platforms, and there are new ways even on those platforms to market yourself. So for me, it's always about different and changes yourself. So find a way to be different. You don't have to – I mean everyone is still using Instagram stories but there are those who stand out and those who don't, and those are different, and those are don't. And so for me, if you are based on digital marketing, be unique, be authentic and be consistent. That's where you differentiate yourself (from the world). Because most people give up fast, but the ones who win are the ones who stick around. So those three things, to me, all come to differentiating yourself, and I think that is key to winning in the digital marketing world.

#### What is the motivation behind the creation of The Ignite Pad?

So The Ignite Pad was I think to expand beyond what I do. There are only so many people that I can talk

to as a speaker, there are only so many businesses that I can build as an entrepreneur, there's only so many people that I can invest in as an investor – so it came to try to find like-minded people, whether they were also fellow experts in certain domains that could help, mentor, coach and invest in certain spaces or community people who believe enough in the message, to be those leaders in their communities. And so it's a combination of two communities – those who are receiving but aren't making it move ahead, and those who are very similar to me in their thought process, ideas and are just kind of peers in the space. So that's what The Ignite Pad, which very recently started off to amplify what I'm trying to do.

**You have been an advisor to the Government of Ireland. So what is Ireland doing differently to India in encouraging startups? I say this because they have a better 'ease of doing business' ranking.**

That's for sure. When I came in, it was in the middle of a recession. Ireland knew they had to do something to evolve, and to get ahead. And so the first thing we did was to have an honest conversation about the current status. Step One. Map out the ecosystem – what's good, what's bad, what's ugly – and make it honest. Not optimistic, not hopeful, just real. Second. We studied nationally some of the best case models and practices over there. And Third. We tried to come up with new ideas. That combination I think – first that wealth of knowledge helped because I think even now in India people have such conflicting and different views as to what is good, what is bad, what is working, and what is not. Whereas first, we all got on the same page because we all had to sign off on that same document. So that really helped. The body of knowledge that did not exist before this committee was put together, and it was public to people. Second, I think the government was willing to listen. Not only did we put in policies, but it was also actually actioned. So of the 90+

recommendations, over 70 have been done. So this wasn't just a document of hear-some good ideas, the government worked on it. Although the government did their part, we made most of the suggestions – be what people should do. Not what the government should do, so no more finger pointing. But going, 'Hey educators, what can you be doing in your college or schools?', 'Hey investors, what can you be doing with your communities?', 'Hey entrepreneurs, how can you help yourselves?' So I think, all of that – the body of knowledge, support that government gave us a platform, and putting the onus on people – differentiated Ireland and helped it move fast. But also all those things are specific to Ireland, as Ireland is so small. We would never really have an accurate body of knowledge on India, because of how massive it is. Try to get everyone in government to come together is very complicated just because of how big and also the way the government is set up in India. And it is also trying to action everyone in India, given all the different stands and stuff is so complex. While I was given those, I wanted to show what the difference was in Ireland and why it worked in Ireland, and I think that's why ease of business has happened. It's one of the things that we picked up and said, "Why does this parkside take us three weeks?" and then you know what, part of it is government and government said, "We wanna help." Boom! Supporting government. But when we realized people's awareness of business, and that's why they were delaying it for themselves, they were giving them wrong information or they were too slow. So we did education awareness for them, and often some usual business really improved and some who might take two weeks, took two days.

**That's more Ireland specific, but what can we as Indian citizens do?**

That is a tough question, and I wouldn't dare answer it as I don't spend enough time here to give an instructive or educated response. If it was one thing that I picked among components in

here, I think it needs to build a more cohesive ecosystem. I feel like every player – the government, the educators, the financial institutions and banks in entrepreneurship, and the entrepreneurs themselves and all the support like legal don't actually like each other. I don't find that comradery, that friendship where people are interacting. See this is my personal opinion, having been here. On the other hand in Ireland, say I go to a barbecue, and there are people from government and university guys just hanging out. They are all genuine friends with each other, whereas here, the investors feel like 'they are investors – they have money' and don't hang out with entrepreneurs, and entrepreneurs are like 'we don't like the government – they are so slow, there are bureaucrats, and they are so corrupt.' And so there are all these divisions. It doesn't seem as cohesive. So there is one piece – from my very limited experience here – is build that family because every part needs each other for this to work.

**You have worked with various startups in the nascent and full-fledged conglomerates. What's the difference in the modus operandi?**

Yeah, good question. So early stage, I just want to test the caliber of their character – Are these people willing to learn? Are these people that have integrity? Are these people who are diligent with their time? Are these people observant of the world around them? – so it's really a test of character. And on a later stage, it's a test of momentum – having put in the finances, having given the resources, having the right team, now with all of that – does that equal action and the right spirit action aka momentum? So that's the primary difference. At an early stage, it's not that I don't care about the idea – I do care about the idea, I do care about the potential, but even the best ideas with the best potential die because of wrong people. And so for me, it's about having the right people because even if a bad idea fails, the right person will come up with another idea again. And if I trust him for the first time, they will

trust me the second time and the third time. I'll get it right eventually. So in the early days, character. Later days, momentum.

**What advice would you give to a potential entrepreneur?**

The advice I would give to a potential entrepreneur is my forever catchphrase overtime – 'Start Now, Start Simple.' So whatever you have, work with it. Whatever time you have, now's the best time. And so I love those four words because it has no prerequisites. It doesn't say: once you got your credentials, then be an entrepreneur; or once you have enough money in your bank account, then be an entrepreneur. It's 'Start Now, Start Simple.' So that's the advice I would give, and it doesn't matter where you are, what you do. I don't even need to know your story. Now is your moment and use what you have in your hands, in your pocket and the resources around you. That's all you need to take you to the next level.

**Who is the most marketable person in the world right now?**

The most marketable person in the world right now! For sure GaryVee has got most people's attention in the world right now, especially when it comes online. If it's potential, moving forward, I would say it's Tanmay Bakshi.



# THE MUSIC OF MULLAH

**VSS ANIRUDH SHARMA**

## What is music entrepreneurship?

Entrepreneurs who believe in music, and its potential to impact a large crowd and make them a good fortune, and market this music, are called music entrepreneurs. There are noticeably two kinds of music entrepreneurs: one who propagate the music they make and the others who find ways to connect people with music.

The former are born out of their passion to release their own fresh records, or to make money from their music which they observed to be well-received by their audience. Some are born out of their vision of the future of an underrepresented form of music, which they excel in. They are termed as 'Musicpreneurs'. The latter know what people like, and spark out with innovative ways to make this music, to reach out to the audience, in ways they would find to be convenient.

Music entrepreneurship, with respect to the music makers, is a process of turning one's passion for music into their profession. It is an amalgamation of art and business. Some such musicpreneurs are born with the arts of music and trade, while some, with a passion to make the world



feel their tune, learn to propagate it.

## How do the musicpreneurs make money?

Every musicpreneur should have a good understanding of three main areas: the various rights that exist in the music industry; ways to acquire them; and ways to commercially exploit them; in order to make money. They must first acquire copyrights over the work they produce. Copyrights are exclusive property rights and just like any other items of property they can be sold (assigned) or licensed to another party in accordance with the wishes of the copyright owner. So publishers and labels can either acquire copyrights by (a) signing exclusive deals with songwriters, performers and recording artists to create exclusive content for them, or (b) assigning or licensing content from third party individuals or companies.

## Some successful musicpreneurs

THE BEATLES



The Beatles became regarded as the foremost and most influential music band in history. Rooted in skiffle, beat and 1950s rock and roll, the

the group were integral to pop music's evolution into an art form and to the development of the counterculture of the 1960s. As the members continued to draw influences from a variety of cultural sources, their musical and lyrical sophistication grew, and they were seen as an embodiment of the era's sociocultural movements. They steadily developed other revenue streams from royalties and films, eventually abandoning the concert circuit altogether in favor of more creative studio work. They decided, as their music evolved, that they could actually let their records go on tour for them, in place of them. So as their career developed, their music developed. And as their music developed, their career developed.

#### QUEEN

Their earliest works were influenced by progressive rock, hard rock and heavy metal, but the band gradually ventured into more conventional and radio-friendly works by incorporating further styles, such as arena rock and pop rock. Un-



like the traditional bands which stuck to a specific genre of music, the Queen had produced a very diverse set of album. Moreover, they included more than one style of music into their songs, which made their music out of the era. Their charismatic stage presence had left their impressions deep into the hearts of their audience, even after forty years. Marketing music with visual recording was another innovative venture that put their band above the rest.

#### DAVID BOWIE

Bowie's songs and stagecraft brought a new dimension to popular music in the early 1970s, strongly influencing both its immediate forms and its subsequent development. Bowie was a pioneer of glam rock, known for his innovative and stylish costumes. At the same time, he inspired the innovators of the punk rock music movement. Bowie started a technology company



and an Internet service provider in the late 90s, making him one of the first musicians to fully realize the power of the web. In the early 2000s, Bowie started his own record company to free himself of the corporate structure of his previous label.

He also runs a website where art students can sell their work without the burdens of a traditional art gallery ([www.bowieart.com](http://www.bowieart.com)). These days, Bowie uses his website ([www.davidbowie.com](http://www.davidbowie.com)) as a means of promoting the artists on his label.

#### R. STEVIE MOORE

Robert Steven Moore or RSM, is an American multi-instrumentalist, singer, and songwriter who pioneered lo-fi/DIY music. Often called the "godfather of home recording", he is one of the most recognized artists of the cassette underground, and his influence is particularly felt in the bedroom and hypnagogic pop artists of the post-millennium. Since 1968, he has self-released approximately 400 albums, while about three dozen "official" albums (largely compilations) have been issued on various labels. Three dozen "official" albums (largely compilations) have been issued on various labels.



### LUDACRIS

Ludacris (a.k.a. Chris Bridges) has a business degree from Georgia State, and while he may have chosen to pursue music, that degree definitely came in handy. When Ludacris couldn't get a record deal, he stopped trying to impress execs and started his own label instead. For the past decade, Ludacris has transformed 'Disturbing tha Peace' records from an avenue for releasing his own records into a major company, signing hit artists such as Chingy and Bobby Valentino.



### Some innovative propagators of music

#### BRACE YOURSELF PR

Music is complete only when you have audience with hearts that resonate to it. A system to connect the ears to tune is as important as the music itself. Brace Yourself offers its artists print,

online, radio and TV placement under one roof and provides internationally coordinated campaigns. The firm has a roster of more than 100 artists, including The 1975, Hot Hot Heat, Title Fight and Ricky's band No Devotion.

#### UPNEXT

It's a venture fusing music and gaming. Users sign artists to their label and then earn points towards their label score based on the success of their artists. Success is measured by engagement metrics within the app and real-life social presence externally. Users can build their brand as a label by interacting with and promoting their artists. The concept is something that quirky but has the potential to pull more people into music making. Isn't it a symphony to the ear?

#### SKOOVE

Technology has been breaking the rules of proximity and widening the opportunities in different fields. So is true with music. All it takes is having a piano or a keyboard, and a computer. Skoove's unique method guides you with real-time feedback as you play, letting you improve faster and learn more effectively.

#### LOUISE

Louise unites music lovers & smartphones users. Combining these 2 trademarks, Louise allows you to unleash your aural curiosity & sneak in unknown listeners' headphones. It is the very first genuine interactive social music app in perpetual evolution.

#### FLEXOUND

Flexound Augmented Audio technology combines personal high-quality sound with physical vibration creating a unique immersive experience. The universal technology complements current cinema sound systems, offer great sound quality, improves audio clarity, and lower sound volumes.

# E-WASTE OR E-OPPORTUNITY

ADHIL MUSTHAF



Let's get straight to the point. What is e-waste? Old computers, consumer electronics, home appliances or similar products which are out of use or discarded or that have reached their end of lives are called e-waste or electronic waste.

In India the concept of e-waste recycling is still at a nascent stage but in developed countries, it is taken very seriously with plenty of laws dedicated to ensuring proper disposal. But with the advancement of technology the concept of recycling e-waste material is fast catching up with Indians and it is happening big time! E-waste disposed contains both valuable materials as well as toxic materials, which need special care while handling.

Developed countries are the largest producers of e-waste. Every year the number of PCs discarded by the USA is 47.5 million, that by the UK is 8.2 million and Australia 2.1 million. Add this to the 100 million mobile phones discarded by the US, 28 million by the UK and 13 million by Australia. These staggering numbers speak volumes about

the business opportunity for new-age environment loving entrepreneurs. Apart from business, E-waste recycling solves many possible environmental problems like conservation of natural resources, reduction in pollution of air and water caused by hazardous materials like arsenic, mercury etc. There is a growing demand for recycled products from environmentally conscious people and is hence a great business opportunity. Entrepreneurs who really want to create a niche for themselves and stand apart from the crowd are sure to be attracted by this avenue and such opportunity as this industry problem of E-waste presents is ideal for them.

The point is the industry has developed a lot. Compared to the beginning, where there were just mobiles, televisions, old computers and a few other electronic items that ruled the arena, things have gotten pretty bigger. More household items of daily use, more electronic gadgets in the same house, things never thought of a few decades are popping up. Technology advances as every moment passes.

Rising technological advances are making new developments in the field of waste management systems. Thus, they bring a lot of advancements and attraction. It's important to note the difference in the e-waste produced in developed markets, imploring on these subsections, rather than in whole. So focus has been improvised and also the option for choices. Sure as hell, complexity has increased drastically.

Consider the market. It has gotten widely segmented. Based on type (trashed and recycled), source (household appliances, IT and telecommunications, consumer electronics) and geography (North America, Europe, Asia-Pacific, LAMEA) – making it all the more critical.

With correct studies and research based on this classification, you could get to the core areas and more important marketing subsets with potential growth. Trends based on classification, like in large industries have seem to been catching up here.

Presently, a market trend can be observed in North America that highlights the fact that majority of E-Waste is trashed in developing countries or the sea, rather than recycling or reusing the same by the producing country. Another thing to notice is how North America captivates the field, even though it is just a supplier. The decrease in the life cycle of electronic products viz. computers, laptops, cell phones is generating large amount of electronic waste in the North American region. Moreover, the region wise study of global market is conducted to closely examine the effects of E-Waste in every country. The regions analyzed are North America, Europe, Asia-Pacific and LAMEA. North America generates the largest revenue for the global market. It is evident more by

how much they trash all the stuff by exporting. Largest consumer, e-waste generator and exporter. This really helps a lot of developing countries. They should try to market it out. Recycling them and sending them back as raw materials again takes a lot pressure off the nature and industries.

Europe is another important market. WEEE (waste electrical and electronic equipment) that includes fridges, cell-phones, computers and TV sets are considered as the highest developing streams in Europe. WEEE results in health and environmental problems as it is a combination of components and materials owing to the dangerous content. Electronic waste dictates EU to control e-waste disposal, which in turn is expected to stimulate the growth of European e-waste management market.

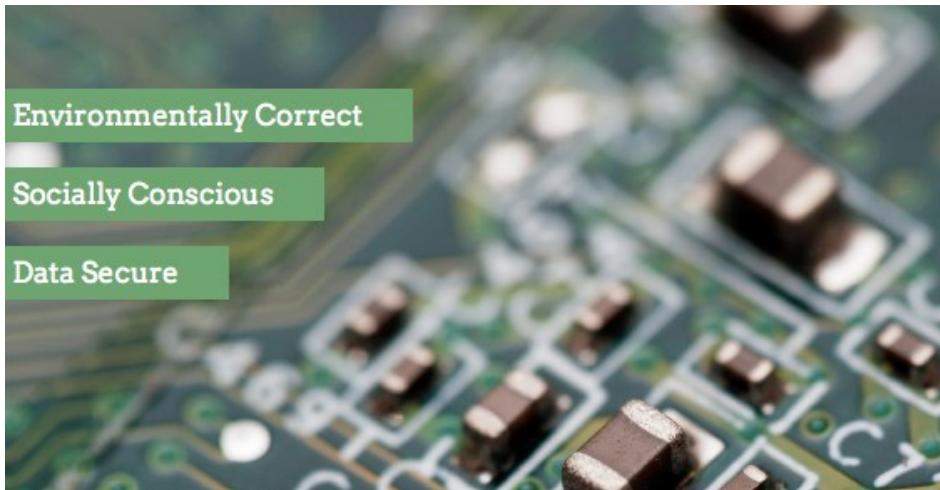
In the present world, this has risen to such an extent so as to bring about competition. Different countries compete hard to be on top not just in a region, but in the whole world. Information about different players in the world of e-waste management market and their strategic moves is gathered from company websites, press releases and primary calls made to the industry experts. The different strategies sought by the leading players in the e-waste management industry are tracked from their

recent developments in e-waste management business. The key strategies adopted are expansion, partnership, and innovation. Expansion is the major strategy utilized followed by partnership. For instance, leading companies like Stena Metall AB, Enviro-Hub Holdings Ltd. and Boliden AB have established new facilities at different locations to expand their presence.

Now to a few famous startups in the field. Out of the hordes of those competing out there to get to the top, here are a few that made a steep growth..

New Delhi-based e-waste management startup Karma Recycling focuses on conserving resources through systematic collection, reuse, dismantling and recycling of electronic waste. The company decided to reuse mobile devices when they realized that the generated e-waste is negatively impacting the environment. Since its inception, they have collected over 100 thousand mobile devices through their trade-in programs, and redistributed them around the country.

Gurgaon-based Extracarbon aims to reduce the carbon through effective waste collection and its proper recycling as well as conserving energy. Founded by Gaurav Joshi and Anant Avinash in 2013, the startup provides a mobile app, with which you can show your



items without inviting the Green Super Heroes team home. The Green Super Heroes team basically consists of the garbage and waste pickers that go door-to-door for collection of recyclable products.

Electronic waste management firm Attero Recycling actively promotes eco-friendly reuse and recycling of electronics. The company aims to turn waste into sustainable resource by extracting pure metals from end-of-life electronics in an environmentally responsible manner. Based in Noida, Attero has also established one of India's largest electronics refurbishing facility, backed by cutting edge technology, to extend the useful life of old electronics and promote reuse.

Started by Akshay Jain, a 28-year-old entrepreneur from Delhi, Namco E-waste processes up to 20 tonnes of e-waste daily. With collection centers across 12 states and union territories across the country, the startup

is building strategic partnerships with leading electronic companies, addressing the pressing need for collection of e-waste.

With regards to waste management, it is customary to mention the IIT Madras campus. It has Owzone green plant for the collection of garbage from its source and then to dispose it. After source differentiation of

tract basis and thus provide good employment opportunities to the local residents near the campus. After this, they are taken for segregation. The garbage is collected from three zones—residential, academic and hostel. From here to segregation yard it is divided into usable and non-usable items. The usable stuffs like cardboards, paper, bags etc are separated and given for resale. As a matter of fact, it is overall a profitable venture with less investment: just bins and tricycles. Having its own rare variety of flora and fauna, this consciousness is important. Owzone makes that sure and they are rendered more attractive by their job opportunities and profits from resale.

To conclude, with a strong focus on development and an intelligent lifestyle, it is vital for gov-



biodegradable and non-biodegradable wastes they are collected by zero waste zone workers daily in the morning from the residences using tricycles. They are hired on a con-

ernment, corporate and citizens to focus on the impact on environment and health to ensure a balanced ecosystem. Thus, just like the strong awareness and push on general cleanliness and

waste management, it is vital for the community to wake up and take notice of the serious e-waste problems we have upon us. Not by just making profits, or rather considering straightforward business, but being environmentally conscious and thinking about the future. It's a guarantee that this market will never go down, at least not until the day when there is going to be a drastic change in the overlook of our lives, that day when technology is so advanced that we have solution for even the tiniest of our problems. Still there would be a lot of waste to generate. But now it's making up to the peak. With industries more than doubling in a decade, things are going to get more busy and competitive in

this field. There are going to be people who are going to be interested, including the environmentalists. To take the burden of the nature, popularity of such recycled products from e-wastes are going to increase for sure. Faster development of technology and high rate of obsolescence have increased the demand for more and more new goods, thus increasing waste production. And reusing the usable parts could be the best source of raw material again, decreasing the demand to better extent. But don't forget to notice how the law acts as a support and backbone to this industry: all the more reasons to encourage new entrepreneurs in the field of e-waste disposal.

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## DID YOU KNOW?

Which well known entrepreneur  
still uses a flip phone?

WARREN BUFFETT

Despite being the 5th largest shareholder in Apple, he doesn't seem to be eager to trade his retro flip phone with an Iphone any soon!

# BHARATI SCRIPT

## AN INITIATIVE MEETS ENTREPRENEURSHIP

### HITANSHU SACHANIA

*"Our ability to reach unity in diversity will be the beauty and the test of our civilization"*

- Mahatma Gandhi



Indian culture is rich and diverse, but anyone who's moved across states and experienced diurnal life will identify with the fact that we have failed this test miserably.

The first time I came to Tamil Nadu from Gujarat, I struggled to make the taxi driver understand where I wanted to go (and he took me to an IT park instead of IIT). As I started to get acquainted with the culture here, I realized that maybe I knew more about western culture than I knew about the Tamil culture, and indeed why wouldn't I? Like many other Indians, I too had spent countless hours watching western cinema

and TV shows and read mostly their books. Culture, I believe, is manifested through the people of any region, their ways of experiencing life, and their interactions among each other, central to which is the language of the region.

To unify a country as immensely diverse as ours, the cultural transit within the country would have to be simplified. The first thing that comes to mind is to have one language nationally (No, not every Indian is conversant in Hindi). How do you do this in a country with hundreds of languages? You couldn't quash all-but-one of the languages to do so, else the purpose of 'unity in diversity' would be defeated. After all, language is the vehicle for culture and it is what enriches social mores. The question is of knotty intricacies, and as gargantuan as

this task seems, a professor of IITM proposed a very simplistic solution in 2013 - Bharati Script.

Professor S. Chakravarthy, from the Department of Biotechnology, has developed a script which he named 'Bharati' to surpass this language barrier, hence smoothen the sharp cultural demarcation. Citing difficulty in optical character recognition (OCR) of Indian languages due to syntactic complications arising from the use of 'matra' and 'sandhi', Dr Chakravarthy started to study the phonetics of our languages closely. Noting that our languages are based on the sounds we make and the corresponding action of releasing breath, he found most of our languages to be phonetically similar. He devised a very simple script in which the sinuosity of each letter reflected the sound uttered. The most striking feature of Bharati script is that it can be used to write any of the major Indian languages and a person who knows an Indian language could learn Bharati script in ten minutes.

## Devanagari देवनागरी

## Vowels

अ	आ	इ	ई	उ	ऊ	ऋ	ॠ	ल	ळ	ए	ऐ	ऐ	ओ	औ	अं	अँ	अः
॒	॑	॒	॑	॒	॑	॒	॑	॒	॑	॒	॑	॒	॑	॒	॑	॒	॑

## Consonants

क	খ	গ	ঘ	ঢ
ঠ	ঢ	ণ	ণ	ঢ
চ	ছ	জ	ঝ	ঝ
চ	ছ	ঢ	ঢ	ঢ
ট	ঠ	ঢ	ঢ	ণ
ট	ঢ	ণ	ণ	ণ
ত	থ	দ	ধ	ন
ত	ঢ	ণ	ণ	ণ
প	ফ	ব	ভ	ম
প	ঢ	ণ	ণ	ণ

য	ৰ	ৱ	ল	঳	঳	ক	শ	ষ	স	হ
ঞ	ঞ	ঞ	ঞ	ঞ	ঞ	ঞ	ঞ	ঞ	ঞ	ঞ

ক	খ	গ	জ	ঢ	ঢ	ঢ	ফ	ঞ
ঞ	ঞ	ঞ	ঞ	ঞ	ঞ	ঞ	ঞ	ঞ

## Barakhadi

ক	কা	কি	কী	কু	কু	কূ	কূ	কৃ	কৃ	কে	কে	কে	কো	কৌ	ক্	ক	ক:	ক্
ঠ	ঠ	ঠ	ঠ	ঠ	ঠ	ঠ	ঠ	ঠ	ঠ	ঠ	ঠ	ঠ	ঠ	ঠ	ঠ	ঠ	ঠ	ঠ

A lot could be streamlined if we were to use Bharati as an interface interposed among our languages. For instance, we could read street names or menus at local restaurants anywhere in India. With most of our languages sharing a rich inventory of words, a common script such as Bharati could provide an avenue to acquire quotidian vocabulary for a 2<sup>nd</sup> Indian language given the fact that these shared words, for most part, form our day-to-day vocabulary. Remember the times when we try to read Indian language words written in English, but are barely able to pronounce them. Bharati could rule that difficulty out.

Bharati is fashioned in a way to reflect the phonetics of letters and constructs like *matra* or *sandhi* in the forms of their respective motifs, which not only makes writing and memorizing Bharati characters easy, it also makes the task of optical character recognition simpler. In their 2017 study published by the International Joint Conference on Neural Networks, Anchorage, USA, Dr Chakravarthy and Ms Manali Naik compare the complexity (rather simplicity) of Bharati characters with 9 major Indian scripts based on

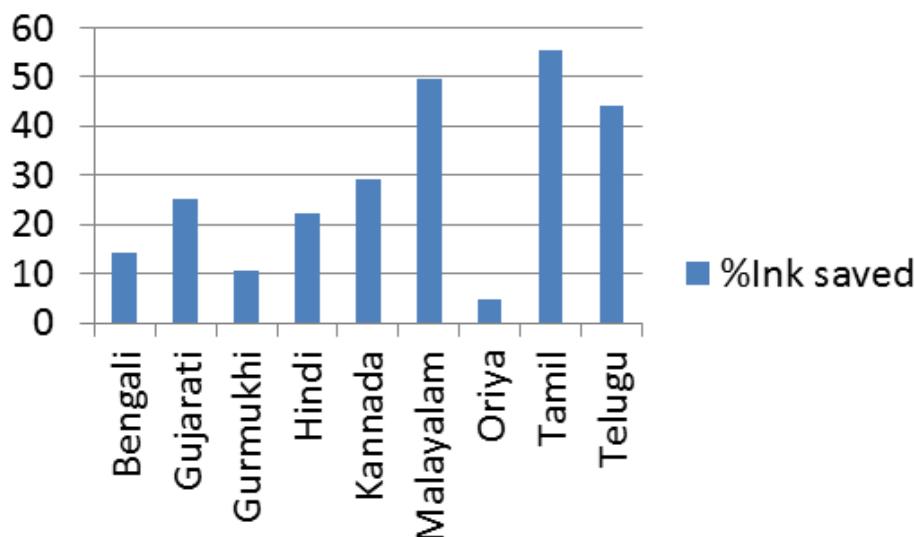
concepts about the shape of handwritten characters derived from *Catastrophe Theory* (CT). Furthermore, Bharati script also utilizes less ink compared to those 9 Indian scripts, a comparison of which is showcased in the following chart:

campus. She took her [sc. the girl] under her tutelage and taught her the Tamil script in Bharati, which the girl mastered in 2 months and now prefers over the Tamil script. Ms Padmini is also teaching her The Bhagwat Gita via Bharati.

persons is in the works as a replacement for the rather inconsistent '*Indian Sign Language*'.

Online chatting is now as intrinsic as talking, and we know chatting in our languages is not without its own challenges. English gives us a common ground but isn't always sufficient when it comes to specific sounds and *sandhi*. Bharati would free us of this difficulty and it's easy to type. The implications of Bharati script are tremendous, but whether it unites a nation with 22 official languages and hundreds more spoken in practice, only time will tell. From a fledgeling to its current stature, Bharati has come a long way and we must applaud Dr Chakravarthy for his effort and resilience. Change has seldom been celebrated by humankind without resistance, but we wish Bharati thrives to become the staple of everyday parlance, for this script is essentially social entrepreneurship at its best.

### Bharati vs Indian Languages



As for societal impact, a splendid account of a girl's journey from being a 4<sup>th</sup> class dropout to preparing for her 10<sup>th</sup> board exam is testimony enough. Ms Padmini, from the Department of Physics, teaches Sanskrit on

'*Sparsh Bharati*' is the braille version of Bharati which given the relative simplicity of the script is more fitting compared to the current braille script in use - '*Bharati Braille*'. '*Mudra Bharati*' for hearing impaired

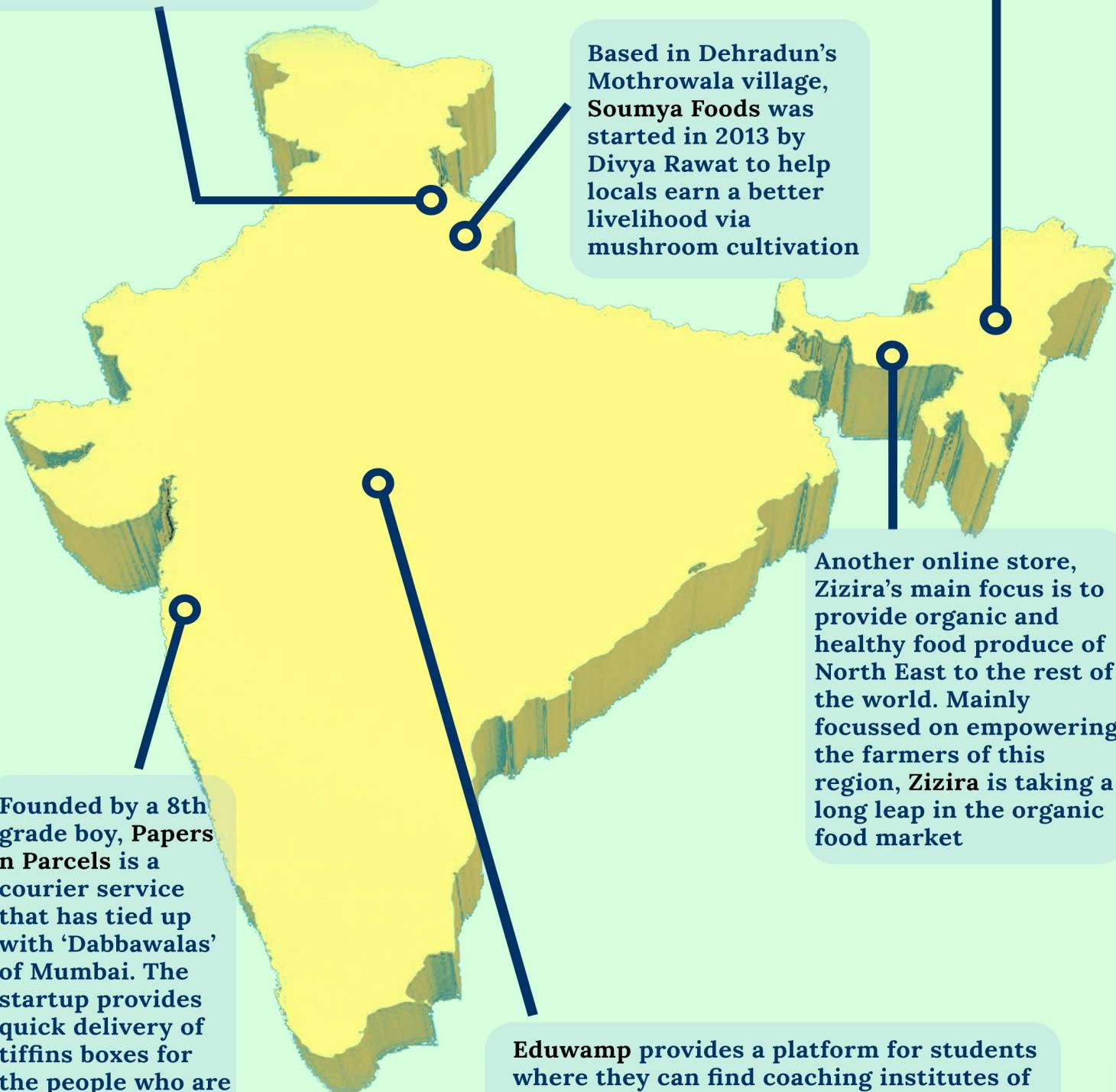
## STARTUPS ACROSS THE MAP

No part of India is untouched by the idea of entrepreneurship. Turn the page to learn about six startups working for the social, economical and environmental betterment of their hometown.

**VISHNU PRASAD SHARMA & RAJAT VAJPAYEE**

**Launched in 2011, Avani Bio Energy** is the brainchild of husband-wife duo Rajnish Jain and Rashmi Bharti, who are on a mission to build a sustainable energy generation and delivery business based on pine needles recycling

**Started as a business in Assam, Elrhino paper indulges in making handcrafted paper from the dung of One-horned rhinoceros and the Indian elephant for preservation of forests and animals of Assam**



**Founded by a 8th grade boy, Papers n Parcels** is a courier service that has tied up with 'Dabbawalas' of Mumbai. The startup provides quick delivery of tiffins boxes for the people who are at work place. Currently around 300 Dabbawalas have registered with it along with its own team of about 150

**Eduwamp** provides a platform for students where they can find coaching institutes of varied genres academic and non academic, not just finding the names Eduwamp provides full digital prospectus of a coaching institute so that students can make a smart choice

**Another online store, Zizira's main focus is to provide organic and healthy food produce of North East to the rest of the world. Mainly focussed on empowering the farmers of this region, Zizira is taking a long leap in the organic food market**

# THE FOURTH WING

## VSS ANIRUDH SHARMA

The poem is inspired from a butterfly that flew from flower to flower, despite losing a hind wing. Not every butterfly can fly with three wings. This one's special. Similarly, we have many people with talent and skills. But not all of them trust in themselves and rise to contribute to the society with these skills. This characteristic of will power and self-confidence, and ability to tackle failure, represented by the fourth wing, is what separates a successful entrepreneurs, the butterfly in this poem, from the crowd.

Flutter, flutter, o flutter bee;  
 Flutter o'er the terrains of triwing.  
 None but you could rise above  
 The dogma of grounded living.

None but you could see the land  
 Surfaced with flightless fraternity.  
 Flutter with pride with wings apart  
 For you unveiled the possibility  
 To touch, and embellish the sky  
 With your strength surpassing infinity.

The limit of your action  
 Is limited by your mind  
 And the limit of your mind  
 Is what you decide.

You cared not  
 Of your waning wing.  
 Nay did thee fret  
 The mortal falling.  
 Your inner force has always curbed  
 The risk of failing.

Flutter up high  
 For the world to fathom  
 Thine might and mind and realize  
 What they too could become.

You have put in every drop  
 Of sweat, blood and life.  
 The generations to come  
 Shall remember your strife.

Break open the sky  
 And touch the heaven  
 For the world to cherish  
 The Nectar you ken.  
 Flutter, flutter o flutter bee  
 With tenacity as your fourth pinion.



# THE ENTREPRENEURIAL HERMES

## INTERVIEW WITH PRAVEEN DORNA

### PRAJEET OZA

Praveen Dorna is a co-founder of StartupByte. He is currently building a network for startup communities across India. He has over 10 years of combined work experience working with startups, franchisees, SMB's, MNC's and non-profit organizations across payments, travel, fleet, education, robotics, media and ERP technologies in tech and managerial roles in US and India.



#### **What are your views on the current startup ecosystem in IIT Madras, or in general, India's startup ecosystem?**

Let me start with IIT Madras per se. The effort put to create setup this ecosystem is pretty impressive, especially the segmentation of the ecosystem to aide the students at various stages of their journey. In short, there is intent to achieve bigger goals, and it's visible – a lot of students are involved in all the segments. But I feel the need for greater interactions with other elements of the ecosystem – investors, mentors, and government – especially at the initial stages of the process. That's where the Indian ecosystem lacks. The industry guys are invited for events and thus limiting the interactions. They don't get to see the seriousness and the whole effort which is going into the whole system. It's better to increase the activities/events for the industry to participate, or it will be more effective if there's an improvement in the framework – how industry engages with the student entrepreneurs. And I think, this will create a lot of serious perception for the industry folks, and a serious impact leading to better outcomes – the industry will start giving more projects, investors will start funding the student entrepreneurs (even if they are seed level fundings). You see, things will start happening, which aren't in the current scenario. To summarise, everything is fine considering the student involvement per se. It's just the engagement with other layers of the ecosystem that needs to be increased – in both quality and quantity. And that's the only difference between the American and Indian startup ecosystems. There, the incubation programs are driven by the industry – corporates provide their case studies, in the form of challenges and hackathons. In a sense, they are setting up a platform for student entrepreneurs to work on real-life industry problems. Thus avoiding the scenario where the ecosystem is working in some direction and the industry is working in a totally different direction – with no synergy. I find the whole corporate participation thing implemented in the US pretty impressive. The whole idea of students working

on the industry problems attracts a lot of investors because they are actually solving problems, which already has some demand and effectively, greater chances to succeed. To summarize my points, they are outsourcing their innovation and R&D by routing their budget to these student programs. The Indian ecosystem can learn from its American counterpart and implement similar programs.

### **What do you expect from student entrepreneurs during a pitch or an interaction?**

Frankly, we have a totally different expectation from a student and from a person who is fully dedicated to a startup. It's sad, but that's the reality – we have limited expectations from a student because of the previously mentioned factors. So at campus events, we look for problems to know whether they are working on the right problems or not – that's a key thing. For a moment, forget about the solution. The solution won't gain much traction if the problems aren't relevant to the industry. So the students focusing on industry problems is the first thing. Second. To see their efforts in reaching out to the industry on their own. The institute needs to provide a platform and a framework where they can interact with the ecosystem but it's not well structured, or at places, it doesn't exist. Thus we consider their efforts in reaching out to the industry as that's a fair indicator of being serious and their willingness to pursue a career as an entrepreneur. This also gives us some clarity on the commitment and intent of the students – which can be linked to the longevity of a startup team.

**Nowadays, starting up in college has become a trend. What effect does it have on the students? What are your views about it?**

I think there's a lot of onus on the students to try a startup route. 4 years of learning and improvising – and you are the lucky ones who are getting access to the best faculty and resources of IIT Madras. The students must at least get a sense of how this ecosystem works (while venturing into the entrepreneurial world). I think the students shouldn't concentrate much on – 'how can you build an idea into a company?' or 'whether you are able to create a successful startup when you are in campus or not?' Learning should be the objective. I feel all students should attempt the entrepreneurial journey. Even if you don't go for a startup route after graduating, and get hired by a corporate firm, I think this experience will transform you into a mature professional.

### **How's been your entrepreneurial journey? What are some key learnings from it?**

I started my journey as an entrepreneur some 20 years back. I founded a video production company which has become a digital media outfit. It was just six of my friends and me at the beginning, and today, we have grown into a 200 members team. In some sense, there has been growth. This was all bootstrapped because, in that era, the investor communities didn't function the way they are functioning today. We learned and we built – a company purely on our traditional everyday economics, where profitability was basically the main criteria. That's how the experience and the insights from building my own company are helping me today when I'm on the investment side. When I talk to founders, I understand their pain and problems – which helps us to freeze on the right talent and the right kind of deals to back up. So yes, the experience is really helping me.

**Last year, E-Cell IIT Madras hosted the first**

**E-Connect (an initiative to connect all entrepreneurial bodies across India). What's your say about this initiative?**

So I think E-Connect is a superb initiative – with a greater vision. I'm happily surprised that it is coming from the student community – they are thinking, and they have realized this problem due to the lack of a bigger platform. With E-Connect, all IITs can join and create this platform form where the students can attract greater participation from the industry – investors come in, mentors come in – and thus, I think this is a brilliant initiative and one of the biggest takeaway of the entire E-Summit 2018 and which I can vouch to my community. I have been interacting with lots of other investor community people, and all of them are appreciating this initiative. They are ready to partner and support in all possible ways. Some are even willing to take it to the next level.



**How do you visualize the Indian startup scenario in say next 7-8 years?**

I think we are sitting on a launch pad stage. Apart from Silicon Valley – which is very mature and industry-driven – when compared to other global ecosystems. China, Israel, India – these are the startup ecosystems which are estimated to grow faster and faster. In fact, China has already taken a huge lead, and I think it's time for India and Israel to have a major multiplier effect from here on.

**Any word of advice for the budding entrepreneurs?**

I always have this thought – when you are doing a startup, there is a 'cool' factor associated with the startup lifestyle and culture, and thus the startup path is at times romanticized (*pauses*) which is kind of fantastic. This keeps you going, but when you are attracted beyond that romanticized phase, you have seriously taken up a startup route. I think the students need to understand that they are actually setting up a business and business runs on revenue. So they need to focus on generating revenue right from the initial stages – regardless of the failures they might face. They also need to understand what they are building, try to analyze it themselves or by talking to people, and for whatever problem they are trying to solve: "Is there a customer who is ready to pay the product?" I think if you get these answers, then it's the biggest evaluation. But this is something that you need to validate at every stage – once you are ready with the busy plan, once you are ready with the prototype, the MVP that you create. To summarize – take the product back to the customers, ask them to try it, use it, and try to collect the feedback for the value-addedness of the product. This validation needs to be done again and again, at every stage or at least five-six times before you commit to an idea.

# SMART ENTREPRENEURSHIP IN 2150

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## ANANYA SHETTY

It was the year 2150. A man dressed in a crisp suit climbed up an electric scooter. The bright lights that lit up the corridor failed to stir up any reaction in him. On a regular day, he would express gratitude for the luxuries he could afford. Anikor was a self-made billionaire who had amassed a fortune by building a giant corporate empire. But today wasn't just another day. Anikor was lost in thoughts regarding the things that had transpired the day before. He had witnessed in front of his own eyes, the power of technology demonstrated by a young prodigy. It gave humans the power to be cyborgs.

Anikor closed his eyes as he felt a sharp prick entering his skin. A wave of warmth overwhelmed him. He looked at the screen of the Quantum phone. He thought, "Call my secretary." The phone quickly bleared into life, dialing his secretary's number. He looked in shock as he realized that the phone had deciphered his thoughts. Yet, he was apprehensive about bringing the idea to market. There were many things at stake. The self-guided electric scooter came to a stop in front of a glass conference hall, interrupting his train of thoughts.

"I promise this quantum phone will be the opening you are looking for in order to establish yourself as a brilliant leader in the world. It seamlessly integrates into the human body," said Yojsh. Anikor ran his hand through his sharp spikes as he looked deep into Yojsh's eyes. "Do you realize that it requires more than an idea for a product to sell?" Yojsh said, "With all due respect Sir, I believe I showed the product to you yesterday. It can decipher the messages transmitted through our nerve impulses in real time by utilizing the speed of quantum computation." "That is not what I meant, Yojsh. I am not talking about the practical application of the product. Rather, I am questioning the willingness of the market to buy a product that would inject an implant on themselves. Do you realize that in today's times, humans are scared to hand over complete control over to technology in the fear that it is intelligent enough to be able to control them in case things go wrong? Yojsh, humans are control freaks. So we cannot launch this product in full media glare," replied Anikor.

Yojsh looked at the ceiling in nervousness. A camera was recording their conversation. "What do you mean?" he asked, after a long pause.

"We do not want people to question the ethicality of this product. We do not want this to be a controversy." "I see," said Yojsh smiling. He could see the possibility of Anikor investing in the product. "Are you going to invest in it?" he asked, with his eyes full of hope. Anikor let out a short laugh. "Don't get hopeful too soon. I would love to buy this idea from you. But developing it into a fully-fledged startup? Well, I need to think over it. You do not have a well-defined business plan. And I am not willing to invest so much money in a venture that has the highest probability to fail." He tapped his manicured

fingers on the table. A bot brought a sheath of papers to him. "Sign this, and you get one thousand dollars," said Anikor. "What are the papers about?" asked Yojsh. "It is to sell over all the rights to me to market the product. You cannot approach any other investor after you sign it." Yojsh shook his head. "Seriously, just one thousand dollars? This idea radiates a possibility. One would spend millions to get hands on the marketing rights of this quantum phone. I demand more money." "Oh dear, dear, you are forgetting that we need to produce this in mass to make it a viable market option. Again, you do not have a real business path. Also, it is a really controversial product that can go down in history with people boycotting it. If you sign it, you get a ten percent share in the company along with the one thousand dollars down payment." "I want to call off this deal. I will approach other investors," said Yojsh. He got up to leave. "Oh no, I feel so sorry for your efforts going down the drain. If you leave the room now without signing the papers, I will not consider buying the market rights again. Also, trust me, no one else would buy it for a better deal that I have offered you," said Anikor calmly. Yojsh took in a sharp breath. "Alright," he said as he scanned his fingerprint and signed with it on the papers that the bot gave him.

"Good, I hope to see you soon. Goodbye Yojsh," said Anikor as he strode out of the conference hall. He looked at the bot that was trailing behind him. "Pass a message to my secretary asking her to meet me in the newsroom."

Anikor took a left turn when he came to a dimly lit hall. Antennas adorned the crevices of the hall. A sharp knock sounded on the door. "Come in," said Anikor. A beautiful secretary walked inside. "Boss, why did you call me?" she asked. "We need to carefully craft the news such that it will appear as if the details of the Quantum phone are leaked out to the media. We need to raise a huge noise around this latest invention and use the traction to arrive on the screen and announce that we are going to release it to public usage soon," said Anikor.

The blonde secretary looked at Anikor in confusion. She said, "I was listening to the meeting. Didn't you just tell Yojsh that it must not be released in the media glare? Wasn't your strategy to keep it under wraps?" "Hell no, I told that to him to convince him to give the rights to me at a cheap rate," replied Anikor. "But won't it harm the prospects of the sale?" A smile spread across Anikor's face. "Says who? We have the power to control the narrative. We need to broadcast it in the right way." His secretary looked at him in fear. "You cheated that brilliant tech guy. He deserves more money considering you are going to earn a lot from this venture!" "I cheated none. I just convinced him of an alternative. How else do you think I made riches from rags? I have the courage to plunge in while he didn't believe enough in his idea," said Anikor with a broad smirk spreading across his face.



# JAHANPANAH

## THE DEPENDENCE OF BRAND VALUE AND EQUITY ON A TITULAR FIGURE

### ROHAN NARAYAN

*An ambassador is not simply an agent; he is also a spectacle.*

- Walter Bagehot



In the 1990s, the TRP of cricket broadcasting channels depended on one man - Sachin Tendulkar - and whether he was on the crease or in the pavilion. Such dependencies were once a rare sight, and since then, they have grown into a common marketing entity of the 21st century - the era of associative marketing and social media. Brands and enterprises, in their entirety, are presented before consumers by means of celebrities and their ilk. This, in turn, has led to the emergence of a situation where the 'face' of a company plays a pivotal role in the determination of its brand value and equity, and these two terms can be used interchangeably in the current scenario as factors affecting one are bound

to affect the other in a congruent manner.

Now let me coin a term - CEOi which refers to an imaginary 'CEO' - who is the face of the company or the most popular figure associated with the brand. The CEOi may be the actual CEO of the company which is true in the case of Elon Musk and Tesla or in certain case, a celebrity who endorses the brand like LeBron James and Nike or in other extreme cases, the individual might be the brand such as the CR7 brand which is named after Cristiano Ronaldo.

The rank of the CEOi in the hierarchy of a company may vary, but the common denominator, in most cases, is how their fortune and image exigenitly affects the brand by altering public perception, boosting consumer loyalty, brand visibility and investor confidence and even impacting stock prices and market shares.

This sort of reverberatory effect has affected companies ranging from Tesla and Apple to PepsiCo and CR7.

In 2014, Cristiano Ronaldo won the prestigious Ballon d'Or (the most coveted award in all of football), and the value of CR7 shot up from \$30.58M to \$67.38M - a considerable rise, and this could be attributed to the rise in popularity of the player. The next few examples, however, show significant deviation from the above-stated trend.

In September 2017, when Virat Kohli left PepsiCo, the company's stock value fell from \$117.60 per share in August 2017 to \$110.60 in October 2017.

Tesla's stock took a much larger hit during a series of events culminating in Elon Musk's public use of weed and subsequent removal from the post of Chairman of the aforementioned company. This series of events wrecked investor confidence and the result was a gargantuan dip in stock value - from \$379.57 on 7th August 2018 to \$263.24 on 7th September 2018. It is impossible to attribute this drop to change in leadership as Mr Musk remained the CEO of the aforementioned company and was merely removed from the spurious post of Chairman.

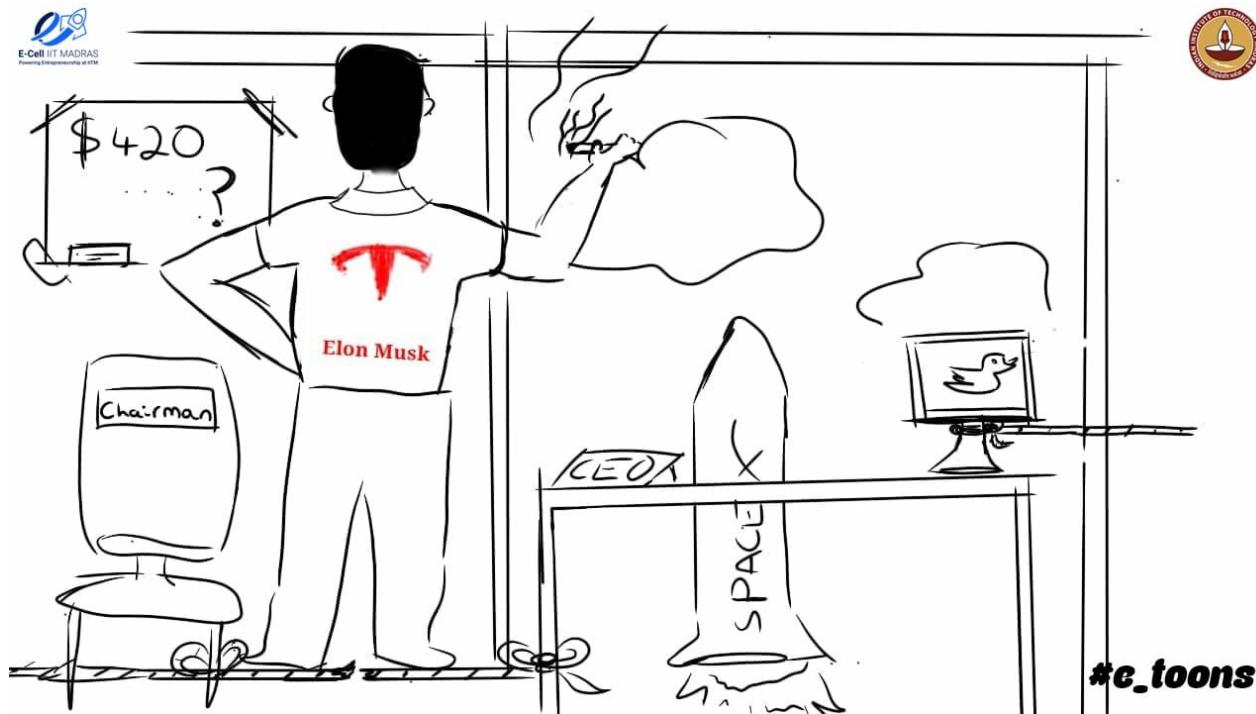
Burger King is a terrific case in the study of perfect utilization of the concept of a CEOi. The

once struggling fast-food chain saw a higher one-quarter earnings growth than McDonald's, after hiring Jay Leno and David Beckham to star in its advertisements.

Thus the presence and actions of a CEOi can greatly impact the value and equity of a brand and the ideal utilisation of this factor is absolutely essential.

An ideal CEOi is the one who embodies the ideology of the brand, and he/she has immense mass appeal and stays loyal to the brand by means of vested interests or a common agenda. Perfect use of such associative marketing was exhibited when Trivago appointed Abhinav Kumar as the Development Head for Trivago India, and subsequently, he assumed the position of CEOi. Mr Kumar was the focus of all of their advertisements and ensured that his rendering of the immutable tagline "Hotel? Trivago!" unforgettable through an outpouring of advertisements and memes.

Hence, an individual can uplift or pull down the value of a brand, and it is for the smart entrepreneur to exploit this factor sufficiently and efficiently in the establishment of a conglomerate.



# DIAMOND IN THE ROUGH

## ENTREPRENEURIALISM AS A BEACON OF HOPE IN WAR-STRICKEN COUNTRIES

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ROHAN NARAYAN

Smouldering ruins, air fraught with the malodour of death and despair and an ever pervading sense of gloom, dread and fear- all in one abominable amalgamation that plays Mordor to every Frodo of the entrepreneurial world. Yet it is this cauldron of doom that has both birthed and served as home to innumerable entrepreneurial ventures which serve as lighthouses in their sea of misery.

### Pandora's Box Unleashed

Entrepreneurship in itself requires immense amounts of derring-do, self-confidence and intent. To take up such ventures in so capricious an environment, is a move laden with risk for the behaviour of volatile markets in war-stricken countries is extremely difficult to predict as several factors come into play which do not affect the markets of more developed economies.

To drive home the magnitude of the difficulty faced by enterprises in war-prone regions, let us delve into a hypothetical yet practical example of the same.

In this hypothetical scenario, you are the founder cum CEO of a multinational conglomerate which is looking to set up a base in the country of Westeros- a country facing internal aggressions and political instability. You are an experienced hand at setting up business operations in new avenues. But in setting base in Westeros, you find challenges of much greater magnitudes. The corrupt government, local gangs and land-

lords have to be appeased so as to obtain business and zoning permits. Even choosing the location to set up the business is a ginormous task for the locality chosen should also have a crime rate as low as possible and should be as far away from any zone of conflict as possible. Then the process of recruitment begins. You realize that though the process itself is extensive as the population density and the percentage of unemployment are both high, skilled manpower is a rarity. Thus you have to turn to foreign recruitment or on the job training- both of which have pitfalls of their own. The end of recruitment brings the process of financial planning to the fore. The political and economic instability of Erangel makes mockery of any planning that you can make as rates of taxes and interest change faster than greased lightning. Even if you are Warren Buffet and Leland Faust rolled into one and you manage to produce a dynamic financial plan, investment will be as rare as hen's teeth due to the risks involved in the venture. The situation is further aggravated by the poor quality of electrical and transport facilities.

Yet it is in so arduous a situation that the carbon of start-ups has metamorphosed into diamonds- Diamonds In The Rough.

### Candles In The Void

That companies have both arisen from and set up base in these countries in spite of the obvious complications involved is a testament to the vision and perseverance of their founders.

Several of these enterprises have ameliorated the economic situation in the countries in which they have set up shop by providing employment opportunities, better electrical and transport services and even stabilizing the economy in a few cases.

Now we shall probe into a few of these *candles in the void*.

While so far the term ‘war-stricken countries’ has been wielded with impunity, let us now lend a more definitive meaning to the term.

The countries which fall into that classification are Syria, Iraq, Iran, Afghanistan, Burkina Faso, Nigeria, Uganda, South Sudan, Democratic Republic of Congo.

We can divide the entrepreneurial ventures into two types: (1) Startups that originated in war-stricken countries, (2) International entrepreneurial ventures based in these regions.

Contrary to anything which logic and common sense might indicate, the number of entrepreneurial interests associated with the aforementioned war prone countries is large – with everything ranging from small-scale businesses to gargantuan corporate machines setting up base in these countries. The following ventures are merely a drop of water in the ocean.

#### NESPRESSO IN SOUTH SUDAN (TYPE 2):

Nespresso, a venture of Nestle, partnered TechnoServe and the United States Agency for International Development (USAID) in 2016 to rebuild the coffee industry of South Sudan and to raise the incomes of farmers with small holdings. This comes after Nespresso has been conducting its businesses in the region since 2011 – providing employment opportunities to the farmers of the region and local agencies involved in the process of coffee bean farming and processing. The joint venture with TechnoServe and USAID will see Nespresso invest a sum of \$1.5 million in the project – adding to the \$3.18 million invested by

USAID.

#### ROSHAN TELECOMS IN AFGHANISTAN (TYPE 1):

Founded in 2003 by Karim Khoja, Roshan Telecoms is Afghanistan’s leading telecommunications provider with a network reaching 240 cities and towns all over Afghanistan and around 60% of its population. It provides employment to 1100 people with nearly 20% being women. Moreover, Afghanistan’s mobile telecommunications market owes its creation to this goliath.

#### CHEVRON IN NIGER DELTA (TYPE 1 & TYPE 2):

In 2010, Chevron created the Niger Delta Partnership Initiative (NDPI) in collaboration with USAID with a view to develop the information and communication network in the region and ensure economic development. They have partnered with PIND (Partnership Initiatives in the Niger Delta). Since then they have increased employment in the region, ensured equitable growth and fostered public-private partnerships.

#### DIGIKALA IN IRAN (TYPE 1):

Digikala is the biggest e-commerce start-up in Iran founded by Saeed and Hamid Mohammadi in July 2006. It is currently valued at \$886 million and has around 1.7 million unique visitors per day. Its sales are growing at about 200% and has a reach extending to even the most remote of villages in Iran. Thus in doing so, Digikala has boosted the e-commerce sphere and developed an efficient and effective communication and transport network in Iran.

#### OWINO SOLUTIONS IN UGANDA (TYPE 1):

Owino Solutions Ltd. is a web development firm based in Uganda founded by Joseph Owino-Uganda’s celebrated entrepreneur. The web development firm has boosted web operations in the country and has, almost single-handedly, brought them into the digital age. The firm has an illustrious line of clients including Uganda’s national referral hospital, Mulago Hospital, telecom company Airtel Uganda and the Federation of Uganda Football Associations (FUFA).

There are several other entrepreneurial ventures in these countries which are ranked below 500 on the start-up ranking index as provided by startupranking.com including Ponisha and Anetwork in Iran, and Konga, 360nobs.com, Eskimi and NairaBET in Nigeria.

Thus entrepreneurial ventures ameliorate the conditions of the countries in which they are based in- either directly by working with the government of that country or indirectly by establishing communications and transportation

during the course of their operations.

This observation points to an amazing future for countries such as Iran, Nigeria, Uganda, Afghanistan, Niger - an to a certain extent even South Sudan.

Thus it is undeniable that entrepreneurship in any form accelerates the development of these war prone countries and provides them hope for a brighter and more vibrant future.

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## SUPRIS-O-PEDIA!



### SURPRISE ENTREPRENEUR!

One of the most popular and highest paid Indian celebrities

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# DEEPIKA PADUKONE

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The founder of The Live Love Laugh Foundation, An organization aimed to reduce the stigma of mental illness in the society

# SERVICE AND ENTREPRENEURSHIP

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## KAVYA MRUDULA T

With all due respect to all of the big and small business(wo)men, India could still be labeled a country that lags in the growth of the spirit of entrepreneurship. With the advent of urbanization and the definite increase in the awareness, the number of students graduating has increased; but how many of these students are able to build successful career 10 years down the line? Is entrepreneurship only about building startups or making it big? What about the entrepreneurial thinking?

On the other hand, one of the many factors that hinder growth is the country's own pride- her magnificent culture. The number of women taking a detour from their career is alarmingly increasing either due to their duties towards family or due to the difficulties in reconciliation after a large gap taken for parenting etc. So what happens to this dormant workforce and why haven't they been tapped into by anyone?

Freelancing may seem one of the best solutions that can tackle both of these issues. It can be defined as a business started by an individual that markets a service. It has no regular payment. You are the boss that defines your type of work, the amount of work and also your time of work. Various freelancing services include content writing, blogging, web designing, virtual assistance, book-keeping, marketing services, social media management being just the tip of the iceberg.

It must be noted that freelancing is not just for creative professionals but is indeed a great busi-

ness model. One of the revolutionary ideas that took business to a whole new level is the concept of work from home. R&D startups often freelance as a team with big established ventures that need cheap and dependable research. Not having to invest in an office or the variety of logistics that follow, such companies have made lots of profits. In just the US, 34% of the workforce is freelancers and in India, the statistic is about 25%. These show that, given a choice, people are moving towards freelancing that will improve their work-life balance.

### **Freelancing as entrepreneurship:**

Freedom is up to an individual to decide. If you prefer life to be on the easy-side but with more freedom than a regular job, freelancing is the choice. But, entrepreneurs make money while they sleep. Being an entrepreneur is not going to give you more time, faster money, or more work-life balance. When it comes to entrepreneurial thinking, you want to challenge yourself, reach goals and success in business that is beyond your imagination. This mindset makes you develop the existing skills and market them with a long-term vision in mind. It is just a meso scale implementation of entrepreneurial ideologies on to freelancing without major risk.

One such entrepreneur who has started as a freelancer is Brian Wong. He is a tech and gaming enthusiast. He started off by designing ads for clients using Photoshop and later went on to design a mobile game advertising model. He

calls his company Kiip that has partnered with major companies like Disney. There are many ways to turn your freelancing skill into something bigger than selling it on an hourly basis just by developing the entrepreneurial thinking. This will immediately improve the income and with commitment over years of incubation can turn you into an entrepreneur.

#### **Freelancing as a tool for development of India:**

If we try to reason as to why the urban women quit their jobs after a certain age, the odds would largely be that they are satisfied with their family income and do not see a purpose to increase 'stress' in their lives. It should be noted that these women are educated, have access to technology, are great at networking and hence will be great human resources if put to work on the rural development issues. Freelancing is a perfect tool for that as it will not earn them large amounts, but can yet satisfy the want of independent earning. Also, with the impact of the work they create without having to go out onto the field to work, can provide the pride that women are often deprived of.

One of the rural development issues that can easily be tackled with Freelancing is the Marketing and Development. It could be of crops or handlooms or anything locally made in villages. All that needs to be developed is a company that can create a proper system that can connect the dots between the urban women and the local

communities. All the M&D departmental work usually done at offices in MNC's can be distributed among the urban women. This can instill a sense of purpose among the urban women as they will use their skills for improving the market which is otherwise corrupted. This process basically outsources the skills and not force the rural communities to enter into marketing their products by themselves, which would otherwise create extra burden thus reducing productivity. It can also employ permanent workforce that is willing to bridge this gap between the communities, thus creating employment opportunities. Increase in the number of workforce implies more economic growth of the country.

Work from home work force has been tapped into by non-profit organizations such as e-Vidyaloka, that improve the educational situation in the country by recruiting content writers for the textbooks, creating virtual classrooms, volunteer teachers etc. We all have heard of successful entrepreneurs and their success stories despite the challenges they had faced. It is time for us to take the torch forward by connecting the dots across all parts of the country and thereby growing a symbiotic relationship of the respective skills using technology. This process will create entrepreneurial thinking (ownership of your work) within every employee. When the heart and soul are put into something, no matter how small, creates a path to something big like the development of India.

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# **ENTREPRENEURS ACROSS DECADES**

Over the decades, the world has witnessed lots of entrepreneurs. Turn over to revisit some of the prominent entrepreneurs of the decades.

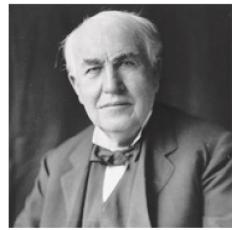
**VSS ANIRUDH SHARMA, SHRINIDHI & YASH TAMRAKAR**



### MATHEW BOULTON

- Birmingham, West Midlands UK
- Entrepreneurial Manufacturer
- Pioneered many manufacturing processes

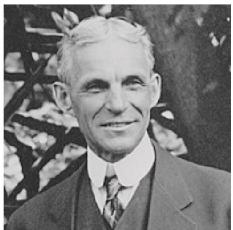
1780



### THOMAS ALVA EDISON

- Milan, Ohio, USA
- Science
- His Inventions Changed the World

1884



### HENRY FORD

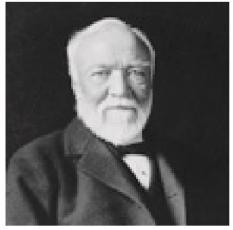
- Greenfield Township, Dearborn, Michigan, USA
- Auto-motive manufacturer
- Pioneer of Transport



### GEORGE EASTMAN

- Waterville, New York, USA
- Photography
- A Pioneer in Photography

1923



### ANDREW CARNEGIE

- Dunfermline, Fife, Scotland, UK
- Steel Tycoon
- Pioneered many manufacturing processes

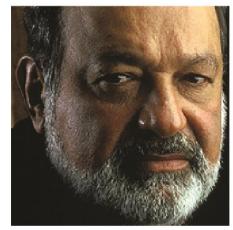
1923



### WALT DISNEY

- Samur, France
- Science
- Pioneered Entertainment

1900



### CARLOS SLIM HELUAGE

- Mexico City, Mexico
- Telecommunication
- Investments and Telecommunications

1965



### RAY KROC

- California, USA
- Businessman, Franchisor
- Founder of McDonald's

1964



### PHIL KNIGHT

- Oregon, USA
- Entrepreneurial Manufacturer
- Cofounder of Nike, Inc & renowned philanthropist

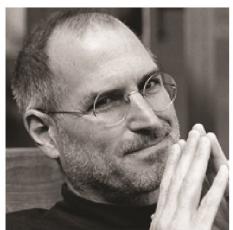
1971



### SIR RICHARD BRANSON

- Blackheath, London, England, UK
- British Industrialist
- Revolutionized British industries

1975



### STEVE JOBS

- San Francisco, California, USA
- Computer Technology, Computer Science
- Advancement in Computers & Media

1976



### WILLIAM BILL GATES

- Seattle, Washington, USA
- Information Technology, Computer Science
- Changed the Personal Computer Forever

1975



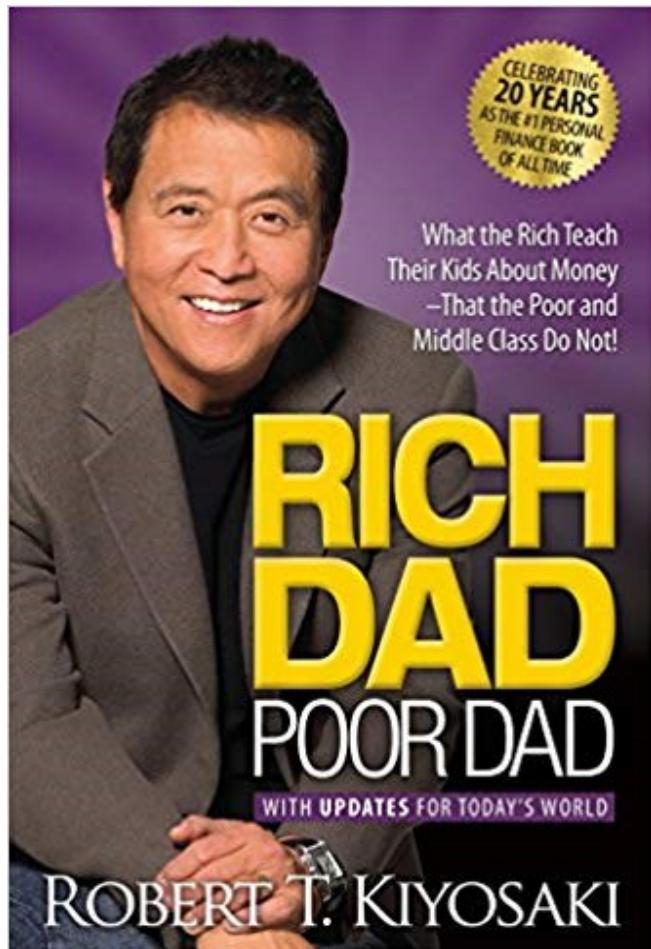
# RICH DAD, POOR DAD

## BOOK REVIEW

### VSS ANIRUDH SHARMA

#### Background

Kiyosaki and Mike, when nine, together decided to become rich. They were from the same school and didn't feel comfortable with other kids who bragged about their cool goodies and their rich dads. Kiyosaki's dad was a well-educated government servant (the Poor Dad), and Mike's was an upcoming businessman who would become a rich man



in the coming days (and hence, the Rich Dad). Kiyosaki and Mike decide to learn to become rich from Mike's dad. What the Rich Dad teaches, using unconventional teaching methodologies, and what Kiyosaki learns subsequently, is what he presents in this book, each chapter being a lesson.

#### The Lessons

Kiyosaki introduces his book by showcasing the contrast between perspectives of the rich and the poor, when put in the same scenario, in a very relatable fashion, which strongly compels the readers to read the book till its end. Throughout the book, he uses simple diagrams and illustrations to explain ideas, which even a nine year old can assimilate.

Kiyosaki writes about his initial economic state and how he gets to know Mike's dad in the first lesson. The ways in which the rich dad deals with the nine year olds and how he presents his lessons, in an unconventional way, is just fantastic.

In the second lesson, the writer strikingly opposes the common opinions on liability and assets, and proposes a one-line mantra to become rich based on a twisted definition of liability and assets. According to the writer, the poor remain poor just because they misunderstand the definitions of asset and

liability. He explains the process of money-drain in a middle class home economy and money-accumulation in a rich man's ordeals. All this, he explains in an unbelievably simple and comprehensible fashion.

The third chapter starts to unveil the practicality of the lessons by his rich dad. He warms up on how to apply one's financial knowledge to become rich. How to start on becoming rich, when does one reach a state of using money for our luxury and what 'business' actually means, has been presented interestingly.

The fourth chapter is all about the taxes. The brief history of the taxing system, how the rich use their brains to minimize the outflow of money due to it, and how the poor and the middle class are finally being penalized due to this system just because of lack of financial literacy, has been well intimidated.

The fifth chapter is full of real life examples where opportunities could fetch millions of dollars, which people miss due to lack of financial 'IQ'. The writer points out that what happens to be a financially risky investment to some would turn out to be financially profitable to the ones who know how the game works. In similar contexts, he comments on taking financial risks as an experienced businessman.

The sixth chapter emphasizes the importance of two skills: selling and marketing. According to the writer, along with whatever skill we hold, we must also master these two skills to have long-term economic sustenance. The book albeit a good guide, Kiyosaki overly dismisses the concept of specializing in ones skills in this chapter instead of

plainly emphasizing on the importance of selling and marketing.

The seventh lesson is all about overcoming five obstacles once we gain financial education: fear, cynicism, laziness, bad habits and arrogance. The solutions to some have been presented in a very practical and logical manner while others have been more of a motivational speech.

The eighth chapter discusses about a set of characteristics that one must imbibe and perfect in order to become rich. And the ninth is all about how-to-start once we have attained these characteristics. From the ideas derived from the other seven chapters, one can appreciate these characteristics and find motivation to act towards richness. And in the 'Final Thoughts', the writer talks about his rich dad's classification of incomes and which categories make one rich. Also, he advertises CASHFLOW®, a game designed by himself and his wife, Kim Kiyosaki, which he previously talks about in the fifth chapter.

### Overall Review

1. Thoroughly comprehensible.
2. Gives us a new perspective of money.
3. Motivates the readers to focus on financial education and appreciate its necessity.
4. Strongly yet convincingly opposes the traditional conception of money and the rich.
5. A good number of motivating and relatable examples are showcased.
6. The strong base of the concepts makes it recommendable to anyone.

# ENTER THE THIRD DIMENSION

## RASHMI RAVISHANKAR

What would you do if you realized one morning that the area of research you have dedicated the last 30 years of your career to could become almost irrelevant in the next decade? Hang up your boots? Slip into a crisis? Or start from scratch? Meet Satyanarayanan R. Chakravarthy. He graduated at the top of his class first at IIT Madras, and then at Georgia Tech, returning at lightning speed to become a Professor at his Alma Mater. His field of research? Combustion.

Fast forward twenty-five years. S. R. C., or *maama* as he is fondly known by his students is one of the two most published professors in the Aerospace Engineering department and perhaps THE most funded professor in IIT Madras, taking on multiple prestigious industry projects and research collaborations. He rallied for and oversaw the setting up of NCCRD - the National Centre for Combustion Research and Development- the “largest combustion research centre of its kind in the World” and a similar Propulsion Centre which is on its way. Besides all this, he still has the energy to deliver lucid, compelling lectures, reply to all emails, and give personal attention to students seeking advice. How can a professor be so perfect you ask? Well, that’s not always the case - when the time came to choose a colour for the five-storey tall NCCRD building, the man said “yellow”. But, I digress.

In Oct 2016, SRC came across a video talk convincingly claiming that combustion vehi-

cles will stop being manufactured by 2025, and will be missing from streets by 2030. He decided that in order to continue to stay relevant in this ever-changing world, he would have to move fast and break things (things here being stereotypes about researchers and glass ceilings for Indian startups). Armed with his already ongoing experience mentoring some deep-tech startups at NCCRD - making gas turbines and rocket launchers, SRC now turned his attention to the electric aircraft space. Could a team of students possibly demonstrate short-range electric flight? If so, could they compete with big aerospace companies and international startups? What about the economic and technological feasibility of electric planes? As one of the founding members of the team in 2017, these are some of the questions I asked.

As it turns out, a recent study by Roland Berger shows that the electric aircraft ecosystem of the World comprises primarily of startups and independents. And yes, electric batteries have a much lower energy density than fuel, but since electromechanical energy is inherently rotational, as are propellers and turbines, electric aircraft designs can be greatly simplified. But even as they offer cheaper and simpler solutions, batteries pack a lot of weight (in fact, electric cars are currently much heavier than combustion cars, but the difference is not so much noticeable on wheels). As a result, airplanes,

being far more sensitive to weight than cars, become range-constrained when electrically powered. But is that really a disadvantage? When it comes to intra city urban air mobility (UAM), range isn't the determinant- it is autonomy and VTOL (Vertical Take-off and Landing) - both areas where electric propulsion offers superior solutions. Besides, battery energy densities could improve several fold over the coming decades. Startups around the world are scrambling to have the first mover advantage and The Eplane Company (TEC), co-founded by SRC, is one of them. The company's motto, "Ubiquitous Flying" insinuates at flying for everyone and everything, and flying for everywhere, particularly within urban spaces as a point to point solution. Pranjal Mehta, co-founder and CEO, quips, "If we want to solve traffic problems, we need to look UP, not around".

The team comprises eclectic but like-minded members with varied tech, leadership and entrepreneurial experience. Pranjal lives and breathes entrepreneurship while Siddharth Ramesh, Suhridh Sundaram, Omkar Walvekar, Ashutosh Kumar, and Gowdham Ravichandran are CFI Gawds from the Aero Club, Computer Vision Group, and RAFTAAR teams. They spend days, nights and weekends toiling away in the NCCRD space that they have made their own, testing drones in a dedicated drone testing area lined with safety nets first before taking them out into the open. The team has accomplished proof-of-concept for several ideas including rogue-drone capture and obstacle avoidance using AI, steadily amassing Intellectual Property. And yet, their best kept secret happens to be how (or should I say

whether?) they maintain 85% attendance.

TEC is currently being incubated at IIT Madras and earlier, was one of ten startups selected to attend the i-INCUBATE program of the Gopalakrishnan-Deshpande Centre (GDC) under the team name "Aired". The company is currently building and testing autonomous flying capabilities first with drones and subsequently with life-sized prototypes. The roadmap of development begins with a 2-6 kg payload, then 20-60 kg, and finally the 100-200 kg human payloads, all autonomous e-VTOLs with ranges of 100-200 km. In the interim they have identified a market with willing clients for the deployment of drones for industrial surveillance, inspection, and survey purposes, and for the lower payload class aerial vehicles for delivery and logistics applications, as an important intermediate step in generating cash flow.

In 2016, Uber put out a white paper titled Uber Elevate stating that they would like to enter the UAM space by 2020 and that they would purchase from anyone who can make a VTOL aircraft satisfying certain specific conditions. This is precisely what TEC is aiming to do. Last year, Boeing announced a competition with a \$2 million prize for anyone who could create an "easy-to-use, personal flying device." Considering that the X-Prize and DARPA grand challenges effectively set off the private space and self-driving car industries respectively, it follows that short range, point-to-point flying devices are not far behind. Several teams around the world are in the race and TEC strives to lead this much-needed revolution in India.

*If you aren't embarrassed by the first version of your product, you shipped too late.*

- Reid Hoffman



Google Cloud



# FIRST/CHEQUE



## Lead Angels

Assisting Early Stage Investments



## Dare2 Compete



## Techabyte

Step in for better future

The Townscript logo, featuring a stylized network icon made of colored dots (purple, blue, green, yellow) connected by lines, followed by the word 'Townscript' in blue.

## NewsVoir

If it's here...it's everywhere





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