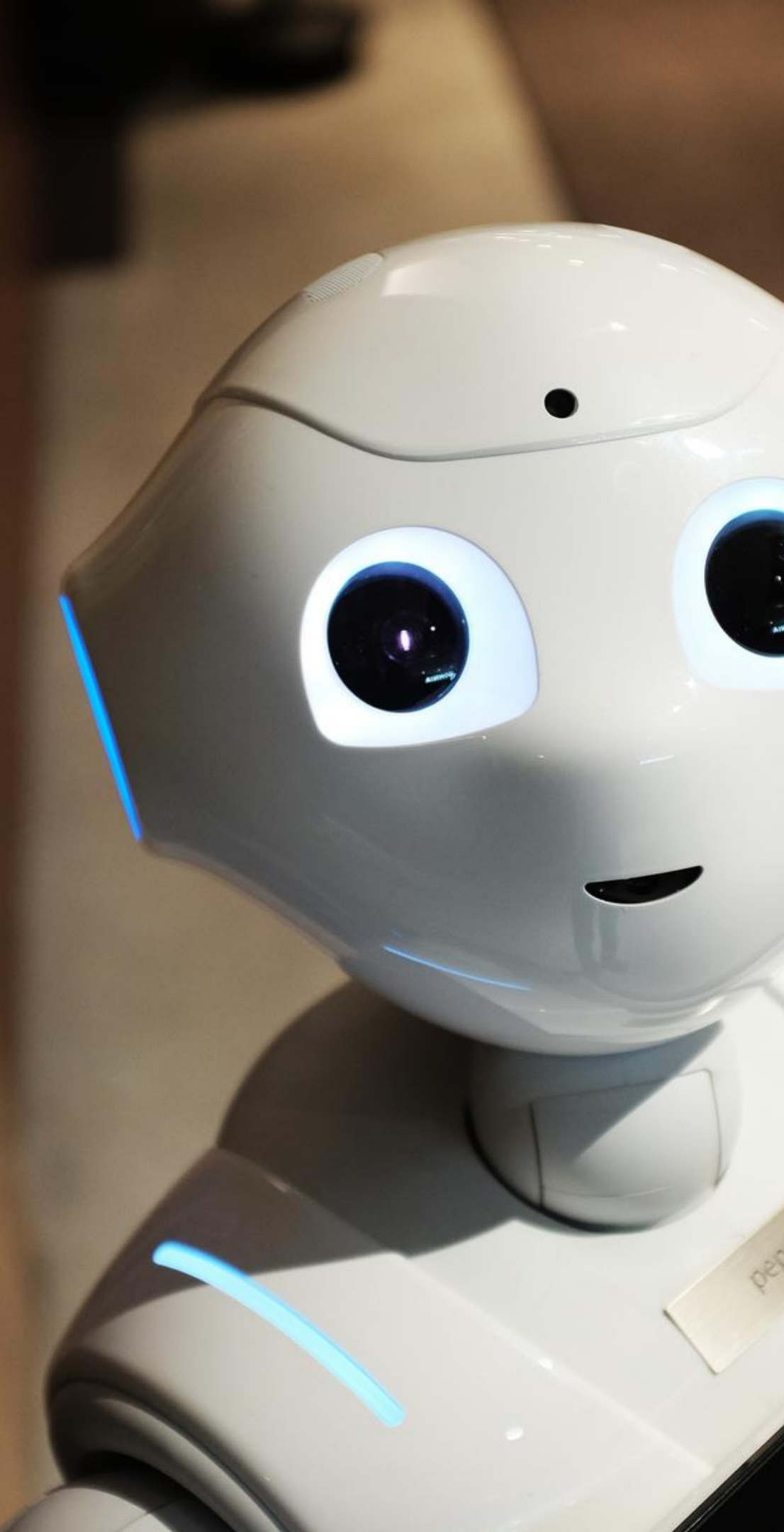


Entrepreneurship in the age of Disruptive Innovation



“The hardest thing to is to
simplify something”
Steve Jobs, Founder, Apple

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St. Ignatius of Loyala

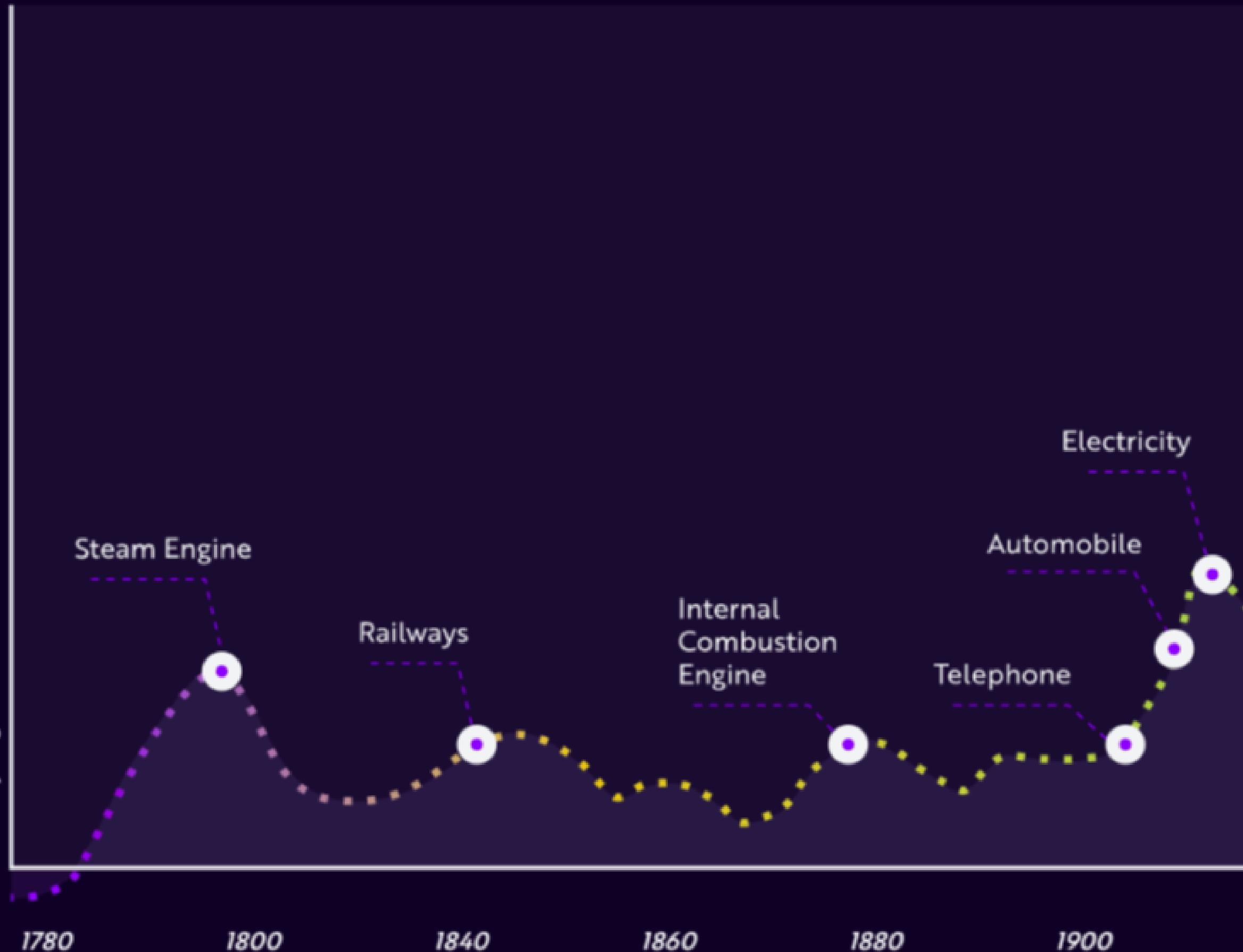
Thomas Thekkethala (SJBHS 1977)

- Entrepreneur, Investor, and Philanthropist for over 30 years
- TOLIMA LP advises and invests in disruptive innovation technology companies
- Prior venture capital investments included CrosStor (acquired by EMC), Allegro (acquired by Cisco Systems: CSCO), Fidelia (acquired by NetScout: NTCT), IBRIX (acquired by HP) & Sixth Sense Media (acquired by Evolving: EVOL).
- Former President and CEO of Evolving Systems (NASDAQ: EVOL). Growth through secondary acquisitions; Acquired by PartnerOne Software.
- Entrepreneur-Founder & CEO of two "Software as a Service" startups. Developed the market & product strategy. Led the companies to their successful acquisitions.
- Founder of Learn for Life Foundation, a non-profit organization, focused on children's education in STEM

TECHNOLOGY INNOVATION

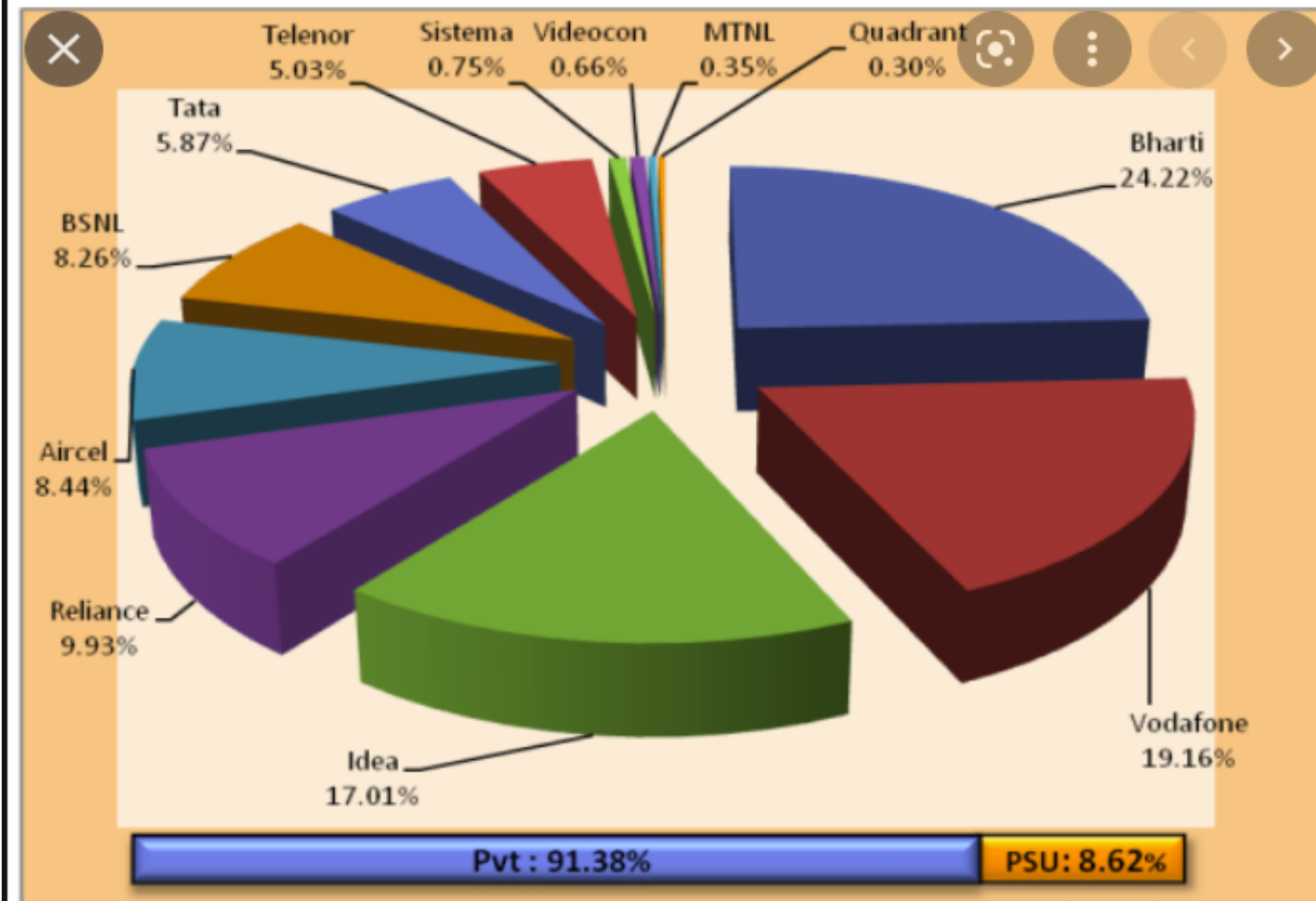
In the late 19th century, three technology innovation platforms (telephone, automobile & electricity) evolved around the same time and changed the way the world worked!

Impact of Innovation
Scaled by degree of consensus across historians



Productivity grew rapidly
Costs dropped,
Demand rose,
Creating exciting new opportunities and JOBS!

Disruptive Innovation - The JIO Story

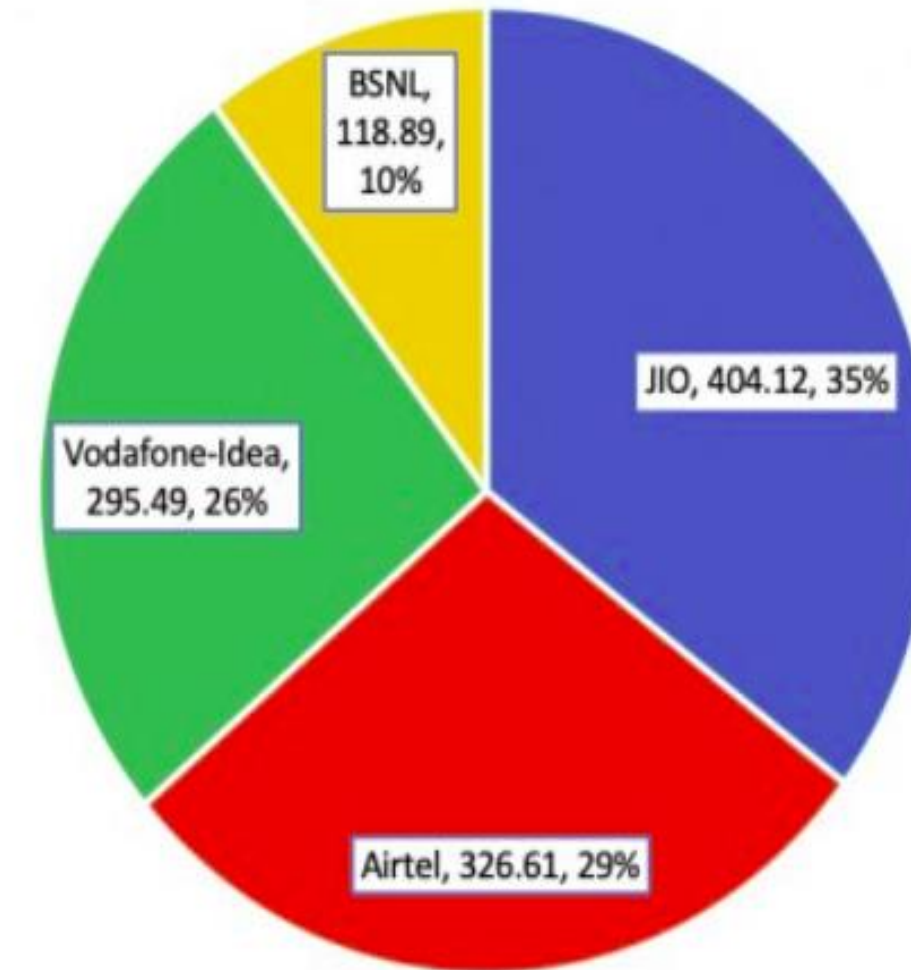


TelecomLead
Indian mobile operators market share for Feb 2016 revealed | [Visit](#)

Operator Wise Market Share Telcom Companies (Sept 2020)

Subscribers in Millions
Sept 2020

Telecom Market Share India

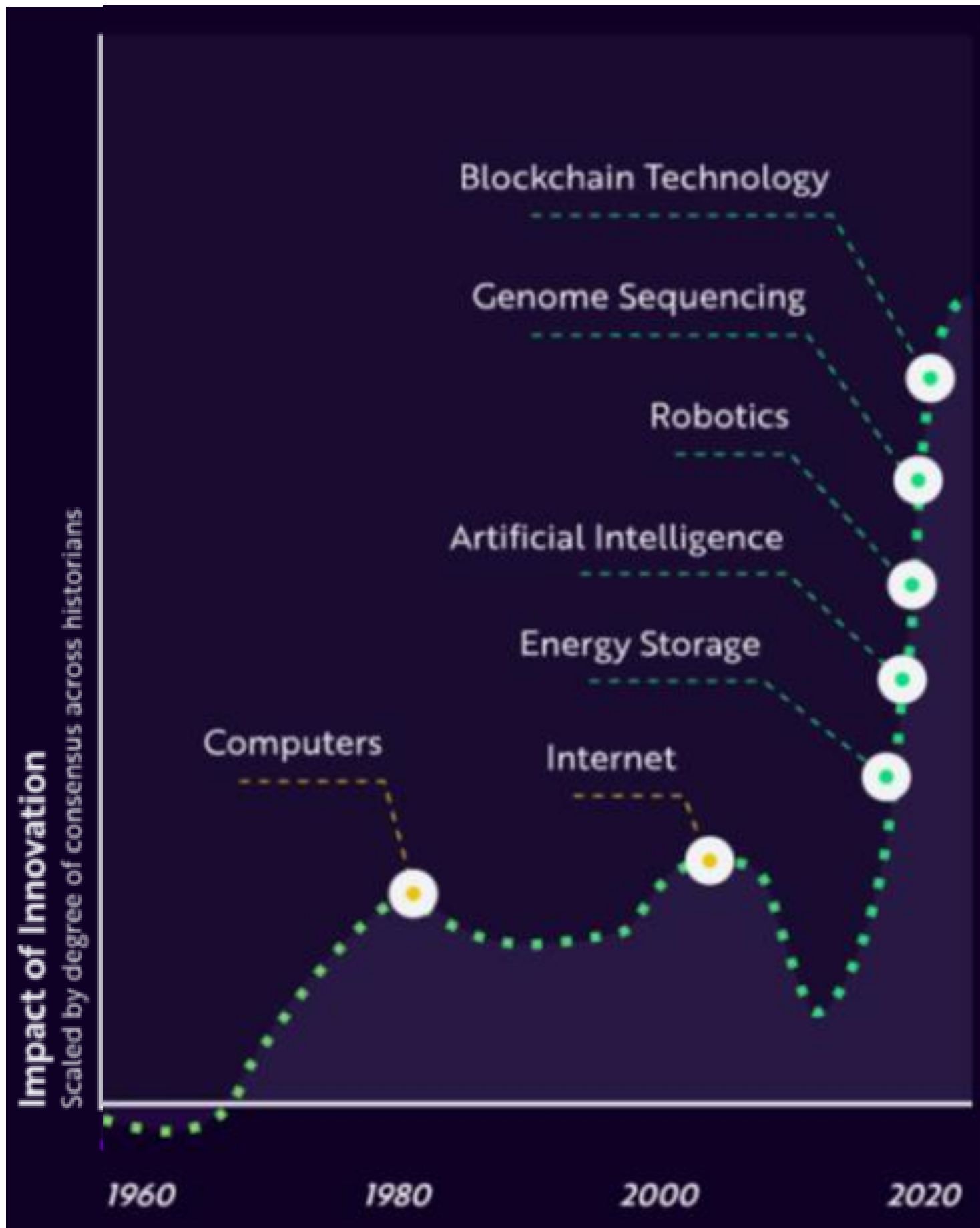


* Data is Based on Trai Report.

JIO Airtel Vodafone-Idea BSNL

Jio disrupted the “incumbent dinosaurs” through “disruptive innovation” by investing in 4G/5G data networks, making traditional “voice networks” obsolete!

DISRUPTIVE INNOVATION



Computers and the Internet had a HUGE impact from the 1980s to the early 2000s.

The 2020s has seen an explosion of technological transformation - At least FIVE new Technology Platforms are all evolving at the same time

ADD >> 3D Printing, 5G, AV/EV, Cloud, Fintech, Solar and Space Exploration

STEM is creating a "TSUNAMI" of disruptive innovation, job opportunities and is literally changing the way the world works!

“Disruptive Innovation” Platforms & Technologies

1. **Energy Storage (e.g. Toshiba, Tesla)**
2. **Artificial Intelligence (e.g. Google, Nvidia)**
3. **Robotics (e.g. Rockwell, Fanuc)**
4. **Genome Sequencing (e.g. CRISPR Therapeutics)**
5. **Blockchain Technology (e.g. Coinbase, DocuSign)**

And 3D Printing, 5G, AV/EV, Cloud, Fintech, Solar and Space Exploration

“DI” is now enabling services which are fundamentally changing the way the world works!
E.g. EV-AV-based shared networks will eventually make personal car ownership superfluous!
Paper Cash will disappear, and Robots will power the building of new cities on Mars.

An Aging Alligator's Advice on Surviving and Thriving during “Disruptive Innovation”

The Top Four Criteria which determine the success of any venture

The Top Four Criteria which determine the success of any venture

1. Total Addressable Market (TAM) Size and Timing

Represents ~35-40% of the reason of any venture's success!

- Represented in \$XB by well known Market Research Firms (Gartner, IDC, etc.)
- The internet resulted in an explosion of websites. The TAM for “Website Search Engines” was everyone in the world and Google’s timing was perfect, which created a huge success story
- By contrast, “a service to transport humans to Mars” may have amazing product technology, but its TAM for the next few years is close to zero! Similarly, the TAM for obsolete products like “horse-carriages” is very low
- Hint: Beware of start-up companies which do not have any competitors!
- Market Distribution Strategy – (OEM, Reseller or Direct) You can’t choose all three. The curious case of Microsoft vs Apple!

The Top Four Criteria which determine the success of any venture

2. The Leadership and Team Culture

- Represents another ~35-40% of the reason of any venture's success!
- “Launching a start-up is like jumping out of an airliner with a kit to make smaller plane which flies before you hit the ground – 99% FAIL!
- No business plan works exactly as planned because markets continuously evolve. Disruptive Innovation accelerates change even faster.
- “One Bounce Theory” suggests the need for a Leadership Team who have worked together successfully before. (E.g. IBM Exec in a start-up!)
- “GRIT wins over BRILLIANCE” is required in an environment which requires determination to adapt to change and team culture to weather tough times!!

The Top Four Criteria which determine the success of any venture

3. Product or Service Technology

- Much to the surprise of millions of engineers, a great product represents only ~10-15% of the reason for a company's success!
- Think of the millions of start-up companies with great ideas which have failed over time! Research shows that TAM / Timing / Distribution Strategy or Leadership Team were more often the cause than just an inferior product
- Product-Market Fit – “Can't fit a square peg in a round hole”
- “The hardest thing to do is to simplify something” Steve Jobs, Founder of Apple
- “Crossing the Chasm with a Minimal Viable Product (MVP)” Geoffrey Moore
- “In tech, only the paranoid survive” Gordon Moore, Founder of Intel
The Case Study of Blockbuster.

The Top Four Criteria which determine the success of any venture

4. Financial Strategy and Funding

- Represents the remaining 10-15% of the reason for a company's success.
- Unit Economics Model (Cost to Revenue Ratio per unit of item sold).
If cost per unit is higher than revenue per unit, you are not going to become profitable by increasing the volume!
- Customer Acquisition Cost (CAC)
- Long Term Value of Customer (LTV) to CAC Ratio
- Customer Churn Rate
- You have heard many stories of companies which got shut down and the most common reason cited is a "lack of funds". This is a "red herring"
- A deeper analysis often shows that the reasons for a venture's failure was a combination of market, leadership and product or service strategy.

The Top Four Criteria which determine the success of any venture

1. Total Addressable Market (TAM) Size, Timing & Distribution
2. Leadership Team and Team Culture
3. Product or Service Technology
4. Financial Strategy and Funding

Abundance of capital available from VCs and PEs to fund a venture that is addressing a large market at the right time, with a great leadership team and culture and a solid product or service.

GET READY for Disruptive Innovation

PREPARING FOR AN INVESTOR PRESENTATION

1. Highlights (Market Size \$\$ and Growth CAGR% from reputable Market Research Firm, Management Team Average Years of Domain Experience & Years working together, Product or Service Unique Value Proposition (UVP), Customer / Trial Traction, Prior Year Revenue & Net Income / EBITDA; Amount being Raised)
2. Market Size and Growth Details (Must be Gartner, IDC or reputable market research firm)
3. Opportunity in the target market / Challenges that customers face (use diagrams and clip art to illustrate)
4. Management Team (Names, Titles, Previous Jobs, Accomplishments w numbers)
5. Partners, Advisors, Investors (to lend the company more credibility)
6. Company's Product / Solution Strategy and its UVP (General)
7. Sample Customer#1 Offering / Solution / Value Add
8. Sample Customer#2 Offering / Solution / Value Add
9. Competitive Landscape / Clear Differentiation
10. Distribution / Go to Market Model
11. Financial Model Table of Assumptions for next three years
12. Financials (Table of showing prior 3 Years and Next 3 Years P&L and Cash Flow Break Even timeline)

Back Pocket Slides (as appropriate)

1. Product Positioning diagram in customer's existing IT stack
2. Details of Excel model that shows assumptions used to build out 3 Year Financials. Must be very defensible)



LTC: MEETING THE CHALLENGE



- STEM education offers students extraordinary career opportunities in this era of disruptive innovation
- The lack of access to STEM resources impacts students from lower income families and rural areas disproportionately
- The LTC aims to empower and inspire students of all backgrounds across India to participate in these extraordinary opportunities



JOIN US ON THE JOURNEY OF “DISRUPTIVE INNOVATION” AT THE LTC
LearnforLifeFoundation.org/sjbhs-ltc