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EMPOWERING TIMES



THINKING ALOUD

Medtech to your Rescue

Jay

PODIUM

Dr. Aniruddha Chandorkar
Consultant Interventional
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WE RECOMMEND

Sky High

Tarun Shukla

Dear Reader,

The Medtech revolution in cardiology is shaping healthcare globally, with countries like India playing a pivotal role in both innovation and demand. Cardiovascular diseases (CVDs) account for nearly 18 million deaths worldwide each year, with the World Health Organization (WHO) estimating that over 80% of these deaths occur in low and middle income countries like India. This alarming statistic has prompted an urgent need for more efficient, scalable solutions, positioning Medtech as a critical player in the fight against heart disease.

Globally, AI-driven diagnostics, telemedicine, and wearable technology are transforming cardiology. In the US and Europe, these innovations are enabling more precise diagnosis, continuous monitoring, and personalized care, reducing hospital visits and allowing patients to manage their conditions from home. In India, the scenario is different but equally dynamic. The country faces a dual challenge: a growing middle class demanding better healthcare and a large rural population with limited access to advanced medical facilities.

India's Medtech landscape, particularly in cardiology, has seen significant advancements, such as affordable cardiac stents, tele-cardiology services, and AI-based diagnostic tools designed for resource-limited settings. Start-ups and established players are leveraging digital health platforms to provide heart care in rural areas, making high-quality cardiology accessible to millions. This aligns with the global shift toward preventive healthcare, as emphasized by the adage "Health is Wealth," with India striving to meet its vast healthcare challenges through a mix of innovation and affordability.

In both the world and India, the convergence of technology and cardiology offers a beacon of hope in addressing CVDs. The integration of Medtech promises not only better outcomes but also a more inclusive approach to healthcare, ensuring prevention remains the cornerstone of global health efforts.

ET this month looks at '**Medtech and Cardiology: Present Scenario**'.

In the **Thinking Aloud** section, **Jay** discusses the advancements in healthcare and Medtech, highlighting how technological innovations, especially in AI and wearable devices, are extending lifespans and improving health

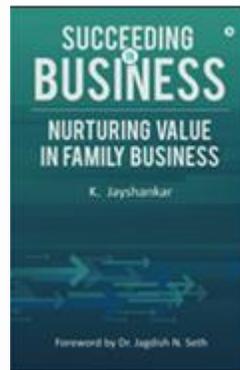


outcomes, though challenges like accessibility, data privacy, and ethical concerns still remain. On the **Podium**, **Dr. Aniruddha B. Chandorkar** emphasizes that Medtech start-ups are transforming cardiac care in India with advanced technology, affordability, and widespread access, positioning the country as a leader in healthcare innovation through initiatives like Ayushman Bharat. In the **We Recommend** section, we review Sky High by Tarun Shukla who compellingly chronicles IndiGo Airlines' rise to dominance in India's aviation industry, focusing on its strategic decisions, challenges, and the pivotal roles of its founders amid a rapidly evolving aviation landscape.

In **Figures of Speech**, **Vikram's** toon puts technology at the heart of healthcare!

Please also [Click Here](#) to check out our Special issue of ET, which is a collation of selected themes that were featured over the years highlighting the changing landscape of the business world. This special edition has been well received and can be [Downloaded Here](#) for easy reading and is a collector's item.

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THINKING ALOUD

Medtech to your Rescue

Jay

Will you live till you are 100?

If you are in your twenties now, chances are that you could live up to a ripe age. Of course, conditions apply! If you are rich, and living in the right part of the world, there is a high probability that you anyway live longer than most others. Nearly a decade ago, an article in The New York Times highlighted that the 'the top 1 percent in income among American men live 15 years longer than the poorest 1 percent; for women, the gap is 10 years.' Add to that the advances in healthcare, and what you have is, in the words of The Economist, 'a perfectly reasonable aspiration to live up to 120 years'!

While humanity has sought the elixir of eternal life for ages – mythology from all parts of the globe have stories from their culture of the quest for amrit/nectar – that dream is coming closer because of the efforts of brilliant scientists, fueled by aging billionaires who wish to crack the code and cheat death, at least for some decades longer. What was science fiction need not be so any longer.

Arguably, the quest should be to provide for healthier living rather than longevity per se. And that is an ongoing battle. The merits are visible. Currently, the average lifespan globally is around 73 years as against 45-50 years in the 1950s. This has been made possible by a wide set of factors, ranging from a large period of relative peace (it is important to note that we have not had a world war since 1945, despite spells when a nuclear holocaust seemed very imminent), to significant awareness of the role of public health (including better access to sanitation, clean water, maternal care and nutrition, etc.) to the gigantic leaps that we have taken in healthcare (in terms of access, quality, and medical breakthroughs). Further, in the spirit of global collaboration, agencies like WHO, Red Cross, Médecins Sans Frontières, and many others, have distributed vaccines, offered healing hands, and brought the latest knowledge and skills at cheap or virtually no cost to the populace facing dire straits.

The most vital tool in this battle to provide improved healthcare is Medtech. A portmanteau word that encompasses various technologies to improve healthcare, be it devices or equipment for diagnosis, treatment, or

hospital systems (health records, for instance), etc. The field also has tools now for predictive and preventive support for better living (health trackers, testing kits, mental health apps, medication reminders, etc.). It is fascinating to see this array of technology that can be deployed to keep one fit and active!

A glance at a few is enlightening: wearables are the most obvious. With falling prices, smart watches are becoming ubiquitous, as also fitness trackers which are fashionable. Smart rings and bands have yet to become a mass product but are slowly gaining currency. Severe diabetics are also welcoming continuous glucose monitors, and other monitors are being introduced through multi-functional tools. Few realise that the smart phone with embedded apps will become a life-saving companion in health emergencies, but stories are flowing in about such cases. Likewise, at the hospitals, sophisticated screening and imaging devices are standard tools for a medical examination. Remote patient monitoring is becoming easier as telemedicine is no longer a novelty. Add to this the rise of Virtual Reality (VR) and Augmented Reality (AR). No longer are these children's toys to capture Pokemon, as these devices are learning and training aids for virtual surgery, patient education, drug research, surgical planning, etc.

Medtech is now also a reality in the operating theatre. Skilful doctors are now aided by Artificial Intelligence (AI) enabled robots both for effective and precision surgery. This greater success results from better outcome predictions through guided risk assessment and workflow optimization.

While technology is a game changer for the healthcare world, one must also acknowledge that there are associated concerns that plague the field. Data privacy is a matter that bedevils certain societies and news of data leaks of patient records (either from hospitals or through insurance companies) is no longer headline news. Far more serious are ethical concerns that have troubled societies where authoritarian forces have played God to decide whose life is more important. However, while the debate on the role of AI in our life still rages, from a medical perspective, any tool that aids speedy recovery, ameliorates patient pain, and has the promise of scale for treating the under-privileged will be welcomed by emerging economies who face the battle of social development.

Undoubtedly, the situation today is that the beneficiaries of the latest Medtech are largely the rich and privileged, as the cost of cutting-edge medical care is prohibitive. The social challenge is to generate scale so that costs are not a barrier to those in genuine need. Thankfully, this is an achievable goal as evidenced by the revolution in Information and Communication Technology (ICT).

Captain Kirk had Dr. Leonard 'Bones' McCoy at his side for his inter-galactic adventures. His medical expertise stemmed not just from the deployment of the latest technological tools, but his value to the expedition leader went beyond medical science. In the medical fraternity too, we see some medical leaders who are at the vanguard to harness the power of Medtech for quantum leaps in healthcare. The value that they add will be seminal in our

quest for not just longevity but also creating a healthier world where humanity can truly discover its potential, unburdened by physiological and mental challenges. The exciting news is that such a time is not too far away!

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Podium

Dr. Aniruddha Balkrishna Chandorkar

Consultant Interventional Cardiologist at Ruby Hall Clinic, Pune



Dr. Aniruddha Balkrishna Chandorkar is a highly esteemed Consultant Interventional Cardiologist based in Pune, India, with a distinguished career spanning over three decades. He completed his medical education at Seth G S Medical College & K E M Hospital in Mumbai, earning his MBBS in October 1980, followed by an MD in Medicine in 1984, and a DM in Cardiology in 1987, all with distinction.

Currently serving at Ruby Hall Clinic, Pune, Dr. Chandorkar has performed over 12,000 diagnostic and interventional procedures, including approximately 2,000 coronary interventions annually at this high-volume center. His expertise extends to paediatric cardiology, having conducted around 1,000 procedures on children, including infants.

In addition to his clinical practice, Dr. Chandorkar was a Postgraduate Teacher in Medicine at K E M Hospital and the University of Pune for 14 years, contributing significantly to the education of medical students from B J Medical College. He has also served as a visiting faculty consultant at multiple hospitals, where he pioneered coronary interventions in facilities lacking on-site cardiac surgery.

Dr. Chandorkar is recognized for his innovative contributions to cardiology in India. He established the Nandadeep Hospital and Cardiac Centre in Pune, which features the first cath lab with integrated IVUS and FFR

technology in the country. He has played a pivotal role in advancing transesophageal echocardiography and fetal echocardiography for congenital heart disease diagnosis.

An advocate of telemedicine, Dr. Chandorkar has been instrumental in developing second opinion services through this medium. His contributions to the field have been acknowledged internationally; he was a finalist at the Stockholm International Challenge in 2000.

With memberships in several professional organizations including the Maharashtra Medical Council and the Cardiological Society of India, Dr. Chandorkar is also a prolific speaker, having delivered over 1,500 talks across various platforms globally over his career.

ET: How are Medtech start-ups shaping the healthcare market, particularly in patient care for cardiology?

AC: These are happening in multiple areas, better surveillance by identification of cardiac risk markers in early identification of cardiac risk in individuals, better imaging to assess structural and other cardiovascular abnormalities, better, easier archival of medical data digitally and sharing with others. This means one can port one's medical data over the net and keep it in the cloud. The future is full of exciting possibilities and opportunities.

ET: What are the main challenges in adopting new Medtech in healthcare, especially in developing countries like India?

AC: In fact the digital revolution in India makes India better positioned to adapt successfully to the digital platforms. Ruby Hall Clinic in Pune has just installed a CT Scanner for quick diagnosis of obstructions in coronaries with a very high resolution. This is the first of its kind and generation in Asia, not just India. Just as we adapted quickly to digital transactions as a nation and lead the world, if we put our collective efforts behind it, we will undoubtedly succeed in this area as well, we already not just have access to the best technologies but actually are doing it at a pace faster than the so called developed countries. Without any exaggeration and based on my personal experience, I can honestly say we are much better than say Britain (no longer qualifies to have the "great" prefix), and Canada, if not many more countries. Thanks to Modiji's personal intervention, we have, just to cite one example, the lowest prices of coronary stents in the world. It may surprise most that the stents which are sold in US/Europe/Rest of the world for around \$2,000-2,500, are given to our patients for about a fifth of the cost.

ET: How can Medtech make high-quality heart care more accessible to underprivileged communities spread across our nation?

AC: We are already there. Average costs for identical procedures are a fraction of the costs in US/Europe. An ECG costs between 200-300 per ECG to patients, using the same technology as in US. Our patients pay this amount (or

even lesser at times), in ₹, a patient in US pays in \$. The spread continues through to drugs and procedures. The figures look identical for angioplasties and bypass (or other) surgeries, and the ₹/\$ variation remains. American or European doctors are always jealous of the fact that we pay in cents for the same product or service that they pay in Dollars, using the same platforms.

ET: How is AI being used in patient care today, and what does the future hold?

AC: Better identification of at risk patients and demographic implications on disease prevalence and prediction of epidemiological patterns of spread taking into account patterns and reasons of spreading disease. I am sure it will go to better diagnosis and maybe therapeutics, who can really accurately foretell the future?

ET: You have been a pioneer in using information technology in healthcare through Dr.Anywhere.com, a start-up two decades ago which was ahead of its time. And now you see a boom in Medtech. Is there a sense of déjà vu and how real is it this time around?

AC: Absolutely. When we started the journey into telemedicine 25+ years ago, penetration and bandwidth of the net was virtually, by today's standards, non-existent. Slow dial up connections and clunky, clumsy hardware was the norm. I hold more processing power and memory in my hand today than all the desktops in our office put together. It was fun being a pioneer in the truest sense, we also had a lot of challenges, but that's what happens to pioneers. A similar service today would make a killing. I can honestly, without exaggeration, say we were a quarter of a century too early!

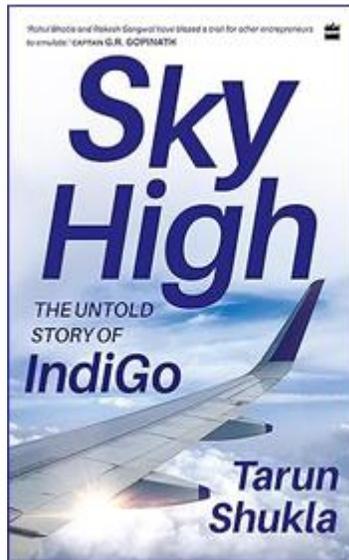
That will depend very much on how soon we seize the very real opportunity that exists in terms of the need for such a platform and how soon it is put to use in the real world scenario. The availability of cheap bandwidth all across the length and breadth of the country sets the framework ready. Time will tell if it is being grasped or otherwise.

In no other country on earth do we see a drive like what is being done in Bharat. The LARGEST MEDICAL INSURANCE SCHEME WITH A SOCIAL OUTLOOK has been created in our country. 660 million beneficiaries have already been enrolled. It is totally free for those below the poverty line and all Indians above 70 years of age. More than 150 million procedures including surgeries of all kinds have already been performed under Ayushman Bharat.

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We Recommend

Sky High Tarun Shukla



In *Sky High*, Tarun Shukla presents a riveting exploration of IndiGo Airlines' journey from its inception to becoming a major player in the aviation industry. The book opens with a striking parallel between IndiGo's founders, Rahul Bhatia and Rakesh Gangwal, and Charles Lindbergh's historic 1927 transatlantic flight. This comparison underscores the ground-breaking nature of both ventures and sets the stage for a narrative filled with ambition, innovation, and perseverance.

Prime Minister Modi recently underscored India's ambitions to become a leading aviation hub by the end of the decade, emphasizing the country's rapid progress from being "aviation exclusive" to "aviation inclusive." This shift has made air travel more accessible and affordable for a broader segment of the population, particularly those from smaller cities and towns. Shukla's account of IndiGo's rise parallels this broader trend, illustrating how the airline has played a pivotal role in reshaping India's aviation landscape.

Shukla provides a detailed account of the formative years of IndiGo, highlighting the pivotal role of Bhupendra Kansagra, who initially attempted to revive ModiLuft. Kansagra's challenges—ranging from financial instability to managerial hurdles—are described in depth, revealing the complexities of the aviation sector and the obstacles faced by new entrants. The partnership between Kansagra, Bhatia, and Gangwal, which led to the formation of IndiGo, is depicted as a turning point in the story of Indian aviation.

The rise of low-cost carriers (LCCs) in the post-9/11 era is a central theme in the book. Shukla examines how global models like Southwest Airlines and Ryanair influenced the Indian market, where LCCs like Air Deccan and SpiceJet began to make their mark. IndiGo's emergence as a dominant player is portrayed as both a response to and a catalyst for this shift in the industry, showcasing the company's strategic positioning and operational excellence.

A significant portion of the book is dedicated to Rakesh Gangwal's career, including his tenure at United Airlines and US Airways. Shukla explores Gangwal's management style, which was marked by rigorous cost control and operational efficiency. Despite facing criticism and setbacks, including the failure of MetroJet and controversies surrounding executive compensation at US Airways, Gangwal's ability to learn from these experiences and apply those lessons at IndiGo is emphasized as a key factor in the airline's success.

The book provides an in-depth look at IndiGo's strategic decisions, such as the landmark aircraft deal with Airbus at the Paris Air Show. Shukla details how Gangwal's negotiation tactics, including large orders and flexible terms, demonstrated a forward-thinking approach that significantly contributed to IndiGo's growth and competitive edge. The deal is highlighted as a pivotal moment in the airline's history, marking a shift in industry dynamics.

Kapil Bhatia's (Executive Chairman of InterGlobe Enterprises) journey from early setbacks to the founding of InterGlobe Enterprises is another focal point of the book. Shukla portrays Bhatia's perseverance and strategic vision, illustrating how his efforts laid the groundwork for IndiGo's success. Bhatia's story is presented as a testament to the resilience and innovation required to thrive in a challenging industry.

The book also offers a candid look at the experiences of IndiGo's cabin crew. Shukla provides insight into the demanding training and high standards expected of the crew, as well as the operational challenges they face. The airline's branding strategies, which emphasize affordability while maintaining a refined image, are explored in detail. Shukla reveals how IndiGo's branding and operational practices set it apart from competitors and contributed to its market dominance.

Shukla does not shy away from addressing the regulatory and internal challenges that IndiGo encountered. The book discusses political influences, leadership changes, and competitive pressures, providing a nuanced view of the complexities and controversies faced by the airline. The internal conflicts, including tensions between Bhatia and Gangwal and the challenges of maintaining operational efficiency amidst growing competition, are depicted with a critical eye.

Overall, Sky High is a meticulously researched and engaging account of IndiGo's rise in the aviation industry. Tarun Shukla's storytelling captures the essence of the airline's impact on the Indian market and provides a deep understanding of the strategic decisions, challenges, and successes that shaped its journey. The book offers valuable insights into the dynamics of the aviation industry and the resilience required to achieve and sustain success.

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THROUGH THE LENS



Nature photographer **Rupesh Balsara** spots the Oriental Dwarf-Kingfisher which is a small, vibrant bird found primarily in the forests of the Western Ghats and other parts of peninsular India. Known for its striking colors of bright orange, blue, and purple, it is a monsoon visitor, often seen during the rainy season. These birds are typically found near streams and dense forests, feeding on small insects, frogs, and lizards. Despite its beauty, the Oriental Dwarf-Kingfisher is elusive and difficult to spot due to its preference for dense, moist habitats.

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