



# ASSOCIATION OF COMMONWEALTH SCHOLARS AND FELLOWS (ACSF - INDIA) NEWSLETTER



# **ACSF BULLETIN**

On the occasion of 75 years of India's Independence, ACSF presents the inaugural edition of E-Newsletter - 'ACSF BULLETIN' for social, spiritual, scientific and technological development of India.

# **MESSAGE**

## **Message from CSC Alumni Team**

We are delighted to support the Association of Commonwealth Scholars and Fellows launching their first newsletter. Staying connected is the foundation of the CSC's Alumni Network, and



for alumni in India, the newsletter will provide an important platform to share their news, read about the work and achievements of fellow Commonwealth Alumni and promote opportunities within the association. We hope all members will take the opportunity to engage with the newsletter and contribute their news and stories. Commonwealth Scholarships and Fellowships enable talented and motivated individuals to gain the knowledge and skills required for sustainable development.

The CSC has funded over 5,000 Indian nationals to complete Commonwealth Scholarships and Fellowships in the UK or via distance learning. Following their studies, the CSC's Evaluation and Monitoring program identifies the outcomes and impact of Commonwealth Scholarships and Fellowships on award holders, institutions, and, more widely, on communities and societies.

By fostering in-country networks and creating opportunities for alumni to share their work and impact, the alumni association is supporting this work and helping promote the important contributions alumni make towards achieving sustainable development.

As we near the start of the 2022 academic year in the UK, we look forward to welcoming the 2022 cohort of Commonwealth Scholars, who will be inspired and motivated by the achievements of those who have studied before them. We look forward to reading their news and updates alongside current alumni in future newsletters.

## Message from Director Education, British Council India

Heartiest Congratulations to the Association of Commonwealth Scholars and Fellows on the launch of its first newsletter. This is an exciting milestone and will be a wonderful opportunity for the association shares its knowledge experience, and achievements with the wide Network of academics and professionals who



Rittika Chanda Parruck

form a part of this talented community. The British Council has supported Commonwealth Scholars Commission's (CSC) alumni engagement through professional development workshops, networking events, and more. 5,021 Indians have benefitted from Commonwealth Scholarships or Fellowships through regular and distance learning programs. We currently have 174 awardees on the program and will soon welcome the 2022 scholars. It is heartening that Indians are particularly well represented here and actively engage in the Commonwealth community.

At the heart of the India-UK relationship lies education, research, and innovation that drives the creation of new knowledge for global good. In the UK-India Roadmap 2030 signed by the Prime Ministers of both countries, Education is an important theme the MoU on mutual recognition of qualifications celebrates that. These factors along with India's strong focus internationalization in the NEP 2020 and the new UK visa regulations allowing students to gain post-study work experience have catalyzed greater interest in collaborations, partnerships and mobility in both countries. There were 98,747 visas granted to Indian nationals in 2021, an increase of 90% compared to the previous year and Indians are the nationality with the second highest number of sponsored study visa grants in the UK. The Commonwealth fellows community play a significant role as ambassadors of the UK higher education system. We hope they will continue to support the next generation of students going to the UK.

I wish ACSF the very best in this collective endeavour.

# **MESSAGE**

### Message from President, ACSF

I am immensely pleased to share the first newsletter of ACSF with the fraternity of commonwealth scholars and fellows of India, a diverse group of professionals, on 75th Independence Day, when the country is celebrating Azadi ka Amrit Mahotsav.



Dr. Dhruya Chaudhry

Message from Editor-in-Chief, ACSF-Bulletin

The ultimate aim of humankind is liberation from the bondage of narrow-mindedness, ignorance, taboos, and social stigma. And what better day than the day our country attained its very own liberty, to give you all this enewsletter of ACSF called "ACSF-Bulletin".



As a founding member of ACSF India, it's my proud privilege to place before you all this inaugural issue coming on the wheels of completing 75 years of independent India, which is celebrated as "Azadi ka Amrit Mahotsav" across the nation.

Although it was envisaged during the ACSF Round Table Discussion held on 19th January 2016 under the theme of "Activities that ACSF can initiate" as a part of Community Development, it took us much longer to place this for various reasons. Nonetheless, it's always "better late than never," and hence it's here now, which will provide an ideal forum for exchanging information on various topics and showcase the work of Commonwealth alumni and others. A central component of this inaugural issue is a roundup of details of various significant news and events that took place since the inception of ACSF India, i.e., on 18 December 2015, and a host of articles and short pieces contributed by many of our members. We plan to publish it quarterly, so we encourage our readers and ACSF members to stay connected with this newsletter and actively participate and contribute; we promise it's not something you'll regret.

This mammoth task has become possible only due to the untiring, well-coordinated, and combined efforts of our dedicated team of the editorial board as well as ACSF members. I want to thank everyone who has volunteered to contribute to the success of this e-newsletter, "ACSF-Bulletin."

Finally, on behalf of the ACSF Team, I would like to extend a warm welcome to the readership. We trust you will find this a useful update on ACSF activities and simultaneously provide a window of opportunity to disseminate information.

Since the inception of ACSF in 2015, we were struggling to keep it floated, facing numerous challenges. With the faith & trust of colleagues and office bearers in each other and support provided by the British Council, we have taken few steps like registration, making a website, logo, kulgeet (jingle) & bank account which were essential for recognition & growth of the association & fraternity. We organized few events but fell far short to harness goodwill of the alumni across the country due to capital centric presence. It was difficult & challenging for the people to travel to Delhi all the time and participate in the meetings and virtual presence was looked down upon. However, Covid over last two years, brought a see saw change in the working environment and personal lives of all, leading to acceptance of virtual work environment, thereby increasing the reach & presence of all alumni. Digital revolution is redefining how we interact & stay in touch. It is in this background, in a discussion with the Association of Commonwealth Universities (ACU), decision was taken to come out with digital newsletter, where we can connect & share with alumni our professional & personal journeys to inspire, mentor, network, try to make an impact for good and expand our foot print across India. It was incredible to see the enthusiasm among the fraternity leading to formation of editorial team under the leadership of Prof. Adarsh Kumar. A decision also was taken to come out with the first newsletter on 15th August, giving less than 6 weeks. However, I am delighted that the editorial team worked overtime to ensure that newsletter is released on time, a milestone in the history & journey of ACSF.

I thank Commonwealth Scholarship Commission (CSC), ACU, British Council and editorial team of ACSF-newsletter for support, encouragement and ensuring that newsletter see the day light.



Dr. Dhruva Chaudhry, President of ACSF, is a Senior Professor and chair department of Pulmonary & Critical Care Medicine at PGIMS, Rohtak. From being the youngest in the medical training at a government medical college, Rohtak started & establish the department he heads, which always made him stand out in the crowd. His expertise did not stay confined to his home state since he earned the prestigious Commonwealth Fellowship in Pulmonology at University Hospital Aintree, Liverpool, in 2009-10. It was just a start of a long journey where — many years later — he became Vice-Chancellor of the Indian College of Critical Care Medicine (ICCM) & President of the Indian Society of Critical Care Medicine (ISCCM), a professional body of intensivists, at the time of COVID pandemic. The government of Haryana appointed him as state nodal officer for COVID19, and he proved himself a successful leader. He was also nominated to the Lancet commission task force on COVID19 for India and several other committees of state & country.



Dr. Dhruva Chaudhry

#### **Extraordinary Journey**

To establish a new Department at PGIMS, Rohtak, while turning over the earlier pages of his life's book, reminisces that it was never a bed of roses. He lost his father at the tender age of 2, following which he shifted to Kurukshetra and started his education there. Schooling is undoubtedly a student's best time and places for a great foundation. Apart from having the best faculties and facilities, he admired the gender equality promoted in the school in the 1970s. After finishing school, he realized that medicine was his real calling. He did MD in Medicine and opted to do post-doctoral (DM) training in Pulmonary and Critical Care from PGIMER, Chandigarh. He believes that this turning point in his career happened during the malaria epidemic in his state in 1995, which induced him to foray into intensive care. Convincing the higher-ups of this was no mean task. He had to escalate the matter to the Supreme Court to prove the necessity of establishing training in critical care – and his perseverance worked. He certainly loved what he did. No wonder he was awarded the best researcher award for this in 2003 by Indian Society of Critical Care Medicine (ISCCM). Working in the department of medicine strengthened his belief in establishing a separate Pulmonology & Critical Care department. But coming up with a radical idea is one thing and taking it to fruition is another. He makes no bones that it was not easy to convince the colleagues & administration to set up this department, which now handles around 250 cases weekly.

Meanwhile, he established an asthma clinic and sleep and bronchoscopy services, set up the first intensive care unit in the institute and provided comprehensive lung cancer services was appointed as a public relations officer and was later made in charge of IT, which he found a great learning experience. After 15 years of working, he became a full professor in 2008. He was awarded a Fellowship of the National Academy of Medical Sciences (FAMS) in recognition of his work in 2021. The government of Haryana and the Haryana medical council also awarded him for distinguished service.

ESTABLISHED ON 9TH OCTOBER, 1993, ISCCM IS THE LARGEST NON-PROFIT ASSOCIATION OF INDIAN PHYSICIANS, NURSES, PHYSIOTHERAPISTS AND OTHER ALLIED HEALTH CARE PROFESSIONALS INVOLVED IN THE CARE OF THE CRITICALLY ILL. THERE ARE 87 CITY BRANCHES ALL ACROSS INDIA WITH THE HEADQUARTER AT MUMBAI.

### The stint in the UK

He was a Commonwealth fellow from 2009-2010, focussing on pulmonology rehabilitation as India faces many communicable & noncommunicable lung-related ailments and needs intensive care units. After working with a range of specialists in the UK, he realized that the NHS system focuses equally on care on the cure. And rightly so! He also appreciated the process of documentation and auditing widely followed in the UK, which was quite useful during the COVID. Not to mention the other learnings such as critical thinking, critical analysis, leadership roles, and multidisciplinary approach.

After returning from the UK, he got elected to the ISCCM as an executive member and was part of delivering training for critical care to become its President in 2020-21. Earlier, he became Vice-Chancellor of the Indian College of Critical Care (ICCM), the academic wing of ISCCM 2016-2017.

"DATA SUGGESTS THAT AN AVERAGE OF 4.5 PERCENT INDIAN POPULATION SUFFERS FROM SMOKING-RELATED DISEASES, WHICH IS CLOSE TO THE UK'S TOTAL POPULATION. ALSO, DISEASES SUCH AS TB CAN REDUCE THE FUNCTIONALITY OF LUNGS TO AS LOW AS 20 PERCENT EVEN AFTER TREATMENT"

## Being a frontliner during covid

He was appointed State Nodal officer of the state of Haryana and Nodal officer of PGIMS, a role where he had to establish COVID services in the institute and advise the government on technical issues & help in establishing COVID services in the state. He adopted many new and NHS-inspired methodologies while gradually phasing out the old practices. The pandemic was an extreme case where the NHS-inspired methodology became a savior. He, along with his colleagues, wrote guidelines for its management in ISCCM & prepared protocols for the state. A few of the new practices he introduced in ISCCM having all India ramifications were implementing exit online exams, bringing uniformity in teaching, and building the bullwork via an online platform which would be impossible if old practices were to be followed. As Dr. Dhruv's team was battling the pandemic, they conducted online discussions, established plasma banks, decided on protocols for the state which were followed by other states, and were an integral part of trials of COVID Vaccination (COVAXIN, Nasal, mRNA, etc.) & Therapeutics. As the president of ISCCM and with the support of the Indian Medical Association and Med Varsity a leading team of doctors came together to train people for pandemic-related preparedness.

## Having immense faith in youth

Despite being a clinician, he cherishes the most being a teacher at PGIMS, which allows him to interact with students across all age groups. He thinks that the structured coaching and regimented MBBS program dampens the encouraging initiatives and kills the meaning of life. Under his leadership, the first-ever UG conference in his institute was organized in 2013 by the students; he saw the fun and learning together. He was overwhelmed by the youth's energy, organizational capacity, team building, agreeing to disagree, entrepreneur component, management, and marketing skills. He later worked as the university's Dean of Students Welfare (DSW)

He was brought up by a single mother and believes that education begins at home and is extremely grateful to her for this. "You learn at home, then at school and college, and finally take it to your workplace," he concludes.

Prof. (Dr) SL Kothari is a distinguished professor of biotechnology and receiver of the Professor Hira Lal Chakravorty award of the Indian Science Congress Association given by the Prime Minister of India in 1994. His work on cell fusion and recombination in the mitochondrial genome has been regarded as pioneering in the field. Prof Kothari went on Commonwealth Academic Staff Fellowship in 1989, where he refined his knowledge and skills in plant genetic engineering, which paved the way for the prestigious Rockefeller Biotechnology Career award. Currently working as Vice President at Amity University, Jaipur, he has more than four decades of experience in academia and administration, with more than 200 papers to his credit. His scientific contributions to GM technology, nanobiotechnology, and molecular plant biodiversity have a high international impact in the above 5900 citations and 41 h-index.



Dr SI Kothari

#### **Ace Scholar**

Born in Bhilwara, Rajasthan, Prof Kothari was a remarkable scholar and researcher. He completed his BSc in Botany, followed by MSc with a gold medal from the University of Udaipur. The post-graduation inspired him to pursue his career in academia and research. He went on to do his Ph.D. from the University of Rajasthan, during which he authored six papers in scientific journals and bagged the prestigious Fullbright Scholarship at the University of Illinois, the USA, in 1983.

## **Commonwealth Experience**

Commonwealth Academic Staff Fellowship was one of the most significant experiences of his career where he started working with a pioneer in the field of plant biotechnology, Prof. E.C. Cocking, FRS at Nottingham University. His work in the UK provided him one more opportunity to work in the group of Prof Cocking at Nottingham University from 1991-1996. The transformation of cereal crops he learned during the commonwealth fellowship was significant in his career. It enabled him to isolate and transform the individual cells of plants to create a complete engineered plant. He created genetically modified crops like rice, barley and finger millet which helped improve agricultural outputs in the country. He became a full Professor at the age of 40 years, making him one of the youngest professors in the country at that time.

"THE COMMONWEALTH SCHOLARSHIPS/FELLOWSHIPS NOT JUST PROVIDES AN OPPORTUNITY TO LEARN BUT ALSO RENDERS A WHOLE EXPERIENCE OF NEW COUNTRY, CULTURE AND VALUES"

Rooted in Indian values, he also believes that these experiences would not have been the same if the commonwealth was not supporting the presence of families in the UK during such long fellowships. Both his daughters got admission to schools in the UK and continued their education. His younger daughter, Dr. Aditi Kothari Chhajer, went on to do part of her Ph.D. as Commonwealth Split-site Doctoral Fellow in 2007 from Rothamsted Research Institute, Harpenden. She currently works as an Assistant Professor at the Department of Botany, Sri Venkateswara College, Delhi University.

#### **Building the New India in Plant Biotechnology**

After completing the Commonwealth Academic Staff Fellowship, Prof Kothari moved back to India to contribute to the country's plant biotechnology development. Needless to say, scientific infrastructure was not great at that time. However, Prof Kothari believed world-class infrastructure, good laboratories and state-of-the-art equipment are necessary to accelerate research.

He established a state-of-the-art laboratory at the University of Rajasthan for the genetic transformation of cereal crops. He bridged research opportunities between the University of Rajasthan and the University of Nottingham, providing more prospects to young researchers. This also worked as a key -

platform for exchanging research and technology between the two countries, strengthening their scientific ties. He established the Centre for Converging Technologies at the University of Rajasthan as its Director. The center works to strengthen quality education and to pursue high-standard research in the frontier areas of Nanotechnology, Biotechnology & Bioinformatics, Information & Communication Technology and Cognitive & Neuroscience (NBIC) technologies accelerate the country's techno-economic development. After retiring from the University of Rajasthan, he joined Amity University, Jaipur, as Deputy Vice-Chancellor, where he established state of the art laboratory for research on plant biotechnology. He currently works as Vice-President of Amity Science Technology and Innovation Foundation, which also awards Fellowships to brilliant young researchers and scientists who possess the competence and motivation for carrying out cuttingedge research in thrust areas that will impact the development of our Nation. Recently, he got a grant of Rs. 8.2 Cr to establish world class infrastructure for Medical Biology and Nanobiotechnology.

#### **The Pioneer**

Prof Kothari has been elected as a Fellow of two National Science academies of India: the National Academy of Sciences, India, and the National Academy of Agricultural Sciences for his outstanding contributions to Plant Sciences and Agricultural Biotechnology. He has held Professorial positions at the University of Tsukuba, Japan, Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Germany, and RMIT University, Melbourne, Australia. Prof Kothari strongly believes that India is undergoing a massive transformation that will revolutionize academia and research in the future. A statesman who has worked all his life in building better infrastructure for research in plant biotechnology, he looks forward to the National Education Policy-2020 (NEP) as an important milestone in academia.

"NEP WILL ALLOW STUDENTS TO LEARN IN THEIR MOTHER TONGUE WHICH WILL GREATLY IMPROVE LEARNING OUTCOME AND ORIGINAL THROUGHTS. MOREOVER, THIS ALSO BRINGS BACK PRIDE IN USING OUR MOTHER TONGUE, WHICH IS GETTING DILUTED SOMEWHERE DUE TO BLANKET USE OF ENGLISH LANGUAGE. ALSO HELP IN PRESERVING AND PROMOTING OUR INDIAN CULTURE, OUR INDIAN LANGUAGES"

## Mentoring the future

Prof Kothari deeply feels the need to nurture and promote young people in plant biotechnology, especially those from challenging backgrounds with limited resources. He has been a mentor to hundreds of such youngsters and an inspiration to thousands across the globe. Most talented students come from humble backgrounds, without much exposure completed Ph.D. with world-class research and remarkable pedagogy. He has guided more than 60 students (doctoral and post-doctoral) but is an inspiration to thousands in the field of biotechnology with converging technologies approach. The journey is still on to inspire as many as possible.

Durba has over two decade's experience in working with grassroot, national and international organizations in areas of gender and sexuality, youth development and participation, education, and applied arts. She is a Co-founder of Mittika, prior to which, she was Director-Communications at Pravah and led resource management and partnerships at Commutiny – The Youth Collective. Besides Mittika, Durba has co-founded and serves on the boards of Action for Excellence in Children and Women Foundation, Association of Commonwealth Scholars and Fellows and Commutiny-The Youth Collective. Her passion lies in strengthening the interlinkages between human development, social development and the world of arts.



Ms. Durba Ghose

## **Happy Accident**

Durba Ghose came into the field of development through what she calls a 'happy accident.' Born to educated parents who were also culturally active in the city of Kolkata, Durba was training in classical dance as well as acting on stage from the age of six. By 18, she had already gained her Kriya Visharad diploma in Bharatnatyam and performed in over 30 plays and dance productions. In college, Durba studied Comparative Literature which let her read endlessly and understand society, history and people's struggles through the prism of literature. By then, she was also a regular in Kolkata's cultural circuit, and had dabbled in television and films. A fascinating memory for her is working in the Hollywood film 'City of Joy'. A profession in creative arts comes with uncertainties, and Durba's inclinations were taking her in those directions until the fateful day when her father stressed that she should focus on building a career, starting with getting a job! He showed her an advertisement - a five star hotel in Kolkata, was holding a day of walk-in interviews. "Get the job here," he told her. Next morning, Durba found herself with over 200 candidates and thinking that she was clueless, but she can't back down from the challenge! And when she found herself among the eight selected candidates, she faced a huge dilemma. She knew her heart was not in this job, but not taking it would cause more stress at home. So she thought of a smart move - get another meaningful job and give this one up! That impulsive choice to do meaningful work changed Durba's life forever because she soon found a job in a NGO that ran a program focusing on the right to education of terminally ill children. Walking into the children's ward at the cancer hospital with toys and books was Durba's first step into a rewarding journey in the development sector.

## **Commonwealth Coming**

Durba was awarded the Commonwealth Professional Fellowship in 2005-2006. She was working in Delhi by then on issues of youth development with "Pravah"- NGO, and her fellowship gave her the opportunity to undergo a carefully crafted journey that exposed her to various ways of working and imbibe strategies and perspectives. Durba's commonwealth placement was at Voluntary Service Overseas (VSO), an international charity headquartered in London. She studied the impact of Youth for Development (YfD), the organization's flagship program on youth volunteerism. Studying the impact of the 13-year old program not only helped Durba hone her research skills, but also gain clarity on the nuances and operational factors related to large scale programs. By the time she returned to India, she had paved the way for a VSO-Pravah partnership for replicating YfD in the Indian context. Durba's biggest gain from working in VSO, however, was the perspective she gained on the functioning of large organizational systems and development projects, which helps her till date as she consults with multi-country projects and organizations. A decade after the fellowship, when Durba co-founded "Mittika", providing technical assistance to VSO in India to develop its 5-year strategy and pilot its youth volunteering program in India to demonstrate impact, she felt she had given back - to both her country and to the organization that gave her powerful learnings.

## Journey of Mittika

Durba co-founded Mittika with Kavita Arora in 2013, with the desire to "bridge the gap between intent and action" in the development sector because they both felt strongly about the process and quality loss that happens at different levels when project plans get translated into action on the ground. Durba, by then, had also been deputed by Pravah to lead the incubation of Commutiny - The Youth Collective (CYC), and as she explains, "simultaneously holding the Director-Communications role at Pravah and working with youth organizations across the country at CYC really made me see the functioning of systems and designs up close and I wanted to do more." Providing technical assistance, Mittika supports diverse organizations to strengthen their learnings, programs or operations. "We consult in areas of training and curriculum development, strategy and project implementation, and research and evaluation. We work with actors across sectors and issues with an intersectional approach. It makes us who we are," Durba explains. With Mittika, Durba has worked on projects with over 50 organizations across 14 countries till date.

"IN 2011 CBI MAPPED 31 LAKH REGISTERED NGO'S IN INDIA WHICH IS DOUBLE THE NUMBER OF SCHOOLS AND 250 TIMES THE NUMBER OF GOVERNMENT HOSPITALS IN THE COUNTRY. SO IT MAKES ONE NGO FOR 400 PEOPLE AS AGAINST ONE POLICEMAN FOR 709 PEOPLE. LOOKING AT THE DATA, INDIA MIGHT HAVE HIGHEST NUMBER OF REGISTERED NGO IN THE WORLD"

### **Gender Genre**

"Gender has always been an area of passion and deep commitment for us at Mittika," says Durba, "and using creative strategies to build dialogue on it in a way that touch people's hearts has always been a priority for us." Taking one of Mittika's projects as example, she explains - "While immense research is taken up on gender, it seldom reaches the general public. So we launched a project that focused on narrative research. Delhi was turning 108 years as the nation's capital, and in this project we focused on researching life stories of 108 diverse women in the city to bring to light their struggles, accomplishments, resistance and victories." These inspiring stories were published as a book '108: Real Stories, Real Women', available on platforms like Amazon.

In Mittika, Durba has found the space to bring all her concerns, priorities and passions together in order to what she calls "enrich lifespaces and co-create strategies to build just societies." Mittika's work and workshops seamlessly use theatre, art, dance to facilitate reflection and learnings – be it for supporting hundreds of police officers in Bihar to better respond to cases of gender violence or organizations across South Asia to mainstream gender into their programs or corporates/PSUs to gain understanding of the POSH Act and prevent sexual harassment at workplace. This is because Durba's motto remains, "Change needs the whole body - knowledge is only in the head. We must build a connect between the body and the mind, which needs much more than meagre studying; it needs experiencing. Engagement of heart, head and hands is what brings change."

Prof. Adarsh, founding member of ACSF India, is Professor, Forensic Medicine & Toxicology and also In-charge Forensic Anthropology & Forensic Radiology at AllMS, New Delhi. He is the first person in the world to receive Commonwealth Fellowship at UK twice. He is lone member from India in International Academy of Legal Medicine, British Association in Forensic Medicine and Canadian Society of Forensic Sciences besides being life member of many scientific associations in India and abroad. He has been bestowed with Fellowships of Royal Society of Medicine, London, Indian Association of Medicolegal Experts, International Science Congress Association, Indian Society of Toxicology & Indian Academy of Forensic Medicine. He is honorary medicolegal Expert to NHRC & CBI as well as assessor for NMC (MCI) & NAAC. He is Visiting Faculty at Anglia Ruskin University, Cambridge, UK and National Pirogov Medical University, Vinnytsya, Ukraine. Currently he is Hony. President of Indian Academy of Medicolegal Experts.



Dr. Adarsh Kumar

## The Beginning of an Extraordinary Journey

Prof. (Dr) Adarsh Kumar comes from a humble background and hails from Lucknow- *the city of nawabs*. He did his MBBS from the prestigious King George's Medical College, Lucknow and further went on to pursue his PG in Forensic Medicine from Agra. Before joining AllMS, New Delhi, as an Assistant Professor in 2005, Prof Adarsh worked in Chandigarh at Government Medical College and Hospital for seven years and brief stint at Goa for 5 months. He was awarded Honorary Diploma in Legal Medicine by International Academy of Legal Medicine at Portugal in 2009.

### **Manifested Commonwealth**

The quote by Mary Kay Ash "Don't limit yourself. Many people limit themselves to what they think they can do. You can go as far as your mind lets you. What you believe, remember, you can achieve" befits Dr. Adarsh's Commonwealth journey. Sometime in 2003-04 Dr. Adarsh saw the advertisement for the Commonwealth Academic Staff Fellowship in a UGC circular. Since then he set his eyes on this award. Apparently to apply for the award, one has to be in a regular position for a minimum of 5 years and as soon as he completed his 5 years at AIIMS, he applied for the fellowship. Dr. Adarsh has got the rare distinction of being the recipient of the Commonwealth Academic Staff Fellowship on two occasions, one in 2011-12 and later in 2015-16.

## Commonwealth- Fuel to Fire!

During his first visit to the UK in 2011, he was exposed to the nuances of Clinical Forensic Medicine & Toxicology and also worked hand-in-hand with Scotland Police. This gave him good exposure to criminal investigations. On returning to India, he tried to replicate the best practices learned in the UK at AIIMS, New Delhi, and AIIMS gave him the liberty to implement his learnings. He also brought a Scottish travel grant to India because of which one student from India every year went to Scotland for a period of 2 years till Prof Pounder superannuated. This helped Indian students get first hand exposure to learn the best practices of forensics. In 2015, Dr. Adarsh went to the UK for the second time as a Commonwealth Fellow, and this time he got exposure to Forensic Anthropology at the Centre for Anatomy and Human Identification, the University of Dundee, under Prof. Sue Black, OBE. Brimming with knowledge and passion for his studies, in India, he was met with an opportunity to be a part of the Sheena Bora case investigation referred by the CBI, which was a landmark case in those times. As an expert to CBI he has handled around one thousand complicated and high-profile cases like Sushant Singh Rajput, Sunanda Pushkar, Badaon two sisters death, Batla House encounter, Unnao gangrape and murder, Gopinath Munde, Hathras case & Nithari serial killings to name a few.

"IT HAS BEEN AN UNSTOPPABLE JOURNEY FOR PROF. ADARSH, AND HE ATTRIBUTES A LARGE PART OF HIS SUCCESS TO THE EXPOSURE, SCIENTIFIC KNOWLEDGE, AND NETWORKING RECEIVED BECAUSE OF HIS COMMONWEALTH CONNECTIONS"

## **Internet Breaking Borders!**

In 2015, during his visit to the UK, Prof. Adarsh learnt the online method of teaching-learning. As luck would have it, in 2016, India announced its Digital India Mission. Under the umbrella of MHRD, he was then called upon by Delhi University to develop modules on Forensic Medicine for Forensic Scientists, Police, Judiciary, etc. He then made modules for SWAYAM for 3 core disciplines- Forensic Medicine, Forensic Anthropology and Forensic Serology and Biology. It took almost two years of hard work to prepare these and later these learning videos were made available free of cost through Vidya Mitra Channel on YouTube. Little did we know that digital education would become a norm in Covid times. Teaching and dissemination of these videos across borders, gave an entirely different dimension to the recognition received by Prof. Adarsh. Now when he visits different countries, people recognize him instantly and praise him for the knowledge he shares in his YouTube videos.

#### **Achievements Galore!**

Prof. Adarsh has many honours and achievements to his credit, of which becoming a Professor at AllMS, New Delhi is anybody's dream come true. Currently, he represents India as governing council member at various scientific forums viz. International Academy of Legal Medicine, Indo-pacific Association of Law, Medicine & Science and Asia-pacific Medicolegal Agencies. He is current Vice-president of IAFM (2022-25) and has been General Secretary (2010-13) where he was instrumental in revamping the curriculum of forensic medicine for MBBS studies. He was honoured with Commendation Certificate for his exemplary work in field of Forensic Investigations & Human Rights by National Human Rights Commission in 2014. He was awarded with Education Award for Excellence by Indo-US Global Foundation in 2016. He was honoured with International Cooperation Medal by Government of Ukraine in 2020.

During Covid times, everybody was afraid of touching the bodies, leave aside conduction of post-mortem examination. At this time, Digital autopsies became acceptable. This is a huge leap in Humanitarian Forensics, where a digital autopsy may be conducted without cutting and opening the dead bodies for better documentation. Such practices are a huge help to the relatives of the deceased and thus address a larger humanitarian cause. As the In-charge of Forensic Radiology, he has been instrumental in putting this type of first-of-its kind facility in India.

## Vision for the Future

Dr. Adarsh lives and breathes the philosophy "You only live once, but if you do it right, once is enough." Through his work he intends to give back to society in ways more than one. He looks forward to make an impact through ACSF by making it a stronger community where he is the founding member. As the Editor-in-Chief for this Newsletter, he intends to reach out to our strong Commonwealth community across the country and work for the cause.

Dr. Lata Suresh is a multidimensional person who is an author, poet, singer, motivational speaker, trainer and influencer. She is currently holding the position as the Head of Knowledge Resource Centre at the Indian Institute of Corporate Affairs. She has a professional experience of more than 30 years in her portfolio. She has five books and more than 35 national and international publications to her credit. She was a Commonwealth Professional Fellow at University of Birmingham, UK. Dr. Lata is also an Executive Editor for the "Journal of Corporate Affairs", an inhouse peer reviewed journal. Dr. Lata has been a member and chairperson of the ICC (Internal Complaints Committee) since 2005 and has settled many cases as per the Protection of Women from Sexual Harassment (PoSH) Act during her tenure and highly active in women empowerment issues.



Dr. Lata Suresh

### An endless learning process

Like every other graduate, Dr. Lata was also preparing for government exams after graduation and came across a part-time job at SDMH, where her mother was an administrative officer. This was a choice she made and then never looked back. While working, her desire to gain knowledge never stopped, and she did a Master's in Sociology, Bachelor of Library and Information Science (BLIs), learnt singing and completed a few computer courses. During this time, she improved her writing skills, got acquainted with Internet surfing, and completed an advanced Diploma in IT and E-commerce from Zee Network. All her hard work paid off, and her part-time job was converted into a full-time one. After Master of Library and Information Science (MLISc), she didn't stop and did her MPhil and Ph.D. from Pune University. Apart from this, she has also done MBA and PG Diploma in Cyber Law. Her hunger to gain knowledge didn't stop here as she was selected as a Commonwealth Professional Fellows for the University of Birmingham in 2013. She mentions this fellowship gave her the opportunity to undergo technical and managerial trainings. Presenting "leadership model" with her colleague Mr. Peter from Lycos-Africa was the one where she showcased her skills and broadened her horizon to working in a multicultural environment. The fellowship not only helped her to carry out the research, but also gained clarity on how to use the "me time". Visiting other universities, learning culture and starting a blog are few other activities explored while staying in the UK. After coming back to India she has published few articles and a book on "Management and Leadership in Libraries". Apart from this, she is a certified National Human Resource Development (NHRD) trainer, Certified Master Trainer Certificate of the Act of PoSH, Music scholar and a promoter of the Hindi Language.

ACCORDING TO THE POSH ACT 2013, EVERY EMPLOYER HAS TO CONSTITUTE AN INTERNAL COMPLAINTS COMMITTEE WHEN THERE ARE TEN OR MORE EMPLOYEES IN THEIR OFFICE OR BRANCH TO DEFINE SEXUAL HARASSMENT AND THE PROCEDURES FOR COMPLAINTS AND INVESTIGATIONS.

# Knowledge Resource Centre (KRC)

As the head of KRC, Dr. Lata is responsible for the overall management such as administration, budgeting, developing of KRC tools & techniques, training programs, coordinating all phases of operations, monitoring, evaluating the effective services and efficient functioning of the KRC. Her consistent efforts contributed towards the integrated advances in IT to support the educational programs of various institutions. This includes the development and training of e-library portals using open-source software, assisting users in locating suitable materials of their interest, and supporting independent research. As part of her job, she also looks after the Department of Institutional Partnership and Corporate Communications which includes coordinating with various departments of Ministries, PSUs, National Banks, Educational & Professional Research Centers, Training and Teaching.

#### **Achievements and Awards**

Her commendable work in the fields of Information Science, Social Services, Literary work, and singing led her to receive 3 International and 24 prestigious national awards. To name a few, Asian Professional Award from the Special Library Association (United States) in 2012, Dr. S. Radhakrishnan National Honor in 2021 for her contribution as an education facilitator, "Women of the Future Award 2021" for her contribution to Society and her selection as one of the 1001 Inspiring Women on the Earth, 2022 etc. She has also received the prestigious APJ Kalam National Award 2021 instituted by International Internship University (IIU), Niti Ayog, and many other reputed organizations. She was acknowledged by the World Book of Records for her commitment during the COVID period. She has also received the Honorary Doctorate Degree from IIU at New Delhi in the field of Social work.

## **Word on Women Empowerment in India**

Dr. Lata feels that we live in a unique time when women's voices are being promoted and heard. Perhaps this century is a great one, especially for women, where there are lot of opportunities. However, at some level, problems like dowry, crimes like rape, sexual harassment in office or public places, and molestation prevail. The exploitation of women continues even after 75 years of independence, which is a shameful side of our country, yet no one can deny that the situation has improved from earlier times. The suppression of women is not an example of any nation's healthy and developing mindset. Take a look at history; in the past, women have been represented in every field from yajna to war. Whether Laxmi Bai, Ahilya Bai or Savitri Bai all have made an invaluable contribution to society in some form or another. Today, women have slowly started realizing their true potential; they have started breaking the social barriers and earned a respectable position worldwide. Women are now becoming fiercely ambitious and proving their mettle on the domestic front and in their respective professions. Regardless of their progress, they are expected to fulfil their roles as wives or mothers, and the priority of home is also an important part of them. Women empowerment is not limited only to urban working women, but women are also raising their voices in remote towns and villages. Whether educated or not, they no longer want to lag behind their male counterparts. Women empowerment in the true sense can happen only when a change can be brought in the thinking towards women in society, and they are treated with due respect, dignity, fairness, and equality.

### **Message for Youth**

Every moment is memorable if you feel so. Everyone is unique if you see so. Life is beautiful if you live so. Think positive and live happily. Life is too small. Don't waste your energy on making enemies, rather make friends and spend your time giving something good to society. In addition she also addresses the youth to get rid of stress by dominating yourself with some simple changes in daily routine and keeping strong will power.

Nothing is impossible in this world and everything is achievable!

# 75 YEARS OF INDIAN INDEPENDENCE AND GLORIOUS IOURNEY OF SCIENCE AND TECHNOLOGY

By - Dr. Kailash C. Petkar & Dr. Supriya Singh





Image Credit: www.gettvimages.in

India's S & T: Satellite Instructional Television Experiment (SITE) to Mangalayan

**Lead:** It is well known that science and technology forms the backbone of developing and developed nations' social and economic progress. Being a developing country, India always has focused on developing her science and technology (S & T) infrastructure post-independence to come up with novel technologies to fulfill her dreams of becoming a world leader. Several such scientific and technological interventions across many fields, such as space, health, agriculture, IT, communication, etc., have touched and transformed the lives of common people. As India celebrates 'Azadi Ka Amrit Mahotsav' (75th year of independence) on August 15th, 2022, it is worthwhile to introspect the contribution of science and technology in the past 75 years to the nation's development.

Ancient India: India is one of the oldest civilizations in the world, with a strong science and technology background. Ancient India was well balanced with the scientific knowledge and wisdom of sages, seers, rishis, and scholars, which is well preserved in our Vedas, Ayurveda, Granthas, etc. Some significant scientific discoveries India gave to the world include 'addition of Zero to Maths', 'the decimal system,' 'Chakravala method of the algorithm,' 'ruler measurement,' 'plastic surgery, 'cataract surgery, etc. Many scientists across the globe have praised Indian ancient wisdom and acknowledged its help in several scientific discoveries. Thus, it is worthwhile to state that ancient Indian wisdom and scientific knowledge are pioneers of many scientific interventions.

Pre-independence era: In the pre-independence era (along with the Indian independence movement), notable scientists and eminent citizens of India such as Sir C. V. Raman, Lt. Col. Seymour Sewell, and Shri J. C. Ghosh already started taking steps towards establishing research infrastructure by proposing an advisory board of scientific research in the year 1930. This was also when the idea of Indian science academies started evolving, leading to the establishment of the Indian National Science Academy, Indian Academy of Science, and National Academy of Science, India, between 1930 and 1935. After visiting scientific departments and universities in India, Sir Richard Gregory (the then editor of Nature) submitted a report in 1933 regarding the requirements of a scientific organization in India similar to the Department of Scientific and Industrial Research (DSIR) in Britain. However, the colonial government rejected the idea of DSIR and instead offered to create an Industrial Intelligence and Research Bureau (IIRB), which came into operation in April 1935. Later, IIRB was abolished, and several iterations for the establishment of scientific department were made until creation of the Council of Scientific and Industrial Research (CSIR) in 1942 under the leadership of Sir Arcot Ramaswamy Mudliar and Shanti Swarup Bhatnagar.

Post-independence era: When India gained independence, it inherited a crumbling economy and insufficient infrastructure for advancing science and technology. The first prime minister of India, Pandit Jawaharlal Nehru, who also realized the need for S & T education & research, envisioned his dream by creating the first Indian Institute of Technology at Kharagpur in the year 1951 (18 August). He wanted to instill a scientific mindset in every Indian. At the same time planning commission was set up in the year 1950, which came up with a plan draft on the development of key sectors such as agriculture, science, infrastructure, and education. Plan draft had a dedicated chapter on 'Scientific & Industrial Research' and focused on establishing national laboratories and research centers. It may not be an exaggeration to state that the very first plan draft was visionary and played an important role in laying the foundation of scientific research in the country. Since then, India has set up several scientific departments including a separate ministry for science and technology comprising of 3 departments and undergone tremendous transformation in various areas of S & T, of course, not devoid of obstacles. This led to significant progress in various fields from space to agriculture, information & communication technology to pharmaceuticals and healthcare, and most notably, nuclear and defense.

The green revolution in India, which began in the 1960s by adapting advanced industrial technology such as high-yielding varieties (HYV), irrigation, farm equipment, fertilizers, pesticides, etc., created a mark in agricultural research. This revolution transformed our identity from being an importer of food grains to one producing in surplus, making us self-reliant with steady improvement in the agrarian economy. Later comes the white revolution, one of the largest dairy movements aiming to make India a self-dependent country in milk production. This revolution began by utilizing new technologies in animal husbandry and altering the composition of the cattle feed ingredients, which led to increased milk production and income for the rural population, along with fair pricing for consumers. At the same time, the development of skim milk powder from buffalo milk was also a remarkable achievement.

India simultaneously worked on defense, space, and nuclear research in the multifaceted developmental agenda. Since its independence, India has always believed defense was one of the important sectors to focus on, which led to the establishment of the Defence Research and Development Organization (DRDO) in 1958. The organization is working towards making India selfsufficient in Defence equipment, state-of-the-art platforms, sensors, and weapon systems ranging from missiles, radars, sonars, electronic warfare, engineering systems, surveillance and communication systems, electro-optics, night vision, information security products, etc. In the case of space science, India not only established its capabilities but also demonstrated its extensive research through the launch of the first Indian satellite, 'Aryabhata,' in 1975 and Satellite Instructional Television Experiment (SITE), etc. In 1984, when the first Indian went into space, PM Indira Gandhi asked him, "How do you see India from there?" and his epic reply, 'Sare Jahan Se Acchha' must have been an emotional moment for every Indian. Through the Mangalyaan Mission, India became the first country to reach Mars in its first attempt, which was also the cheapest mission to Mars to date. Today, many such satellite technologies used for communication, television, banking, remote sensing, cyclone/weather prediction, etc. have changed the way of functioning of millions of people across the country, which may be regarded as a true fulfillment of the dream envisioned by Dr. Vikram Sarabhai. India developed its first nuclear energy -

program in 1944 to conduct research, while the first nuclear weapon was successfully tested in 1974, famously known as 'Pokhran-I' or 'Operation Smiling Buddha.' However, India withheld its nuclear program and only carried out a further nuclear test on May 11, 1998 (Pokhran-II), which is now observed as National Technology Day to facilitate technological achievement.

India is performing fairly well in the healthcare sector too. Over the period, India has developed its capabilities for world-class healthcare and pharmaceutical research and also demonstrated it to the world. For instance, DNA fingerprinting probes, polio-free status, and extensive pharmaceutical research are a few. In 1988, India became the 3rd country in the world to develop its DNA fingerprinting probe, and the credit goes to one of the Commonwealth fellow, Dr. Lalji Singh. Strong policies, committed healthcare professionals, and front-line and community workers contributed immensely to eradicate Polio from India to receive polio-free certification from WHO in 2014. India is the 3rd largest pharmaceutical industry by volume and 14th largest by value, it is the largest provider of generic drugs and vaccines globally and has a rapidly expanding contract research market. It has a market of \$41.7 billion and exports pharmaceutical products to over 200 countries. During the unprecedented times of COVID-19 pandemic, the industry has immensely contributed to the healthcare sector by successfully developing an indigenous COVID-19 vaccine. Moreover, India also extended its help in providing vaccines to a few countries. Considering this contribution, PM Modi has also mentioned India as the "Pharmacy of the World."

Recent government policies and programs like 'Start-up India', 'Stand-up India', 'Make in India', 'Atmanirbhar Bharat' etc., have flourished the S & T ecosystem. Today we stand as one of the largest start-up ecosystems in the world with 105 unicorns having a valuation of \$ 338.50 bn, 46th in the Global Innovation Index among 132 countries, 3rd in a total number of peer-reviewed publications in science and engineering worldwide, women participation in scientific research has significantly increased from 13 % in 2001 to 24 % in 2017, we are placed at 9th position in terms of resident patent filing activity in the world, and as per WIPO, India's Patent Office stands at 7th position among the top 10 Patent Filing Offices in the world. Although India's R & D expenditure as a percentage of GDP is constant at 0.7 %, its gross expenditure on R & D (GERD) is steadily increasing and contributing to people's lives in many ways.

It is clear that over the years India has invested in building a robust S & T ecosystem, and is still continuing to do so. With such a rich background, India is set to achieve many heights in the journey of science and technology for the years to come and while celebrating the centenary of India's Independence, we may emerge as a global leader.

Disclaimer: Views/opinions are author's personal.



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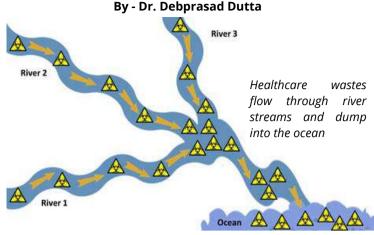
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"Live as if you were to die tomorrow, learn as if you were to live forever"



-M. K. Gandhi

# COMMONWASTE OF COMMONWEALTH: HEALTHCARE WASTE AS BY-PRODUCT OF RESPONSE AGAINST COVID-19



#### Lead:

The precarious COVID-19 burden has forced Commonwealth countries of the Indian subcontinent to relent priority on healthcare waste management. In rural, suburban, and even urban communities without a proper waste management framework, trash ends up amassing in rivers and subsequently into the ocean. Since subcontinental countries share rivers, healthcare waste has raised additional concerns about post-pandemic aquatic pollution. Integrated waste management is crucial for public and planetary health. The pandemic has highlighted the limitations of current medical waste management across the globe, irrespective of low, middle, and high-income categories. This précis gauges the impact of the COVID-19 pandemic on waste management.

**Waste to worries:** COVID-19 pandemic has led to a hike in healthcare waste such as surgical hand gloves, polythene hand gloves, surgical masks, hand sanitizer bottles, and polythene bags. COVID-19 healthcare-related wastes are lavishly mixed with household garbage, which can have harmful consequences. Further, COVID-19 vaccination generates healthcare waste such as disposable needles, syringes, and glass-made vaccine vials. Therefore, there is a necessity to increase mass alertness in this regard. Not only will this have a far-reaching negative impact on public health, but if sanitation workers become infected, it will create a major crisis in the waste management system. The occupational health of infectious waste-pickers is jeopardized to a great magnitude. That is why it is extremely important to consider the long-term adverse effects of COVID-19-related waste and segregate it from regular trash.

On top of that, countless coronavirus-infected people have stayed in self-quarantine during the transmissible period, which has indirectly increased the amount of infectious household waste across the country. Items used by individuals who suffered from severe COVID-19 (including dead patients and survivors) were indiscriminately discarded in rivers or open spaces. In this case, there is an obvious risk of infection spread among commoners. Even during the cremation of non-hospitalized deceased COVID-19 patients, essential cautions have not been taken.

**Wastes wobble oceanic ecosystem:** Scientists have warned that the ocean's waste load is increasing drastically due to the COVID-19 pandemic. The COVID-19 warriors and common people used items such as protective masks, gloves, and sanitizer bottles were observed floating on the ocean floor. If this continues, there will soon be more abandoned floating COVID-19 waste than jellyfish in ocean waters – such estimates are not an exaggeration.

A recent global estimate ascertains that out of 8 million tons of COVID-19 healthcare-related waste, 25000 tons were dumped into the ocean. This has intensified oceanic pollution concerns. Approximately 2000 tons of COVID-19-related Personal Protective Equipments (PPEs) were littered in the ocean, out of which India alone accounts for more than 50000 tons of discarded facemasks. Aquatic animals mistake this facemask for food and swallow it. Wobbling population density of aquatic fauna was reported, such as the death of facemask-fed penguins in Brazil. This ecological disequilibrium hampers riverine, estuarine, and deep sea food-web dynamics using bioaccumulation (gradual build-up of xenobiotic in organismal tissue through food) biomagnification (amplification of xenobiotic substances through the prey-predator trophic chain). Since oceans are the lifeline of international trade, various global - oceanographic observatories and marine wildlife conservation agencies must work together in search of sustainable solutions.

**Polishing the policy:** Experts feel that formulating a modern, integrative, actionable policy on COVID-19 healthcare-related waste management and its smooth implementation is compulsory. Several developed countries have already formulated strict guidelines to ensure the scientific management of COVID-19 waste. Governments of subcontinental nations also have legislations in effect to manage healthcare waste. However, additional infrastructure and capacity need to be built to address the dramatic increase in healthcare waste due to the COVID-19 pandemic. For appropriate operationalization of infectious waste management policies, it is imperative to follow intergovernmental regulatory agreements of the Basel Convention (1992), the World Health Organization (WHO), and the United Nations Environment Programme (UNEP). In India, central and state governments have undertaken and implemented various monitoring measures to address COVID-19 healthcare-waste challenges. The Central Pollution Control Board (CPCB) of India has circulated instructions for managing and disposing of biomedical waste associated with COVID-19 and revised periodically under the auspices of the Biomedical Waste Management Rules, 2016 and its later amendments in 2018 and 2019. To execute the directions of national and international guidelines, there should be fine-tuned coordination among the Ministry of Health & Family Welfare (MoHFW), Ministry of Environment, Forests and Climate Change (MoEF&CC), and local municipal departments responsible for waste management in states and union territories of India.

Unfortunately, there is no evidence that the general public has paid much attention to the recommended waste management protocol. Implementation of the following five precautionary sanctions is pivotal to changing this situation:

- Medical waste management should be done so that it does not become a public health hazard.
- Collection, transport, and disposal of healthcare-related waste are required to be in a manner that reduces contamination to the least extent possible.
- Sanitation workforces should be provided training and supplied with necessary PPEs. Additionally, periodic health check-ups of waste collectors need to be ensured.
- Public awareness program about scientific waste management seems indispensable.
- Commodities used by quarantined persons shall be placed in the prescribed bags.

**Waste to wealth:** Ultimately, improper management of COVID-19 healthcare-related waste can cause serious public health hazards and significantly affect the environment.

The Government of India launched the 'Waste to Wealth' mission to innovate and deploy effective technologies to use infectious healthcare waste for energy production and enhance their recyclability. For example, generating energy from COVID-19 healthcare-related waste using gasification technology is an ecofriendly and viable approach. Onsite disinfection employing 'sterilwave' technique to convert infectious wastes into dry inert gas can nullify the risk of infection exposure from COVID-19 healthcare-related waste from landfill. I am optimistic we shall overcome the COVID-19 waste issue common to all SAARC countries. This challenge can only be circumvented through the united and indomitable efforts of individuals, society, nation and transnational forums.

Disclaimer: Views/opinions are author's personal.



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# IMPACTING STUDENTS' LIVES THROUGH QUALITY TEACHING

By - Ms. Amisha Pathak



In this article, I reflect upon my own experiences and anecdotes to provide the readers an insight into the complex idea that is teacher quality and how it can affect the student's achievements. Teachers impact student's lives in more than one way, often leading to the kind of young individuals that they grow into. It is therefore crucial to reflect on the kind of practices, skills and behavioural traits that can support quality of learning beyond the academic palisade.

When I was in Grade 6th, I hated the subject History, I found Civics boring and tried to stay so far away from Geography that I could barely pass the term exams. At the same time, I loved physics and chemistry. Atoms and molecules, the reflection and refraction of light and Newton's three laws of motion amazed and intrigued me to the core. I remember that one time that I got 3 out of 10 in a history test and did not feel any regret.

Yet today, I have chosen the field of education and development economics, social science is my forte and getting lost in museums and old buildings is my favourite avocation. What happened in the 12 years since then that led to this change? How did I start to remember all dates, years, and historical names while elements, compounds and mixtures started to bemuse my mind?

When I reflect back on it today, I realise that the focal reason for my interest in physics was the pedagogy and style with which my physics teacher used to teach me the subject. I was lucky to have got great teachers to study the forces of nature while unfortunately the same was not true of my social sciences teachers from grade 6 to 8. Every time that I was in the History class, I used to feel as if I have made some mistake, offended the teacher somehow or disrespected her and was being punished for the same. This distracted me from focusing on what was being taught and develop an attention seeking behaviour. This of course didn't help and eventually my engagement in the class faded. I would only look forward to the ringing of the bell and to hop on to the next class.

Researchers in the field of education economics, like Renu Singh, Sudipa Sarkar and Vimala Ramchandran amongst others have argued that the attitudes of teachers, their beliefs, and perceptions are characteristic determinants of teacher quality and significantly impacts their ability to teach. This subsequently affects the child's perception of the teacher, their interest and ability to learn that subject.

Studies focusing on gender, race, ethnicity, and teacher favouritism, have also shown that teachers' biases towards certain students and against the others, makes unfavoured students less interested to attend class, less engaged with learning, feel a decreased sense of safety and greater exclusion from others. As Emily Cheng argues unbiased teachers on the other hand enable "openness, trust, engagement, participation, and enhance the 'fit' for effective learning and positive growth".

So, as I entered the 9th grade, I got to learn from some of the best social science teachers and I owe a huge part of what and where I am today, to them. The way they engaged with me, their teaching style, their unbiased behaviour, their own interest in and interaction with the subject, enriched my learning experience. Learning the history of the World War II, the French Revolution and the Holocaust from my new history teacher allowed me to understand how history was more than a story from the past. I connected with the subject but not as a mere academic requirement. I connected with the people, the events and the places that witnessed these events. Eventually, I developed a habit of reflecting on the emotions, ideology, sufferings, and successes of historical characters.

What is interesting to note here is that all my social sciences teachers since then have either been erstwhile IAS aspirants, social activists, profound researchers, or potential politicians. Very few of them actually ever planned to become a teacher and yet most of them taught the subject very well. This makes us question the choice of becoming a teacher in India and how teachers' personal experiences and achievements create a chain reaction and affect the outcome of their teaching (from experiences to achievements to interest in the subject, interest in teaching, teaching quality and subsequently student learning).

In India, more often than not, teaching is seen as a laid back, safe and relatively easy job that anyone can undertake. Most graduates who go through a bachelor's in education training believe that if nothing else works out, they could become a teacher. This practice is more evident in women than men due to the societal perception of teaching being a safe occupation for women that allows them ability to earn while at the same time keep up with their household "duties". This notion is particularly true of non-metro cities.

This was also why one of my political science teachers who once wanted to become a politician and engage in governance was forced to abandon her dream and become a salaried, government schoolteacher. Yet, contrary to one's expectations, she loved her job.

An understanding of teacher quality from the capability approach allows us to dig deeper into this and understand teachers as social beings and not isolated individuals. The capability approach views development as an individual's achievement in terms of values, freedoms, and opportunities. Teacher quality can thus be seen as product of a teacher's past experiences, their ambitions, and the impact that this had on their role in the classrooms.

Thus, teacher quality is not merely teachers' qualifications, their attendance or the number of students passing their subject, or the highest scores achieved but an amalgamation of the academic and socio-emotional abilities of teachers. Teachers who are great academicians but cannot build the same interest and ability in their students will have lesser impact on students' lives than teachers who can impart their knowledge while instilling a sense of exploration and interest in the child about the subject. Such teachers can impart life-long skills and knowledge in the students that will stay with them well beyond school life.

Disclaimer: Views/opinions are author's personal.



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There is no greater violence than to deny the dreams of our children.



- Kailash Satyarthi



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### PREDICTIVE INTELLIGENCE: THE FUTURE OF E-MARKET

#### By - Dr. Vijay Chatterjee

With the advancement in modern technology, the e-marketplace has become a popular choice for all shopping needs. Predictive intelligence helps businesses improve their profile and reach their customers effectively. The term "predictive intelligence" (PI) may sound like an advanced tool in a science fiction movie. However, marketers, today use this technology to provide their customers with everything they need. Organizations can accurately predict consumer needs using PI before individuals make up their minds. PI can also provide early warning of changes in customer behavior.

Predictive intelligence represents, interrogates, and interprets complex information using advanced mathematical formulations, powerful statistical computing algorithms, and efficient software tools and services. As the name implies, the primary goal of PI is to predict trends, patterns, and trends in data or the behavior of processes. The fundamental objective of predictive intelligence is to identify a location, time, and characteristics in the interactions, organization, patterning, or motifs in datasets, reducing the likelihood of consumer confusion due to the plethora of data. PI can use these process characteristics to predict unknown outcomes, estimate probabilities or parameters, classification labels, or provide other aggregated or individualized predictions. The model primarily explores how to refine, analyze, and compare the results of this predictive analysis between alternative approaches. In today's era, e-markets also directly or indirectly influence human behavior with the help of predictive analytics. In today's world, it is said that data is wealth. The rapid development of the Internet has made a wealth of details available for analysis through e-commerce and social media platforms faster than ever before. Photographs, search queries, and online forum posts are just a few examples of cluttered data that cannot easily be checked in a traditional spreadsheet program. Human behavior can be easily predicted by scientifically arranging this messy data using appropriate technology. In addition to data, the tools used to analyze it have become more complex and efficient. To interpret actual and expected short-term results, advanced analytics analyses not only past trends and predicts possible future events with trends resulting from certain primary input variables but also use quantitative forecasting. Gartner predicted that 85% of emarketing would happen without human interaction in 2020. Such predictions generally require the following common elements:

- 1. Measuring a consumer's prediction of purchase of an item by the click-through rate that consumer made in search engines.
- 2. Demographic details of the consumer, such as past sales transactions or ad click behavior, provide the basic strength of each record in our dataset.
- 3.A method that determines a model or set of models and assesses an outcome of human interest based on a sample of human behavioral data.
- 4. Testing the performance of the model on new data.

Marketing agencies are using sophisticated techniques to read the minds of customers. Big data underlies various research directions and can be divided between (1) analytical methods and (2) predictive intelligence.

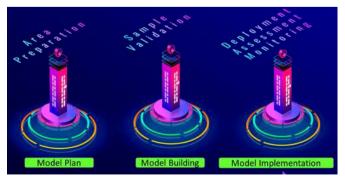
The analytical method helps to evaluate data (stationary or longitudinal), whereas Predictive Intelligence uses the currently available knowledge to predict the consumer mindset of the customer in the future. The potential of this method is not limited -

to this, but it can also be used to predict future behavior very effectively even where no previous dataset is available. According to the renowned e-commerce expert Oberlo, due to the coronavirus pandemic, the e-commerce world has again got a new shape and dimension, and according to them, by the year 2025, there will be a 25% jump in e-commerce, while in 2020 it was 15%. Today businesses worldwide automate some of their processes, ensuring that much data is being collected about such methods through sensors or internal company data, etc. Artificial intelligence (Al), a combination of big data analytics and data science techniques, appears to be a growing phenomenon in many fields, with predictive intelligence being the most well-known. In today's consumer world, there are ample examples of predictive intelligence in areas such as 1) finance, (2) health care, (3) heavy industry, (4) transportation, and (5) consumer goods.

**How to build a Predictive Intelligence Model:** Although most of the factors in the design of a predictive intelligence model are as shown in figure, the exact plan may vary according to its applications.

**MODEL PLAN:** To build a predictive e-commerce model, we first need to collect all the datasets used for training, which mainly consists of creating data objectives, removing unwanted data, estimating the missing data, coordinating them, and processing valuable data. In this process, we must do a statistical study of the data.

- 1) Area: The model necessitates a particular objective. The model was created for a specific purpose and cannot be used effectively in another situation. For example, a model that predicts online ecommerce customer switching cannot be used to predict credit card switching. An event or act indicated by the model and likely to occur is an example of a clearly defined model goal. It could predict which customers are likely to stop paying their credit cards in the coming month.
- **2) Preparation:** The data generated for this model can cover a wide range of information e.g. product, event, behavior, demographic, regional, competitor information, or environment. Variables included in the dataset are referred to as components for prediction which cover both forecast areas like sales and factors such as spending shifts. Technical and business people must participate in decisions about the dataset's content. The focus should be on behavioral details, as it is more important than demographic data for forecasts. It is essential to consider the exclusion behavior of customers from the model building process.



Schematic Determination of Normal Model Flow

**MODEL BUILDING:** One will write the model code, build the model, calculate the score and validate the data. The sub-steps are known as Sampling and Verification in the Construction section.

1) Sample: A sample from the data set will be used to build the model. The final model will include only a subset of the original list of variables to be considered for the model. This is acceptable because some model variables will be correlated, such as product type and family or the number of floors and building height. Other variables are discarded because they add little or nothing to the model's predictive power. The developed model will be in the form of an equation. Will give a score based on behavior when it is applied to customer behavior analysis. This is an integral part of the prediction.

2) Validation of the model: Models are usually valid for a holdout group. This community includes customers who were not involved during model creation. In this scheme, the model validation works for a community of anonymous consumers who are an indirect representation of the customer base. To obtain an accurate forecast, the holdout community must not be involved in the model-building process; otherwise, the model cannot be verified. If we want to model product failure scores, these rules must apply.

MODEL IMPLEMENTATION: In this process, main job is to rank customers or products, estimate model performance for business purposes, evaluate and monitor models, and drive model-based initiatives. The following are the sub-steps of model implementation.

- 1) **Deployment:** Once the model is constructed using a predefined subset of the data and when the model construction is finished, it will be validated through several iterations. Finally, the model is deployed for particular use.
- 2) Assessment: It is crucial to rank using the developed model. The ranking results can categorize the various customers and products to which the models apply. Its overall objective is to understand the performance of the model. Properly validating the model generates rankings and helps analyze customer or product behavior.
- 3) Monitoring: This section enables us to decide how often we need to run the model. It is crucial to monitor the performance of the model. It is also vital to understand the impact of the developed model on the new data set.

**CONCLUSION:** We can conclude that predictive intelligence can no longer be ignored. Like artificial intelligence and machine learning, E-marketing predictive analysis helps to link data to effective action by drawing reliable conclusions about the current situation and future events. These are the future technologies and have taken deep roots in the e-commerce society, which will deepen in the future. We know that it is necessary to bring change to digital marketing. Predictive models enable businesses to use the significant patterns found in historical data effectively. It is essential to realize the potential risks and many opportunities. Hence, it can undeniably be said that the future e-marketing concept is highly dependent on Predictive Intelligence.

**Disclaimer:** Views/opinions are author's personal.



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Nations consist of people. And with their effort, a nation can accomplish all it could ever want.



-APJ Abdul Kalam

## UNDERSTANDING METAVERSE

By - Mr. Aabhas Gaba



Many of us wonder what terms like Metaverse, AR-VR, and Blockchain mean. Much of this sphere is filled with complex terms, yet it is vital for all of us not to miss the bus of this neo-digital revolution. Science and Technology are heavily impacting the development sector and virtually our existence. Web3 is expected to become almost integral to our everyday lives, but we are curious about how it shapes our present and future. To help the masses make sense of the Web3 world, XRShots were created. It's an attempt to democratize the knowledge about Virtual Reality. Here are some jargons picked from XRShots;

Virtual Reality, also known as VR, is an immersive experience within a setting entirely produced by computer technology. Users may be submerged in these virtual worlds with specialized VR headsets, touch controllers, and even hand gestures. Users can play games in VR. Walkabout and interact with other users.

**Metaverse** is an evolution of internet. They are 3D virtual spaces that can be accessed using VR headsets for an immersive experience. With the 3D Graphics of Metaverse, people can experience different environments, meet other people, play games, watch movies together, and much more without having to leave the comfort of their homes.

Augmented Reality enhances your physical world experience with the help of computer-generated graphics, giving a modified experience to your senses. Example: filters in Snapchat, which uses the smartphone camera to create a custom visual experience for the app's user.

**Blockchain** is a system of recording digital information that makes it almost impossible to hack the network. It is a collection of transactions (blocks) duplicated and distributed across the entire network (chain) of computers connected to the blockchain. This guarantees security and trust. No single entity (individual or organization) controls the data recorded on a decentralized blockchain.

**Non-Fungible Token** (NFT) is digital content linked to a blockchain network. It can be anything digital like paintings, photos, memes, GIFs, certificates, deeds, documentation, etc. These can be traded on crypto exchange platforms.

**Cryptocurrencies** are highly secure digital currencies that work as a medium of exchange. Cryptocurrencies are decentralized, meaning neither the government nor financial institutions control them. Bitcoin is the first and most well-known cryptocurrency. The term "Altcoin" is composed of the words 'alt' and 'coin' where alt stands for "alternative" and coin for 'cryptocurrency." Means all cryptocurrencies other than Bitcoin. Examples include Ethereum, Litecoin, and Ripple.

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# Recent Scholars-2021 - "A window to the Future"



**Sabine Ameer** is an architect-urban planner and a development practitioner in the making with a keen interest in understanding the scholarly debates and discourses around the role of cultural heritage in shaping cities and everyday life of urban dwellers.

She has recently submitted her master's dissertation for MSc in Conflict, State-building, and Development from the University of Birmingham, England, which was funded through the Commonwealth Scholarship Award of the UK-FCDO. Her research lies at the intersection of conflict, cultural heritage, and cohesion, which has greatly influenced her literary work. She is currently exploring the interlinkages between built heritage and politics of emotions with a focus on medieval tomb shrines in the Kashmir Valley—through her literary as well as scholarly work.



**Sagar Dhanuskar** is a chemical engineer and an aspiring rural development and technology practitioner interested in comprehending the most critical environmental problems. He is a final year doctoral student at the Indian Institute of Technology, Delhi, under Prof. S N Naik and Prof. K K Pant.

He knows the world's most serious concern is the depletion of petroleum-based resources due to global and rapid industrialization. Non-edible oils are promising renewable, sustainable, and efficient energy sources with lower emissions. During his doctoral studies, he determined that most industrial processes depend on catalytic reactions and that their improvement is often related to developing new catalysts and producing value-added chemicals from non-edible oils. He is working on "A green process for developing second and third generation derivative products from castor oil. During his doctoral studies, he received the prestigious "Commonwealth Split-site Scholarship" awarded by the University of Warwick. His study focuses on the development of novel catalysts for the generation of biofuels from biomass waste. He is currently exploring new techniques to decisive factor for the success of the process is solely based on the design of the catalytic system.



**Remya** is an early career researcher passionate about the field of development finance. She has recently completed her Ph.D. in Economics from the Indian Institute of Management Kozhikode, India, and has joined as a Postdoctoral Researcher at the India Competence Centre, University of St.Gallen, Switzerland.

She is a recipient of the Commonwealth Split-Site Scholarship at the University of Essex, England. She assessed the capacity of rural households to manage recovery in the aftermath of climate change-related extreme weather events (like natural disasters). The findings of her study could help policymakers aid risk mitigation and management in regions lacking formal risk management mechanisms. Her current work explores the potential of technology in inclusive finance, which could inform policies to improve the financial wellbeing of rural poor through effective use of institutional credit supply.

**Dr. Anshul Chauhanl** is a public health professional with Masters of Public Health (MPH) degree from Manipal Academy of Higher Education (MAHE), India. This course enabled him to develop a public health-oriented approach to eye care services and the control of blindness.



The course work was well designed to instill research skills with critical analysis of strategies for the control of major blinding eye diseases through programme planning, management and evaluation. Currently pursuing a career as an academic public health clinician. In this role he tries to directly meet the needs of patients and the wider population as well as addressing key uncertainties and research needs in public health.

# Community Engagement Award winners - 2021

**Dr. Naveen**, a Commonwealth Scholar (2014-17) for his Masters in Conservation Medicine at the University of Edinburgh, serves at The Corbett Foundation as Deputy Director and Veterinary Advisor in Kaziranga, northeast India.



A conservation practitioner and cultural ecologist, Dr. Pandey plans, executes and monitors projects on nature conservation and cultural ecology in six states in India. His projects on mitigating human-wildlife conflict, landscape epidemiology, ecological restoration, and social dimensions of conservation touch indigenous communities like Naga, Mising, Karbi, Gond, Baiga, and Rabari in distant landscapes. He has been associated with implementing CSR projects of corporates like IndiGo, Jet Airways, Axis Bank, and grant agencies like the International Elephant Foundation, Vantienhoven Foundation, and Rufford Foundation. He is a prolific writer and widely contributes to international journals, popular writings, and mainstream news portals. He is currently a Research Scholar at IIT, Guwahati. He operates https://www.vetsforall.com/ to serve all life forms.

**Beauty** is an LSE Global Health Policy alumnus who is currently leading Project Telecare and Project Vaccination in Bihar for a development organisation with the goal of ensuring access to quality health access to the last mile.



Additionally, she is also guiding the team of the AADER foundation, which she has founded with the vision of creating a just society using evidence-based policy advocacy and program implementation. She is a firm believer in the power of education in transforming one's life and hence her organisation is implementing Project Siksha Connect, which educates children from vulnerable communities in Uttar Pradesh, Project Mike, which builds self-confidence among vulnerable girls and encourage them to speak up, and Project Rolled Away, which provide career assistance to teenagers. Obtaining funding from ACEF not only helped her to launch the very first program but also gained her the credibility the Commonwealth Commission provides.

ACSF is seeking your stories/articles to publish in the quarterly ACSF bulletin to share with the wider community. Interested scholars/fellows may reach out to us on - acsf-newsletter@acsfindia.org

# ONLINE WORKSHOP ON 'RESEARCH DATA MANAGEMENT' 2 AUGUST. 2022

The event was organized by the Learning Resource Centre and Internal Quality Assurance Cell (IQAC) team at Bennett University in collaboration with the Association of Commonwealth Scholars and Fellows (ACSF) and the Indian Academy of Medico-Legal Experts (IAMLE). Speakers were from Harvard University, USA - Ms. Julie Goldman, Research Data Services (Librarian), and Ms. Sonia Barbosa, Manager Data Curation Harvard Dataverse. Hon'ble VC, Prof. Prabhu Aggrawal graced the event and welcomed all participants. Other eminent panellists included Dr. Dhruva Chaudhry (President - ACSF) and Professor & Chair, Dept of Pulmonary & Critical Care PGIMS, Rohtak Haryana; Dr. Adarsh (President - IAMLE) and Professor of Forensic Medicine & Toxicology AIIMS, Delhi. Prof. Sanjay Kataria, University Librarian was the moderator of the session. Dr. Manish Bhalla, Head of IOAC team delivered the vote of thanks. The event was attended by more than 400 participants from 20 countries.





## COMMONWEALTH SCHOLARS & FELLOWS NETWORKING 12 MARCH, 2022

UK Alumni Conference and Study UK Alumni Awards 2022 was organized by the British Council for all UK Alumni who got trained or studied in the UK. This event provided a platform to network irrespective of particular scholarship and celebrated the remarkable work done by UK Alumni in their distinguished fields. The welcome note was given by Rittika Chanda Parruck, Director Education- India, British Council. After the pandemic, it was a huge offline event and welcomed a lot of enthusiasm and appreciation. As a part of the annual Alumni Conference, a networking & brainstorming session of Commonwealth scholars and fellows was organized to facilitate interaction among them & to identify the top 3 priorities of ACSF. The top 3 priorities identified by ACSF members were to improve the impact of ACSF, the role of the British Council to add value or support, and the need to expand the network of Commonwealth scholars and fellows in various parts of India. The event was coordinated by Vishu Sharma from the British Council and was attended by 60 alumni members.









# COMMONWEALTH SCHOLARS AT BRITISH HIGH COMMISSION 16 MARCH, 2022 & 1 JUNE, 2022

Commonwealth scholars and fellows are an integral part of India-UK global cooperation. British High Commissioner, Mr Alex Ellis invited Commonwealth scholars and fellows to mark Commonwealth Day 2022 on 16th March and celebrate the platinum Jubilee of her Majesty on 1st June . The reception was attended by delegates from Commonwealth countries, GREAT scholars, Chevening Scholars, Social activists, UK-India forum Delhi chapter students from Delhi University and DTU and few other bright minds. The idea was to celebrate the achievements and bring everyone on the same platform for potential networking.





# LEADERSHIP TRAINING ON "CLOSING THE EXECUTION GAP" 26-27 FEBRUARY. 2022

The British Council on behalf of the Commonwealth Scholarship Commission, UK organized a leadership program on "Closing the Execution Gap" for Commonwealth Alumni in India on 26-27 February 2022. Training on "Closing the Execution Gap" 'was delivered by 'Franklin Covey' and attended by 57 Commonwealth Alumni over 2 batches over the weekend. This training session was highly praised by alumini, first because the way it was conducted was highly interactive and second to know how to overcome challenges at work place. The session was planned to channelize the mind to analytically think and train mind for leadership qualities.



# HOMECOMING WELCOME BACK SESSION 18 DECEMBER, 2021

'Homecoming Welcome Back' session for recent Commonwealth Scholar/Fellow returnees was conducted to facilitate interaction among recent scholars and fellows and the executive committee members of ACSF. The event was coordinated by Ms. Vishu Sharma and Ms. Sakshi Sharma from the British Council and attended by 17 recent scholars, fellows, and 21 ACSF members.



# Together we make "ACSF"



**CSC WELCOME RECEPTION EDINBURGH, 2011** 



**ACSF FOUNDATION DAY, DELHI, 2017** 



**ACSF LAUNCH DAY, DELHI, 2015** 



STUDY UK ALUMNI CONFERENCE DELHI, 2022

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ACSF REQUESTS ALL SCHOLARS AND FELLOWS TO JOIN ACSF (INDIA).

Interested Scholars and Fellows may reach out to us on - info@acsfindia.org or submit Membership form here

ACSF IS SEEKING YOUR STORIES/ARTICLES TO PUBLISH IN THE QUARTERLY ACSF BULLETIN TO SHARE WITH THE WIDER COMMUNITY. INTERESTED SCHOLARS AND FELLOWS MAY REACH OUT TO US ON FOLLOWING

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