

Sakshi Kathuria

“The best way to predict the future is to invent it.” Alan Kay

As an educator, I’m constantly looking for ways to improve my students’ learning experience.

Recently, one particular conversation around ChatGPT, which was generating significant buzz, sparked my curiosity. While some viewed it with suspicion, a group of my students saw it as a potential game-changer. The discussion began casually during an office hour.

A student hesitantly mentioned using ChatGPT to brainstorm ideas for an upcoming essay. Her initial apprehension stemmed from concerns about plagiarism and academic integrity.

But, as she elaborated, it became clear that ChatGPT wasn’t providing pre-written essays; it was helping her generate different perspectives and angles.

Benefits

Intrigued, I decided to delve deeper. Over the next few classes, I opened the floor for a discussion. To my surprise, several students admitted to using ChatGPT for various tasks such as summarising complex research papers, formulating creative writing prompts, and even practising code for Computer Science students. As the conversation unfolded, some fascinating benefits emerged:

Enhanced Creativity:

A collaborative journey

An educator on her experience of exploring ChatGPT along with her students



GETTY IMAGES/ISTOCKPHOTO

Several students highlighted how ChatGPT’s ability to generate different text formats – poems, code, scripts – sparked their creativity and pushed them beyond their usual approaches, igniting new ideas and approaches.

Improved Research Skills: For some, ChatGPT served as a research assistant. By feeding in keywords, they could generate summaries of scholarly articles, saving valuable time and allowing them to focus on analysis and critical

thinking.

Personalised Learning: A few students with learning disabilities found ChatGPT’s ability to rephrase complex concepts particularly helpful. It allowed them to grasp information in a way that resonated with their learning styles.

Ethical concerns

While the potential of ChatGPT was undeniable, I also had concerns that I shared with my students:

Academic Integrity:

The biggest concern was the misuse of ChatGPT for plagiarism. We discussed the importance of using the tool ethically, emphasising proper citation and ensuring their own understanding of the content.

Overdependence and Critical Thinking: A valid concern was students becoming overly reliant on ChatGPT for tasks that required critical thinking and analysis. We emphasised using the tool as a springboard, not a crutch.

Bias and Misinforma-

tion: The potential for bias within AI models was another point of discussion. We explored the importance of fact-checking and evaluating the information generated by ChatGPT.

Way ahead

Our exploration of ChatGPT was an eye-opening experience. It highlighted the potential of AI tools to personalise learning, enhance creativity, and empower students. However, it also under-

scored the importance of responsible use and critical thinking.

As educators, we must embrace AI not with fear, but with a spirit of exploration.

Open Discussions: Fostering open discussions about AI tools like ChatGPT allows students to explore their potential and limitations.

Ethical Guidelines: Developing clear ethical guidelines around the use of AI tools in the classroom promotes responsible use and academic integrity.

Curriculum Integration: Instead of viewing AI tools as separate entities, we can integrate them into the curriculum, teaching students how to use them effectively for research, analysis, and creative expression.

The conversation around ChatGPT with my students was a valuable reminder that education is a collaborative journey. By embracing new technologies thoughtfully and ethically, we can create a learning environment that fosters curiosity, critical thinking, and a lifelong love of learning. As AI continues to evolve, it’s our responsibility to ensure it empowers students.

After all, the future of learning isn’t about AI replacing teachers; it’s about AI and educators working together to create a more engaging and enriching learning experience for all.

The author is a Faculty of Marketing and Marketing and Communications Chair at Fortune Institute of International Business (FIIB)

Empower future leaders

The 20th edition of The Hindu Education Plus International Education Fair presented by FES Study Abroad (powered by Fragon India) and powered by Bank of Maharashtra will travel across seven major cities from August 15.

With a focus on personalised interactions with international institutions and consulates and financial institutions, the event aims to empower study abroad aspirants with the tools and information needed to navigate their educational journey abroad.

There will be sessions on visa applications and requirements and seminars on topics such as scholarship applications, financial aid, and career prospects.

The Unimoni stall will host a UFLY Slogan Contest, which has travel vouchers and scholarships as prizes.

When and Where

Hyderabad: August 15, Vivanta Begumpet

Vijayawada: August 17, Vivanta Vijayawada

Bengaluru: August 19 and 20, Christ University, Central Campus & Kengeri Campus

Coimbatore: August 22 and 23, Vivanta and Kumaraguru College of Technology

Chennai: August 25 and 26, Loyola College



Kochi: August 28, Vivanta Ernakulam

Delhi: August 30, Dr. Ambedkar International Convention Centre

Presented by: FES Study Abroad (powered by Fragon India) and Powered by Bank of Maharashtra.

Knowledge partner: Education USA; British Council; Campus France and DAAD (Germany).

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Forex and Travel Partner: Unimoni, SBI and Union Bank of India.

To register, scan the QR code or visit bit.ly/IEFTHEP2024



Reflect and explore

Uncertain about your career options? Low on self-confidence? This column may help



OFF THE EDGE
Nandini Raman

I am a post-graduate in Biotechnology. I am not ready for a Ph.D. What other options can I explore? Mansi

Dear Mansi,
Some career paths are R&D scientist in pharmaceutical, biotechnology, or healthcare companies; quality control or assurance specialist; clinical research associate; regulatory affairs specialist; bioprocess engineer, or bioinformatics specialist. In academia, you can be a lecturer or assistant professor, research assistant or associate, or laboratory manager. Across the government and public sector, there is the opportunity of being a scientific officer or a biotechnology inspector. Other possibilities include being a biotech entrepreneur or running consultancy services. Join professional associations like the Biotechnology Industry Organisation (BIO), Indian Society of Biotechnology (ISB), and others to network with professionals, access resources, and stay updated with industry trends and developments.

I am in the third year of my B.A. with Economics as my major. I am preparing for the UPSC but would like to know what other jobs I can pursue. Sanjeevani

Dear Sanjeevani,
Most jobs require you to

first complete your B.A. Apart from the UPSC, check out other government exams such as Indian Economic Service (IES), Combined Defence Services (CDS), and others that you can consider based on your interests and career goals. The State Public Service Commissions also conduct exams for various administrative, economic, and planning departments. Consider the banking and finance sector, whether in positions in public sector banks or being a financial analyst or insurance specialist. Other opportunities are economic research analyst, data analyst or policy analyst. In the corporate sector, you can be a market research analyst or business analyst. Entry-level jobs may be available in international organisations like the UN, World Bank and IMF. You can also teach, develop content or become an educational writer. Enhance your skills in data analysis, statistical software (like R, Python, and STATA), economic modelling, and research methodologies to increase your employability and career prospects.

I completed my Master’s in Physics and would like to go in for research. Can I go abroad for a Ph.D.? Megha

Dear Megha,
Pursuing a Ph.D. abroad in Physics can boost your research career. First, research foreign universities and identify those with strong Physics departments and research facilities for programmes that interest you. Look up lists of specialisations and get an idea of funding and scholarships to understand expenses involved. Write to professors and potential advisors or faculty members

whose research interests align with yours and express your interest in their research, and inquire about Ph.D. opportunities, funding, and potential openings in their research group. Start preparing your application by ensuring your academic transcripts are arranged, statement of purpose (SoP), letters of recommendation from your professors or research advisors who are familiar with your academic achievements, research abilities, and potential are in order, your detailed research proposal highlighting your research interests, objectives, methodology, and potential contribution to the field of Physics, updated CV or resume that highlights your academic qualifications, research experience, publications, presentations, awards, and relevant skills are put together properly. Consider participating in pre-Ph.D. programmes, summer internships, and exchange programmes offered by universities, research institutes, and organisations to gain exposure, experience, and training in your field of interest.

I completed Class 12 with Maths, Physics and Chemistry but am not interested in being an engineer or in anything related to Maths. I dreamt of being a doctor and cannot find interest in anything non-medical. Are there any medicine-related courses I can do? Keerthana

Dear Keerthana,
You seem to have a passion for medicine and healthcare but do not want to pursue traditional medical or engineering careers. Have you considered a Bachelor’s in Allied Health Sciences,

Bachelor of Pharmacy (B.Pharm), Bachelor of Physiotherapy (BPT), Bachelor of Occupational Therapy (BOT) and Bachelor of Optometry (B.Optom)? A Bachelor’s Degree in Life Sciences includes a Bachelor of Science (B.Sc.) in Biology/ Biotechnology/ Microbiology. You can also consider paramedical courses such as a Diploma in Medical Laboratory Technology (DMLT), Diploma in Radiology/Imaging Technology, and Diploma in Nursing (GNM/ANM). Other options include a Bachelor of Public Health (BPH) and a Bachelor of Hospital Management (BHM). Medical Research and Biomedical Engineering offer Bachelor of Medical Laboratory Technology (BMLT) and Bachelor of Biomedical Engineering (B.BE/B.Tech). Reflect on your interests, strengths, and career aspirations to identify the most suitable course and career path. Research and gather information on the curriculum, career opportunities, and professional requirements of each option to make an informed decision

Disclaimer: This column is merely a guiding voice and provides advice and suggestions on education and careers.

The writer is a practising counsellor and a trainer. Send your questions to eduplus.thehindu@gmail.com with the subject line Off the Edge

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FREEMIK

Speak up to stand out

Speaking clubs in higher education institutions can help students build confidence and hone their communication, analytical and critical thinking skills

Alexander Zheltov

It is true that in today’s world, acquiring knowledge is pivotal, but being able to effectively communicate ideas is equally crucial. According to research by the National Association of Colleges and Employers (NACE), employers highly value communication skills.

This is where speaking clubs come into play, offering students a valuable chance to enhance their communication abilities and providing various benefits that set them apart in their academic and professional pursuits.

Confidence building and public speaking skills are the major benefits derived from participation in speaking clubs. Research from UCLA shows that 74% of students experience communication apprehension. Speaking clubs create a friendly environment for practising expression, thus allowing learners to over-

come stage fright. Consistent involvement helps students become calm as they learn how to speak articulately and confidently. This newly found assertiveness also extends into other areas like participating in class discussions, and giving presentations and during interviews.

Multiple benefits

A successful speech requires research and persuasively organising ideas, and all this necessitates extensive learning. Also, students are taught to develop solid arguments with evidence. Thus an involvement with speaking clubs also leads to the development of analytical and critical thinking skills. Additionally, speaking clubs nurture active listening abilities, as members not only to present their speeches but also engage in the activities of their peers. This implies listening attentively, spotting strengths and weaknesses

in arguments, and providing suggestions that help fellow speakers improve. These highly developed listening skills are valuable when working collaboratively on projects, operating in teams or any other context where effective communication matters.

Speaking clubs also offer a platform to explore diverse perspectives and cultures. Topics chosen for speeches can range from current events and social issues to personal experiences and cultural narratives. This fosters an environment of open exchange and debate, allowing students to learn from and appreciate the richness of a multicultural society. This broadened perspective equips students to become more well-rounded individuals and global citizens, better prepared to navigate an interconnected world.

Beyond the immediate benefits, speaking clubs can unveil a world of lea-

dership opportunities. Active members often find themselves taking on leadership roles within the club, organising events, planning workshops, and mentoring new members. These experiences help develop skills such as leadership, delegation, and team management. Such experiences not only enhance resumes but also instill the confidence and ability to lead effectively in future endeavours.

The benefits of speaking clubs extend beyond the individual student. These organisations can nurture a more vibrant and engaged campus community. Through events, workshops, and inter-club competitions, they create opportunities for interaction and collaboration between students from different departments and backgrounds. This promotes a sense of fellowship and belonging, enriching the overall student experience.

Of course, to maximise the transformative power of speaking clubs, it’s crucial to cultivate a supportive and inclusive environment. Creating a space where constructive criticism is encouraged while negativity is discouraged is key. Additionally, offering workshops on topics like body language, vocal techniques, and crafting engaging presentations can greatly enhance the learning experience.

In this ever-changing world, effective communication is crucial for success, and participating in speaking clubs is a way of developing this skill. Promotion of speaking clubs should be top among the priorities of institutions to empower their students.

For those who cannot attend clubs because of different reasons, online clubs provide a supportive setting where one can perfect the art of public speaking while interacting with other learners from all over the globe.

The writer is Founder, Educate Online.

B. M. Satish

Civil Engineering is the silent force behind the structures that define our modern world. From towering skyscrapers to resilient bridges and sustainable infrastructure, civil engineers are the architects of progress, shaping the very fabric of our society.

As our planet navigates challenges like rapid urbanisation, climate change, and technological advancements, the demand for skilled civil engineers has never been greater.

At the heart of Civil engineering lies the responsibility to design and construct infrastructure that meets society's needs while minimising environmental impact. Sustainable practices such as green building design, wastewater recycling, and alternative transportation systems are integral to this mission. By prioritising sustainability, civil engineers contribute to building a more environmentally conscious and resilient future.

Moreover, Civil Engineering stands at the fore-

Build a better future

Civil Engineering offers a fulfilling career path for those passionate about innovation, sustainability, and making a positive impact on the world.



front of tackling pressing global challenges like climate change and disaster mitigation. Rising sea levels, extreme weather events, and deteriorating infrastructure threaten communities worldwide. Civil engineers play a crucial role in developing innovative solutions to mitigate these challenges, from designing flood-resistant infrastructure to implementing disaster preparedness plans and promoting sustainable urban planning.

Technological advances are revolutionising Civil Engineering is enabling engineers to embrace new materials and technologies to improve efficiency and safety. From self-healing concrete to 3D-printed buildings, civil engineers are pushing the boundaries of what's possible and driving positive change in the built environment and enhance project outcomes.

Creating resilient communities is another cornerstone of Civil Engineering. By incorporating resilience into infrastructure design and working closely with government agencies and community stakeholders, civil engineers help mini-

mise the impact of natural disasters and other adverse events on people, property, and the environment.

What's in store

For students considering a career in Civil Engineering, the field offers a wealth of opportunities for personal and professional growth. Whether designing sustainable transportation systems or enhancing urban resilience, civil engineers play a pivotal role in shaping the world around us. Moreover, the field offers competitive salaries, job stability, and avenues for career advancement, making it an attractive choice for future generations.

While a B.Tech. or B.E. degree provides a strong foundation, students can take proactive steps to complement their academic education. Real-world experience through internships and co-op programmes is crucial for developing industry-specific skills. Pursuing professional certifications and enhancing technical skills through online courses strengthens students' competitiveness in the job market.

Strong communication and interpersonal skills are essential and can be developed through research projects with professors, which also provide valuable experience in research methodologies and prepare them for postgraduate studies.

To further improve Civil Engineering education, programmes can incorporate sustainability principles throughout the curriculum and expose students to emerging technologies like Building Information Modelling (BIM) and 3D printing.

Project-based learning enhances problem-solving skills and critical thinking, preparing students for the demands of the profession.

Civil Engineering offers a fulfilling career path for those passionate about innovation, sustainability, and making a positive impact on the world.

If you're a student seeking a career that combines technical expertise with a commitment to building a better future, then Civil Engineering is the perfect fit for you.

The writer is Dean, School of Engineering, Mohan Babu University.

From Mirage to reality

How students from The Design Village won the Outstanding Digital Submission Prize at the Biodesign Challenge Summit 2024

Raghav Modi

It began with a question: How can bio-design address the unique environmental challenges in micro-contexts in India? As a team of multidisciplinary designers, Divyansh Jain, Vedangi Rane, Prakriti and I were driven by a shared curiosity about the intersection of biotechnology, art, and design.

Our journey started with research into Rajasthan's micro-context, delving into the environmental issues plaguing the region. This exploration led us to the marble industry and its by-product, marble slurry, specifically in Kishangarh region. We discovered that this slurry not only disfigures the environment but is also a significant pollutant. Our visit to Kishangarh revealed the linear trail of manufacturing in the marble industry, which produces over 20% marble slurry waste in processing one block of marble. The locals, whose livelihoods depended on the industry, were aware of the problem but hesitant to speak out publicly, adding a layer of complexity to our mission.

The idea for "Mirage: Eco Solutions from Marble Slurry" emerged from these discoveries and we aimed to transform this waste into a resource. The complexity of our project demanded a non-linear, iterative approach. Each step we took led to new insights and often required us to revisit and refine our previous work. Initially, we had to go through various tests to get detailed information about the properties of marble slurry. Experiments with regard to its thermal resistance and mechanical strength revealed it to be a material good for



Winning team: (Clockwise from top left) Divyansh Jain, Vedangi Rane, Prakriti and Raghav Modi. (Below) A design made from their sustainable tiles. SPECIAL ARRANGEMENT

passive cooling. We wanted to leverage these properties to create solutions that would mitigate its environmental impact and promote local economic growth through hyperlocal production.

Process of research

One of our major challenges was developing a method to process the marble slurry into a usable form. Early attempts yielded inconsistent results, prompting us to explore various binding agents and manufacturing techniques. These experiments were time-consuming and often frustrating, but each failure brought us closer to a viable solution. One of the most exciting aspects of our solution was its full circular approach. By transforming marble slurry composite into products that could be reused and recycled, we aimed to create a sustainable loop. A key innovation was developing a passive cooling tile from the marble slurry composite, which can re-

duce temperatures by 10-12 degrees Celsius using water and leveraging Venturi and passive cooling effects. The form of the tile was designed with ease of manufacturing in mind, aiming to boost local production. This ensures that the marble waste does not end up in landfills but is continuously repurposed, thereby reducing environmental impact and promoting resource efficiency.

Looking back on our journey, Mirage is more than just a project; it represents our commitment to sustainable design and our belief in the power of innovation to address environmental challenges. We have not reached the journey's end. We recognise that there are areas where we can improve, try more raw material additives, and produce more detailed life cycle assessments to enhance the project's credibility and viability.

The writer is a student of M. Des in Product Design programme at The Design Village (TDV)

Devanshu Gupta

Hailing from an IT background, I wanted to acquire management and leadership skills through a combination of academics and practical explorations. Sheffield University Management School worked very well for this. A small and diverse cohort facilitated and created a conducive environment for personal growth along with focused and personal interaction from module leaders, international study trips, and numerous networking events to socialise and build connections. The icing on the cake was my experience at the Global Masters Challenge organised by Universities Business Challenge (UBC).

The course helped me develop core business and management acumen by providing new global perspectives. A rigorous curriculum, combined with practical applications, real-world case studies, group projects, and lectures from industry experts contributed to a well-rounded educational experience. For instance, the Marketing Consultancy Challenge, taught by a former McKinsey consultant, helped me gain skills in identifying core problems with clients and developing achievable strategies. Moreover, the

POSTCARD FROM... SHEFFIELD

Learning from business battles

A student from Sheffield University Management School, the U.K., on his learnings from his MBA course

support from the Employability Hub was invaluable. I had access to skill development in networking and personal branding for LinkedIn, individual career coaching, resume and CV writing support, and weekly newsletters highlighting career events, job placement opportunities, and access to the Association of MBA (AMBA) online training.

The course has significantly sharpened my analytical prowess, fostered a deep understanding of global business strategies, and nurtured leadership qualities crucial for navigating today's complex business landscape. Interactions with industry experts during networking events offered broader insights into the workings of the business world and offered new challenges and opportunities, enhancing my confidence to capitalise on them. Com-



University: Sheffield University Management School, the U.K.

Course: The Sheffield MBA

ing from the IT sector, I could appreciate the benefits of digital transformation and the robust need for technology in businesses, as exemplified by case studies on companies like Starbucks.

The pinnacle of

my MBA journey was being a member of the winning team at the Global Masters Challenge, organised by UBC, which provides students the opportunity to develop and test their entrepreneurial and employment skills. With over 70 participating teams, I went through an exhilarating roller-coaster of decisions and emotions along with the Sheffield MBA team. The competition involved business start-up simulations, tasks revolving around UN Sustainable Goals, and an innovation task to develop and brand a new luxury sustainable brand. Reflecting on the process, I have gleaned profound lessons, particularly the significance of the first step. It is that initial decision that lays the groundwork for



success, providing a safe zone from which to navigate the challenges ahead. Participating in this competition not only honed my business skills but also instilled a sense of responsibility towards global issues.

As team leader, I employed various skills learned from the MBA programme, including strategic thinking, teamwork, and problem-solving that were crucial in guiding the team through weekly challenges and advancing to the finals. Starting in January, we met every week outside of our coursework to discuss each trading period's information and make the best business decisions. Initially, it was a fun opportunity to get to know each other better, but we evolved into a well-coordinated team capable of making quick, effective decisions by the final trading period. Beyond the competition, the networking experience allowed me to connect with students from diverse backgrounds.

Studying at Sheffield has prepared me to tackle the challenges of the business world with confidence. I look forward to leveraging my education and experiences to drive impactful change in the business sector, with a focus on sustainability and innovation.

The writer is pursuing The Sheffield MBA at Sheffield University Management School, the U.K.

The business of things

By combining business studies with company secretarial practices and legal knowledge, the B.Com. Company Secretaryship course offers a plethora of opportunities

M. Devarajan

India's corporate sector contributes immensely to national income generation, infrastructural growth and economic development. With governments focusing on developing corporate practices through simplified registration process, patent and trademark facilitation fees, tax exemption, credit facilities and more, there is vast scope for those with knowledge of governance laws, company laws and secretarial practices.

What it involves

This is where the B.Com Corporate Secretaryship programme comes in. Over the course of three years, it offers a grounding in company law, secretarial management and compliance procedures, tax law, financial, cost, and management accounting, banking and insurance



law, securities law, economic and labour law, diligence and legal compliance. Other aspects include business ethics, integrity of the governance framework, complying with export procedures, financial and credit analysis, drafting and executing agreements, analytical skills and attitudes in business administration, marketing management, HR management, corporate

correspondence, internal auditing, SEBI regulation, patent registration and so on. On graduation, opportunities open up across various sectors such as government organisations and private companies, financial institutions, and banks. Some roles are Financial and Process Analyst, Tax Analyst, Senior Account Executive, Assistant Operations Manager, General Ledger Account-

ant and Corporate Investment Manager. Going forward, key managerial roles such as Assistant Corporate Secretary, Associate General Counsel, Executive Strategic Manager, Corporate Planner, Legal Secretary, Lead Corporate Governance Associate, and Chief Administrative Officer are options. Self-employment opportunities are also available such as incorporation and project planning, raising of resources/financial services, collaboration and joint venture, corporate laws advisory services, tax planning and management, export-import and forex dealings, corporate intellectual property administration, and security market analysis.

For those who wish to study further, postgraduate programmes such as M.Com (CS), M.Com (IB), MBA, MCA and others are available. Professional courses such as Chartered Accountant and Cost Management Accountant can also be considered.

The writer is an Assistant Professorship and Head, Research Department of Corporate Secretaryship, Erode Arts and Science College, Erode.

ON THE SHELF



Chambers Book of Indian Election Facts

The first book in the Chambers Facts series in India, this book covers Indian elections from 1952 to current times. The chronicle of modern Indian elections is divided into three parts: 1952-1977; 1977-1999 and then from 1999 onwards. It offers comprehensive coverage of all Lok Sabha and Vidhan Sabha elections with essential information and beyond-the-ballot events.

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Publisher: Hachette

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