DHAKA, THURSDAY, OCTOBER 5, 2023, *ASHWIN 20, 1430 BS* | A PUBLICATION OF The Daily Star

# CAMPUS

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# TRANSITIONING FROM CLASSROOM TO WORKPLACE

## WHY DO CS STUDENTS HAVE TO WRITE CODE BY HAND?

## THE CASE FOR SCIENCE COMMUNICATION AND SCIENCE WRITING

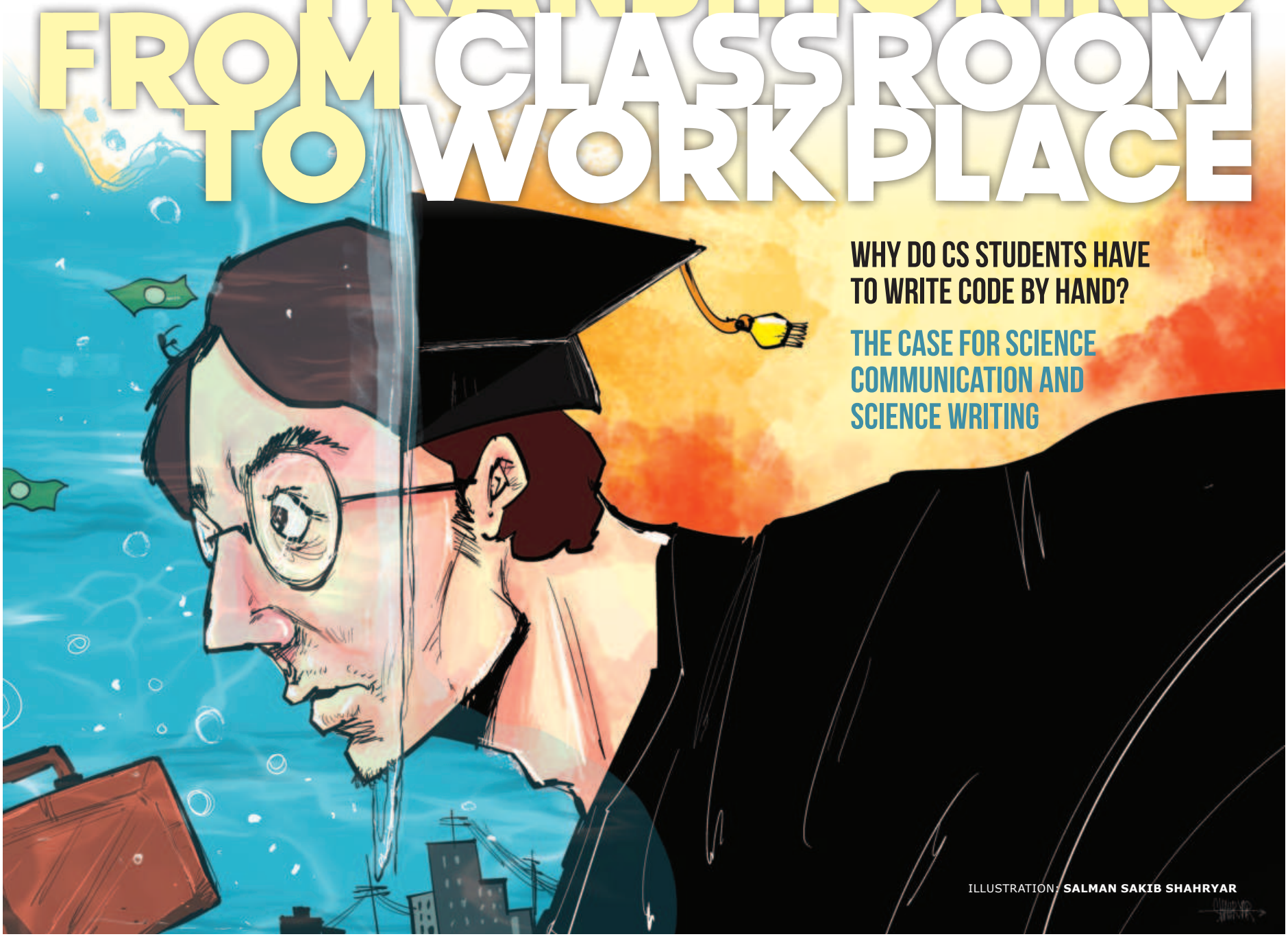
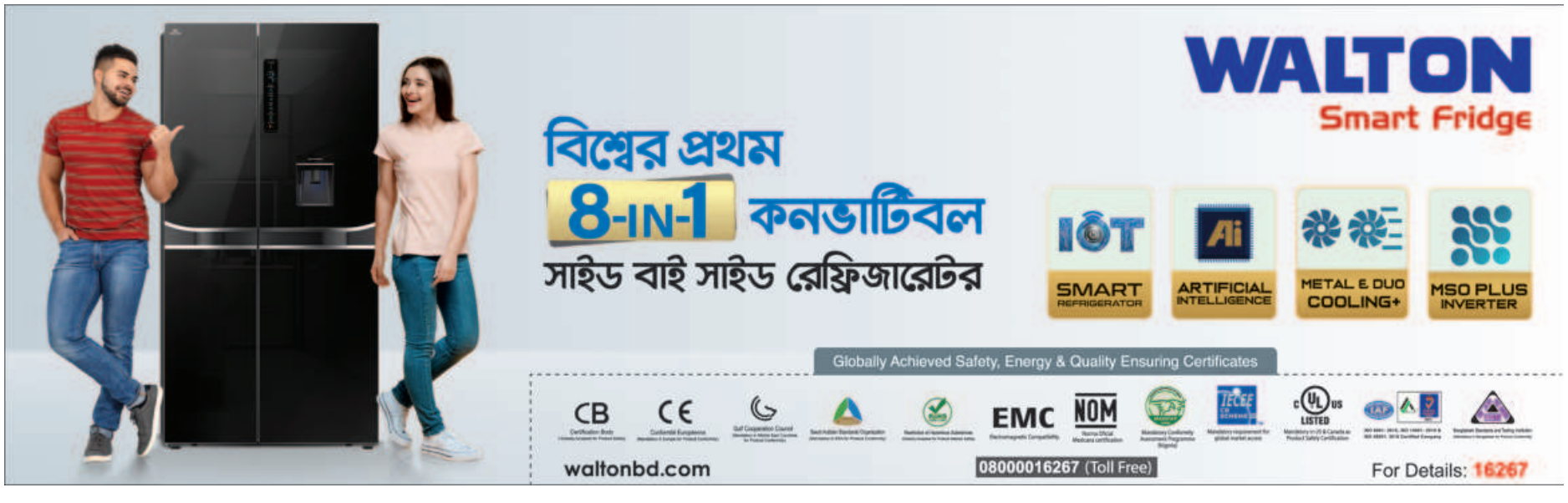


ILLUSTRATION: **SALMAN SAKIB SHAHRYAR**



## TV SERIES REVIEW

# LITTLE WOMEN

*Little Women*, based loosely on Louisa May Alcott's beloved classic, takes an entirely new and darker twist to the classical tale of sisterhood, making it both unique and completely unexpected. The drama follows three sisters as they struggle to make a living in a world that seems biased toward the rich who know how to work the system. Eventually, they turn to a life of crime to beat the odds stacked against them. It is a suspenseful and thrilling drama that makes us root for the underdogs, and the incredulous murder mystery plot leaves a lasting impression on the viewers long after it's over.

## ANIME REVIEW

# BLUE LOCK

*Blue Lock* is set in a realistic world and time setting, as the Japanese Football Association laments over the failings of the national team. They are convinced that the reason behind this is the lack of a world-class striker. To make up for that, they begin a risky and unprecedented training program called Blue Lock.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## LETTER

**Dear Campus,**
After four years of a treacherous commute to my university, I am finally done with my undergrads. My university life has been nothing but rewarding for me. I have engaged in various extracurricular activities like debate, business competitions, being a campus ambassador for one of the biggest MNCs while maintaining a stellar CGPA and a 100 percent merit scholarship. I met wonderful and talented people all throughout. But right now, I feel a wave of uncertainty. Unemployment is already here and after trying my luck at so many companies, I am just another graduate out on the streets.

Sincerely,
**Munzeleen Sarwar**
Graduate
Independent University, Bangladesh

## RESPONSE

**Dear Munzeleen,**
What you are going through is something that will resonate with graduates everywhere. University life follows a template that is easy to get used to, but life after it is bound to feel like you've been thrown in the deep end. However, you are hardly the first person to go through this, and I hope you can find assurance in the truth that over time, everyone comes out of this situation with personal development, and employment.

Best,
**Campus**

## OPPORTUNITIES

### University of Tokyo ADB Scholarship Program

**ELIGIBILITY**

Candidates must have been admitted to the University of Tokyo Japan for a master's program.

Required 2 years of professional experience after completion of the degree program.

Ability to move to Tokyo for studies.

Visit adb.org/work-with-us/careers/japan-scholarship-program to apply

**DEADLINE: DECEMBER 10, 2023**

### Joy Bangla Youth Award

**ELIGIBILITY**

Candidates must be within 18-35 years of age.

Participating organisations must have at least one year of operation.

Must fall under one of these categories – Skill & Employment, Art & Culture, Community Wellness, Social Inclusion, Climate & Environment, and Innovation & Communication

Visit jbya.youngbangla.org to apply

**DEADLINE: OCTOBER 10, 2023**

### United World College

**ELIGIBILITY**

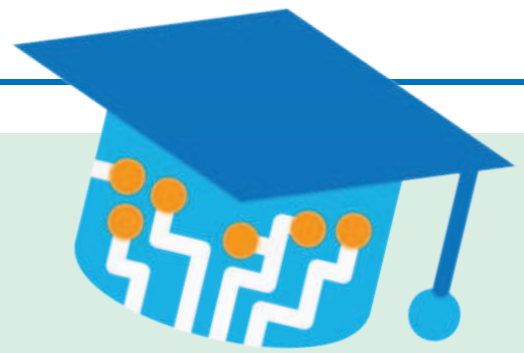
Be a Bangladeshi citizen

Having completed or in the process of completing Class 10 / IGCSE / O level / SSC equivalent academic program

Be 16 and under 18 years of age on 1st September in the year of entry to college.

Visit uwc.org to apply

**DEADLINE: NOVEMBER, 2023**



EDUCATION

# Exploring avenues of AI IN EDUCATION

**ZIBA MAHDI**

The conversation around artificial intelligence (AI) mainly revolves around job stealing, but that doesn't mean you can't squeeze some utility out of it now. While debates about ethics rages on, many are ecstatic that they could have their assignments done for free through ChatGPT. But AI usage doesn't need to stay limited to producing generic content.

Multidimensional integration of AI in education would mean modifying its entire structure, but if done right, it could improve efficiency and provide additional support for students and teachers alike.

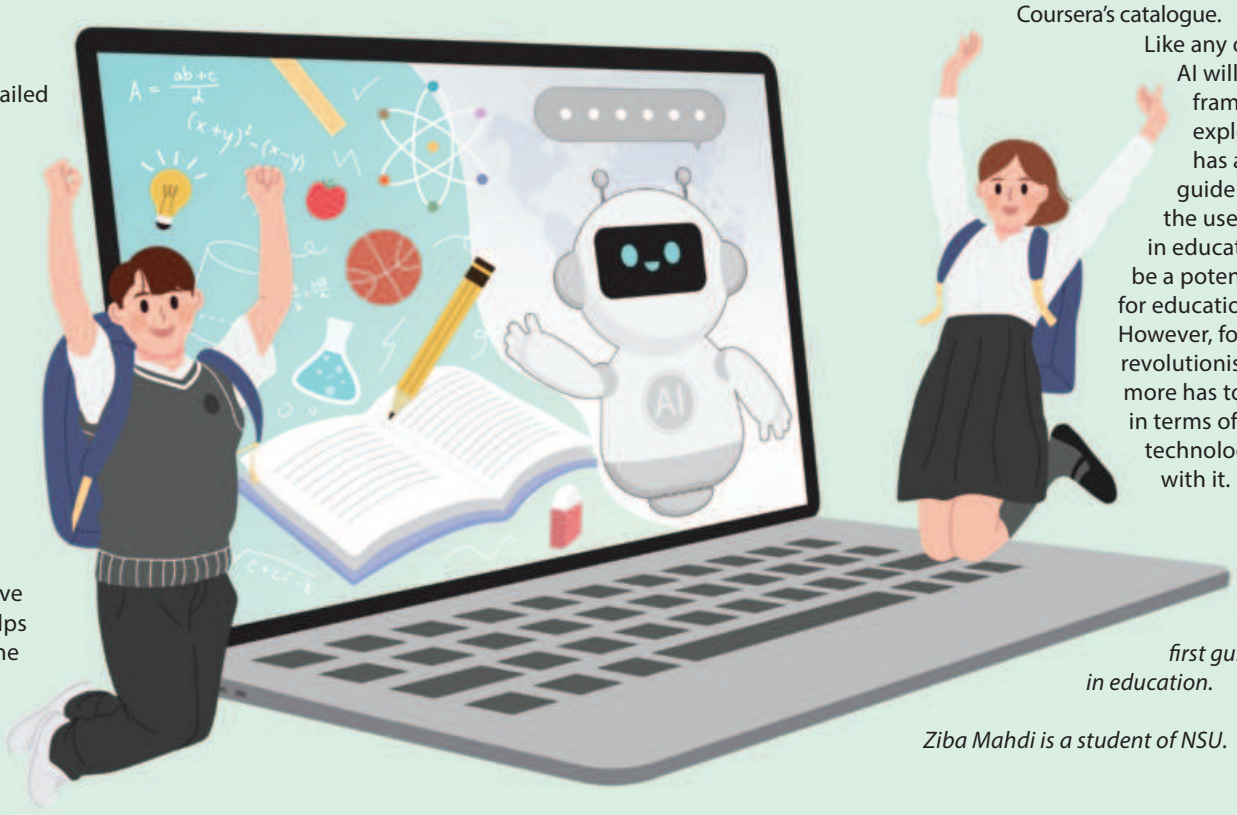
AI can be used to automate tedious parts of the job, like grading multiple choice questions (MCQs), which not only saves time for both student and teacher but also lets students know their marks immediately. The system can customise courses according to the student's requirements, identify their weaknesses, and give them feedback accordingly. A detailed report based on student data can be generated along with appropriate recommendations and sent to their educators. The personalised learning mechanism would be similar to what students experience in an in-person classroom.

Chatbots are becoming increasingly popular, with many students using them as a sophisticated, personalised version of Google. Some universities also employ chatbots to serve as campus guides which helps students navigate around the institute's facilities.

An AI-powered system also has the potential to increase accessibility for students with special needs. Since the algorithms can analyse a student's performance and adjust their content and pace accordingly, students with learning disabilities can advance at their own pace.

Sal Khan, the founder of Khan Academy, is a strong proponent of integrating AI into the learning process. His educational organisation recently launched an AI-powered teaching assistant named Khanmigo. Its usage varies from providing students with essay feedback to creating lesson plans for teachers.

Several countries have already started investing in AI-based education systems to get ahead of the game. Singapore's AI Centre for Educational Technologies has developed a program called Codaveri which detects errors in students' coding assignments and provides comments accordingly. South Korea plans to unveil customised digital textbooks based on students' academic prowess from 2025. In Finland, a country with a consistently top-ranked education system, roughly half of the schools use ViLLE, a learning platform that includes personalised learning paths, academic diagnostic tools and an advanced AI engine that lets teachers assign personalised tasks.



There's a pervasive apprehension among educators of AI enabling academic dishonesty. While ChatGPT-generated essays came into vogue, so did AI-detection businesses like Turnitin. It's too soon to tell, but there's always the possibility that with the uptick of cheating methods, counteracting tools will pop up proportionally.

It should be noted that incorporating AI in education isn't exactly a revolutionary concept for the future; it's been here a while. In 2020, Coursera introduced an AI tool called CourseMatch which matches classes in schools' on-campus course catalogues to courses in Coursera's catalogue.

Like any other technology, AI will need regulatory frameworks to prevent exploitation. UNESCO has already published guidelines to regulate the use of generative AI in education, which can be a potential starting point for educational policymakers. However, for AI to truly revolutionise education, a lot more has to be done, both in terms of regulating the technology and innovating with it.

**Reference:**
Reuters (September 7, 2023). *UNESCO seeks regulation in first guidance on GenAI use in education.*

*Ziba Mahdi is a student of NSU.*

SKILLS

# The Case for SCIENCE COMMUNICATION AND SCIENCE WRITING

**RAIAN ABEDIN**

ILLUSTRATION: **ABIR HOSSAIN**

In my time spent as an intern at Child Health Research Foundation, the biggest piece of knowledge I obtained was perhaps taken from the story of Nikola Tesla and Thomas Edison. According to my trainer, the reality of the situation would have completely flipped had Tesla been a better communicator in science. That is the atmosphere the organisation strived to maintain: the importance of scientific improvement is unparalleled not just among scientists, but between scientists and those who are not fully in tune with the technical jargon in science. Communication in science is primarily about relaying complex, and often overwhelmingly precise, information to a layperson in ways where none of the truth would be modified, and yet the information delivered would be comprehensible.

Maintaining scientific communication through science writing seems to suffer from a lack of attention. This could be attributed to treating science and effective, communicative writing as entirely separate.

In the book *The Sense of Style*, the author, Steven Pinker, defines good writing as being "communicative". In other words, a scientific research paper may be an important deep dive into a niche field, but if the research finding cannot be comprehensively explained to someone who is not an expert in that field, then what is the purpose of all that jargon presented in the paper? What is the purpose of that research at all if it cannot be put to use with the help of experts in other fields? The book presents an excellent case with Briane Green's style of writing and how he manages to convey abstract and increasingly convoluted ideas in theoretical physics via analogies, relating them to mundane events in our everyday lives. This is a skill that takes time to develop, but in our modern society where all research lands us in extremely niche fields, the need to convey these ideas to laypeople or experts in other fields is of increasing important.

> "I do believe in supportive communities. I had the pleasure of coming across a group Bangladeshi youth who were eager to create a medium to communicate science across the country."

Nishat Anan, a freelance writer and journalist for Wildtype Media Group, a STEM-focused media company headquartered in Singapore, shares her experience and thoughts regarding science writing.

"I write research highlights for A*STAR, Singapore's public sector research agency as well as news stories for Asian Scientist. In both cases, being able to draw upon my life science academic background was a big help. A large part of science writing is understanding the research before getting to communicate it. Science writers are tasked with practicing the art of storytelling, using simpler language and relatable examples to illustrate research themes – all the while keeping the science intact. It's a balancing act that takes a while to get used to for STEM graduates who are more accustomed to technical language."

Of course, the balance of the technical jargon with a language more easily understood is important. This takes time to master, but it rarely requires a specific degree. For many who work in the field of science writing, their background in pure sciences with their dedication to conveying these messages to the entire world is what drives them.

This brings us to a potential risk in science writing, which is prevalent when the science is not kept intact. Scientific news written by those who do not understand the science at a deeper level may twist the story when trying to make the narrative comprehensible. Be it intentional or otherwise, the presence of embellished narratives in articles written by journalists who are not, in fact, familiar with the material will lead to sensationalist stories, but the information provided will be misconstrued.

Additionally, there is the discussion of growing a culture where science writing is celebrated among writers, young and old. While this may sound like a herculean task, the effort really needs to start at a youth level. In universities, and maybe even schools, the importance of science communication must be discussed and presented to students. While the value of science communication varies considerably from country to country, there is always potential for a community to develop.

"I do believe in supportive communities. I had the pleasure of coming across a group of Bangladeshi youth who were eager to create a medium to communicate science across the country. Youth-led clubs and projects like these can make space to initiate discourse about making science more accessible in Bangladesh." states Nishat, and frankly the need to make science accessible is greater now more than ever, so the need for science communication persists.

*Raian Abedin is a student of NSU.*

CAREER

# TRANSITIONING from Classroom to Workplace

**FARNAZ FAWAD HASAN**

"The moment you throw your graduation cap in the air, you're all on your own. It's scary how you won't have anyone to blame."

When I heard this quote on a random Tuesday from a random YouTube video, I had no inkling of how deeply it would resonate with me. Graduation is a time of exhilaration, where you bubble with the excitement of reaching the finish line, yet it's also a time of doubt. As much as graduation brings happiness and fulfilment, the shift to the real world can be a bit hard to settle into.

Moving from university to the working world is anything but uniform. Mashequr Khan, a recent graduate and former employee at BAT, reflects on this shift, "The transition from university life to the professional world starts with optimism but can quickly turn frustrating as job applications yield no results."

Like Mashequr, many graduates grapple with the difficulty of finding employment. The post-graduation blues can weigh heavily on graduates during the gruelling process of job interviews and applications.

For those fortunate enough to secure a job, the reality of entering the working world may not resemble the fairy tale they envisioned.

One of the most noticeable changes is your relationship with time. In university, you may have had the flexibility to set your routine, staying up late, pulling all-nighters, and waking up at various times. However, as a professional, you're often bound by the 9-5 routine. In Bangladesh, the constraints of a typical 9-5 job, exacerbated by traffic, can consume nearly 80 percent of your day, making it feel more like a 7 to 7 or 8-8 commitment rather than a 9-5.

Azwaad Labiba Mohiuddin, a software engineer at mPower Social Enterprises Ltd., explains, "My entire routine underwent a drastic change. I couldn't stay awake until 4 AM anymore. I needed at least 7 hours of sleep to function during 8-9 hour workdays. I also had to come to terms with the fact that taking sporadic leaves for leisure was now a luxury."

Weekdays are like skipping stones, and when you land on the weekends, you get respite. This recurring routine might make it feel as if you are reliving the same days, unlike the diversity of experiences in university.

Starting a job also means collaborating with individuals of various age groups. While this offers a unique opportunity to learn and gain knowledge from experienced colleagues there will inevitably be a generational gap in most places.

Once you slide into the shoes of a working professional, keeping in touch with your friends becomes an arduous task. Your social circle may shrink as you observe your university friends dispersing — some moving abroad, others settling down or becoming engrossed in their own lives. While you will indeed form friendships at work, these relationships often carry an additional layer of professionalism.

Perhaps the most significant change when leaving university is the shift in responsibilities. When you are a student, all that is expected from you is your input following a set curriculum. From school to university, students have just one major task, that is to study. But once you shed your student tag and embrace adulthood, the safety net of being a student disappears. Good grades and proficient skills may land you a job, but like university, there is no set rubric that you are judged on. Surprisingly, you may find that only a fraction of what you learned in university is directly applicable to your job as theoretical knowledge often falls short in practical situations. Hence, continuous learning and self-improvement become imperative.

"It's very hard for a fresh graduate to gain acceptance in the industry," remarks Muballigh Hossain, a Solution Architect at Huawei. "Navigating the intricacies of corporate customs and unspoken rules can be taxing for newcomers. Often, senior professionals may overlook the juniors' capabilities due to biases and compatibility issues."

Financial literacy is seldom taught in university, yet money and finances play a significant role in adulthood. The professional world can be highly competitive, and as a newcomer, you might not receive your desired salary. The degree you diligently worked for, investing time, effort, and money, can sometimes seem insignificant when it comes to valuing yourself. Hence, it's crucial to be consistent and confident in negotiating your desired salary.

Effective communication and proper etiquette are paramount in the business world. In university, we get away with informal tones of speaking and communicating but in the corporate world, clear, effective communication is instrumental in ensuring successful outcomes.

Raima Islam, a Global Graduate in Information and Digital Technology at BAT Bangladesh, says, "While it is important to know the technicalities and specific skill sets related to your job, it is just as important to make sure your soft skills such as communication, and storytelling are polished."

She also points out that starting your first corporate job can be difficult, and while you might feel the need to give your all and avoid making mistakes, the errors you make often provide the most valuable lessons.

In the end, it is important to acknowledge that you may not remain in the same job or career forever. Networking, taking calculated risks, maintaining a positive outlook, and learning from failures are all crucial steps on your journey toward achieving your goals.

PHOTO: **ORCHID CHAKMA**

*Farnaz Fawad Hasan is a graduate of Brac University.*

NOTICE BOARD

# Bdjobs.com hosts "Freshers Career Fair 2020"

On September 20, Bdjobs.com organised "Freshers Career Fair 2023," aimed at guiding 40,000 fresh graduates through their transition into the professional world.

At the fair, over 200 esteemed companies set up their stalls, each one eager to discover and harness the potential of the next generation. With over 5,000 job opportunities on offer, the air was thick with anticipation and excitement.

Celebrity influencers graced the stage, sharing their insights, experiences, and invaluable advice to a hall packed with thousands of eager job seekers.

Ghulam Sumdany Don gave a talk on "Interview Secrets," which delved deep into acing interviews. Afterwards, Salman Beg, the co-founder of 10 Minute School, gave a talk on "Unlocking Your Dream Career." There were also Niaz Ahmed to share "How job seekers can get more interviews with Video CV" and Farhana Akter from Farhana's Brainstation discussed about LinkedIn Strategy for career growth.

A standout feature of the fair was the mock interview segment. Participants faced challenging questions, simulating genuine interview settings. Afterwards, the participants received personalised feedback. Each candidate was given a detailed form, pinpointing strengths and areas for improvement, offering a clear roadmap for their professional journey.

This initiative, lauded by attendees and companies, showcased Bdjobs.com's dedication to not just linking job seekers with roles but ensuring they're fully equipped to excel in them.

Representatives from participating companies were equally enthusiastic as the fresh graduates. "It's incredible to see so much talent in one place. These freshers bring in fresh perspectives, and that's what companies like ours are looking for," shared Ali Noor, a senior HR executive from SINGER Bangladesh, a leading electronics company.

AKM Fahim Mashroor, the CEO of Bdjobs.com shared, "Our vision goes beyond just job placements. We aim to shape the future by connecting young talent with the right opportunities. The youth are not just job seekers; they are the driving force of our economy."

AKM Fahim Mashroor's sentiments were echoed by many. The synergy between job seekers and industry leaders was evident. It wasn't just about filling vacancies but about building relationships, understanding industry needs, and aligning them with individual skills and passions.

# Over 900 IUB students experience rural Bangladesh with LFE Program

More than 900 students from Independent University, Bangladesh (IUB) embarked on an enlightening journey through the Live in Field Experience (LFE) program from September 7-17. This signature IUB course is designed to bridge the knowledge gap urban-centered students often have about the rural intricacies of Bangladesh.

The ten-day immersive course is a mission to foster empathy, understanding, and appreciation for the myriad lifestyles and customs that are woven into the fabric of the nation. This Summer's excursion saw students dispersed across ten locations in nine districts: Bogura, Joypurhaat, Jashore, Sylhet, Sunamganj, Moulvibazar, Barisal, Tangail, and Mymensingh.

During the experience, small groups of five-ten students each were chaperoned by one of the 38 faculty members to ensure a structured, meaningful, and safe field journey.

IUB VC Tanweer Hasan, PhD joined the students at the dormitory of Rural Reconstruction Foundation (RRF) in Jashore. He spent some quality time with the students, taking part in myriad activities including sports, cultural activities, and so on.

Students engaged in a series of activities designed to acquaint them with various aspects of rural life. The key highlights of the field activities included, village mapping, social change, economy and rural production cycle, health and environment, and rural market analysis.

# IELTS 'One Skill Retake' launched in Bangladesh

British Council IELTS test takers failing to achieve their desired results the first time around can now retake just one section of the test, thanks to the One Skill Retake. They no longer have to re-sit the entire test and can just sit for any one of the listening, reading, writing, or speaking sections.

The format and timing of the test remains the same. Test takers can now save time by avoiding retaking the three other skill tests. IELTS One Skill Retake can be booked within 60 days of the original IELTS test.

TEACHERS' DAY 2023

# A never-ending LOVE FOR TEACHING

**Farzana Hossain in her classroom**

"I was affected by polio at a very young age. When my classmates' parents discussed my physical issues, I felt an inferiority complex about myself," says Farzana Hossain, a school teacher in Dhaka, Bangladesh.

After taking physiotherapy, Farzana's body stiffness was reduced, but her confidence was always low. However, her family members and friends were always her greatest strength. In university, her friends pushed her to interact with people, which helped her gain confidence. She completed her graduation from Jahangirnagar University but her lack of confidence made her think that a job was not her cup of tea.

Farzana was very fortunate to have a supportive husband and mother-in-law who pushed her to get a job. When she started her career as a teacher, that's when her story began to change.

Being a trainer in her department, Farzana got the opportunity to take the exam for the Training of Master Trainers in English (TMTE) project at the British Council. With the guidance and support of the British Council, she was selected for the project.

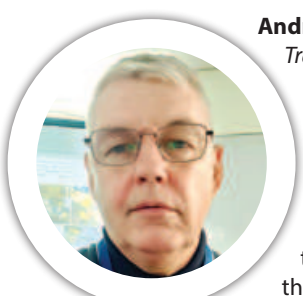
TMTE is a 13-month-long English training project with the Ministry of Primary and Mass Education (MoPME), working initially in 15 Primary Training Institutes (PTIs) across Bangladesh.

By participating in this project, Farzana learned the best practices of teaching English. She has built a strong network of English teachers throughout the country who are working together and sharing experiences. This incredible network is relentlessly working to innovate English teaching skills in low-resource classrooms. They have also created an online continuous professional development (CPD) group where they are connected 24/7.

After completing TMTE training, Farzana is now a regular participant of English Connects, the British Council's digital programme for all teachers and teacher educators of English worldwide, delivered through their global Teaching English platforms and regional/country and partner platforms. She has joined the Facebook Live sessions as a speaker as well. She believes English Connects is a timely and efficient pathway to keep English language professionals connected and provide for continuous professional development. In Bangladesh, the English Connects programme had an online reach of 900,000 in 2023.

"Age is just a number, and anyone can do anything if they want to. I could never imagine coming this far, but I overcame my fear with determination and hard work. I aspire to reach every corner of the country through my online learning platforms to improve teachers' and students' knowledge, skills, and expertise through the continuous support of my family, friends, society, and the British Council," Farzana said about her experience.

Expert teacher trainers like Andrew Michael Rochford, Amie Caroline Dodd, Maja Catlak, and Wendy Naylor train Bangladeshi teachers on different topics through English Connects and have shared their experiences of working on the project .

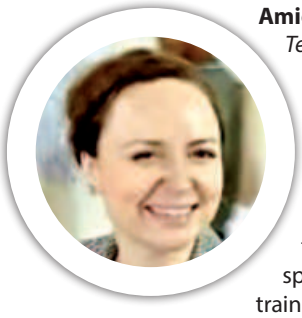


**Andrew Michael Rochford**
*Trainer from the United Kingdom*

"English Connects is a lovely triangular experience as the teachers discuss issues with each other and the teacher trainer, and they also have a guest local teacher to share their experience. The teacher trainers always make sure that they do a webinar that's relevant to the teachers. The advantage of the webinar is that it stays online, and because they are recorded, the teachers can refer back to them as part of their own training and development. Teachers need to take more responsibility for their learning and reflect on their actions to become more autonomous in their development. If the teachers' training and development continue, it won't take much time to make their teaching more effective."

**Wendy Naylor**
*Teacher trainer, Warrington, United Kingdom*

"I have learned many things from Bangladeshi teachers, like how to manage large classes. I also learned perseverance from Bangladeshi teachers. Reading skills are an area of focus that I want to pursue with Bangladeshi teachers. One area that needs to change is logistics; many of the teachers are assigned a lot of administrative work, which distracts them from educating children, which is their highest-priority work. All the teachers everywhere in the world should be paid fairly."



**Amie Caroline Dodd**
*Teacher trainer in Colchester, United Kingdom*

"We're trying to create an online community to keep many ideas flowing and get many practical solutions for the teachers. It is a really good space for all the teacher trainers to discuss different ideas and different solutions to teaching, so everyone can work on and motivate each other to work on their professional development and self-development and try to improve themselves. Bangladeshi teachers are very willing to learn and adapt to new things. I suggest Bangladeshi teachers focus on how they can use everyone's best skills to their own advantage."

**Maja Catlak**
*Teacher trainer, Croatia*

"I appreciate the commitment of the Bangladeshi teachers. So many teachers in Bangladesh work under challenging conditions but remain committed to their students' education. The ability of Bangladeshi teachers to work with limited resources efficiently and creatively is much appreciated. One of the greatest benefits of working for Bangladesh and working on a project such as TMTE is that, by the end of the project, after several months, I can see the programme's impact. The teachers' salary, the training, the curriculum, and the infrastructure should all be there for successful teaching because those are the prerequisites for a teacher to be successful."

EDU GUIDE

# Why do CS students have to write code by hand?

SUMAIYA RASHID

Evolution is not only anticipated but also required in the realm of programming. The practice of physically writing code on paper appears to be on the verge of becoming obsolete due to the rise of sophisticated code editors and Integrated Development Environments (IDEs).

Handwriting code wasn't seen as antiquated or unusual in the early days of the computing era. Many people now believe that handwriting code is obsolete due to the effectiveness of modern technology. But just as every coin has two sides, this coding approach also has its share of supporters and detractors.

The act of handwriting code pushes programmers to be more deliberate and thoughtful in their approach. Without the benefits of current IDEs, coders are forced to visualise the programme structure, which fosters a deep understanding and an enhanced capacity to handle complicated problems.

Dr Darin Brezeale, Adjunct Instructor at University of Texas at Arlington, says, "The development tools used by programmers have gotten better at potentially helping the programmer by doing some of the work for them. While this helps us do things faster, a downside is that we can rely too much on them and either never learn to do some things ourselves or forget how to do them. Now with ChatGPT, someone can even get a program that sort of does what they want and that they just have to tweak. I foresee there being many 'programmers' who will be unable to actually write any meaningful program completely on their own."

Ayman Azahar, a computer science student at University of Texas at Arlington, expresses, "This approach is inefficient because it significantly slows down the learning curve and limits opportunities for experimentation and exploration. Additionally, small but serious errors are more likely without the automatic error checking provided by most digital coding environments."

Arufa Manar Khanam, a computer science student at Boston University, says, "I was required to write codes on paper throughout all of my coding classes (Java, Python, C). It was mandatory because all of the exams were also on paper. It was challenging because it's hard to see the implementation of the code on paper, as I wasn't able to test each case."

Thousands of lines of code in complicated, diverse codebases are frequently used in modern development projects. Handwritten codes however, lack the tools for version control, collaboration, and seamless integration – managing such projects through handwritten codes might be a fruitless endeavour.

Arufa adds, "One major disadvantage of handwritten codes is that they do not prepare you for the actual world. If you become accustomed to writing code on paper and practising before coding digitally, you may spend more time troubleshooting issues. Handwritten coding culture will likely drop further as more project-based learning requires you to embed Artificial Intelligence (AI) into your code and/or utilise AI as a tool."

At its heart, the debate over the outdated nature of handwritten codes represents a clash between modernity and tradition. While some believe that adhering to this heritage is equivalent to rejecting development, others maintain that there is intrinsic value in preserving the tradition.

Dr Darin Brezeale, shares, "I teach people to program by writing code in class on a computer. One reason is that it allows me to run the code to demonstrate what the output of the program is. I only ask students to write code on paper during exams. Even if I didn't have to worry about the problems with giving someone Internet access during an exam, writing programs by hand shows what the student knows about programming syntax and how well they can envision the logical steps necessary to perform a particular task."

Stating that handwriting code is categorically outdated may be oversimplified. The methodical, leisurely pace of writing programmes by hand serves as a subtle reminder of the depth and value that lie in the process of creation in a society that is fascinated by the appeal of speed and efficiency.

Dr Darin further emphasises,"Some people, not always beginners, don't have the mental models that represent a task and the sequence of programming steps necessary to perform the task. For them programming is a trial-and-error process. Type something in, see what happens, type something else, see what happens, and so forth until they think the program does what they want. I think that these people can't write complete programs on paper because they can't see the sequence of programming logic necessary to perform the task."

It is essential to recognise that handwriting codes and contemporary coding techniques can coexist. For instance, contemporary coding environments will continue to be the staple in professional settings while handwriting codes can find its place in educational settings.

However, it is detrimental to only continue the practice of handwritten coding since it prevents students from being familiar with the modern tools and technologies that are now accepted as industry standards.

ILLUSTRATION:
FATIMA JAHAN ENA

*Sumaiya Rashid is a student at Independent University, Bangladesh.*

## DO'S & DON'TS OF A COMPUTER SCIENCE STUDENT

### THE DO's:

- Be punctual when it comes to lab assignments. The labs will help you implement your knowledge through problem solving.
- Solve problems and attend programming contests.
- Seek help from your peers and faculty members instead of just copy-pasting someone else's work.
- Make all the mistakes you want but at the same time, you need to know what it takes to rectify them, especially when it comes to coding problems.

### THE DON'Ts:

- Plagiarism is never the solution when it comes to coding. Instead, try to solve the problems by yourself. Take help from others if necessary.
- Avoid trying to learn more than one programming language at a time.
- Don't just rely on class lectures if you want to develop your coding skills.