Make Your COLLEGE AI Ready

Raghu Pandey | Saloni Rathore | Shubhi Dubey

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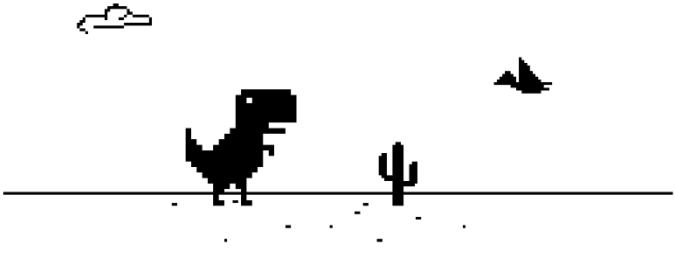
ATTN: Decision makers of colleges

It will be the worst of the times and the best of the times for colleges. Worst of the times for "dinosaur colleges", where the leaders & teachers are too rigid or slow to ADAPT. Best of the times, for colleges which quickly ADAPT, becoming the new leaders and capturing the space vacated by the dinosaurs.



A Shout from the Authors!

In the other three books of this series, this page is titled "Hello from the Authors". So, why is it different in this book? Because it is a **bigger emergency** for colleges to become AI-ready. We have to raise an alarm!

Of all the organizations that will be destroyed by AI (across any industry, not just education) **private colleges** are at the top of the list. That is the reason enough to "shout" and release this ~~book~~ **Survival Guide** in emergency.

This book talks very straightforward. It's already September of 2025 when we are finishing it. This is **not** the time for college leaders to *enjoy* reading books. Wherever you find the tone too terse to be polite, please empathize with our strong sense of **urgency**, and a bit of **panic**.

We authors are deeply grateful to *ChatGPT*, *Gemini*, *NotebookLM* and *Claude*. These AI's drastically reduced our presentation efforts in language and graphics!

And, Who Are We?

We are the pioneers in India who developed the 'Focusing on AI Readiness' program for the higher

education institutes. Till the publishing of this book, it's the only transformation guide on AI Readiness available for colleges & universities.

Raghu Pandey is the founder of *iMature.in*, India's pioneer in *'Digital Citizenship & Internet Maturity (DCIM)'* education. Since 2006, he is dedicated to 21st century education. His previous startup, iBranch.in, pioneered intra-college portals, which enabled 24x7 communication & collaboration within a college. He is slogging to establish DCIM as the most important subject in schools, and 'AI Readiness' as the transformation goal for schools & colleges.

Saloni Rathore is the COO of *iMature.in*. She is a psychologist who started her career with research in cyberpsychology. Since 2023, struck by the possibilities of AI, she is now dedicated to building *iMature* as an AI driven company. Her research now continues on 'AI Readiness' and 'AI Maturity' of individuals.

Shubhi Dubey is the founder of *Humans Winning AI* and an AI Readiness Evangelist with *iMature.in*. She is also a researcher with Johns Hopkins University (USA). She is building *Humans Winning AI* as India's largest community around AI Readiness Skills. Sensing the possible mega-impact of AI on India, Shubhi pivoted her career from being a senior journalist to her current avatar.

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Now Your College is Ready for the Future! Grab it!

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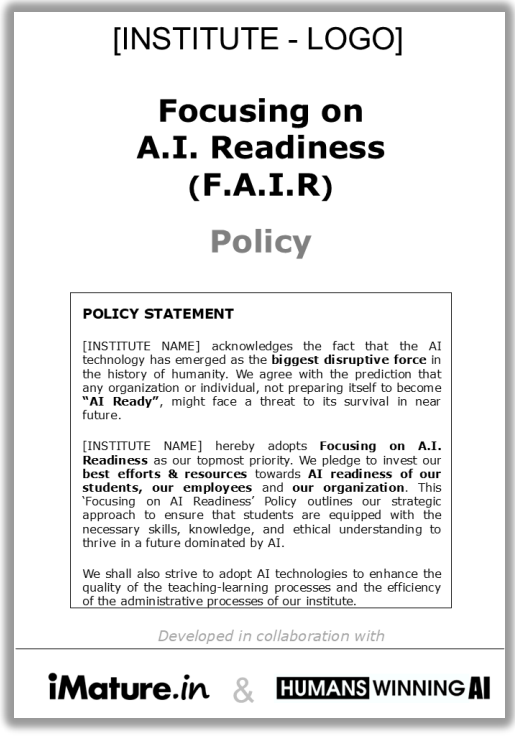
It's an emergency! The college cannot wait for the college leader to finish reading a book before taking action on the 'AI Readiness'. **The conclusion is – Implement the F.A.I.R Policy in your institute TODAY!**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Focusing on A.I. Readiness (F.A.I.R)

Policy

POLICY STATEMENT

[INSTITUTE NAME] acknowledges the fact that the AI technology has emerged as the **biggest disruptive force** in the history of humanity. We agree with the prediction that any organization or individual, not preparing itself to become **"AI Ready"**, might face a threat to its survival in near future.

[INSTITUTE NAME] hereby adopts **Focusing on A.I. Readiness** as our topmost priority. We pledge to invest our **best efforts & resources** towards **AI readiness of our students, our employees** and **our organization**. This 'Focusing on AI Readiness' Policy outlines our strategic approach to ensure that students are equipped with the necessary skills, knowledge, and ethical understanding to thrive in a future dominated by AI.

We shall also strive to adopt AI technologies to enhance the quality of the teaching-learning processes and the efficiency of the administrative processes of our institute.

Developed in collaboration with

iMature.in & HUMANS WINNING AI

Download the FAIR Policy draft for FREE from *https://aireadinessskills.com*

Chapter 1

Shutdown Risk is Very High for Colleges! Beware!

We predict that more than HALF of Indian colleges will shut down in the next 5-7 years (between 2025 & 2032).

Engineering colleges. Business colleges (B-schools). Commerce colleges. Law colleges. Science colleges. **The reason is AI.** AI is rewriting the rules of all kinds of professions & businesses. Therefore, the rules for colleges which produce talent for industries are also being rewritten. Starting the transformation towards AI-readiness is not optional, it's a matter of survival for every college & university. Will you prepare for this transformation, or will you prepare to exit the higher education domain?

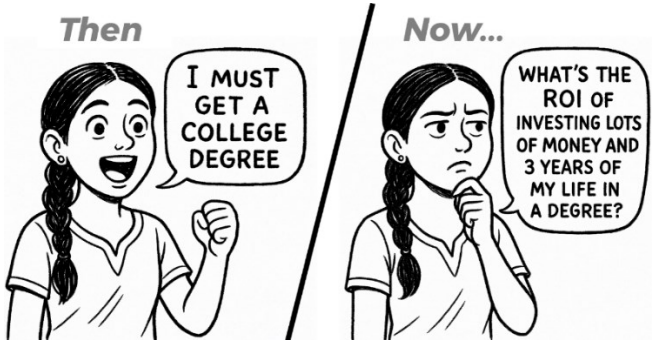
The Signs of Disruption Are Everywhere. Can You See Them?

1st Sign > The separation between Industry and Colleges is increasing

Majority of the common people still believe that college degrees prepare students for jobs. They think that employers give importance to degree while hiring and better college degrees lead to better salaries and promotions. However, the REAL trends in the industry are showing a very different picture.

Most industry leaders are criticising the current college curricula as **'outdated'** which is wasting the crucial years of students. As a result, many employers are disregarding degrees during hiring. Also, the concept of bulk hiring is coming to an end. Campus placements are declining across colleges.

The gap between college education and industry needs is growing wider every day!



2nd Sign > AI is Fundamentally Changing How Companies Hire Humans

This trend could be the BIGGEST threat to the existence of colleges. Understand it clearly! **Competency-based hiring** has become the new (and obvious) standard in the industry. Direct proof of competency is preferred by the interviewer over indirect ones like degrees or certificates. The capability of AI to interview human candidates is increasing day-by-day. Soon (possibly by 2026) an AI interviewer can interview a human for hours at stretch. That AI can interact with the human candidate through voice, watch his/her body language and micro expressions, read what he/she writes on paper etc.

The AI interviewer will be able to conduct a very long interview with the candidate and also do a deep analysis of his/her online reputation (every online activity & post!). It will then generate a detailed report for the decision maker.

That Report from the AI interviewer will be much more trustworthy to the decision makers than any degree or certificate!

As a result, students are increasingly finding it "totally unacceptable" to invest time, money, and energy in curricula that

don't prepare them for real-world challenges. They're seeking direct industry engagement through internships, part-time work, or specialized skill programs.

3rd Sign > The world is already 'VUCA'. AI is making it even more 'VUCA' *(Volatile, Uncertain, Complex, Ambiguous)*

The world was already VUCA before AI because of wars, trade tensions, geopolitics, stock market fluctuations, climate issues etc. Now it's become even VUCA because of AI. AI is adding volatility, uncertainty, complexity & ambiguity of EVERYTHING in the world.

Understanding this VUCA reality is crucial for both educators and students. That's why ADAPTABILITY has become most important 21st-century skill. An ideal college today would ensure

the ADAPTABILITY or READINESS of its students by giving them the skills for Lifelong Learning or Continuous Re-Skilling/Up-Skilling. And what is your college offering?

Then, why are people still admitting their children in your college?

Look what's under your feet. It's a thin layer of ice on which you are standing. Beneath that is deep & cold water. That thin layer of ice is the cultural and social beliefs around college, and the deep water is the industry reality. In India, college degree of the child, serves more than one purposes for a middle class family:

- Status symbol in the society, for the whole family.
- Higher valuation in the marriage market.
- Hopes of a stable career and a prosperous life.

But the ice is melting fast! What happens when the majority of middle-class people realize that ...

- Career is NO MORE dependent on college degree, and
- Online degrees COST LESS than 10% of on-campus degrees?

Prominent voices like **Elon Musk, Vinod Khosla, Ryan Roslansky** *(CEO of Linkedin)*, **Warren Buffett, Mark Zuckerberg** and many others are openly saying that college degrees are becoming "completely unwanted".

When the top voices of the world are campaigning against you... **How will you convince your customers that they are wrong?** What happens when their message reaches even the smallest towns of India? Are you praying that it never happens?

Some Institutes are Lucky!

Medical colleges might be at lower risk for now, because AI's use in healthcare will be highly regulated by laws. Also, top-brand institutions like IITs, IIMs, BITS etc are at lower risk for now. However, even the top-brand institutions are struggling with campus placements and even their struggle to survive will become more difficult with every passing year.

Can the National Education Policy (NEP) Help You Transform?

Before publishing this book, we published the book *'Make Your School AI Ready'*. In that book we give a lot of importance to the *'National Education Policy (NEP)'* of India, and its recommendations. But we can't do that in this book.

By our analysis, the National Education Policy (NEP) of India **is not a useful document** for colleges in their journey towards AI Readiness.

NEP lays out an excellent vision and guidelines for schools to become truly AI-ready and future-ready, providing a clear roadmap for transformation. But its higher education section focuses mainly on administrative aspects and flexibility of colleges to provide a variety of learning paths to students. It totally lacks the vision & guidelines for colleges to transform and become AI Ready.

Therefore, colleges should NOT rely on NEP for guidance to make themselves AI-ready and future-ready.

Instead, colleges must shift their focus to deeply understanding what skills the industry is now demanding from graduates. Unfortunately, developing this understanding is not easy, because most industry leaders in India, due to political

correctness, do not openly express their actual views about the impact of AI on the future jobs.

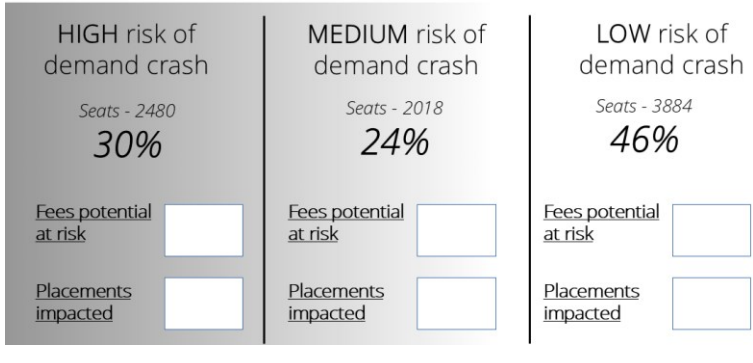
Colleges need to make serious efforts to reachout to industry leaders and discuss in **closed rooms** about their honest opinions and expectations from the colleges.

How "Risky" Are the Course You Offer?

It is essential for colleges to conduct a **risk mapping of their various courses**, categorizing them based on their risk of getting SHUT DOWN. A college is compelled to shut down a course when the demand for that course **crashes (suddenly drops)** and the admissions fall below a threshold, making it financially unviable to run.

We recommend the following format for the risk mapping of your courses:

Risk of demand crash by 2027 for [Institute Name] (Total Seats - 8382)



The key is to predict the demand for EACH course that you are offering.

How can you predict the DEMAND CRASH of every course? It's difficult, but there is help. Many reputed organizations have published their predictions about the job market. We have studied the report from Goldman Sachs, titled *"The Potentially Large Effects of Artificial Intelligence on Economic Growth"*. Although it was published in 2023, its predictions remain robust even in 2025. We strongly recommend you to read that report.

In addition to Goldman Sach's report, here is our own analysis about the risk factors of demand crash for various courses:

Law – *<u>High Risk</u> of Demand Crash by 2030*

Artificial Intelligence is set to disrupt the legal industry in a massive way. Most of the work done by junior lawyers, such as researching cases, or drafting legal documents, is basically language-based. AI tools are already performing these tasks faster, cheaper, and with better accuracy. Because of this, traditional law degrees like LLB & LLM, face a very high risk of demand crash.

However, specialized courses in areas such as Cyber Law, AI Governance, or research in laws

governing robot-human interactions could actually be in high demand in near future.

Medicine – *Low to Medium Risk of Demand Crash by 2030*

Human doctors and surgeons are not going to be fully replaced by AI anytime soon. However, AI is already assisting medical professionals with diagnosis, treatment planning, and research. This means the total number of doctors required in the future may decrease. As a result, MBBS and advanced medical specialization programs can be considered medium-risk. They will still exist, but demand may fall.

Paramedical courses such as physiotherapy, nursing etc, are also medium-risk but relatively safer in the near term. Robots are unlikely to replace them in the next five to seven years. However as robots become more advanced and much cheaper than human nurses, the replacement will happen for sure!

The lowest-risk healthcare courses, in our opinion, would be around **preventive healthcare.** We predict a high demand of such courses after a few years.

Engineering (Overall) – *Very High Risk of Demand Crash by 2030*

The traditional **four-year BE/B.Tech structure itself is under serious threat**. In the age of AI, four years is equivalent to ten or even twenty years of technological change in the old world. By the time students graduate, they would look like cave-men to the industry. It's already happening, by the way!

Engineering: Computer Science & IT (CS/IT) – *Very High Risk of Demand Crash by 2030*

Among all branches of engineering, Computer Science and IT face the biggest disruption. The current CS/IT curriculum is already outdated. AI is already becoming the world's best coder, data analyst, UI/UX developer, code tester etc. It can write, test, and deploy code 100 times faster than humans. Obviously, the IT services industry (Infosys, Wipro, TCS, Cognizant etc) will become almost fully AI-driven. This puts the traditional CS/IT degree in the **very high risk** category. However, if your college intensely implements the F.A.I.R policy (as explained in this book) in your CS/IT department, you can make it medium risk.

Mechanical Engineering – *Medium Risk of Demand Crash by 2030*

Mechanical Engineering will continue to be relevant but cannot remain as it is. To survive, it must evolve toward mechatronics, automation, and robotics. Without such upgrades, it risks falling behind. With them, it can still be classified as a medium-risk but relatively stable degree.

Civil Engineering – *Low Risk of Demand Crash by 2030*

Civil Engineering is one of the safer branches. With necessary curriculum upgrades, it can remain a low-risk degree. In fact, as CS/IT loses its mass-appeal, Civil Engineering may attract more students. Demand for infrastructure development will not vanish, and this could make Civil Engineering even more prominent in the years ahead.

Electrical Engineering – *Low Risk of Demand Crash by 2030*

Electrical Engineering is also low-risk, and it might even see a rise in prominence. Because, since AI needs a huge amount of electricity, Data centres, power plants, renewable energy installations, and power grids will require a

growing number of electrical engineers. This field is expected to remain low-risk.

Electronics Engineering – *Low to Medium Risk of Demand Crash by 2030*

Electronics sits in a mixed zone. For students pursuing it to work directly in the electronics industry, it remains a low-to-medium risk choice. The domains like robotics, IoT, drones, wearable devices etc are huge opportunity areas for electronics engineers. But for those who want an Electronics degree to enter into IT services, it's **very high risk**.

Commerce (B.Com, M.Com) – *High Risk of Demand Crash by 2030*

Traditional Commerce degrees are high-risk. Many of the routine white-collar jobs that commerce graduates do are accounting, auditing, or back-office roles. These are prime targets for AI automation. This will cause a demand crash for B.Com and M.Com. Only the courses with intense focus on ground-level marketing & sales, and entrepreneurship, will retain some demand.

Business Programs (BBA, MBA) – *Very High Risk of Demand Crash by 2030*

The future looks bleak for business degrees. Both BBA and MBA programs, in their traditional formats, are on the verge of collapse. The industry has already moved away from them, and even students of top-tier business schools across the world are struggling to find good jobs. If the best institutions are failing, average ones don't stand a chance. Only the courses with intense focus on ground-level marketing & sales, and entrepreneurship, will retain some demand.

Science Programs (Pure Sciences: Agriculture, Chemistry, Physics, etc.) – *Low Risk of Demand Crash by 2030*

Pure sciences are relatively safer compared to professional courses. These programs are usually low-to-medium risk. As AI automates engineering and technology-heavy jobs, the need for researchers who can collaborate with AI will rise. Pure Science graduates can fill this gap. The problem, however, lies in outdated curricula. Without urgent upgrades, even these courses will struggle. With modernized content and research-oriented training, Science programs could become a strong low-risk option for colleges.

Arts Programs – *<u>High Risk</u> of Demand Crash by 2030*

Arts degrees in India are mostly pursued by students who simply want “a degree” rather than a passion for the subject. Online education platforms can offer Arts degrees much more cheaply and conveniently, making on-campus Arts degrees useless for most students. Unless radically improved, Arts programs are firmly in the high-risk category.

Humanities – *<u>Medium to High Risk</u> of Demand Crash by 2030*

Like Arts, most Humanities degrees offered in average colleges are pursued by students who simply want “a degree”. Therefore they are high risk for you. Students will prefer cheaper online alternatives. However, specialized Humanities programs, such as **Psychology** or courses exploring human behavior and intelligence will grow in demand. These areas cannot be fully automated and are vital in the AI age. But they will only succeed if colleges upgrade their curriculum and teaching methods.

Media and Journalism Programs – *<u>High Risk</u> of Demand Crash by 2030*

Media and Journalism are already undergoing a severe crisis. AI tools can generate articles, videos, and news reports at scale, disrupting traditional journalism. Graduates in this field are struggling to find jobs. Unless colleges significantly improve the quality and relevance of their programs, Media and Journalism will remain high-to-medium risk. Only those institutions that set very high standards will be able to keep this field alive for their students.

See who your competitors are

Beyond the changes in industry requirements, colleges are beginning to face fierce competition from the following:

Competitor #1 > Online Degrees

One of the biggest competitors for traditional colleges today are online degrees. They are cheaper, more flexible, and more accessible than campus-based education. Students can study from home (saving rent & food expenses) and do a part-time job while pursuing the degree. This makes online degrees a logical choice for budget-conscious families.

Many Indian universities have already entered into this game. IITs, IIMs, and other private universities, now offer affordable online degrees.

Even Government initiatives like SWAYAM are offering online programs. These programs often cost less than 20% of the fees charged by on-campus colleges, and sometimes they are even free. IGNOU has already been a pioneer in this area.

Global Platforms such as Coursera, edX, and Udacity have taken things a step further by offering high-quality courses certified by top global universities. Many of these are designed as “nano-degrees” or micro-credentials, focusing directly on skills the industry values. Students who understand that employers prioritize competencies over degrees are flocking to these platforms. That makes them strong and growing competitors for colleges in India.

Competitor #2 > Skill-Focused Academies

Another set of strong competitors are the new-age academies focused purely on skill development. Institutions like *Scaler Academy*, *Masters' Union*, and *Growth School* etc are not always affiliated with traditional regulators, but they have built a powerful industry alliance.

- They focus only on practical, industry-relevant skills.
- They often run small batches, giving more personalized attention to learners.
- Their curricula are designed in direct collaboration with industry experts.
- They update their programs regularly, keeping them in sync with industry needs.

Traditional colleges, on the other hand, struggle with this kind of agility. With thousands of students, large campuses, and rigid regulatory frameworks, it becomes very difficult for them to quickly change or upgrade their programs. This is where skill-focused academies enjoy a clear advantage.

Competitor #3 > Shifting Perception About College Degrees

Your STRONGEST competitor is not another college or university, but the **shifting perception in society**. An increasing number of students and employers are declaring college degrees "unnecessary".

The only exceptions are fields where the stakes are extremely high, such as Medicine (where a recognized qualification is mandatory to practice) and Law (where a degree is needed to appear in courts).

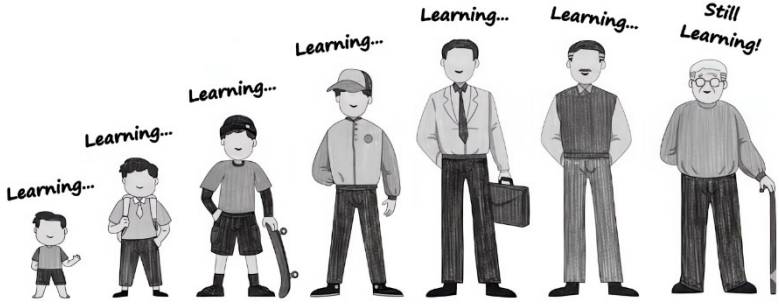
Overall, a general dissatisfaction is slowly building up in the society. *"College degree does NOT give you a job"*... this perception will wipe out thousands of colleges!

<u>Competitor #4</u> > The Compulsion of Lifelong Learning

In the AI-dominated world, no one can rely on a one-time degree to last an entire career. Skills need to be updated **every few months** to stay relevant! Professionals are increasingly choosing short, skill-based courses and continuous upskilling pathways instead of committing years to a rigid college curriculum.

This compulsion of lifelong learning makes most college degrees useless. If people are forced to keep re-skilling and up-skilling themselves

frequently to keep their careers alive, then why will they spend years and money on a college degree?

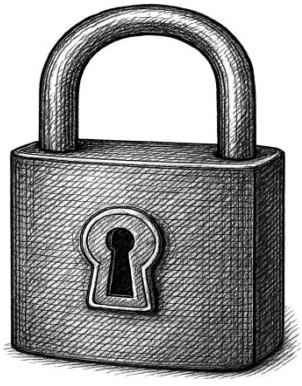


THINK... What If...?

What if admissions in high-risk courses drop by 20%, 30%, or even 40% in the year 2027? Have you calculated the minimum number of admissions required in high and medium-risk courses to maintain their financial viability?

What happens if a high or medium-risk course shuts down across all competing colleges? How will your competitors behave in such a scenario? What new courses they would start offering?

What if placements in high-risk and medium-risk courses drop by 50% or more? What will be the immediate response from current students, and how will future prospective students react to this?



Majority of Indian colleges, at best, can place their students only in average white-collar jobs. For such colleges, there is a **very high chance of shutting down before 2030 due to AI**.

Chapter 2

Let's Kill the Myth First. AI Readiness is NOT...

When you hear *"AI Readiness"*, what comes to mind first? If you're thinking about teaching Python programming, building robots in fancy AI labs, or conducting workshops for students & teachers to learn ChatGPT... you're falling into the same TRAP as thousands of other college leaders.

Here are some common myths around "AI Readiness". If not cleared, they'll waste your precious time, resources, and energy. Let's do the needful.

<u>Myth #1:</u> AI Readiness Means Knowledge of AI Technology - *"To be AI-ready, our students and teachers need to understand how AI works technically."*

The Reality: AI Readiness has almost nothing to do with understanding AI technology. Think about this - During the 2020-2021 lockdown, was *"COVID readiness"* about studying virology? Did you need to understand virus mutations in depth to stay safe from COVID? Of course not.

COVID readiness was about THREATS & OPPORTUNITIES of COVID. It meant adapting your lifestyle and work to:

- ✓ Protect yourself from the **threats** using masks, sanitizers and social distancing.
- ✓ Take advantage of new **opportunities** like remote work and home-delivery businesses.

Similarly, **AI Readiness is about THREATS & OPPORTUNITIES of AI.** It means adapting your skills to:

- ✓ Protect your career from AI threats.
- ✓ Grow your career by taking advantage of AI opportunities.

Majority of your students don't need to know how AI works. They need to know how to survive & succeed in a world where AI dominates everything.

Myth #2: AI Readiness is About Learning How to Use AI Tools - *"Let's conduct ChatGPT training workshops for our faculty and students."*

The Reality: Teaching people "how to use" AI tools completely misses the point because **AI tools are NOT traditional software.** They're not like

Microsoft Excel where you need to learn specific buttons and features. They're intelligent systems that you communicate with naturally. Anyone can self-learn how to use ChatGPT (or any other AI tool) in **5 minutes**. The interface is simpler than ordering food online.

The real challenge isn't "how to use" these tools. It is about:

- When to use them appropriately.
- How to use them strategically.
- Understanding their limitations and biases.
- Knowing when NOT to use them.
- How to become AI's boss. Not its competitor.

Conducting ChatGPT workshops is like conducting telephone workshops!

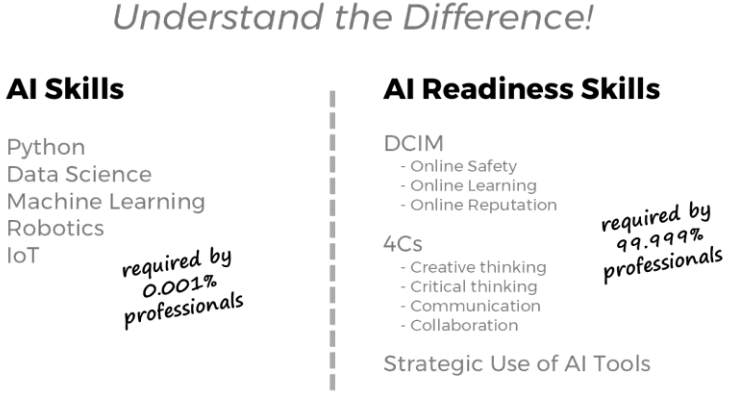
<u>Myth #3:</u> AI Readiness Means Using AI Tools in Classrooms - *"Our college is AI ready because our teachers are using AI tools in their classes."*

The Reality: Simply using the AI tools doesn't make your college or your teachers AI-ready any more than using a calculator makes her a mathematician. Teachers might be using ChatGPT to create lesson plans, quizzes, or presentations.

Students might be using AI for creating assignments and reports. But that is only a **superficial** usage without strategic thinking and without understanding AI's real utility or impact.

Myth #4: AI Readiness Means Teaching Python, Robotics, or Data Science - *"Let's teach Python to make our students AI-ready."*

The Reality: Technical skills like Python, Robotics, Machine Learning, Data Science are technical *'AI Skills'* required for AI Engineers who develop or customize AI tools. Less than 0.001% professionals in the world would be employed in those job roles. What about the remaining 99.999% professionals? They need **AI Readiness Skills**. This book explains these skills in detail. Here is a quick overview...



It is critical that you understand the difference! Otherwise your decisions will go against the big majority of your students.

<u>Myth #5:</u> AI Readiness of a College Means Adding AI-Focused Degree Programs -

"Let's launch a new AI/ML degree program. This will make our college AI ready."

The Reality: Adding AI-focused programs doesn't make your college or university AI-ready. Using the COVID analogy again, did you make your college COVID-ready by adding a course on Virology? With a course on AI, only a handful of students might benefit. What about all the students & teachers of your college?

In fact, even the student enrolled in AI/ML courses DO NOT become AI ready by learning the technological aspects of AI. Your college's AI Readiness isn't about creating AI specialists… it's about preparing ALL students for an AI-dominated world! Every graduate from every program needs to be AI ready – business students, arts students, engineering students… ALL need AI Readiness skills.

<u>Myth #6:</u> AI Readiness is Only for Students - *"It is more important to make our students AI-ready. Our faculty only needs an awareness workshop on AI."*

The Reality: If your teachers do not become AI-ready, your entire transformation plan will fail. **Students learn more from what teachers DO than what they SAY.** If your faculty doesn't fully understand the impact of AI in their subjects, how can they prepare students? They will keep training & testing the students as per the old system of higher education. They cannot evolve themselves and ensure the development of critical thinking, creativity, and other AI Readiness skills.

Also, the bitter truth which every college leader knows, is that the teachers who don't understand AI's impact in depth will directly or indirectly **sabotage AI Readiness initiatives**. They will either become assets for your college or liabilities.

<u>Myth #7:</u> AI Readiness Requires New Infrastructure and Facilities - *"Now we need to build state-of-the-art AI labs with expensive equipment and computers."*

The Reality: AI Readiness for your college has almost NOTHING to do with physical infrastructure. For most colleges, except where

advanced Robotics programs are being offered, you simply need:

- ✓ Reliable Internet connectivity.
- ✓ Basic IT labs in good working condition. Most students will only need web browsers to access AI tools (most are free or low-cost).

Where SHOULD you invest your time, money and energy, instead?

In implementing the 11-point strategy given in the 'Focusing on AI Readiness Policy' (F.A.I.R Policy) for colleges, as explained in this book.

Now that we've cleared these myths, are you ready to understand what AI Readiness actually means for you?

Chapter 3

What Is AI Readiness for a College, Its Students and Teachers?

In the previous chapter we saw what AI Readiness is not. Now let's understand in detail, what it actually is.

What is “AI Readiness” for Students?

For students, “AI Readiness” is the combination of the full spectrum of **skills, attitudes, knowledge, and mental resilience** required for students' survival and success in the world which is AI-dominated and ‘VUCA’ (Volatile, Uncertain, Complex & Ambiguous). These skills are NOT primarily technical. In fact, the percentage of technical skills will be very low. The percentage of strategic or soft skills will be very high. These skills are visually represented in the **AI Readiness Skills Pyramid** further ahead in this chapter.

What is “AI Readiness” for Teachers?

This involves the **skills, knowledge, and techniques** teachers need to deliver new or upgraded courses, make the best use of new or upgraded facilities and resources, and assess students' AI Readiness. Teachers need to possess the same AI Readiness skills as students, but they also require additional capabilities and competencies. Specifically, teachers must **master five 'C' roles** – Curator, Creator, Conductor of flipped classroom, Coach, and Counselor. Furthermore, they need to be experts in **project mentoring**, given the anticipated rise in project-based learning.

What is “AI Readiness” for a College?

In the Academic Domain, AI Readiness for a college includes the **training programs, courses, physical facilities, and virtual learning resources** that are added or upgraded to ensure the AI Readiness of its students and teachers. In essence, it encompasses all measures a college must take in the academic domain to produce students who can become successful professionals in the post-AI world. This involves developing specific skills and competencies for students through changes in the curriculum, facilities like ‘AI Readiness Labs’, and making the teachers AI-Ready.

We shall talk about these in the further chapters.

In the Administrative Domain, AI Readiness for a college is about how efficiently a college utilizes AI to manage its operations such as managing HR, accounts & fees, admissions, and marketing etc. We shall not go into the details of how colleges can best use AI in their administrative processes. However, we present some useful ideas around this in Chapter-7.

Understanding the Concept of 'AI Readiness Skills' in Detail

To understand AI Readiness deeply, recall the COVID-19 days. “COVID readiness” wasn't just about masks, vaccines, or sanitizers for most people. It represented comprehensive readiness to protect oneself from threats to health & career, while taking advantage of the emerging opportunities like online education, remote working, home delivery services, and new healthcare businesses.

Similarly, AI Readiness means comprehensive preparation to protect yourself from AI-related threats while taking advantage of the vast opportunities AI is creating across all aspects of life and work.

iMature EdTech, in collaboration with ***'Humans Winning AI'***, developed a comprehensive framework specifically designed to define AI Readiness skills clearly. This framework, titled:

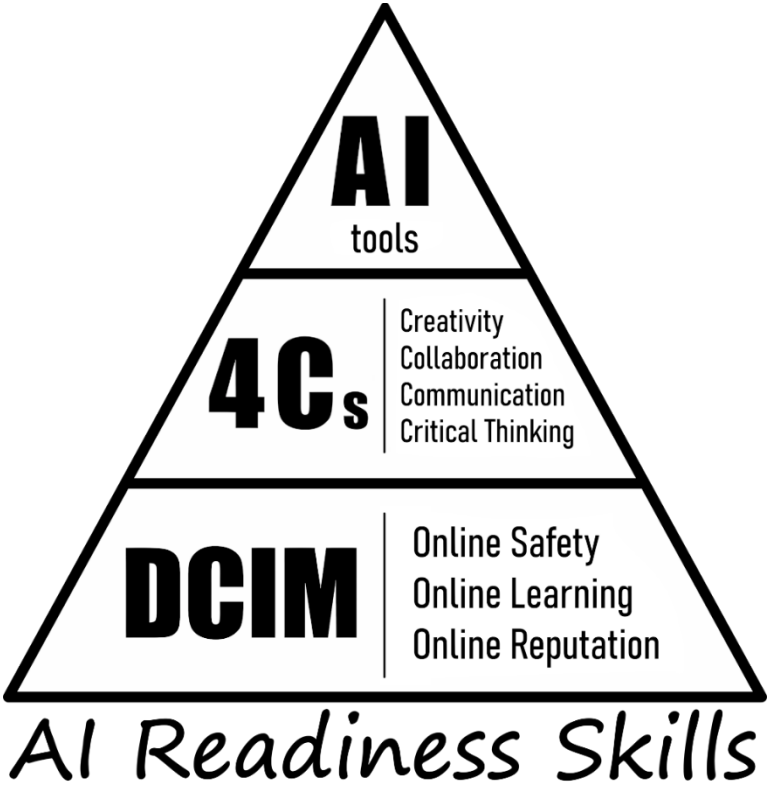
'The AI Readiness Skills Framework: A Common Minimum Framework for Upskilling Humans'

It proposes a common minimum skill-set that every human needs to survive and succeed in the rapidly evolving AI-dominated world. It addresses four key objectives, common to all humans:

1. **Stay safe** from online safety threats (which are becoming even more worse due to malicious use of generative AI).
2. **Restart a career** after losing a job due to AI.
3. **Avoid losing an existing job** amidst lay-offs caused due to AI.
4. **Be eligible for new types of jobs** that emerge in the post-AI world.

The AI Readiness Skills framework is structured as a three-level pyramid, with each level building on the foundation below to create a robust and adaptable skill set for navigating the age of AI. This framework defines the MINIMUM set of skills

needed by humans to effectively engage with an AI-driven world. It intentionally excludes domain-specific technical skills which would be different from profession to profession.

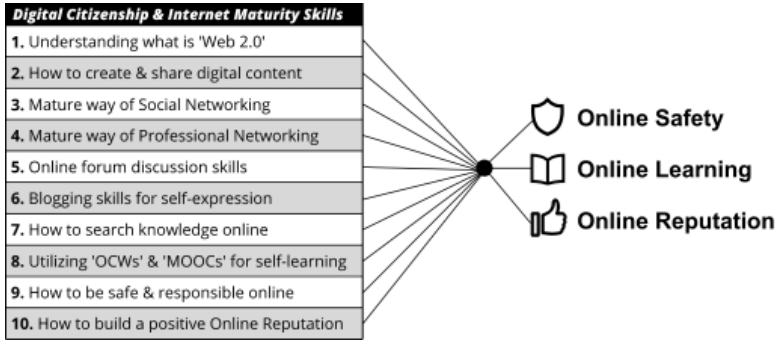


Understanding the Base Level of Pyramid in Detail – Digital Citizenship & Internet Maturity (DCIM) Skills

Digital Citizenship and Internet Maturity (DCIM) skills form the foundation of AI Readiness. These skills help people navigate the digital world SAFELY and EFFECTIVELY. As AI becomes increasingly embedded in all online interactions, strong DCIM skills serve as the foundation for developing higher-level AI Readiness capabilities.

DCIM skills represent a carefully designed collection of ten interconnected digital skills that combine to provide three major digital competencies:

- ✓ **Online Safety,**
- ✓ **Online Learning, and**
- ✓ **Online Reputation Management**.



Online Safety Skills

AI has made online safety much more complex by empowering the cyber criminals to launch sophisticated phishing attacks, create hyper-

realistic deepfake images & videos, mimic voices of anyone with high accuracy, generate code for dangerous malware quickly… the list is long. The efficiency and speed of cyber criminals to target an individual or society, using social engineering attacks or technological attacks, has been significantly boosted by AI. The entry barrier of skills for becoming a "successful" cyber criminal has been demolished by AI.

Well-established online safety best practices have become even more critical. They include exercising extreme caution when sharing personal information online especially with AI chatbots, implementing multi-factor authentication consistently, creating and maintaining strong unique passwords, keeping all software updated promptly, maintaining heightened alertness to phishing attempts, developing and maintaining healthy skepticism toward all online content, consistently verifying information through multiple reliable sources, and developing comprehensive understanding of AI-specific security risks.

These capabilities cannot be developed simply by reading a list of Do's & Don'ts or attending a few awareness workshops. They require deep understanding about the nature of threats on social media & modern-day Internet and the strategies to avoid those threats. The objective of

staying safe from AI-enhanced threats is directly addressed through comprehensive Online Safety Skills.

Online Learning Skills

AI is rapidly changing job requirements across all industries while simultaneously creating new roles that didn't exist previously. That's why the **skill of learning new skills** is SUPER-CRITICAL for career survival. In the post-AI world, the college curriculum and textbooks will perpetually remain outdated! That's simply because the change cycles of the industry have become shorter than one year and the update cycle of curricula is much longer than that. Traditional academia will never ever be able to catchup with the industry now :(

That's why the INTERNET will be the primary source for learning latest knowledge and latest skills. All professionals must commit to LIFELONG LEARNING and become EXPERT SELF-LEARNERS to keep pace with AI-driven changes in the industry. This is a fundamental shift from the traditional model of learning skills once and applying them throughout a career.

Online learning skills include developing the ability to identify trustworthy information, recognizing credible sources while avoiding

misinformation and misleading content, mastering information literacy that enables critical evaluation of online information for biases & intent, developing appropriate skepticism toward online claims, utilizing reliable fact-checking resources, and creating effective strategies for managing information overload.

Making the best use of Open Courseware, MOOCs, AI-powered learning platforms, Blogs and Discussion Forums is also a critical part of online learning skills.

Online Reputation Skills

The value of traditional college degrees in the eyes of an employer is continuously decreasing. Degree is no more a factor to judge the capabilities of a job applicant. ONLINE REPUTATION is! Almost every employer judges candidates by how they have presented themselves on Linkedin, Blog, Youtube, Facebook, Instagram etc. Employers assess their capabilities by what the candidates have shared online, not their marks on the marksheets. This trend will intensify when AI starts to conduct the hiring interviews and online reputation assessment of candidates. Obviously, a positive online reputation is a CRITICAL asset for an aspiring professional now. In the eyes of potential employers, partners, clients, and

collaborators, your online reputation equals your capabilities and trustworthiness.

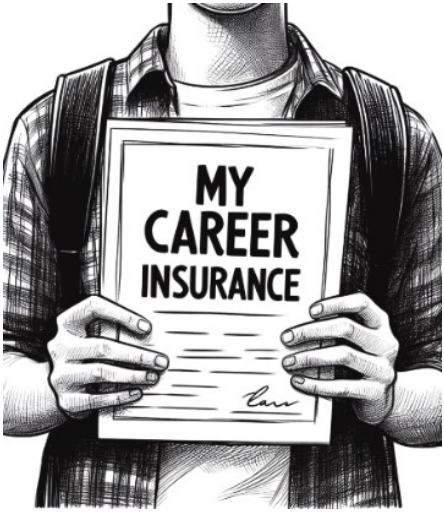
Building a positive online reputation requires strategically **showcasing** skills, achievements, and expertise on various social platforms and doing online activities to impress the potential employers or clients. It's NOT easy! We say online reputation is the *black-belt* of Internet maturity skills! Only when a student has mastered the top 9 DCIM skills, as shown in the figure above, he/she will have the maturity to **craft a positive online reputation, strategically & consistently,** across Linkedin, Youtube, Facebook, Instagram, personal Blog/Website, relevant Forums etc.

A well-managed online reputation will be the ONLY way to attract the attention of human & AI recruiters.

"Career Insurance" - The Combination of Online Learning & Online Reputation Skills.

Online learning and online reputation skills work together like a *"career insurance"* in the AI era. When someone gets laid-off due to AI-automation, online learning skills will ensure quick acquisition of new industry-relevant skills. Then online reputation skills ensure that the person is able to showcase those newly acquired skills on the Internet, to attract relevant employers or clients.

This powerful combination creates a safety net that allows for quick career transitions when facing AI-driven job market changes. The ability to continuously learn new skills and effectively communicate those capabilities to the market forms a robust mechanism for career resilience that becomes more valuable over time. This capability to restart one's career is super important for EVERYONE, as AI-induced lay-offs become a new normal.



Understanding the Middle Level of Pyramid in Detail - <u>The 4Cs</u>

On top of DCIM skills, the middle level of the AI Readiness skills pyramid includes **the well-known *4Cs* of 21st century education - Critical Thinking, Creativity, Collaboration, and Communication**.

The importance of 4Cs will be clear from a useful career hack we have created, which is…

A thumb rule for analyzing how AI-safe a job is:

If a job requires regular application of all 4Cs, it will most likely remain safe from AI automation.

Conversely, if any job can be performed effectively without frequent application of all 4Cs, it will most likely be automated by AI, very soon.

The 4Cs have long been recognized as essential for 21st-century success and have now become the BIGGEST differentiator among human and AI workers. These 4Cs are absolutely crucial for avoiding job loss due to AI adoption and for establishing eligibility for emerging job categories. Let's understand each one.

Critical Thinking

Critical thinking represents the ability to analyze information objectively, question underlying assumptions systematically, and evaluate evidence carefully. Basically, it's about asking a lot of "Whys". Now, when AI can out-perform humans in executing instructions, i.e. in the 'how'

part of any task, humans must excel in the 'why' part of tasks. That means humans must excel in taking wise decisions, making right choices (or judgement) and understand the purpose in any project. Critical thinking skill is **critical** to excel in the 'why' part of projects!

There is another reason why critical thinking skill is now critical for humans. AI generates vast amounts of information quickly and convincingly, critical thinking becomes essential for evaluating the accuracy, reliability, and potential biases present in AI-generated content. To effectively evaluate AI outputs, it requires questioning data sources and their reliability, comparing AI-generated insights with human expertise and experience, and identifying unusual patterns or anomalies that might indicate errors or biases in AI reasoning.

Human judgment remains indispensable in this context. AI should assist and enhance human decision-making processes, never replace them entirely, especially in situations requiring deep contextual understanding and complex ethical considerations. Only the humans with strong critical thinking skills can provide the ethical reasoning and contextual awareness that current AI systems fundamentally lack.

Creativity

In this context, creativity means **creative thinking, innovative thinking, out-of-the-box thinking, and problem-solving**. Humans with strong creativity can do the following two things very well:

- ✓ Finding new ways of solving a problem
- ✓ Imagining new kinds of things that can be built

Both of these capabilities are now critical for humans, because, as explained earlier, AI can out-perform humans in executing instructions, i.e. in the 'how' part of any task.

Now, even the capability of AI models to "think" creatively & innovatively is increasing every few months. They too can generate new ideas, imagine novel solutions, help overcome creative blocks, or act as a catalyst in the creative process. AI has already reached the level of becoming a **powerful creative assistant**. This makes it even more important for a human to **be better than AI at creative thinking**, providing vision, and applying contextual understanding.

The synergy between human creativity and AI creativity offers tremendous potential for innovation that was unthinkable till now.

Communication

Let's clear one big misconception about communication skills which is deeply rooted, especially in India. A vast majority of Indians have a very narrow definition of "good communication skills". They equate it to good English. Good communication is the ability to effectively convey one's views and opinions to others, ensuring that the listener understands exactly what the speaker wants to communicate, without any confusion.

It is a fundamental skill in modern workplaces for effective collaboration within and outside the teams. Poor communication creates misunderstandings that can reduce overall team productivity.

In the AI-dominated world, effective communication becomes even more important as it serves as the bridge between humans and AI systems. It enables you to convey your intentions, objectives, and specific requirements to AI models **effectively**.

The need to precisely "engineer" the prompts for AI tools is no longer necessary to get the latest LLMs to produce the desired output. But the need for clear and unambiguous instructions with clear context will always remain important.

Communication skills are also important to let the world know about your other 3Cs – Creativity, Collaboration and Critical Thinking.

Collaboration

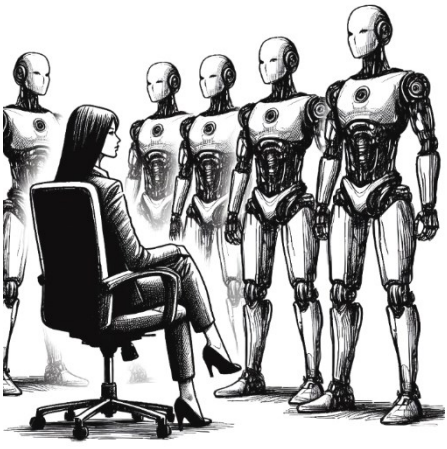
Collaboration skills are primarily about **teamwork**. This involves working effectively with others to achieve common goals.

In workplaces, effective teamwork becomes the basic requirement for successful completion of tasks. Collaboration skill is a fundamental human strength that current AI systems cannot fully replicate, despite their impressive capabilities in many other areas.

While AI can perform many individual tasks autonomously and efficiently, complex challenges require collaboration between multiple people and even AIs working together on a project.

Good collaboration requires maintaining genuine human connections, empathy, emotional intelligence, trust-building through transparency & authenticity, and seamless movement between the online and the physical world. These capabilities are difficult for AIs to master in near future.

Mastering the 4Cs makes you the "Boss of AI"!



Only the people who master the 4C skills, can become the "boss of AI". Others will have to compete against AIs in repetitive jobs and are guaranteed to lose. 4C skills make you capable of performing complex roles of a leader, a visionary, a decision-maker, a strategic planner, an entrepreneur, a risk-taker etc. In these roles you can use AI as your assistant.

Understanding the Top Level of Pyramid in Detail: Effective Use of AI Tools for Productivity

At the top of the AI Readiness Skills pyramid lies the skills to use AI tools EFFECTIVELY. The message here is to make **compulsory & effective** use of AI tools for achieving high productivity and

high quality in any project. Now we have AI tools or AI agents for almost every white-collar task.

However, simply having access to AI tools doesn't guarantee high productivity and high quality. To be truly effective with AI tools, a human must be good at the following four aspects:

1. **Output clarity**
2. **Process & workflow clarity**
3. **AI Tool selection & combination**
4. **Prompt writing**

Output Clarity

Success with any AI tool requires "output clarity" in the user's mind, which means knowing exactly what you want to achieve before prompting the tool. Vague or ambiguous prompts yield low quality or unwanted outputs. Output clarity will result into the right kind of prompts with clearly defined output, target audience, desired format, or technical requirements so that AI's output aligns perfectly with your desired output. Having output clarity requires very clear understanding of the "why" of the task.

In the world of computer programming there is a saying *"The sooner you start coding, the longer it takes"*. It means that if a programmer starts writing code without sufficiently thinking &

documenting the desired output of the code, he/she will end-up wasting a lot of time in modifying the code later. So, applying the same logic to AI tools, we can say

"The sooner you start prompting, the longer it takes"

Process & Workflow Clarity

If the task is complex or multi-step, the human will require clarity of all the steps before applying AI to the task. The proof of that clarity should be a well-documented workflow or a Standard Operating Procedure (SOP) for the task.

AI Tool Selection & Combination

The rapidly expanding AI landscape includes thousands of specialized tools for almost every knowledge task, each with their own strengths & weaknesses. Successfully selecting the right tool based on specific task requirements, cost considerations, and desired output quality becomes essential for optimal results. Like a skilled craftsman selecting appropriate tools for each job, AI users must pick the best AI tool for the specific task or sub-task. This can only be done effectively when you regularly play or experiment with lots of AI tools.

For complex and multi-step tasks, each step might require a different AI tool (or agent). This would require the human user to create a 'chains of AI tools' working together seamlessly to handle complex, multi-step processes. Based on well-designed SOPs, each AI tool performs a specific step in the overall process. Achieving high quality output with consistency with chain of tools is advanced level skill requiring serious practice!

Prompt Writing

Effective prompting is both an art and a science! It's a combination of clear articulation, keyword-rich vocabulary, and high output clarity. Well-crafted prompts include sufficient context, well-specified output format, appropriate tone, and even relevant examples. Many techniques have evolved to write effective prompts, which a user can learn from Youtube.

We must repeat what we said under communication skills section - Although the need to precisely "engineer" the prompts for AI tools is no longer necessary to get the latest LLMs to produce the desired output, the need for clear and unambiguous instructions with clear context-setting (in any language) will always remain important.

Mapping AI Readiness Skills to the Four Objectives

The comprehensive AI Readiness Skills framework is specifically designed to address four key objectives for successfully navigating the AI age, with each level of the pyramid contributing strategically to these objectives.

Objective 1: Stay safe from online safety threats (which are becoming even more worse due to malicious use of generative AI).

This objective is primarily addressed through the *Online Safety Skills* which are a part of DCIM Skills. These skills make a person ready to handle threats & risks coming from the Internet and AI.

Objective 2: Restart a career after losing a job due to AI.

Career restart capability comes through developing strong *Online Learning and Online Reputation Skills*, both of which are a part of DCIM Skills. Online Learning skills are critical for on-demand upskilling and reskilling, in response to market needs, while Online Reputation skills are critical to showcase those newly acquired capabilities to potential employers. This powerful combination acts as a **"career insurance"**, making a human resilient to frequent career disruptions.

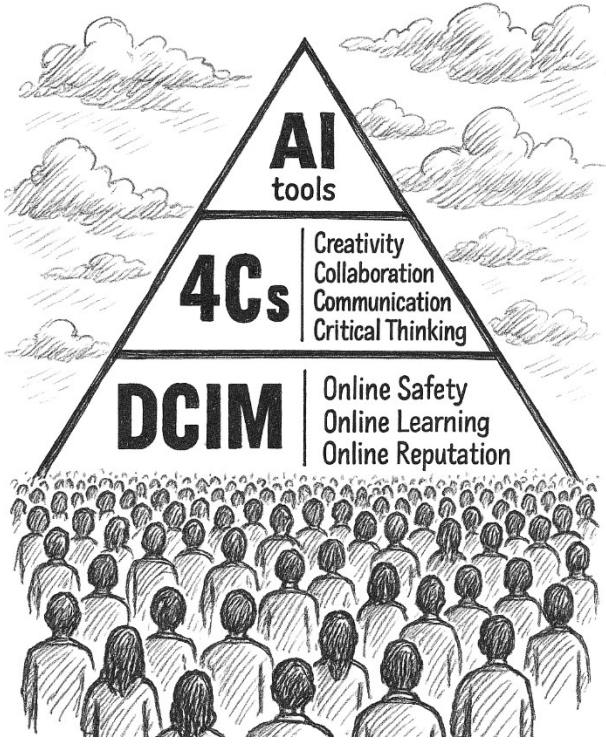
Objective 3: Avoid losing an existing job amidst lay-offs caused due to AI.

Avoiding a layoff from the job is achieved through mastering the 4Cs and developing effective AI tool usage capabilities. Mastering Critical Thinking, Creativity, Communication, and Collaboration, makes a human capable of performing non-repetitive & complex tasks which AIs cannot perform effectively. Any human having strong 4C skills will be safe from AI replacement for a long time. By also mastering the effective use of AI tools, that human would be productive by 21st century standards, and thus remain immune from job losses.

Objective 4: Be eligible for new types of jobs that emerge in the post-AI world.

The new types of jobs which emerge in the post-AI world will be complex, non-repetitive and requiring high levels of empathy & human insight. Eligibility for such jobs comes through mastering the 4C skills. The future jobs would also require very high levels of productivity & quality which would be achieved through the effective use of AI tools.

In Chapter-5 we will see how you can provide the AI Readiness Skills to your students.



EVERY student in this world needs to master the AI Readiness Skills to survive & succeed in the AI-dominated world!

Chapter 4
Start the AI Readiness Lab for Every Department

You must understand that an **'AI Readiness Lab'** is fundamentally different from an **'AI Lab'**.

In an AI Lab students typically work on technologies such as Python, Internet of Things (IoT), Machine Learning, Data Science, and Robotics. The primary purpose is for students to experiment and learn these core technologies.

In an AI Readiness Lab students experiment with the APPLICATION of existing AI tools and technologies within their specific field of learning (Law, Humanities, Engineering, Medicine, Healthcare, etc), for real-world problems or projects. The goal is to learn how to best utilize these tools effectively in real-world use cases.

Starting an **'AI Readiness Lab'** is extremely important for each department to:

- ✓ Discover the potential and utility of various AI tools in the domain.
- ✓ Understand the impact of AI on existing academic & administrative processes of the college.
- ✓ Attempt to create new products and services using AI technology.

This will positively impact the AI Readiness of your college, your students and your teachers.

The types of tools primarily used in AI Readiness Labs would be **generative AI tools**, such as:

- ✓ Large Language Models (LLMs) like *ChatGPT, Claude*, and *Gemini*.
- ✓ Deep research or reasoning modes of above LLMs.
- ✓ AI-powered image generation tools.
- ✓ AI-powered video creation tools.
- ✓ AI-powered audio and music creation tools.
- ✓ Knowledge retrieval tools like *Google NotebookLM*.
- ✓ Workflow designing tools like *N8N*.
- ✓ Vibe coding tools like *Replit* and *Lovable*.

Students in these labs will focus on applying these tools to effectively solve problems or develop projects within their respective fields.

What kind of lab facilities are required for AI Readiness Labs?

Create a nice, happy, & inspiring workspace where students would love to sit and work on their projects with their teams. This would be like a mini-incubation centre, having basic facilities like good Internet connectivity. No special computing facilities are required. However, they might require paid subscriptions to some AI tools, depending on their projects.

Should we not start an "AI Lab"?

If your students are enthusiastic about working on deep-tech projects, then certainly you must give them a well-equipped AI Lab. However, we are not discussing that in this book because such deep-tech AI capabilities are outside the scope of 'AI Readiness Skills' and are relevant for less than 0.001% students of India.

However, we would love to see deep-tech success stories from India and even feature them on *'India's Got Intelligence'* (see details at chapter-end).

Sample Experiments for AI Readiness Labs of non CS/IT departments

Law Department - Experiments for applying existing AI tools to the legal profession:

AI-Powered Legal Research & Reasoning

1. **Rapid Case Law Retrieval** – Compare time taken and accuracy when using AI-assisted search vs traditional legal databases.
2. **Multi-Case Synthesis** – Use an LLM to summarize and cross-compare multiple related judgments to identify common legal principles.
3. **Predictive Case Outcomes** – Feed anonymized past cases into AI models to explore probability of specific verdicts (academic exercise, not legal advice).

Drafting & Documentation

4. **AI Drafting of Contracts** – Generate draft contracts (e.g., NDAs, leases) using AI and evaluate compliance with local law.
5. **Clause Risk Analysis** – Have AI highlight potentially risky clauses in an existing contract.
6. **AI vs Human Legal Writing** – Compare clarity, comprehensiveness, and tone in pleadings drafted by AI vs by students.

Courtroom & Procedural Support

7. **Mock Trial Preparation** – Use AI to generate opposing arguments for moot court exercises.
8. **Automated Case Timeline Generation** – Feed case facts into AI to produce visual timelines for court presentations.
9. **Speech-to-Text Court Transcripts** – Test AI transcription accuracy on real or simulated courtroom recordings.

Client Communication & Public Legal Education

10. **Plain Language Legal Summaries** – Convert complex legal documents into layperson-friendly summaries.
11. **Multilingual Legal Communication** – Use AI translation tools to draft legal notices in multiple languages.
12. **Chatbot Legal Guidance Simulation** – Build an AI-powered Q&A bot for common legal queries (with disclaimers).

Evidence & Media Analysis

13. **AI-based Image/Video Authentication** – Test deepfake detection tools on visual evidence.
14. **Speech Emotion Analysis** – Explore whether AI can identify stress or deception in recorded testimonies (ethical discussion included).
15. **Digital Evidence Search** – Use AI to extract key data from large sets of scanned documents or emails.

Specialized Legal Domains

16. **IP Law Experiment** – Have AI draft a patent description based on a fictional invention.
17. **Tax & Compliance** – Test AI tools in interpreting complex tax codes for hypothetical business scenarios.
18. **Environmental Law** – Use AI to monitor and summarize real-time environmental regulations across jurisdictions.

Ethics, Policy, and Limitations

19. **Bias Detection in Legal AI** – Test whether AI exhibits bias in sentencing or advice across demographic factors.

20. **AI Hallucination Case Study** – Document instances where AI provides inaccurate legal information, and design safeguards.

Business Department (BBA & MBA) -

Experiments for applying existing AI tools to business processes.

Market Research & Strategy

1. **Competitor Analysis with AI** – Use AI to scrape, summarize, and compare competitors' online presence and offerings.
2. **Consumer Sentiment Mining** – Analyze social media posts using AI sentiment analysis for a product or brand.
3. **Market Entry Simulation** – Have AI propose market entry strategies for a hypothetical company in a new country.

Data-Driven Decision Making

4. **Sales Forecasting** – Feed past sales data into AI prediction models and compare accuracy with traditional forecasting methods.
5. **Dynamic Pricing Experiment** – Use AI tools to suggest real-time price adjustments based on simulated demand changes.
6. **Product Portfolio Optimization** – Let AI recommend which products to promote, retire, or reprice based on performance data.

Marketing & Communication

7. **AI-Generated Ad Campaigns** – Create a complete marketing campaign (copy, images, videos) using AI tools.

8. **Customer Persona Generation** – Have AI create detailed buyer personas from raw survey data.
9. **Brand Voice Consistency Test** – Use AI to check if multiple marketing messages maintain a consistent tone and style.

Operations & Process Efficiency

10. **Supply Chain Optimization** – Simulate AI recommendations for inventory and logistics planning.
11. **Meeting Summarization & Action Tracking** – Use AI transcription and summarization tools to manage business meetings.
12. **Process Automation Feasibility** – Identify which repetitive tasks in a simulated company could be automated with AI.

Finance & Analytics

13. **Automated Financial Reporting** – Generate quarterly reports using AI from raw accounting data.
14. **Risk Analysis** – Have AI identify and rank business risks in a given investment scenario.
15. **Portfolio Optimization** – Test AI tools for creating balanced investment portfolios under different market conditions.

Entrepreneurship & Innovation

16. **AI-Driven Business Idea Generation** – Use AI to generate and refine startup ideas based on trends and customer needs.
17. **Pitch Deck Creation** – Have AI create a professional investor pitch deck from a one-paragraph idea description.
18. **Crowdfunding Campaign Simulation** – Test AI's ability to design a persuasive crowdfunding campaign (video script, visuals, messaging).

Leadership & Human Resources

19. **AI in Recruitment** – Use AI to screen resumes and assess candidates (while discussing bias and ethics).
20. **Team Communication Coaching** – Test AI tools that analyze and improve team communication patterns.

Mechanical Engineering Department -

Experiments for applying existing AI tools to mechanical engineering use-cases.

Design & Prototyping

1. **AI-Aided CAD Design** – Use AI-powered CAD assistants to generate multiple variations of a mechanical component based on given constraints.
2. **Generative Design for Weight Reduction** – Apply AI-driven generative design tools to minimize weight while maintaining structural integrity.
3. **3D Print Optimization** – Use AI to optimize 3D printing parameters (orientation, infill pattern) for faster manufacturing and less waste.

Simulation & Analysis

4. **Stress and Strain Prediction** – Feed design data into AI-enabled FEA (Finite Element Analysis) tools and compare results with manual calculations.
5. **Thermal Performance Simulation** – Use AI-assisted simulation software to predict heat dissipation in machine parts.
6. **Fluid Flow Optimization** – Explore AI-based CFD (Computational Fluid Dynamics) tools for aerodynamic or hydrodynamic improvements.

Manufacturing & Production

7. **Predictive Maintenance** – Analyze sensor data from machines to predict breakdowns before they occur.

8. **Tool Path Optimization** – Use AI to optimize CNC machining tool paths for reduced cycle time.
9. **Production Line Bottleneck Detection** – Feed process videos/data into AI to identify inefficiencies on a simulated assembly line.

Materials & Processes

10. **AI for Material Selection** – Use AI databases to suggest the best material for a given application considering cost, weight, and durability.
11. **Failure Mode Prediction** – Predict possible failure modes of a design using AI models trained on similar product data.
12. **Surface Finish Analysis** – Have AI visually inspect machined surfaces for defects or irregularities.

Robotics & Automation

13. **Robot Path Planning** – Use AI tools to generate optimized motion paths for industrial robotic arms.
14. **Automated Quality Inspection** – Apply AI-based computer vision to detect defects in manufactured parts.
15. **Assembly Sequence Optimization** – Let AI suggest the most efficient assembly order for complex mechanical products.

Energy & Sustainability

16. **Energy Consumption Optimization** – Use AI to analyze motor performance data for efficiency improvements.
17. **Waste Reduction in Manufacturing** – Apply AI pattern recognition to production scrap data to reduce material wastage.
18. **AI-Driven HVAC System Design** – Use AI to design more energy-efficient heating, ventilation, and cooling systems.

Innovation & Future Tech

19. **AI-Assisted Patent Search** – Use AI tools to check novelty of a new mechanical invention.
20. **Digital Twin Experiment** – Create a virtual AI-driven twin of a machine to simulate performance and maintenance needs in real time.

Electrical Engineering Department - Experiments for applying existing AI tools to electrical engineering use-cases.

Circuit Design & Simulation

1. **AI-Optimized Circuit Layout** – Use AI-powered EDA (Electronic Design Automation) tools to auto-optimize PCB layouts for minimal interference and trace length.
2. **Component Selection Advisor** – Feed circuit requirements into AI to get recommended components with cost, availability, and performance data.
3. **Signal Path Optimization** – Use AI simulations to reduce noise and distortion in high-frequency circuits.

Power Systems & Energy

4. **Load Forecasting** – Apply AI time-series forecasting to predict daily/seasonal electrical demand.
5. **Smart Grid Optimization** – Use AI to simulate efficient load distribution and fault isolation in a smart grid.
6. **Energy Loss Detection** – Analyze transformer or distribution line data with AI to locate power losses.

Control Systems

7. **PID Controller Tuning** – Use AI tools to automatically tune PID parameters for better system stability.
8. **Fault Detection in Control Loops** – Apply AI anomaly detection to sensor and actuator data.

9. **Real-Time System Optimization** – Simulate AI control for a dynamic system (e.g., motor speed control under varying loads).

Electronics Manufacturing & Testing

10. **Automated PCB Defect Detection** – Use AI-based computer vision to identify soldering defects or misalignments.
11. **Component Life Prediction** – Apply AI predictive maintenance for capacitors, batteries, or semiconductors based on stress data.
12. **Yield Improvement in Production** – Feed manufacturing test data into AI to suggest ways to improve production yield.

Signal Processing

13. **AI Noise Filtering** – Use AI tools to remove noise from audio, sensor, or radar signals.
14. **Fault Detection in Waveforms** – Train AI to identify irregularities in electrical signal patterns.
15. **Image Recognition for Infrared Thermography** – Use AI to detect overheating components in thermal images.

Renewable Energy Applications

16. **Solar Panel Performance Prediction** – Use AI weather and production data to forecast energy generation.
17. **Wind Turbine Fault Prediction** – Analyze vibration and performance data with AI to anticipate failures.
18. **Battery Charge Cycle Optimization** – Let AI suggest charging strategies to extend battery life.

Innovation & Emerging Tech

19. **AI-Assisted Patent Search for Electrical Innovations** – Use AI tools to check novelty of a new electrical device.

20. **Digital Twin of an Electrical Network** – Create an AI-driven simulation of a power network for training and fault analysis.

Civil Engineering Department - Experiments for applying existing AI tools to civil engineering use-cases.

Structural Design & Analysis

1. **AI-Assisted Structural Optimization** – Use AI-driven design tools to minimize material use while ensuring structural safety.
2. **Bridge Load Prediction** – Simulate and forecast load-bearing capacity changes over time using AI.
3. **Earthquake-Resistant Design Simulation** – Use AI to evaluate building models against seismic load data.

Construction Planning & Management

4. **AI-Powered Project Scheduling** – Have AI generate optimized Gantt charts and resource allocations for a construction project.
5. **Construction Cost Estimation** – Use AI to estimate project budgets from blueprints and material lists.
6. **Delay Risk Prediction** – Analyze historical project data with AI to predict factors that may cause delays.

Surveying & Land Use

7. **Satellite Image Analysis** – Use AI to detect terrain features, vegetation cover, or urban sprawl from high-resolution images.
8. **Automated Topographic Mapping** – Feed drone survey images into AI for 3D terrain modeling.
9. **AI for Land Use Planning** – Simulate optimal zoning layouts based on population growth and environmental data.

Materials & Quality Control

10. **Concrete Strength Prediction** – Use AI models to predict compressive strength based on mix proportions.
11. **Material Defect Detection** – Apply computer vision to detect cracks, voids, or deformities in structural materials.
12. **Corrosion Risk Assessment** – Use AI to forecast corrosion rates in steel reinforcement under different environmental conditions.

Transportation & Infrastructure

13. **Traffic Flow Optimization** – Use AI simulation to design better traffic signal timings.
14. **Pavement Life Prediction** – Predict road deterioration using AI trained on climate and usage data.
15. **Bridge Health Monitoring** – Apply AI to interpret vibration sensor data for real-time safety assessments.

Water Resources & Environmental Engineering

16. **Flood Risk Mapping** – Use AI and satellite data to predict flood-prone areas.
17. **Water Quality Prediction** – Feed sensor data into AI to predict contamination levels in a water supply.
18. **AI in Irrigation Planning** – Suggest optimal irrigation schedules based on weather forecasts and soil moisture data.

Innovation & Sustainability

19. **Carbon Footprint Estimation** – Use AI to calculate and suggest ways to reduce emissions for a given project.
20. **Digital Twin of a Construction Site** – Create a real-time AI-driven simulation for monitoring and planning.

Architecture Department - Experiments for applying existing AI tools to architecture & design use-cases.

Conceptual & Creative Design

1. **AI-Generated Design Variations** – Use AI image generation to produce multiple conceptual designs from a single brief.
2. **Generative Floor Plans** – Input space requirements and constraints into AI tools to generate multiple optimized layouts.
3. **Facade Design Exploration** – Use AI to suggest creative facade patterns and materials based on climate and cultural context.

Visualization & Presentation

4. **AI-Enhanced Renderings** – Use AI tools to convert basic 3D models into photorealistic renders.
5. **Historical Style Adaptation** – Generate building designs in the style of different architectural eras using AI.
6. **Immersive Walkthrough Creation** – Convert 2D plans into AI-generated VR walkthroughs for client presentations.

Structural & Environmental Simulation

7. **Daylight & Shadow Analysis** – Use AI simulation tools to optimize building orientation for natural light.
8. **Wind Flow Simulation** – Test AI-driven CFD tools to improve building aerodynamics.
9. **Thermal Performance Prediction** – Use AI to model heat retention and cooling needs of a building.

Urban Planning & Landscape Design

10. **AI-Powered Urban Massing Studies** – Generate optimal city block layouts considering height restrictions, zoning, and sunlight.
11. **Green Space Optimization** – Use AI to plan green areas for maximum environmental and social benefit.
12. **Traffic & Pedestrian Flow Simulation** – Test AI models for movement patterns in public spaces.

Construction Planning & Costing

13. **AI-Based Material Suggestions** – Get AI recommendations for sustainable, cost-effective building materials.
14. **Construction Timeline Prediction** – Use AI to forecast potential delays based on historical data.
15. **Cost Estimation from 3D Models** – Have AI auto-generate cost breakdowns from BIM (Building Information Modeling) files.

Heritage & Cultural Applications

16. **AI Restoration Proposals** – Use AI to suggest restoration designs for heritage buildings.
17. **Cultural Design Adaptation** – Generate building concepts that incorporate local cultural and historical elements.

Sustainability & Smart Buildings

18. **Net-Zero Energy Design Simulation** – Use AI to test whether a proposed design can achieve energy self-sufficiency.
19. **Smart Home Feature Integration** – Let AI suggest IoT and automation features based on client lifestyle needs.

Innovation & Future Trends

20. **AI-Generated Architectural Trends Report** – Use AI to scan global publications and predict upcoming architectural trends.

Agricultural Science Department - Experiments for applying existing AI tools to agricultural research, practice, and management.

Crop Monitoring & Yield Prediction

1. **AI-Based Crop Yield Forecasting** – Use satellite and weather data to predict harvest quantities.
2. **Plant Health Detection** – Apply AI-powered image recognition to detect nutrient deficiencies, diseases, or pest damage.
3. **Growth Stage Monitoring** – Use drone imagery and AI to automatically classify crop growth stages.

Soil & Resource Management

4. **Soil Quality Analysis** – Use AI to analyze lab test data and recommend optimal fertilization plans.
5. **Irrigation Optimization** – Have AI suggest watering schedules based on soil moisture sensors and weather forecasts.
6. **Fertilizer Usage Optimization** – Use AI to determine the most efficient nutrient application for different field zones.

Pest & Disease Management

7. **AI Pest Identification** – Identify pests from photos taken in the field using AI models.
8. **Outbreak Risk Prediction** – Use weather, soil, and historical data to forecast pest or disease outbreaks.
9. **Biological Control Planning** – Let AI recommend natural pest control strategies based on field data.

Climate & Environmental Applications

10. **Climate Change Impact Simulation** – Model how shifting climate patterns could affect crop productivity.

11. **Flood/Drought Risk Mapping** – Use AI and satellite data to identify high-risk agricultural areas.
12. **Carbon Footprint Calculation** – Estimate the greenhouse gas emissions from specific farming practices using AI tools.

Farm Operations & Economics

13. **Market Price Prediction** – Use AI models to forecast commodity prices for better selling decisions.
14. **Farm Equipment Maintenance Prediction** – Predict when tractors, harvesters, or pumps will require maintenance.
15. **Labour Scheduling Optimization** – Let AI allocate labor for planting, harvesting, and maintenance tasks efficiently.

Precision Agriculture

16. **Variable Rate Technology (VRT) Simulation** – Use AI to plan site-specific seeding or fertilizing.
17. **Weed Detection & Mapping** – Apply AI to drone images for identifying weed-infested zones.
18. **Multi-Crop Rotation Planning** – Have AI suggest crop rotation schedules for improved soil health.

Innovation & Future Farming

19. **AI-Generated Vertical Farming Layout** – Use AI to design optimal layouts for indoor farming systems.
20. **Smart Greenhouse Climate Control Simulation** – Simulate AI-driven automation for temperature, humidity, and light control.

Psychology Department - Experiments for applying existing AI tools to psychological research, therapy, and assessment.

Cognitive & Behavioral Research

1. **Sentiment Analysis of Patient Narratives** – Use AI to analyze patterns in patient diaries or therapy transcripts.
2. **Reaction Time Data Analysis** – Feed cognitive test data into AI to identify trends and anomalies.
3. **AI-Based Behavioral Pattern Detection** – Analyze wearable device data (e.g., activity, sleep) to find correlations with mood changes.

Mental Health Screening & Support

4. **Automated Depression Risk Assessment** – Use AI questionnaires to flag potential cases for follow-up.
5. **Voice Analysis for Mental Health Indicators** – Apply AI to detect stress, anxiety, or emotional strain in speech samples.
6. **AI Chatbot for Emotional Support Simulation** – Create a controlled chatbot for practice in delivering psychological first aid.

Therapy & Counseling Applications

7. **AI-Assisted CBT Session Planning** – Use AI to suggest tailored cognitive-behavioral therapy exercises based on case notes.
8. **Therapy Progress Tracking** – Apply AI to compare therapy session transcripts over time for progress indicators.
9. **Role-Playing with AI** – Use AI personas to simulate patient interactions for counselor training.

Educational & Training Tools

10. **AI-Generated Case Studies** – Create realistic psychological case scenarios for classroom discussion.
11. **Emotion Recognition in Videos** – Have AI tag facial expressions in therapy role-play recordings.

12. **Cultural Bias in AI Psychology Tools** – Test how AI-based assessment tools perform across cultural backgrounds.

Research & Data Analysis

13. **Meta-Analysis Automation** – Use AI to scan, summarize, and synthesize findings from hundreds of research papers.
14. **EEG/Brain Imaging Data Interpretation** – Apply AI to detect abnormal neural activity patterns.
15. **Personality Trait Prediction from Text** – Use AI to analyze written text for Big Five personality indicators.

Community & Public Mental Health

16. **Crisis Trend Detection** – Use AI social media monitoring to detect early warning signs of mental health crises in communities.
17. **Public Health Campaign Optimization** – Let AI test different messaging styles for mental health awareness campaigns.
18. **Stigma Reduction Content Generation** – Use AI to create culturally sensitive materials to address mental health stigma.

Ethics & Limitations

19. **Bias Detection in Mental Health AI** – Investigate whether AI-based assessments produce biased outcomes for certain groups.
20. **AI Hallucination Risk in Psychological Advice** – Study cases where AI-generated mental health information may be misleading and propose safeguards.

Want more ideas?

Use this prompt to discuss with AI to get more ideas for AI Readiness lab experiments:

My university wants to start an "AI Readiness Lab" in the department of [DEPARTMENT NAME]. In this lab students of [DEPARTMENT NAME] would be experimenting with application of existing AI tools in their domain. They would experiment with all kinds of AI tools - LLMs (with their deep-research and reasoning modes), images generation, videos generation, voice processing, music generation, knowledge retrieval etc. However, a very important distinction is that an "AI Readiness Lab" is NOT an “AI Lab” where students work on AI technologies such as python, IoT, robotics, data science etc. Give a list of 20 examples of the kind of experiments which can be run in the AI Readiness Labs of the [DEPARTMENT NAME] department.

Sample Experiments for AI Readiness Labs of Computer Science and IT related Departments

(B.E. CS & IT, B.C.A, M.C.A, or M.Sc Computer Science etc)

Experiments for *applications* of AI tools in computer science, information technology, software engineering, computer networking etc. Building of new AI tools or technologies shall be outside the scope of this lab.

1. **Advanced Prompt Engineering & Workflow Automation** – Building complex multi-step AI workflows using prompt chaining, structured outputs, and function calls.
2. **Hands-on with Proprietary LLMs** – Leveraging GPT-4.1, Claude 3, Gemini Ultra, and other cutting-edge proprietary models for coding, documentation, and debugging.
3. **Working with Open-Source LLMs & Custom Hosting** – Using models like Llama 3, Mistral, Mixtral, and DeepSeek for in-house secure applications.
4. **Generative UI/UX Design Tools** – Using AI to instantly generate front-end prototypes, design systems, and responsive layouts.
5. **AI Code Generation & Refactoring** – Applying AI coding assistants (e.g., GitHub Copilot X, Codeium, Tabnine) for rapid development and legacy code modernization.
6. **AI-powered QA & Testing** – Automating unit tests, regression tests, and bug detection using AI testing agents.
7. **Text-to-App Development** – Converting natural language descriptions into working web/mobile applications using AI platforms like Replit AI, Bolt.new, or Vercel AI SDK.
8. **Multi-Agent AI Systems** – Orchestrating coding teams of AI agents for end-to-end software development (AutoGen, LangGraph).
9. **Domain-Specific AI Search & Knowledge Retrieval** – Building RAG-based internal developer documentation assistants.
10. **Automated DevOps with AI** – Using AI to optimize CI/CD pipelines, cloud deployments, and security checks.
11. **AI in Cybersecurity** – Threat detection, phishing simulation, and vulnerability scanning with AI security tools.

12. **Generative Media for IT Communication** – AI videos, voiceovers, and visuals for product demos, onboarding, and tutorials.
13. **AI for Database Management** – Query generation in natural language, schema optimization, and anomaly detection in datasets.
14. **Conversational AI Interfaces for Software Products** – Integrating AI chat/voice agents into applications for support and data access.
15. **Vibe coding for App Prototyping & Development** – Using AI-enhanced builders such as Lovable, Replit, Cursor etc to develop advanced software applications.
16. **AI for API Development & Integration** – Automatically generating API endpoints, documentation, and test scripts.
17. **Intelligent IT Service Management** – AI-powered ticket classification, resolution suggestions, and trend analysis.
18. **AI for Network Monitoring & Optimization** – Real-time traffic analysis and automated scaling decisions.
19. **Ethical AI Application Review** – Auditing AI-driven products for bias, hallucination risks, and compliance with AI Act/GDPR.
20. **Cross-Departmental AI Collaboration Projects** – Partnering with non-CS departments to design AI solutions (law, business, engineering) and deploying them as working prototypes.

Want more ideas?

Prompt to discuss with AI to get more ideas for AI Readiness lab experiments:

My university wants to start an "AI Readiness Lab" for the Computer Science and IT department. In this lab students of

computer science & IT courses would be experimenting with application of existing AI tools in their domain. They would experiment with all kinds of AI tools - LLMs (with their deep-research and reasoning modes), images generation, videos generation, voice processing, music generation, knowledge retrieval etc. However, a very important distinction is that an "AI Readiness Lab" is NOT an “AI Lab” where students work on AI technologies such as python, IoT, robotics, data science etc. Give a list of 20 examples of the kind of experiments which can be run in this AI Readiness Lab.

Make your students’ projects shine at IGI. Students who develop high-quality projects in your AI Readiness Labs can get the chance to **participate in "India's Got Intelligence" (IGI). It’s a platform to showcase the best AI use-cases and AI based innovations. It’s also** a tremendous opportunity for students to **become visible to potential employers and investors!**

Even your college can organize IGI. To know more, see Appendix B – India’s Got Intelligence or visit *https://aireadinessskills.com/igi*

Chapter 5

Make Your Students AI Ready

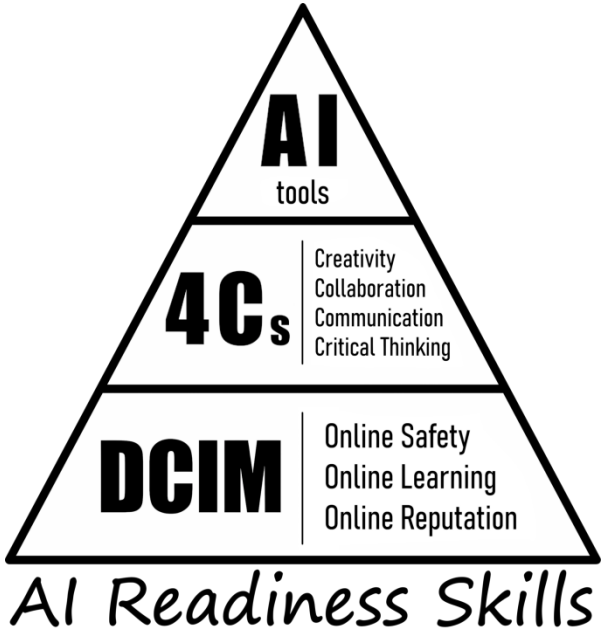
Colleges have a vital responsibility to prepare their students for the future. Failing to make students AI ready will result in a **lose-lose situation** for both the students and the colleges. Without AI Readiness skills, students will most certainly remain jobless or settle for blue-collar jobs. They might not succeed even as entrepreneurs in an **AI-dominated** world.

As described in Chapter-1, The world is already 'VUCA' and AI will make it even more 'VUCA' – *Volatile, Uncertain, Complex & Ambiguous*. This includes rapid technological advancements, political instability, and business instability. To survive in a VUCA world, students require specific core skills, particularly **very strong self-learning skills**. This means they must be able to **reskill and upskill themselves** to adapt to new situations as needed. If colleges do not prepare students for the VUCA and AI-dominated world, they will certainly lose their relevance in society and their market value.

The process of making students AI ready involves mastering the entire **AI Readiness Skills Pyramid**.

AI Readiness Skills – A Quick Overview

We presented the concept of "AI Readiness Skills" in detail in Chapter-3. In this chapter we will focus on HOW your students can acquire those skills effectively. Below is a quick refresher:



The Base - Digital Citizenship & Internet Maturity (DCIM) Skills include three main competencies:

1. **Online Safety**:
2. **Online Learning**:
3. **Online Reputation**:

Combination of Online Learning and Online Reputation skills are like **"career insurance"** for your students. If AI causes job displacements, proficiency in online learning enables rapid acquisition of new skills, while a strong online reputation helps in showcasing these new skills to secure fresh opportunities, facilitating recovery.

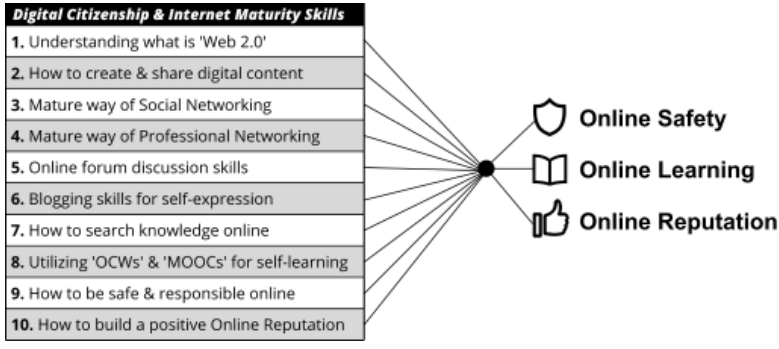
The Middle - The 4Cs (Critical Thinking, Creativity, Collaboration, and Communication). Mastering these 4Cs empowers students to become the **"boss of AI"**, leveraging it as a tool rather than being replaced, thereby assuming roles as planners, problem-solvers, and leaders.

The Top - AI Tools Skills are not just about using AI tools, but possessing the skills to utilize them well. This includes:

- **Output clarity**
- **Process & workflow clarity**
- **AI Tool selection & combination**
- **Prompt writing**

How to Teach DCIM Skills to Students

To impart Digital Citizenship and Internet Maturity (DCIM) skills, colleges are advised to adopt the **open curriculum developed by iMature**. Visit *https://imature.in* to download the free curriculum. For teaching the DCIM subject to students, colleges can develop their own learning resources based on that curriculum or utilize the learning resources created by iMature.in or other organizations. Basically, DCIM skills are a combination of **10 digital skills:**



Start a 'DCIM Club' in Your College

A *'Digital Citizenship & Internet Maturity Club'* in your college can be very helpful in teaching the DCIM skills effectively to all students. It is a team of students & teachers, officially recognized by the college administration to work on activities suggested in the DCIM Club Toolkit. Download the FREE toolkit from *https://imature.in*.

SERIOUS Side Effects of Teaching DCIM and Running a DCIM Club in Your College!

Be very careful while starting DCIM as a subject for your students and starting a DCIM Club in your college. It can be dangerously progressive and give your college serious benefits which you might not be able to believe as true. It can:

- **Improve your college's online reputation**
- **Reduce your digital marketing costs to near zero**
- **Boost your website's Google rank for free (SEO)**
- **Create a highly skilled in-house social media team**
- **Get loads of content for your college magazine**
- **Ensure digital discipline among students**
- **Protect your college from cyber-legal risks**
- **Make your students better online learners**
- **Earn lots of goodwill from the parents**
- **Lay a strong foundation for your AI Readiness**

To minimize the above side effects, start the DCIM subject and the DCIM club in your college but do not give too much importance to it. It can be too beneficial!

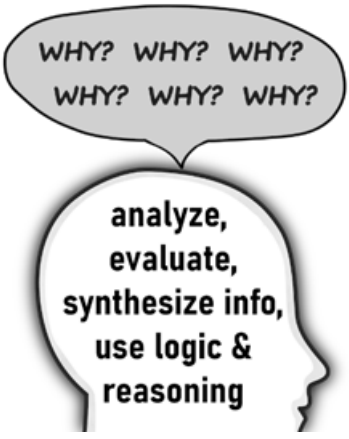
How to Develop the 4Cs Skills of Students

There is ONLY ONE WAY to develop the 4Cs *(Critical Thinking, Creativity, Communication, and Collaboration)* - **PROJECTS, PROJECTS, & PROJECTS**. Let your students do a lot of projects. Tell them projects are **more important** than marks on the marksheets. Traditional classroom activities or instruction cannot develop 4C skills, only projects can.

Projects do not necessarily have to be technical (such as apps, software, or robots). They can be social and commercial too. For example, a humanities student undertaking a research-based, problem-focused project on infant health in a village will certainly develop 4Cs skills through this process.

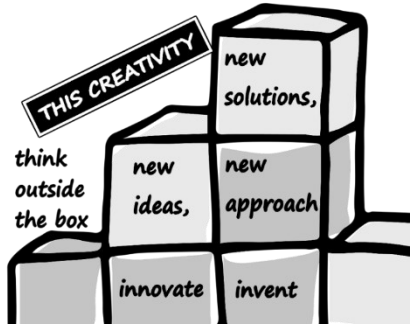
It's important to note that all projects must:

- ✓ **be around problem solving or innovating**
- ✓ **utilize the 'Design Thinking' method**
- ✓ **culminate with a detailed blogpost or vlog for showcasing to the world**



Critical Thinking will emerge when a student confronts a challenge or problem and is compelled to think critically to find a solution. It's about thinking in a "Why, why, why" mode. Just like swimming, critical thinking cannot be learnt inside a classroom. One must enter the water.

Creativity here is not about art, but about **creative thinking, innovative thinking, and thinking out of the box**. It's about finding solutions to problems by exploring paths previously untrodden. This kind of thinking emerges ONLY when students directly face problems and challenges. Like critical thinking, creativity too cannot be learnt inside a classroom. It can only sprout inside a brain while struggling to make projects successful.



Communication is a sad story in India. Most colleges and schools in India have failed to teach communication skills. They use methods like language labs or English classes and achieve nothing. That's because they fundamentally misunderstand the concept. Communication is a **skill of expression & listening**! It's not a subject to be graded and it's definitely not about the ENGLISH language. It develops through **meaningful conversations** and interacting with others. Only projects can force students to conveying necessary information (and listen) to team members, customers, investors, regulators, or even AI.

About **Collaboration**, do we even need to explain that teamwork skills can only be learnt by actively **working inside a team** for a long time?

It is crucial to understand that the **4Cs skills are unimaginable without projects**, and a career is unimaginable without the 4Cs skills. Don't let your students "waste" a lot of time inside a classroom staring the black/white board.

How Students Can Learn to Make the Best Use of AI Tools

Mastering the use of AI tools does not require technical skills or specialized technical training. Instead, the following four aspects decide how effectively you will be able to use a tool:

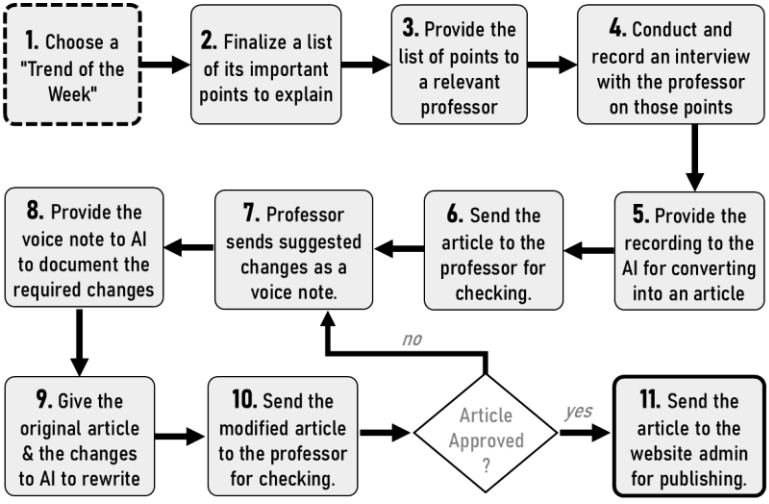
- **Output clarity**
- **Process & workflow clarity**
- **AI Tool selection & combination**
- **Prompt writing**

All the above four aspects can be mastered only when students are utilizing AI tools for their projects, not by casually playing with the tools.

Developing output clarity among students: Working on real-world problem-solving projects forces students to define clear & measurable outcomes rather than abstract goals. They have to specify the project objectives, deliverables, target audiences, success metrics, and constraints for the project. All of this is part of output clarity. Classroom teaching can never achieve that.

Developing process & workflow clarity among students: Real-world projects span more than a few weeks and therefore involve multiple steps with dependencies, deadlines, and quality checkpoints that students must manage. Unlike academic assignments, which are usually single-task and short-term, projects involve complex processes. Thus, real-world projects are the only way to develop the process & workflow clarity.

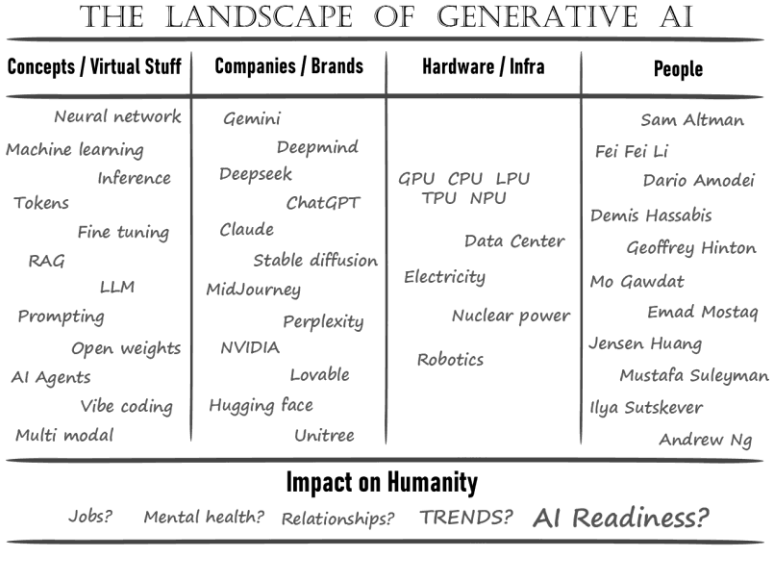
Here is an example of a workflow of how a team of students can write expert-level blog articles for your college website, on a regular basis.



Practising AI Tool selection & combination: Real-world projects would force students to strategically use multiple AI tools for various sub-tasks of the project. Students must have a good General Knowledge of the AI landscape to pick the best AI tools available. Students will need to familiarize themselves with various concepts, companies, businesses, and organizations within the AI domain. They will also need to know the essential **technical terms**. Even a humanities student, for instance, must broadly know what *Large Language Models* are and how they differ from *Image Generation Models*. This level of knowledge is now as fundamental as understanding the core differences between electric, petrol, and diesel cars. Without this

general knowledge of the AI world your students will not be able to become confident users of AI.

Here is a simple graphic showing the Generative AI landscape. Students must know the meaning or significance of each of these terms and names.



Developing prompt writing skills: When students use AI for completing their assignments, they can give casual prompts to AI and submit anything generated by AI. It would usually get accepted by the teacher. Most likely, it might also get a passing grade from the teacher. But when they have to use AI for project work, casual prompting would not work. They will have to

struggle to get their prompts right. And that struggle will teach them how to write good prompts. In Chapter-3 we mentioned that good prompt writing is…

"…a combination of clear articulation, keyword-rich vocabulary, and high output clarity. Well-crafted prompts include sufficient context, well-specified output format, appropriate tone, and even relevant examples."

Students will be able to add all of those necessary details in their prompt, only when they are fully involved in a real-world project.

Add some excitement & glamour to AI Readiness Skills with IGI!

India's Got Intelligence can serve as a highly effective **motivational tool for students** to become AI ready and undertake excellent projects. This is because students are drawn to entertainment, and IGI offers an engaging and entertaining way to inspire them.

It's also a tremendous opportunity for them to **become visible to potential employers and investors!**

Even your college can organize IGI. To know more, see Appendix B – India's Got Intelligence or visit https://aireadinessskills.com/igi

Chapter 6

Make Your Teachers AI Ready

The primary reason for colleges to invest in making their teachers AI-ready is straightforward. If the college management wants their teachers to be their ASSETS, it is **compulsory for them to become AI-ready**. If teachers remain stuck in their traditional skills, mindsets, and teaching methods, they will become severe LIABILITIES for the college – insecure, resistant to change, and negatively influencing the college's transformation towards becoming an AI-ready institution.

Students' AI Readiness cannot be achieved without Teachers' AI Readiness.

Beyond "Just Teaching" – Mastering the '5C Roles'

"Just teaching" can be done much better by AI. In this new era, only a teacher who can ENGAGE her students in the learning processes and activities is required. Students love to attend lectures of such teachers and get involved with them in various activities.

To ENGAGE students successfully, a teacher will need to play the "5C roles".

If a human teacher does not **TRANSFORM** into a combination of a Creator, a Curator, a Conductor, a Coach, and a Counsellor, they will surely be replaced by an AI teacher.

Search for *"Alpha School Texas by Mackenzie Price"* on Youtube and see with your own eyes, the direction in which the world of education is going. The fundamentals of teaching are changing drastically. It's no longer just about delivering lectures or conducting typical classes, but about effectively playing these 5C roles.

1. Creator of Content:

In this role, the teacher shall be **creating lots of digital content** such as videos, blog articles, and presentations on their subject. This requires proficiency in creating digital content using both traditional software and AI tools. Additionally, teachers must also possess the skill of **effectively sharing this content online**, which involves understanding content searchability and intellectual property concepts like 'Creative Commons Licences'.

2. Curator of Content:

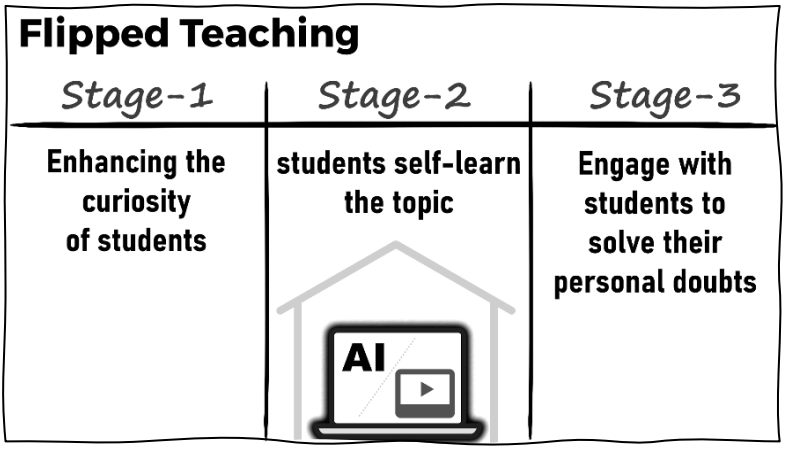
As a curator, the teacher will actively **search for and select high-quality learning resources from the Internet** for their students. These resources

include videos, MOOCs (Massive Open Online Courses), apps, tools, and AI tutors. This will be the most active role for teachers due to the millions of high-quality resources already available online. To excel, teachers must be experts in using search engines like Google or Perplexity to find quality resources and possess deep knowledge about MOOCs, OCWs (Open CourseWare), learning apps, and AI tools relevant to their subjects.

They also need to **develop a strong professional network of educators** to discover the new best practices for utilizing these resources. Furthermore, a curator must ensure that proper credit is given when sharing online resources to avoid any kind of plagiarism.

3. Conductor of Flipped Classrooms:

This role involves **conducting flipped classes**, where students engage in self-learning at home using content created or curated by the teacher. Flipped teaching is a three-stage process:



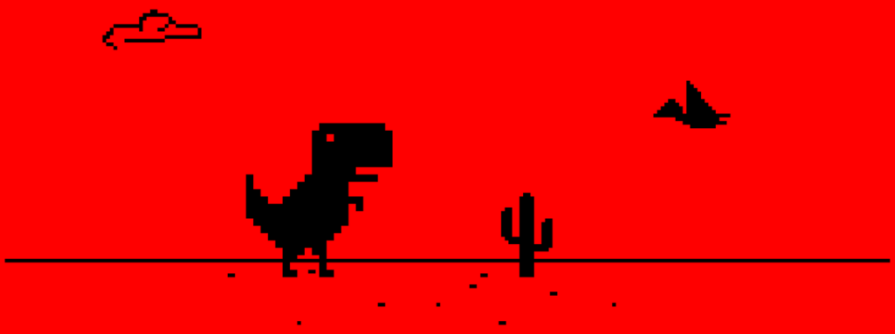
▪ **Stage 1**: The teacher enhances students' curiosity and hunger for the topic **in class**, making the best use of created or curated content.

▪ **Stage 2**: Students self-learn the topic **at home** using videos, AI tutors, online courses, or other learning resources, recording their doubts in notebooks or online forums. The teacher should have first-hand experience with these online courses and AI tools.

▪ **Stage 3**: Finally, in the classroom, the teacher engages with students to address their doubts, assist with practice exercises and conduct

Pages 101 to 210 not included in the free preview.

You can buy the book from *https://aireadinessskills.com*



AI has issued a threat
to all colleges. It says
"If you are not F.A.I.R,
you won't be there"
(F.A.I.R = Focusing on AI Readiness)

This book is a part of the
'AI Readiness Skills Mission' by

iMature.in & HUMANS WINNING AI

https://aireadinessskills.com