

FOUNDATION OF DIGITAL BUSINESS

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Week 08

Lecture 38

Lecture 38: Gen AI - New Frontier for the Future of Work

Good morning. In my last module of this course Future Ready Organization, I will talk about Gen AI which is a new frontier for the future of work. Gen AI is getting so much of prominence that it is impacting or influencing all other most areas of business, most functional areas of business is getting touched by the potentialities of Gen AI. Now, I will talk about little bit about new frontiers for the future of work and a new way to run the business with Gen AI. So, it will change how we work and what skills we need and it is happening faster than we expect.

It is coming like a tsunami. So, you can see the effect of Gen AI almost everywhere starting from as low level as a school student for example. They are also becoming familiar and the tool is it is ubiquitous, it is easily available to anybody and everybody. You have a smart phone, a device, a tab or a computer access to a computer and internet of course, and you have GenAI as a tool at your hand free of cost. You can do most of your work, your assignments, school work, education related work, projects, anything and of course, your search like the whole Wikipedia, whatever the entire Wikipedia, the entire knowledge database is almost literally at your hands.

So, anything you want to know, anything you want to find out, any music you want to hear, any picture you want to see, any art you want to see, everything is available at the touch of a key literally. So, I am referring to a IBM study that IBM institute for business value, they have detailed study and I will be referring my talk based on this study. What they are saying is that generative AI is all about people, how work gets done. That is why I am covering this in my session on this future of work. Because future of work is all related to people it is all entirely it is a people dimension, how we are going to get

impacted in our work life, work culture, work atmosphere, work ecosystem whatever you may call it.

Most CEOs are overly optimistic about the organization's readiness for generative AI which may not be true, the organizations may not be ready because people may not be enough or literate enough in these tools and technologies and the pitfalls. The most important is to know what can go wrong because if you trust a tool too much you can head into trouble. Creativity is the must have generative AI skill. You need to be very creative in how you handle the tool.

It is easy to say just prompt, type anything and it gives an answer. But type anything if it is not the right thing it will give you a wrong answer and you will need to know that yes this answer is not right. Otherwise you will have problems. Just imagine if you are submitting an assignment and you are supposed to be graded on that assignment and whatever you have submitted is not right, because you do not have that particular generative skill prompt, correct prompt etcetera and you get F grade or whatever you do not score well in that assignment. The three things which every reader needs to do right now.

Make people not technology the central to your generative AI strategy. So, as a CEO you must have a strategy on what the road map you want to follow for use or application of gen AI in your business. What IBM is saying that make people the core the central to the strategy not the technology. The technology is there, but you have to think about the people dimension. Be specific in the application of gen AI and the benefits you expect,

and rethink your operating model to unlock creativity. I have a huge resource of data, a huge data warehouse, a storehouse of data, and information available in my depositories in various forms, but all digitized, of course. How can I unlock information or insights—useful insights—from this ocean of data? For that I need to be creative that is what they are saying just blindly searching get me this get me that will not give you the desired result or output. Talking about the workforce, equipping the AI workforce, your existing resources will be an integral part.

But their roles will need to change. So, you have to reskill. So, immediately, we are talking about reskilling or bringing in AI literacy—or whatever you want to call it—so that your designations, specializations, or the nomenclatures of the roles will look something like this. Data scientist, software developer, data analyst, legal risk and

compliance, data security and protection, business analyst, DevOps and cloud engineer, data engineer, solutions architect, and

It also gives the skills they would need to know. Let us take a data scientist. So, they would need to know about LLMs, deep learning, model fine-tuning, drag, etcetera. So, all those skills which you need to use your JINI tools. A data engineer would need to know about data extraction, security, database systems, data processing, etcetera.

So, it gives all the next level of skills which will be required by these resources. Continuing on equipping the AI workforce, the demand for AI skills, you have a development skill set, you have an AI skill set overall and then you need a domain skill set. So, if you come to the domain part, the business part sector and domain experts should prioritize enhancing their skills in prompt engineering. So, these are the people who will be actually using prompt engineering. So, gen AI engineer will be doing all this fine tuning, LLM, AI agents, AI apps, AI orchestration,

model monitoring, benchmarking, prompt score, prompt engineer will be giving the text inputs, syntax, user design, prompt quality. So, this is very key in getting the desired output from your Gen-AI tools. The prompt engineer will be playing the role. most important role. Responsible AI, I have just been talking in my previous class, AI governance, AI risk assessment etc.

They will be also be playing a very important part in the overall process of model development and execution and making it commercial use. And then of course, you have annotators and testers etc. So, these are the various skills you will need for the domain and skill set. So, coming back to that people dimension, making people not the technology central to your AI strategy, the idea is comes from the perspective that gen AI is not going to replace people. But you have to keep in mind that people who use generative AI are replacing people who

So, you have to train your people, educate your people that you need to know about Gen AI and start using it in your workplace. Elevate HR from purely administrative; your HR team will have a strategic role in building this Gen AI-enabled workforce of the future. So, it is a huge work in reskilling the entire enterprise. So, we are talking about the entire enterprise—all employees, not just specific employees of, say, the IT department or the CIO's team. It is the entire workforce; the organization needs to be skilled in the use of Gen AI technology. Develop a formal, transparent, people-focused change management initiative. That identifies where Gen AI testing adoption is underway

and provides continuous feedback across the enterprise about use cases, successes, failures, lessons learned, etcetera. I mean, talking about this in my previous session also, that change management is a very important dimension of this entire transformation journey because whenever you bring in new technology, new processes, new tools, new measuring methods, new KPIs, new vision, people get worried about the change aspect—what is going to happen to them, will they be able to cope up and learn adequately the new technology and get accepted in the organization as they are currently, or whether there will be a setback or they will be found to be deficient or not able to cope up with the new technology, the new ways of working, the new world. So, am I going to become a kind of misfit in this new scheme of things?

This is a very natural feeling, which will be felt by or affect maybe a large portion of the population— maybe 80-90 percent of your employees will get worried when this new technology onslaught comes, and they will be reading all sorts of news in the media. That organizations are laying off people, automation is bringing in some loss of skills, some skills are no longer required, etcetera. All of these feeds and news through social media, WhatsApp, Facebook, the internet news will add to this worry quite natural. So, you have a job, you CEO, you have a job to do.

Communicate and educate the people and make them overcome this fear element. Otherwise it will be very difficult for you to proceed with your plan and strategy. Also try to avoid the buyers remorse. So, make sure you have a model for ethical use of generative AI with clear standards, guidelines and expectations and share this with your people across the enterprise. People have to be told that the tool they are going to use is a genuine one, is reliable one and can be trusted upon.

So, that trust part is extremely important. Am I going to use a tool which I may not be able to trust, then I will not use it or if I trust I will freely use it. A classic example is the UPI. You are trusting that tool everybody is trusting. The whole mass is trusting the tool and they are sure that they would be scammed or they would be a fraud or their money will not be lost or the bank account will not be scammed.

And no major case has been reported so far. And that is the reason why you find UPI being used at all levels from CEO down to the lowest a vegetable vendor on the road, a tea stall owner on the road, a rickshaw puller on the road, an auto driver on the road, a taxi driver on the road, every literally every Tom, Nick and Harry is using this single IT tool. Whosoever has a smartphone and a bank account and other number of course, you

can use this tool and are using this tool. That is the proof that a technology if you can trust the technology and it delivers that trust in the sense there is no other no scams have happened, no mishaps have happened,

no bad experiences have happened, it becomes more and more popular. Be specific in the application of Gen AI and the benefits you expect. So, to establish performance based compensation and rewards that align with the business goals to maximize the generative AI readiness amongst your staff. Can you incentivize your team to participate in this activity? The initial resistance, the initial fear all of these can be catered to through incentives that is one of the HR techniques. Take an iterative approach to genii rollout that will encourage risk taking and failing fast.

So, if you have developed some genii based model roll it out quickly do not delay it. So that, if you have to fail if it fails you should fail quickly. So that not much major loss or damage before that happens you can pull back and withdraw the tool. Teams need to identify and test their own Gen AI opportunities to get fully HR to be fully engaged start with HR.

So, some of these Gen AI tools simple tools can start with the HR department itself for their activities like recruitment for example. You should hold the leaders from business, IT and HR jointly account for the outcomes. So, it will help amplify teamwork and underscore the strategic importance of Gen AI adoption across the enterprise, and that will benefit your organization as a whole. So, people can see that it is just not an IT baby, it is not an IT project, it is an enterprise wide project where people from the business IT HR everybody is involved.

So, that itself is a starting point for developing a trust in this tool. Rethink your operating model to unlock the creativity. Make the AI gen AI upskilling and advancement opportunity for everyone specially top performers. So, you tell people that if you get into this that is a kind of career building road map for you because this is what we need today. So, we need our people to be capable to handle such technology.

Gen AI cannot augment or improve poor performance. So, if there is a poor performer and you give him a genii tool to work with, his performance will not be impacted, his quality of performance will probably continue to remain poor. So, do not look at Gen AI as a tool for helping the poor performers, you have to see it as an revolution not an evolution. So, only the good and smart people will be to use the tool in a way with which

it should be used. should pioneer the use of Gen AI in the C-suite and the managerial levels. So, insist on as if you are the CEO you should insist on your C-level executives

all your CFO, CMO, chief of purchase, chief of manufacturing, chief of HR all of them to be to individually use in their role and capacity Gen AI tools and models not just instruct their people to use, but they themselves should also use. Crystallize a culture of curiosity to accept accelerate this creativity. So, make Gen AI a central tool to team building. Build a sense of employee equity that you should own the tool and use it to create a clear feedback loops where they do not exist today. It can become a new tech co-worker so to say, like if you are three member team the GenAI tool can be the fourth team member. Enterprises that succeed will be those that build a flexible

thoughtful approach that encourages creativity, experimentation and innovation, overcoming anxiety, rewarding enthusiasm, inclusivity and optimism. So, all of these things you need to get going. However, as I was talking about in my previous class, keep in mind the ethics, trust, and governance part of the whole thing. So, that should start right from the beginning when you start your use of your GNI model development activity. If you take a look at, say, customer service.

The tech deployment should be about listening, testing, and then capitalizing. Invest in direct engagement between customer and the tool, Gen AI tool, but you should not do it blindly. Start by determining which of the challenges are most likely to pose the most risk for your organization and which JNI use case can be designed to mitigate those pitfalls. So, you know the customer pain points and you want to address them using a JNI tool. So, identify which of them are likely to give you the most impact. Also identify which of them can be very risky if the customer starts using that

it may raise some uncomfortable questions from the customer side because they will get some more access to the companies working and you might have to answer those questions. So, be ready for that. We are giving them an exposure to your tool they will start getting some benefits, but they might also start asking some questions. Use Gen AI as a research tool to collect and analyze sentiment-based metrics for each customer service interaction. This is one of the most important KPIs for any customer service.

So, you want to know the sentiment part. So, if I get subjective feedback based on text etcetera in various media. How do I do a sentiment analysis and find out what the customer is really thinking or feeling about my product or service. Also use Gen AI not

just for interaction and engagement, but for driving innovation. So, from that sentiment analysis you can use it to buy new opportunities with customers

and track the customer service success to see how these automated applications influencing your sales and loyalty across the customer life cycle. If I using my data set or my review of reports what I see and find out what the cohorts or each of the cohorts or different cohorts are seeing my customer service in their way good or bad, then if it is I get negative sentiment that I can work on that for those particular identified cohorts to improve further improve my product or service or ask for suggestions to those cohorts give them importance and tell them the give you a suggestion. So, that I can improve my product or service this is what companies like Starbucks have done very successfully. They invite for ideas and execute many of them and that gives a great customer satisfaction that the company is asking for ideas from them.

New ways to run the business with Chennai. What you need to do is grab the low hanging fruits by applying general AI apps to what have already been modernized. So, take the easy ones quick one so that you start getting success at a lower investment and you can come out with things faster. Or go after opportunities that were previously off limits as applications and processes in core systems. In many areas you were not getting into it because of various reasons.

So, why not try to, but you have data. Can we start finding out things about those datasets or those processes and applications using Gen AI. to get some innovative idea from that. Because I am not being able to get with using my knowledge, but can the tool help me, can AI help me to get some practical ideas out of it. So, I can make some business opportunity out of it.

My data set is available, the main thing is the data set should be available. Stop measuring business and IT goals separately. Explicitly prioritize IT projects with the strongest link to the business value. This is extremely important to understand. IT and business are not separate entities, they are overlapping and they are highly interrelated and interacting with each other.

If you have got lot of data you have an opportunity, this is what it is basically talking about. If you have data there is an opportunity and if you have the right computational infrastructure to build foundational models that will give you such a network effect advantage. It is almost silly for anyone to try and come compete with you in the future.

Comment from one of the CEOs that if you have data that is an opportunity do not miss it, do not wait for a competitor to come and come up with those solutions.

And of course, you have to have the right computational infrastructure. So, that is a part of your strategy. Instant insights fuel faster supply chain innovation. What you need to do? Stop fighting fires and start rethinking your supply chain.

Stop fighting fires troubleshooting, start rethinking can I do it in a different way altogether instead of just trying to solve immediate problems. Feed the generic data that supports supply chain productivity. Again use the data to get the insights which you do not have currently and that is why you are fighting those fire doing some fire fighting. There could be some alternative ways, so that you can entirely avoid that situation. Supercharged supply chain operating models with Gen AI platforms.

Deploy analytics, data visualization and simulation models along with generic capabilities for predictive analysis. So, that is what all we are doing trying to do predictive analysis. We use analytics, data visualization and simulation models to help me with my predictions. We are piloting various AI models to see how we can get a better predictability of the demand forecast. Can we improve cycle times working capital?

Can we predict how demand will evolve? Can we optimize our planning and production process? These are quotes from an SVP and GM of North America at a company called Avery Dennison. That is not important; what is important is how senior executives and CEOs are looking at this tool. Can this tool solve these questions, answer these questions?

It is a marketing sink-or-swim moment, literally. What you need to do is position marketing as a model for a data-driven workforce transformation. Because one of the first things we want to do—two things we want to do, literally, in the previous class—is improve customer experience and improve operational efficiency. So, we start with the customer experience part; then it is all about marketing and sales. Prioritize creative ideation and high production value in marketing content. With general hyper-personalization, it is no longer a pipe dream.

Hyper-personalization is a marketing approach that uses real-time data and machine learning to create highly tailored and individualized experiences for each customer. If you can do that using these tools—give each customer their individualized experience,

what they want. It will result in increased customer engagement, higher conversion rate, improved customer loyalty and better customer experience. A simple example is using a tool in the fashion industry, for example: you are trying to sell a dress or certain dresses, and you allow your customer to digitally—virtually—put on the dress and then see for themselves how they would look wearing that dress. Without going to the store and actually going to the room where you do that trial rooms, find out your dress.

So, you can do it digitally, virtually, and this is a classic example of hyper-personalization. In terms of cybersecurity, we are saying that it is like fighting fire with fire. So, AI brings in a lot of security problems; we have been talking about that. Now, the question is, can I use AI to fight that problem? So, AI is like it is creating—it is one of the causes for the problem because I am getting exposed through using these Gen AI models and going to the internet, etcetera.

And now, I want to use that same model to give me the solution and how to fight. So, how do you have Gen AI and LLMs be the cause of risk, but also have AI be the thing that can keep your data safe? So, we will see more and more AI against AI, trying to keep the ecosystem in balance. So, somebody using AI to scam, and I am using AI to protect myself from that scam. Now, if I take an example from the medtech industry, why medtech? Because they are at the forefront of healthcare innovation, developing life-changing devices

and solutions to help clinicians diagnose diseases earlier, perform interventions more precisely, and monitor patient health more effectively. The thing is that the output of the tools that they use in the Medicare and healthcare is very sensitive, they are handling a very sensitive scenario like you are trying to tell a patient that whether you have certain disease or not. And if it goes wrong, whatever the tool is predicting goes wrong then it can create lot of trauma and damage both mental and financial for everybody, for all the stakeholders, the doctors, the hospitals and of course, the patient and their family. So, innovations such as minimally invasive surgical robots, AI-powered diagnostic imaging, and connected diabetes management systems are transforming patient care.

So, you have to also be aware that obviously, they are being used by our modern hospitals and medical technologies, but we also have to be very careful about that. Some of the frequently used cases are foreign R&D in medical R&D medtech R&D document automatic drafting of regulatory submissions, product development documentation, clinical trial documentation, etcetera. Then in the content generation also for professional

education, technical documentation for transforming the call centers to reduce the demand that is improved productivity etcetera and improve user experience. Now, any industry—not just medtech—can use similar use cases.

That is why I brought showed this as an example from the medtech industry, but this can be used by many business houses not necessarily restricted to the medtech industry. Supply chain to optimize inventory management and generate early warnings of disruptions. This is a very universal problem for most manufacturing and trading organizations. Invoice analysis similarly identifies discrepancies and reconciles terms and conditions. To conclude the session, embrace the Gen AI era, there are six adoption essentials.

Dive in with a business-driven mindset, take a people-first approach, get your proprietary This should probably be number one, according to me, because data is the starting point—it does not matter. Invest in a sustainable tech foundation—of course, you need a tech infrastructure. Accelerate ecosystem innovation and level up your responsible AI. So, this could also take the first position, so to say.

So, I have briefly described all of this. You can find out, and to use GEN-AI, you should always keep these six adoption essentials in mind. Companies need to consider whether they have the right technical infrastructure, architecture, operating model and the governance structure to meet the high compute demands of LLMs and generative AI while keeping a close eye on the cost and sustainable energy consumption. As the use of AI will increase, so will the carbon emission produced by underlying infrastructure. So, I will talk about this in a subsequent class: sustainable AI models. Creating the foundation model can be a complex, compute-intensive, and costly exercise.

You must keep this in mind. Doing it entirely on your own will be beyond your means and capabilities. But there is a burgeoning ecosystem to call on, with substantial investments by cloud hyperscalers, big tech players, and startups whose facilities you can use as a rental model. Now, you do not have to buy anything and can have your AI strategy in place based on those particular technical infrastructures. The organization's responsible AI principles should be defined and led from the top.

And translated into an effective governance structure for risk management, compliance, and alignment with both organizational principles and policies, as well as applicable laws and regulations. So, most important thing is you have to keep the laws of the land in mind whenever you are getting into this ventures because they promise lot of benefits, but you

have to keep all those things in your mind also. With that I will end this session. Thank you very much.