Discussion 2.2: Improving the AI Readiness of Organizations in Your Industry

**Improving the AI Readiness of Organizations in Your Industry**

In the last few videos, you learned about the five dimensions that enhance the AI readiness of an organization. Focus on two of these dimensions that you think organizations in your industry should improve on.

It might help you pick the dimensions by revisiting the [CAIR tool. (Links to an external site.)](https://www.cambriancair.ai/scores) Craft a discussion post that addresses the following:

* **What is your industry, and which two dimensions did you pick?**

My company is in the financial industry and I picked up *Leadership and Strategy and People and skills*.

* **For each dimension, what are some challenges that organizations in your industry are facing?**

*Leadership and Strategy*

It seems based on the below facts leaders will face serious challenges to form and implement the AI strategy within the firm,

1. There is no AI awareness and culture; building a new one will take time
2. Existing legal frameworks needed to be revised
3. Especially leaders need to prove that AI will be beneficial for the company
4. Skill gaps need to be addressed between the AI and general workforce teams

*People and Skills*

Companies probably face challenges around accessing and recruiting necessary technical skills, as well as helping existing employees develop and deploy AI skills in the short term based on the fact that AI skills are mobile and breadth (from an educational and qualified skill set perspective)

* **For each dimension, what are 1-2 recommendations you would make to these organizations to become more AI-ready?**

*Leadership and Strategy*

Since AI is a transformative technology, alignment on direction and level of ambition is crucial, therefore defining an AI vision and goals that align with organizational objectives, which then we can devise an approach for managing capability across the enterprise. Taking necessary steps wisely may require some management consulting.

*People and Skills*

Because of the challenges of finding the right talent and attracting them to the company, we can consider,

1. integrating AI with human workflows,
2. redefining talent models, and
3. getting stakeholder buy-in through effective communications and change management.

<https://www.capgemini.com/wp-content/uploads/2018/07/AI-Readiness-Benchmark-POV.pdf>

<https://www2.deloitte.com/us/en/insights/industry/public-sector/ai-readiness-in-government.html>

Feedbacks

## [Xiaodong Che](https://student.emeritus.org/courses/3412/users/154971)

Sep 19, 2021Local: Sep 19 at 4:21pm<br>Course: Sep 19 at 8:21pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

* What is your industry, and which two dimensions did you pick?

Our industry is data storage in the IT segment.  We develop and manufacture data storage devices for consumer, enterprise and data centers.  The majority of data in the data centers, about 90%, are on the HDD devices built by us.  For the AI transformation, our industry needs to improve:

1. R&D and operational capabilities for developing AI
2. Building the right talent base

* For each dimension, what are some challenges that organizations in your industry are facing?

On R&D and operational capabilities for developing AI, the main challenge is how to start the AI transformation.  As corporate leaders are aware of the AI importance, the whole industry is still running with it full capacity to meet business growth using its traditional means.  AI transformation for our industry is like changing airplane engines in the middle of flight.  How to build the capabilities for AI transformation is a big challenge and an exciting opportunity.

On building the right talent base, this is not unique for us, except for hot startups and big IT companies in Seattle and Silicon Valley, the rest all have problems attracting the best talents who are crucial for our AI transformation.

* For each dimension, what are 1-2 recommendations you would make to these organizations to become more AI ready?

For the first challenge, the tool of flour ways to approach the build or buy choice is very helpful.  We are developing AI enabling initiatives with vendors, contractors, and customers, knowing where they fit for each project, will lead to the best outcome in the long term.

For the 2nd challenge, one is to leverage the talents and learn the best practices from our cloud customers.  The Google case study is a great example [1].  Another is to  focus on university partnership and connecting professors and young talents with the future challenges in our industry.  Our best technologists who are working on the most important innovations for our industry will be the most important and effective internal change agents after they see the benefit of AI and the potential of these future talents.  This partnership also provides professors and students new opportunities to demonstrate and improve AI algorithms, our collaboration with CMU is a good example of such approach [2].

[1][https://cloud.google.com/blog/products/ai-machine-learning/seagate-and-google-predict-hard-disk-drive-failures-with-ml (Links to an external site.)](https://cloud.google.com/blog/products/ai-machine-learning/seagate-and-google-predict-hard-disk-drive-failures-with-ml)

[2][https://scholar.google.com/citations?view\_op=view\_citation&hl=en&user=0Hiq7AYAAAAJ&citation\_for\_view=0Hiq7AYAAAAJ:48xauSegjOkC (Links to an external site.)](https://scholar.google.com/citations?view_op=view_citation&hl=en&user=0Hiq7AYAAAAJ&citation_for_view=0Hiq7AYAAAAJ:48xauSegjOkC)

[Reply Reply to Comment](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)(2 likes)

[Collapse Subdiscussion](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)[Ash Naidu](https://student.emeritus.org/courses/3412/users/164679)

## [Ash Naidu](https://student.emeritus.org/courses/3412/users/164679)

SaturdayLocal: Sep 25 at 6:16am<br>Course: Sep 25 at 10:16am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

Changing engines in the middle of a flight - so true. And so sad that that is what we all seem to be doing.

## [Jasmine Campos](https://student.emeritus.org/courses/3412/users/82697)

Sep 20, 2021Local: Sep 20 at 9:55am<br>Course: Sep 20 at 1:55pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

My organization is in the Healthcare Sector. The two dimensions I picked are 1) Data and Infrastructure and 2) People and Skills.

From the lens of these two dimensions, I’ve outlined below some key challenges and opportunities/recommendations faced by organizations in Health Care to become more AI ready:

* Data and Infrastructure
  1. Challenges: Typically, there are multiple systems involved in data collection negatively impacting the ability to generate insights and drive efficiencies across the organization. The speed to curate data is also a big challenge and there is a lot of effort required to harmonize the data which can be expensive. Lastly, the accuracy/quality of data may be questionable and dependent on tribal knowledge of source systems which slows down the digital transformation journey.
  2. Opportunities: Organizations must invest in building a robust data strategy and lay the foundation for the implementation of digital capabilities to drive growth. Opportunity to harmonize and modernize legacy systems

* People and Skills
  1. Challenges: Finding and retaining talent to support data strategy is difficult because top talent are more attracted to join technology companies vs. the healthcare sector. The tendency for healthcare organizations is to work with consulting firms to drive the process however consulting firm skills may lack the deep domain expertise required.
  2. Opportunities: Develop a robust strategy to upskill existing talent and have the right incentives to acquire new talent.

## [Alfred Selvarajah](https://student.emeritus.org/courses/3412/users/161402)

Sep 20, 2021Local: Sep 20 at 3:59pm<br>Course: Sep 20 at 7:59pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

My industry focus is **Technology.**

2 dimensions would be **‘People and Skills’** and **‘Data and Infrastructure’**

**People and Skills** - The people with AI/ML skills are hard to find at the right price for our industry where we sell IT services/solutions to mid-market/upper mid-market segments which is price conscious and sensitive.

**Data and Infrastructure**- Our data culture will require significant leadership change to define how and why to adopt a data-driven culture. Existing disparate systems do not help in connecting data points together in a way that truly delivers customer/project insights.

**Recommendations:**

1. Identify internal champions and build their skills over time. Encourage technical folks to spend their free time working on innovative projects that would deliver bottom-line efficiencies. Incentive such efforts appropriately.
2. Instill a data-driven culture by creating awareness of what it could possibly deliver for the organization and begin defining what insights you want to generate and what data is needed to generate those insights.

[Collapse Subdiscussion](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)[Federico Giannangeli](https://student.emeritus.org/courses/3412/users/151424)

## [Federico Giannangeli](https://student.emeritus.org/courses/3412/users/151424)

WednesdayLocal: Sep 22 at 4:43pm<br>Course: Sep 22 at 8:43pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

Alfred, to your first recommendation, something that worked for us was a Corporation program that had the budget available for the organization to test AI.  If the idea was successful, the business will pay for it since the adoption will create value but if the idea failed, the corporation paid.  This helped the organization to move into a different mindset.  In the past, failure was not considered good and in this new era, failure is part of the journey, is accepted as far as it happens quick and we learn from it.

[Collapse Subdiscussion](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)[Alfred Selvarajah](https://student.emeritus.org/courses/3412/users/161402)

## [Alfred Selvarajah](https://student.emeritus.org/courses/3412/users/161402)

ThursdayLocal: Sep 23 at 2:07pm<br>Course: Sep 23 at 6:07pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

Great Idea, Federico. Thanks for sharing. It is great that the company had an appetite to test out such a program. It shows that the leadership is future-focused and ready to take risks when they see the potential value.

## [Sonal Shah](https://student.emeritus.org/courses/3412/users/156539)

Sep 20, 2021Local: Sep 20 at 11:26pm<br>Course: Sep 21 at 3:26am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

My company is a financial institution and the 2 dimensions I picked are: **Data and Infrastructure** and **Leadership and Strategy**

1) Data and infrastructure

Challenges: There are several challenges when it comes to data, and the one that needs to be addressed sooner is the duplication of data elements across various organization units, thus creating data silos. Each organization unit have their own definition of data and store data in their own repositories making it difficult for others to access and use it. Having several definitions of the same data elements in every unit causes data lineage and data sourcing confusion. Essentially it hides the single point of truth and creates challenges when it comes to sharing and collaborating.

Recommendation: Data Champions who can lead across all units and provide 360-degree view of data can help organize data in a central location or repository. Usage of data lakes/clouds will enable ease of access and provide a common definition of data elements. This will also help with data governance and enable clear data lineage capabilities. Also, data virtualization that can connect different data sources across multiple platforms will enable quick data collection into the data lake.

[https://www.talend.com/resources/what-are-data-silos/ (Links to an external site.)](https://www.talend.com/resources/what-are-data-silos/)

2) Leadership and Strategy

Challenges: While there are several AI initiatives currently going on within the company, in my opinion, it is not being applied across the value chain. AI strategy might be focused more in one organization than others. Usage of compute power or virtual reality seems to be still untapped. While usage of DevOps is common, I don’t see AI applied to operational aspects of the company, there are several manual processes that can be automated using RPA and machine learning.

Recommendation: From a leadership perspective, highlighting the efficiency and advantages of implementing AI in one organization will encourage other units to bring forward additional use cases that can help increase efficiency and reduce manual efforts. Enabling knowledge sharing and creating a collaborative culture will help enhance operational effectiveness. Tying organization goals to AI enablement will encourage employees to learn and apply Deep tech across the value chain. AI champions and change agents can help bring forward potential benefits and show measurable benefits to business stakeholders.

[Reply Reply to Comment](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)(1 like)

## [Luis Silvestre Jr.](https://student.emeritus.org/courses/3412/users/161362)

TuesdayLocal: Sep 21 at 5:05am<br>Course: Sep 21 at 9:05am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

My industry belongs to Technology, specifically creating a software to digitalize home-building for and with the people. We are along the process of creating the software for now and we will indeed incorporate AI to what we are doing. With this, I would like to focus on the dimensions **R&D and operational capabilities for developing AI**and **Building the right talent base**contextualized to our own organization and not in the Tech industry in general. But of course, this may be the case as well for others.

* R&D and operational capabilities for developing AI
  + Challenges:
    - As we are currently working on a home-building app with AI incorporated, and I believe that AI is currently in the fluid phase along our S-curve, we really need to invest on developing AI for our goal. However, this is a challenge for us because we do not have an AI expert yet on our team so our first option is to buy AI instead of build, which may be costly on our part.
  + Recommendations:
    - I believe that we first need to classify ourselves based on the framework presented by the Boston Consulting Group as mentioned in the lectures. For now, I believe that we are in the Commodities option, hence doing what is suggested for this option will be good for us.
* Building the right talent base
  + Challenges:
    - For now, our team consists of pure engineers, pure architects, pure software developers, and a pure mathematician. Creating a software for home-building requires all these skills combined and I think this is quite the challenge. For now, we are trying to study what the others can do for us to meet halfway along every discussion. What more when we already incorporate AI. I also believe that this is the case for any tech industry digitalizing something.
  + Recommendations:
    - We may apply the practice of finding adaptable learners in this case. There is a very little chance that someone will be a master of all the skills we require for digitalizing home-building, so who we need are indeed adaptable learners. We need someone who is eager to learn beyond what he knows, and someone who is willing to do some work beyond what he is used to do.
    - As we currently do, we apply reskilling instead of hiring. Our team consists of engineers and architects who work for the company way before this new goal of digitalizing home-building. Hence, they are already familiar with the fundamentals of the company. Fortunately, we are all adaptable learners I believe, and so I am sure that sooner or later, our pure skills will eventually extend to what is needed to meet our goals. This proves that reskilling is indeed better than hiring. But of course, hiring new talent will never be out of the way specially now that we will be needing AI experts.

[Reply Reply to Comment](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)(1 like)

## [Nikunj Patel](https://student.emeritus.org/courses/3412/users/145235)

TuesdayLocal: Sep 21 at 1:25pm<br>Course: Sep 21 at 5:25pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

My industry focus in O&G and Mobility Solution.

The two dimensions we need to improve is R&D capabilities for AI and Talent base.

As traditional O&G company , we did not have strong R capabilities. Most of our focus was development .  AI is big subject for us and we see huge opportunity leveraging this technology to build our subsea robotics and Integrity management business.  We know the outcome or result AI can provide us , but we are struggle is were to start , what type of skilled resources need , what type of tools will be needed .

The other area we are facing some of the challenge is to attract the young talent in this field. As O&G company , its very difficult to attract the talent which are expert in AI an

## [Dana DeMeo](https://student.emeritus.org/courses/3412/users/163239)

TuesdayLocal: Sep 21 at 6:33pm<br>Course: Sep 21 at 10:33pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

I'm evaluating the transportation sector, specifically the electrification of commercial fleets into hybrid-electrics.

1st dimension:  People & Skills

This particular sector is still in the early stages of the S-curve so the majority of people involved are still maturing the application itself.  Locating and retaining the necessary talent to advance AI in the sector will be a challenge because they will be attracted to competing sectors that are more mature and closer to commercializing the value.  The opportunity lies in leveraging AI talent from adjacent sectors, such as consumer automotive, whereby the talent would be excited to port their AI work to a new industry.

2nd dimension:  Data and Infrastructure

As we're learning in this course, an AI strategy requires data. Given the nascent stage of commercial fleet hybridization, it will take time to collect a sufficient data set to allow AI to flourish.  There is, however, an opportunity to collect new and specialized data sets from existing fleets operating today.

[Collapse Subdiscussion](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)[Shailendra Singh](https://student.emeritus.org/courses/3412/users/156591)

## [Shailendra Singh](https://student.emeritus.org/courses/3412/users/156591)

WednesdayLocal: Sep 22 at 12:08am<br>Course: Sep 22 at 4:08am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

Dana  
I am RV industry and can completely relate to the challenges you are facing since we are facing the similar challenges. These challenges do offer opportunities for the future which you have outlined extremely well.

## [Rosalind Beasley](https://student.emeritus.org/courses/3412/users/162600)

TuesdayLocal: Sep 21 at 6:53pm<br>Course: Sep 21 at 10:53pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

**Industry and Dimensions**

My company is a SaaS Quality Management Solution provider to the Life Sciences industry. The two dimensions I picked are People & Skills and R&D Capabilities.

**Challenges and Recommendations**

R&D Challenge:Finding and retaining AI developers and data scientist is challenging and expensive. We are an Israeli company, and the talent pool is relatively small in comparison to the USA.

R&D Recommendation:  We need to look beyond Israel for AI developers and data scientists. We should also look to technology platforms that are democratizing AI with lower barriers to entry. An example is the Salesforce Einstein AI platform which we plan to investigate.

People & Skills Challenge:Our competitive advantage includes our deep knowledge of quality management for life sciences organizations. Our AI developers and data scientists are contractors who are not familiar with the life sciences industry and quality domain.

People & Skills: We have successfully grown young technical talent while they are still in University. We look for computer science and engineering students who are eager to learn. We take time and invest in teaching them as much as possible about the industry and business domain. We are very upfront that we are investing in their future, and these positions are not internships. The positions are real paying jobs tailored around the student's studies. In addition to applying this same approach, we should pair the students with our data scientists and AI developers.

## [Shailendra Singh](https://student.emeritus.org/courses/3412/users/156591)

WednesdayLocal: Sep 22 at 12:04am<br>Course: Sep 22 at 4:04am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

My industry is RVs and boats. From the 5 dimensions, I picked 1. Implications for a company strategy and 2. building the right talent base.

Implications for company strategy:

Challenges: AI is very new or non-existence in my industry. Therefore, there is a need for awareness and then incorporating the business benefits of AI into company strategy. These two are the first and very critical steps for the success of AI in my industry. Without awareness and a clear linkage to company strategy, AI implementation and business benefits will be in jeopardy.   
Recommendations: A change management activity needs to take place where awareness of what AI is and how AI can be used to gain competitive advantage is increased. Then AI needs to woven in company's strategy. Once these two steps are in-process or completed with key executives, similar awareness needs to be created at various level of leadership to increase buy-in.

Building the right talent base

Challenges: Due to AI being new to the industry and RV industry is not considered as high-tech industry, it will be very difficult to attract right AI talent to this industry.

Recommendations: Increase visibility in the market-place to show-case technological initiatives taking place and the potential to make major impact in the industry may attract the talent who are interested in breaking new grounds and solving new problems or applying solutions to very different use-case. Also, industry needs to start evaluating and partner with companies who can develop custom AI solutions for the industry.

## [Yavuz Kurt](https://student.emeritus.org/courses/3412/users/164312)

WednesdayLocal: Sep 22 at 12:24am<br>Course: Sep 22 at 4:24am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

* **What is your industry, and which two dimensions did you pick?**

My company is in the financial industry and I picked up Leadership and Strategy and People and skills.

* **For each dimension, what are some challenges that organizations in your industry are facing?**

Leadership and Strategy

It seems based on the below facts leaders will face serious challenges to form and implement the AI strategy within the firm,

1. There is no AI awareness and culture; building a new one will take time
2. Existing legal frameworks needed to be revised
3. Especially leaders need to prove that AI will be beneficial for the company
4. Skill gaps need to be addressed between the AI and general workforce teams

People and Skills

Companies probably face challenges around accessing and recruiting necessary technical skills, as well as helping existing employees develop and deploy AI skills in the short term based on the fact that AI skills are mobile and breadth (from an educational and qualified skill set perspective)

* **For each dimension, what are 1-2 recommendations you would make to these organizations to become more AI-ready?**

Leadership and Strategy

Since AI is a transformative technology, alignment on direction and level of ambition is crucial, therefore defining an AI vision and goals that align with organizational objectives, which then we can devise an approach for managing capability across the enterprise. Taking necessary steps wisely may require some management consulting.

People and Skills

Because of the challenges of finding the right talent and attracting them to the company, we can consider,

1. integrating AI with human workflows,
2. redefining talent models, and
3. getting stakeholder buy-in through effective communications and change management.

[https://www.capgemini.com/wp-content/uploads/2018/07/AI-Readiness-Benchmark-POV.pdf (Links to an external site.)](https://www.capgemini.com/wp-content/uploads/2018/07/AI-Readiness-Benchmark-POV.pdf)

<https://www2.deloitte.com/us/en/insights/industry/public-sector/ai-readiness-in-government.html>

## [Mosongo Moukwa](https://student.emeritus.org/courses/3412/users/86918)

WednesdayLocal: Sep 22 at 3:06am<br>Course: Sep 22 at 7:06am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

Materials and chemicals industry

There are many barriers to full implementation of machine learning techniques in our materials and chemicals industry. They are mostly related to organizational factors. Organizational factors are related to strategy and corporate culture.

1. Leadership and strategy

Generally, there is a lack of strategy as it relates to digital transformation. Digitization is a requirement for extracting value from AI. It is the process of converting information from a physical format into digital one. But, the core of the chemical industry, R&D and Regulatory are quite often stuck into traditional workflows.

Recommendations: develop physical and digital hybrid in area of competitive advantage, then integrate with emerging technologies

1. People and skills

Other barriers to implementation of machine learning relate to individual factors, knowledge and skills of scientists and engineers. Scientists and engineers have not fully embraced machine learning because of lack of understanding of what it is. It is seen as a black box. They are also confused by the large number of available algorithms and methods and how to interpret the data. The good news is that decision makers expect a shift towards more skilled workplace as a result of digital transformation.

Recommendations:

To overcome these barriers, it is worthwhile to note that innovation begins with a small number of people in a small number of companies, and eventually diffuses to become the standard. In the beginning, only a small number adapt and they become the prophets. There are a number of off-the shelf ML tools, Tap into data sources to help improve expertise and “generate quick wins and insights”. A group of employees can gain skills in training AI algorithms.

## [Abhishek kumar](https://student.emeritus.org/courses/3412/users/161758)

WednesdayLocal: Sep 22 at 5:16am<br>Course: Sep 22 at 9:16am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

* What is your industry, and which two dimensions did you pick?

I am part of the Paint Industry; the two dimensions I pick are 1) People and Skills and 2) R&D capabilities.

For each dimension, what are some challenges that organizations in your industry are facing?

1)      People and Skills:

My Company focuses on core manufacturing; it is very tough to find resources with champions in technology like AI, ML, RPA, Cloud computing, etc. The Company has recently focused on digital technology transformation; change management is a big task. Bringing business, Subject matter experts to work with IT / Technology people is not easy. Without business / SME support, we can't make the transformation successful. Retaining good talent is also not easy. Location is also one of the factors; finding and having skills in the Cleveland location is not easy.

**2)**      **R&D capabilities:**

We are 130 years old Company. We have an intense R&D center related to the core group, and  Company needs to improve on R&D related to the future of technology. In the last one and a half years, we have switchgear now making some suitable investments in the future of technology.  We are slowly moving towards the early adopter stage in terms of technology like we have a dedicated RPA and Digital workplace team.

* For each dimension, what are 1-2 recommendations you would make to these organizations to become more AI-ready?

People & Skill :

Retaining top talent is always beneficial. Find good young people from the business community and champion these future technologies by investing in good training. This process should work as a double benefit for the Company. The digital technology transformation project will get people with both business and technology expert people.

R&D capabilities:

To succeed in digital technology transformation, we need more people and infrastructure to support the future of technology. We need o to be an early adaptor and first-mover on technology. We need RPA with strong AI capability. This way, we would be able to gain the real benefit of RPA and AI both.

## [Farid BOUTAGHANE](https://student.emeritus.org/courses/3412/users/164234)

WednesdayLocal: Sep 22 at 9:55am<br>Course: Sep 22 at 1:55pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

My industry is consumer wellness /healthcare, with a heavy focus on medical devices as molecule/drug delivery vector.  Looking at the CAIR tool and comparing to other “leading” industries such as FMCG (the industry my company originally operated in) , I selected the following 2 dimensions : 1) Implications for the company strategy 2) R&D and operational capabilities for developing AI

As far as implications for the company strategy are concerned, AI/DS is mostly viewed as one way to improve operational efficiency & effectiveness (ex. process optimization and automation). This improves the value chain but fails to embrace more fundamental goals such as reducing drug development time or discovering new opportunities.  There are gaps in developing hybrid physical/digital positions -ex. how data collected on physical medical devices feeds into a more digital patient experience – . AI is very often used in isolation, whereas combined with other deep tech elements (ex. embedded AI at the edge, IoE), it could yield more promising returns.

On R&D and operational capabilities, it seems lots of time and effort is spent in the “commodities” (ex. internal process improvement and worse, the “danger zones” , working with rather undifferentiated data (ex. publicly available clinical data). Limited investment is made in creating differentiation and there is a mismatch of sorts : a prevalent “make” approach but applied to non-differentiating uses.

For a better strategic fit, one recommendation is to work from backwards from a differentiated consumer/patient experience we would like to create – for the sake of illustration,  allowing patients suffering from mild chronic pain to self-manage with minimal caretaker intervention-. This will in turn drive data and AI needs and also the required combination of deep tech to create that experience – IoE with a connected device,  edge computing to localize processing  etc.-

In the same vein, R&D and operational capabilities should be built along the line of  providing more differentiated experience to consumers/patients. Concretely, this means moving into the “gold mine”, but also “hidden opportunities” spaces and will require significant  investment in internal R&D to address that experience element : can we generate differentiating data from a medical device and leverage it through AI in unique ways, while reducing dependencies on vendors (such as big platforms) ?  There will be a lot of experimentation/trial & error involved which again, is better addressed with a “make” approach.

## [Paolo Daneu](https://student.emeritus.org/courses/3412/users/158233)

WednesdayLocal: Sep 22 at 11:17am<br>Course: Sep 22 at 3:17pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

Our organization is a traditional industrial based company historically world leader in providing component for the world electrification and I am going to utilize the following two dimensions: **Operation Capabilities** and **Data and Infrastructure**.

In the Operation Capabilities we are currently facing disruptive challenges in the Supply Chain, with dramatically increase transportation costs and difficulties in the scheduling that are basically deriving the system towards decoupling. My recommendation would be:

* Enlarge the suppliers portfolio by having access to world data base making sure we exploit all possibilities to improve the supply chain value
* Increase the digitalization process in supplier management to improve the on time delivery and reducing operational costs
* Increase the delivery models as more interactive with customers

In the Data and Infrastructure we have done some efforts in the internal process digitalization and know-how consolidation but the new technologies and internal sharing against existing silos still need to be improved and AI can give an important spin to these company values and assets.

## [Jesse Oman](https://student.emeritus.org/courses/3412/users/161721)

WednesdayLocal: Sep 22 at 11:24am<br>Course: Sep 22 at 3:24pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

My industry is title insurance, which is the only insurance that is reward looking in nature.

The two I picked are:

1. Accessing data and enabling data-driven decisions
2. Building the right talent base

**Accessing data and enabling data-driven decisions**

The challenge in this industry is almost perfectly captured in Video 11, in that data is locked in silos.  This is not only at each company, but a series of regional systems, title plants and protectionism.  While title plants, on the surface, allow the use of “starters”, the reuse and continued use of the data is limited, which makes it harder to leverage for AI.

Some recommendations would include agreeing on set of common data formats, standards and tags.  This would allow easier transfer of data, digestion of data and commonality in looking at shared solution.  The other challenge is that there is still, in many organizations, not full recognition of the value of data.  It is, from what I have seen, still treated as a by-product of daily work, versus a strategic asset.  A shift in this viewpoint would be vital for AI readiness.

**Building the right talent base**

I think every industry is challenged, as discussed in video 12, with a scarcity of talent.  I think a compounding factor is that not a lot of people are aware of title insurance, nor is it the most exciting industry.

I am not sure how other companies in the industry are handling this, but I can touch on my own company.  We are taking a multi-prong approach.  We do have some current people who show the right aptitude and excitement, so we will invest in training for those individuals.  We will look to hire but are going to partner with companies that look to recruit in non-traditional channels, to be able to find outside talent.  We are also narrowing down a direct partner with specific and deep knowledge.  Finally, I have been in discussion with an organization that offers on-shore delivery centers to look at having a center that we share with another company, to be able to split the costs and ensure we can fully staff and keep the resources engaged.

## [ABHISHEK LALL](https://student.emeritus.org/courses/3412/users/163982)

WednesdayLocal: Sep 22 at 1:56pm<br>Course: Sep 22 at 5:56pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

* **What is your industry, and which two dimensions did you pick?**

I work for a data and analytics company that primarily provides solutions to Property & Casualty Insurance industry.

My choice of dimensions are: i) Leadership and Strategy & ii) People and Skills

* **For each dimension, what are some challenges that organizations in your industry are facing?**
  1. Leadership and Strategy:

The insurance industry can be thought of as a casino – essentially carriers are making bets on customers not experiencing a loss event. Given the relatively slow changes in the lifestyle and general population dynamics over the last couple of hundred years, the industry has been doing great until now.

With the advent of transformational changes in technology and lifestyle changes especially in the last decade or so (digitization/autonomous vehicles/population dynamics etc..) there is a need in adoption of data-based solutions to better assess risk and gain operational efficiencies. IMHO there are some significant opportunities in terms of having a focus on leadership & strategy around adoption of modern ways of business decision making.

1. People and Skills

Data Science recruitment and retention has been a challenge, especially in the pandemic era. The remote work feasibility combined with a global demand has created unprecedented pressure on recruitment & retention.

* For each dimension, what are 1-2 recommendations you would make to these organizations to become more AI ready?

1. **Leadership and Strategy:**

1. Strategic evaluation and enforcement of business processes leveraging data & analytics

1. A more holistic strategic investment in the R&D to pursue unexplored areas of risk product offering

1. **People and Skills**

1. Retention: The comment made by Professor Olaf around the odds of a new hire leaving is 2X-3X higher than an employee with a reasonable tenure greatly resonates with my experience. As an organization, focused efforts and strategy is needed to retain employees.
2. Retraining: With the ever-evolving developments in the data science space, IMHO it is better to invest more in employees with business domain expertise vs. recruiting externally

## [Tom Gol](https://student.emeritus.org/courses/3412/users/164325)

WednesdayLocal: Sep 22 at 2:46pm<br>Course: Sep 22 at 6:46pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

My industry is **Counter-Drones Defense**. This is a relatively new industry and it is heavily influenced by the drones industry which is in itself a new and developing industry.  
The two dimensions I picked are **Accessing data and enabling data-driven decisions** and **Building the right talent base**.

**Accessing data and enabling data-driven decisions**  
**Challenges:**  
Due to the fact the industry is new, organizations don't have a lot of data to work with. Worse than that, most organizations can't even tell what data they need or can access and so there is no awareness to the benefits of making data-driven decisions.  
Since there is no past data in this industry, organizations are having a hard time understanding what kind of data can improve which decisions and where to start. This can result in organizations deciding to accumulate as much data as possible, fearing to lose it, when in practice the amount of raw data they store is useless.

**Recommendations:**  
To organizations is this industry I would advise to "start small". Take a relatively simple decision and understand how it can be better made using data and how to access it. This way the organization can get more familiar with best practices in collecting, storing and processing data and the management get begin getting familiar with making decisions based on data. This kind of "good experience" with data-based decision making can boost future data projects.

**Building the right talent base**  
**Challenges:**  
Similar to other industries where the use of data science and AI is uncommon, the challenges in building the right talent base manifests is two ways. One the one hand, organizations are not familiar with the field and with the skills required so they have a hard time sourcing talent and figuring out who are the right people for the task. On the other hand, data scientists are reluctant to work in a field where the use of data is not a part of the organizational culture. The data science talent have lots of options and it's understandable they won't hurry to take a chance on an industry that is not currently data driven.

**Recommendations:**  
First of all I would recommend working with experienced data scientists to create job descriptions and recruiting processes for data science positions. Second, I would recommend to upskill and train current employees in various data science field. This way both sides can benefit and it may even be a good tool to retain skilled employees who are looking for development paths.

## [Lynette David](https://student.emeritus.org/courses/3412/users/157365)

WednesdayLocal: Sep 22 at 3:48pm<br>Course: Sep 22 at 7:48pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

My industry is FMCG.  The 2 dimensions I pick are "People and Skills" and 'Data and Infrastructure".

Challenges are as follows:

1. Scarcity of the right resources and skillsets - due to the fast pace of acceleration and most CPGs now moving ahead with AI strategies, demand exceeds supply and as a result, these positions are open for many months without being filled.  In addition, due to the high demand in the market, we are now seeing high staff turnover, so even roles that have been filled have shorter tenures than usual, as market salaries are highly competitive and new jobs easily become available.

2. Data and Infrastructure - coupled with the shortage of skillsets, we also have very limited overview of how our current organizations and setup will evolve to cater for the data and infrastructure required to support AI.  Our current setups, and functional domains are not integrated nor connected, and we are still very reliant on legacy systems that are super complex and challenging to maintain.  Data is very fragmented and in many different forms and formats, and the plan to harmonize the data is very extensive, over a long period of time.  Companies are not able to move fast enough, the period of transitioning is a cumbersome and painful process for the organization.

Recommendations could include:

1. Scarcity of the right resources and skillsets - our companies should now aim to build the right remuneration packages, offering these as "mission critical" positions, and also build in good retention measures that offer incentive schemes to retain these employees.  Offering above market related salaries will also help in attracting the right talent and offering a good career path and progression will also help with retention.

2. Data and Infrastructure - we need to start with an overall AI and Data Strategy.  Companies first need to understand where they are going with AI.  Considering what AI will help deliver, why should AI be the position moving forward and how it needs to be supported for delivery will also help?  This overall strategy should then have senior sponsorship and the right expertise and resources should be brought in to support this journey.  Transition plans for legacy systems to be replaced and data harmonization perhaps need to be accelerated.

## [Federico Giannangeli](https://student.emeritus.org/courses/3412/users/151424)

WednesdayLocal: Sep 22 at 4:38pm<br>Course: Sep 22 at 8:38pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

My response is associated to the **Oil & Gas Industry** and I chose data and infrastructure together with people and skills.

The main challenges I see to date are:

**Data and Infrastructure:**  after multiple improvements and strong digitalization strategy deployed in the company, I strongly believe the biggest challenge we are having in this domain is adapting to the change and the complete technology adoption.  We had an aggressive digital program that included but was not limited to global operations data democratization, a centralized Data Hub organization that developed a data platform for the whole company (ARiA) and even the hiring and creation of an advance mathematic group which support the organization; however, we are sometimes debating the cost of the new systems in place vs adhering to the initiative knowing that can unlock a lot of value.

**People and skills:** the organization did not activated re-skilling and up-skilling plans in parallel to the 3 years of intensive transformation that we have now accrued.  This created a gap on the competencies and capability to use the data we have now available.  The organization is moving slow despite we were early adopter on the digital transformation systems and tools but the people and skills remained behind.  I agree with the article of McKenzie that was shared in this module (i.e. The Individual Journey of Learning) and this is something we should have pursued from the beginning.

My recommendations:

**Data and Infrastructure:**working in a completely different environment where computing machines moved from premises to cloud and where we could now activated machine power (core capabilities) all the way to HPC (high performing computing) was like driving an electrical car with the same skills of an internal combustion engine (i.e. we run of battery quick = no efficient).  Machines were left activated without use thus generating high cost for zero value.  In this case, my recommendation is to work with your data and infrastructure providers to ensure the contractual terms are fair to the maturity of the company in regards to adopting and migrating to the new ways of working.  Another learning I would like to share is the “agile mindset” that is required for everything.  Rather than deploying full capabilities and systems in new Data platforms and development environment (like DeVops) scale while learning and debottlenecking the system is crucial on the go.

**Data and Infrastructure:**working in a completely different environment where computing machines moved from premises to cloud and where we could now activated machine power (core capabilities) all the way to HPC (high performing computing) was like driving an electrical car with the same skills of an internal combustion engine (i.e. we run of battery quick = no efficient).  Machines were left activated without use thus generating high cost for zero value.  In this case, my recommendation is to work with your data and infrastructure providers to ensure the contractual terms are fair to the maturity of the company in regards to adopting and migrating to the new ways of working.  Another learning I would like to share is the “agile mindset” that is required for everything.  Rather than deplying full capabilities and systems in new Data platforms and development environment (like DeVops) scale while learning and debottlenecking the system is crucial.

**People and skills:**the lowest speed of change is set by the “cultural changes”.  The digital transformation screams for uncomfortable mindset changes and a new culture of doing things.  From silos to full open collaboration, from structured thinking to agile thinking, etc.  I think adopting an AI culture requires a journey of full immersion into the context of this technology and how it will help us.  That journey must start from Day 0 minus 1.   The speed of adopting AI is reduced due to people.  Also, European companies had difficulties to let go resources and bring new ones (outsiders from the org) and this is difficult when a population of the company is not willing to re-skill.  Focus on people, incentivize AI deployment with the concept of we pay you for failing if this is part of your learning.

## [Scott Roosa](https://student.emeritus.org/courses/3412/users/163238)

WednesdayLocal: Sep 22 at 6:26pm<br>Course: Sep 22 at 10:26pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

* What is your industry, and which two dimensions did you pick?
  + Industry is Industrials and the two dimensions I picked are 1) Data and Infrastructure and 2) R&D capabilities
* For each dimension, what are some challenges that organizations in your industry are facing?
  + For Data and Infrastructure the main challenges are:
    - Lack of Investments focused on computing systems to gather and house the information.  Many times the data we would look to use in AI are stored on stand alone test stations or manufacturing stations where they are not networked together
    - The data is very disperse and lack of understanding on how to leverage the data to build out AI readiness
    - Most of the data is used for Statistical Process Control to monitor processes as opposed to how the data can be used to drive AI engines for automating manufacturing and teach the algorithms how to improve.
  + R&D Capabilities
    - Traditionally mechanical industry and little focus on building the R&D capabilities in AI
    - Lack of skilled resources along with lack of budgets for hiring and focus on AI readiness
* For each dimension, what are 1-2 recommendations you would make to these organizations to become more AI ready?
  + Establish a data champion in the plant.   Have this person help determine what data we can collect, what processes or manufacturing we would automate with AI, and work to secure funding to ultimately implement the AI vision
  + Look to go external to get the AI development.   Very difficult in this industry to build the discipline within based upon the lack of understanding, skills required, and limited time to get product to market.

## [Petite Silvey](https://student.emeritus.org/courses/3412/users/164987)

WednesdayLocal: Sep 22 at 7:35pm<br>Course: Sep 22 at 11:35pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

• **What is your industry, and which two dimensions did you pick?**

The two compelling dimensions in the CAIR (Company AI Readiness Tool) were Economic Performance and R&D Capabilities.  The data was first compared by Nation then by the Financial Sector.

These data sorts contrasted the readiness of the United States against all nations, and then the Financial Sectors of Switzerland, Denmark, Sweden, South Korea.

Economic Performance and R&D Capabilities seemed to capture the viability of the current investments in AI for each company, and then the potential for future growth and development for specific countries.

• **For each dimension, what are some challenges that organizations in your industry are facing?**

For R&D, Switzerland and Denmark are small and maybe are not investing a lot in the development of AI, but they have implemented AI that is available and it is keeping their economic performance in line with other countries.  With AI, in any sector, size matters.

 The talent may be drawn to the powerhouse nations. But, the high-level investment in one person is worth 7 or more lesser personnel investments, and talent will be drawn to compensation that values it.

• **For each dimension, what are 1-2 recommendations you would make to these organizations to become more AI ready?**

Based on the lectures, I would recommend continuing to purchase AI and computing power vs. building the infrastructure in house, but would try to focus R&D efforts on data applications that are specific to Denmark and Switzerland, or to the countries of the EU, without sharing the data.  Use the power of someone else’s AI application and tailor it…then sell the tailored version as a subscription.

Recruiting and Learning Journeys for existing employees would be another two areas to focus on with a high ROI.

## [Mark Penna](https://student.emeritus.org/courses/3412/users/164256)

WednesdayLocal: Sep 22 at 8:47pm<br>Course: Sep 23 at 12:47am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

* What is your industry, and which two dimensions did you pick?

I'm in the industrial / power delivery space.   I picked: 1) Operational Capabilities, 2) People & Skills

* For each dimension, what are some challenges that organizations in your industry are facing?

Operational Capabilities -  The industrial space, especially utilities are relatively slow adopters to new technology, let alone cutting edge tech.  Some of this is due to lack of funding for grid modernization and other regulatory hurdles for adoption.

People & Skills  - While the AI space is growing, I'm not sure how much of that talent migrates to the pure industrial / utility space.  The space cannot compete ($$$) with the likes of the Google's of the world, outside of very few companies that are on the forefront.

* For each dimension, what are 1-2 recommendations you would make to these organizations to become more AI ready?

Companies will have to adopt a top down approach to set the tone, while empowering and driving from bottom up to deliver on expectations.  Everyone has to be engaged to delivery as this is too complex to be addressed in a silo.

As for the utilities, they will have to engage regulatory bodies for streamlining processes, gov't for potential funding, academia and consulting groups for R&D.

## [Kenneth Kabaki](https://student.emeritus.org/courses/3412/users/145896)

WednesdayLocal: Sep 22 at 9:51pm<br>Course: Sep 23 at 1:51am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

My industry pick is Technology Consulting and the two dimensions that I believe are most pertinent are People and Skills, and Data and Infrastructure.

**People and Skills**

In much the same way companies have come to us for advice and support for their technological needs, so too will they seek our company for guidance in navigating AI. As in other technologies, consultancy in any area is effective only if customers believe that they are deriving value from the interactions with consultants working for our company.  The measure of the value thus rests entirely on how customers perceive the skillfulness of our consultants and how passionate and knowledgeable they are in advocating AI readiness for the clients they serve. As such, it is paramount to ensure we not only bring onboard employees with the right skillsets but also continually train then in pertinent skills.

The challenge though is that such AI-ready consultants might not be readily available. In a company like ours, which already has existing customer base, a program that seeks to understand the needs of customers  would help us understand which skillsets to hire for or the kind of training to offer our consultants - some of who might be already embedded within the customers' organizations.

**Data and Infrastructure**

The challenges here are minimal considering that there is already a relationships with existing customers and in some cases we would be already handling their Data and Infrastructure through our cloud offerings. Nonetheless, AI presents its own set of challenges be it financial or technical. It would be wise to leverage the relationships we have with our customers and our improve our understanding of their business process. This knowledge could be used to build custom-tailored approaches to AI for customers. Outreach and educational programs intended to help customers understand AI with specific examples on how their business can be improved would eliminate the initial misgivings customers have when considering AI.

[Collapse Subdiscussion](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)[Shashi Shashidhar](https://student.emeritus.org/courses/3412/users/164479)

## [Shashi Shashidhar](https://student.emeritus.org/courses/3412/users/164479)

WednesdayLocal: Sep 22 at 11:42pm<br>Course: Sep 23 at 3:42am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

Hi Kenneth;

I am also from the Technology Consulting industry and I also recognize similar challenges.  At the top is People and Skills.  As you aptly said, consulting is valued if you are able to bring smart people who can advice our clients and bring thought capital.  It is extremely crucial to have the right team in place.

With respect to data and infrastructure, most of the work will be done for clients and it is not a real issue for consulting firms.  Unless, the consulting firm wants to inculcate a data driven culture internally.  In this case, it needs to create the right infrastructure to capture the appropriate data to improve how it services clients and become more efficient and profitable.

Shashi

## [Adam Salmen](https://student.emeritus.org/courses/3412/users/144005)

WednesdayLocal: Sep 22 at 10:04pm<br>Course: Sep 23 at 2:04am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

* What is your industry, and which two dimensions did you pick?

I am in the material sciences industry, and see this as a developing topic. I believe the main dimensions to consider from my industry are:

**- Data and Infrastructure**

**- People and Skills**

* For each dimension, what are some challenges that organizations in your industry are facing?

**Data and Infrastructure-**

We have some really great scientists. they develop new chemical compounds every day, and work to optimize them for use in industry.  They can bring out many "phenotypes" in chemical compunds, and think of many new ways to change our materials. The only issue, is that these people move on. The next manager comes in and has to learn the same exact errors and processes which the former scientist learned. If we had a logical data infrastructure which allowed our scientists to put their data into a ML model, we could catagorize the different additives/chemicals/ etc so the next time we had a demand from industry, the possible ingredients would be limited, and we could give an almost instantaneous reply to our customers. We hear about these types of scenarios happening in the life sciences industry (such as developing vaccines or treatments) , but are not quite there in the material sciences industry...

**People and Skills :**

To allow this seamless transition to happen. we really do need to get more employees with a data science mindset to not only think of molarity and chemical ratios, but also how to integrate their experiments into a comprehensive library which can be used to teach a ML model...

* For each dimension, what are 1-2 recommendations you would make to these organizations to become more AI ready?

I suppose the recommendation becomes quite apparent once the problem statement is put in such a way as before... we need to be interviewing candidates to see if they can help input and test these models, and work in a data driven way to put the results in the model.  As we read in the HBR article about how to create a data driven company, we need to put KPI's in our performance reviews, and make this part of our annual objectives.

[Reply Reply to Comment](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

## [Adam Jones](https://student.emeritus.org/courses/3412/users/36465)

WednesdayLocal: Sep 22 at 10:31pm<br>Course: Sep 23 at 2:31am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

My organization is in the technology hardware sector. Our primary focus is the development of servers, storage, and networking hardware platforms. And the two dimensions that I have selected are 1) data and infrastructure and 2) people and skills.

For data and infrastructure, we are heavily reliant on data lakes across multiple business units. Primarily, it is separated by major hardware platforms. It has been very costly, time-consuming, and error prone as we have worked to bring this data together. Moving forward, it would be to our advantage in developing a complete end-to-end data strategy that leverages all data inputs across all business units. I also recommend that we create a data standards strategy in reference to when we purchase a company migrating their products within our infrastructure.

For people and skills, it has been challenging to retain adequate talent. Over the last couple of years, we have seen the average salaries for top talent almost double. One of the primary challenges has been in reference to senior leadership not understanding how drastically technologies have changed and how that has impacted the talent pool. It would also be advantageous in developing an incentive program that works to attract the best talent and a work culture that retains them.

## [Shashi Shashidhar](https://student.emeritus.org/courses/3412/users/164479)

WednesdayLocal: Sep 22 at 11:38pm<br>Course: Sep 23 at 3:38am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

The industry I pick is Retail.  The two dimensions I want to focus on are: Data & Infrastructure and People & Skills.

Retail companies have the opportunity to capture a lot of information both internally as well as externally.  Customer behavior is one of the areas where retailers can and do capture a lot of information.  In order to take this through the data journey and becoming a data-centric organization is always a challenge.  Lots of companies do not know what data to capture whereas the ones who do know are not utilizing the data to generate insights and take actions.  This is where the dimensions of focus come in.

From the Data & Infrastructure dimension, retail organizations are equipping themselves with the right infrastructure and capturing lots of data.  What is important here is relevance of the data.  Once the data is captured, it needs to be collated, curated and cleansed for the next step.  This is where several of the organizations are struggling.  Collecting a lot of data is easy but processing the data and getting it ready for consumption downstream is where the struggle is.  Retail companies need to invest in building the right tools to get the data ready for analysis, and build the relevant ML models to consume this data and generate insights.

From the People & Skills dimension, it is important to rebuild a part of the workforce with the right talented resources.  In order to crunch a large amount of data and generate insights, Data Scientists and Data Engineers are necessary.  It is not easy to upskill existing resources to do this job.  Hence, it is important to not only train and upskill existing talent but also important to bring fresh talent with the right expertise and experience.

My recommendation is to equip the organizations with the right talent, build the right infrastructure and start collecting data in all shapes and forms.  Once the data is collected, the data scientists and business subject matter experts can figure out the insights that can be drawn out of the data.

## [Nixon Joseph](https://student.emeritus.org/courses/3412/users/155433)

ThursdayLocal: Sep 23 at 12:13am<br>Course: Sep 23 at 4:13am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

I work for a Financial Services organization and picked the following two dimensions: R&D and operational capabilities for developing AI; Accessing data and enabling data-driven decisions

* **R&D and operational capabilities for developing AI**
  + Challenges
    1. Our organization has only handful of use cases on AI and has not invested much on the R&D or building operational capabilities. This is due to lack of awareness at executive levels and mortgage industry in general is relatively slow in adopting AI.
  + Recommendation
    1. Obtain Executive buy-in by educating on the technology and showing more promising results from the existing use cases.
    2. Invest more on AI infrastructure and building a talent base by hiring quality staff and reskilling.

* **Accessing data and enabling data-driven decisions**
  + Challenges
    1. There are many parties involved in the mortgage origination process and its management. Data silos exist not only across the mortgage industry but even within our organization. We haven’t reached fourth stage on the Data driven maturity model and it would require significant efforts.
  + Recommendation
    1. De-silo data both within and across industry.
    2. Foster a data driven culture to enable data-driven decisions by obtaining executive buy-in, applying robust strategy, data stewardship, and company-wide adoption at all levels.

## [Muralidhar Gowda](https://student.emeritus.org/courses/3412/users/145255)

ThursdayLocal: Sep 23 at 4:03am<br>Course: Sep 23 at 8:03am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

**What is your industry, and which two dimensions did you pick?**

* My industry is Utilities  & my picks are Accessing data and enabling data-driven decisions, Building the right talent base.

**For each dimension, what are some challenges that organizations in your industry are facing?**

**Challenges :**

* + - Accessing data and enabling data-driven decisions – Majority of the Safe Guards, Compliance, Governance frameworks  in place are more process oriented  , need Leadership support in driving cultural change and adopt data driven decisions more relevant to digital platform.
    - Building the right talent base – Retain and finding  Data scientist to support AI  development in utility industry is challenging since Utility sector is comparatively slow in adoption of technology and less attractive  financial incentives and perks.

**For each dimension, what are 1-2 recommendations you would make to these organizations to become more AI ready?**

Recommendations :

* + - Accessing data and enabling data-driven decisions
      * Leadership to develop trust and bring cultural change through communication and engagements.
      * Promote more Data driven decisions .

* + - Building the right talent base
      * Develop Technology driven road map in par with Tier 1 Technology companies in the industry
      * Develop flexible work culture  & Incentive based package to attract talents

## [SADATAKA HORIE](https://student.emeritus.org/courses/3412/users/159031)

ThursdayLocal: Sep 23 at 4:12am<br>Course: Sep 23 at 8:12am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

I am in the mining industry and our industry needs to improve (1) Operational Capabilities and (2) People and Skills to become more AI ready.

(1)Operational Capabilities

**Challenges**

The mining operation looks very simple. We drill, blast, load, haul, and process the rocks. However, the system is not so simple. Historically, every employee has been trying to maximize productivity within their scope of work and they did it by using many technologies and collaborating with several partners. Some of these trials are well successful in the specific area of operation, but these make the whole system too complicated. Since each division worked with different partners and used different formats of the information, it is very difficult to use the information from each division for overall optimization.

**Recommendation**

1. The companies should have a department that manages the entire operation. They need not only to check daily operations but to define parameters that are critical for each operational stage. The department can be an internal “interpreter” that bridges a communication gap between each operational division.
2. Educate newly recruited data scientists about the mining operation. Since they do not have any prejudices about mining, they can think out of the box and come up with new ideas. Collaboration across disparate groups is key for success.

(2) People and Skills

**Challenges**

Of course, recruiting talented analysts and data scientists are essential. For me, however, educating existing employees is more important. Even though a genius dada scientist finds a splendid idea, it is useless if it is not implemented correctly. Companies need to convey the importance of data to workers at mine sites to persuade them to follow instructions from AI/data scientists.

**Recommendation**

1. As mentioned above, education is the key. Now, workers rely on only their experience, but after appropriate education, companies can show them there is another reliable option which is derived from data analytics.
2. The performance appraisal system should be reconsidered. It should encourage workers to try data-driven decisions. Currently, their focuses are limited to operational KPIs, so they do not necessarily try “unproven” data-driven methodology. To make data-driven culture, actively trial new technologies should also be evaluated as an achievement.

## [Suvarna Sardana](https://student.emeritus.org/courses/3412/users/29990)

ThursdayLocal: Sep 23 at 2:37pm<br>Course: Sep 23 at 6:37pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

**Data and Infrastructure**

**Challenges**

The data is distributed across multiple internal systems and business units utilizing and producing the data. The data management and governance is also silo based. One of the biggest challenge is understanding the data captured in these different systems/ units and creating a universal set of data. Infrastructure to support this silo based is also scattered and varied as well as it does not use  the most updated technology options.

***Recommendations***

* Centralize the data across silos and have an enterprise data management (EDM) strategy in place
* Invest in latest technology available – such as automation and distributed data storage – and to ensure that the data with different formats and structures that AI models need can be supported.
* Define and implement data governance process so that AI technology that will be implemented will have a steady supply of trusted, good-quality information that is required for the AI models to make relevant and valuable recommendations. Getting it right entails setting a high bar for governance. Hence implementing best practices for data preparation and having specific measures for, and processes to ensure, data quality is needed. These practices should be an integral part of end-to-end modeling landscape, so that data is ready for use in advanced analytics and modeling.

**People and Skills**

**Challenges**

To be AI ready will require people with not just AI technology skill sets but also mindset. However attracting and retaining talent is challenge . Per 2020 talent report “In the United States, AI and Machine Learning roles **grew by 74% annually** between 2016-2019 according to LinkedIn. Machine Learning Engineer, Deep Learning Engineer, Data Scientist, Computer Vision Engineer, and Algorithm Developer are among the most sought-after AI positions between 2018-2019, according to Indeed.

***Recommendations***

* Organizations should develop a clear value proposition to attract and retain talent and make it a priority to get the right resources and nurture them along the way. It’s also important to give the data scientists  the tools they need and to support their preferred ways of working. In turn, they’re more likely to stay engaged with what they’re doing and focus on how they’re adding value.
* Recruitment policy needs to highlight creative thinking and experimentation, data analysis and interpretation, and strategy development.

A recent McKinsey study suggested firms should benchmark the number of staff with data, analytics and AI expertise per 1,000 full-time equivalents (FTEs). McKinsey noted: “In purely numeric terms, they [outperformers] are 2.5 times more likely than other companies to employ more than 25 analytics professionals per 1,000 FTEs.” In addition to headcount, this also requires hiring people with the ability to think laterally and break existing assumptions, patterns and ways of doing things before starting to apply AI.

* Train existing workforce by investing in re-skilling and up-skilling. Organization should rely on the business knowledge of the existing talent as much as possible rather than always hiring costly, external data scientists. External resources may not have a deep understanding of the operations that are unique to a organization.
* Conduct online training and bootcamps in transitioning current workforce to machine learning and AI engineers

References

[https://www.bankingexchange.com/news-feed/item/8065-5-fixes-for-common-ai-challenges (Links to an external site.)](https://www.bankingexchange.com/news-feed/item/8065-5-fixes-for-common-ai-challenges)

[https://www.broadridge.com/\_assets/pdf/broadridge-ai-readiness.pdf (Links to an external site.)](https://www.broadridge.com/_assets/pdf/broadridge-ai-readiness.pdf)

https://www.talentseer.com/2020-ai-talent-report

## [Rene Felder](https://student.emeritus.org/courses/3412/users/138032)

ThursdayLocal: Sep 23 at 2:37pm<br>Course: Sep 23 at 6:37pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

I have taken the 2 dimensions of data/infrastructure and ethics/governance.

As we have seen in some scandals around the world access to data will be more sophisticated in the future. Not all data that is today available will also be available tomorrow. As a reference also the changes in China can be seen as a change of culture to data. Infrastructure is important because of IT security which is and will be crucial for all operations. Data and ethics are more and more important because people are more willing to share all their data with everyone. And overall a good governance model has to give assurance that all AI system work well.

On data people it must be clear which data can be stored and they must be secure, so a data governance model has to secure data. Also the whole infrastructure needs to be secured from unprivileged access. An ethics committee can help to set up standards for the usage of data and a global governance model can secure that the data handling is done properly.

## [Hassan El Houry](https://student.emeritus.org/courses/3412/users/164386)

ThursdayLocal: Sep 23 at 5:07pm<br>Course: Sep 23 at 9:07pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

My company's industry is airports and airport services.

I believe our industry can improve by focusing on two dimensions: **Accessing data and enabling data driven decision-making** AND **people and skills.**

Accessing data and enabling data driven decision making:

Unfortunately, airports serve and treat all customers the same (more or less). A frequent traveler (who is known to be low risk) has pretty much the same passenger journey as a one-time traveler who may not be security screened before. But there can be data available on the frequent traveler, including mode of transport to the airport, where they park their car, preferred airline, preferred seat, background check for security purposes, preferred flight, luggage preference, meals, etc. However, the booking and airport experience would be optimized if the data were available in a marketplace to share across airports and airlines. In addition, security functions would only identify high risk individuals for enhanced screening.

People and Skills:

Working in the industry of aviation, I have noticed that the majority of the industry's leadership has an operations background. These executives mostly worked their way up from operational jobs (or administrative positions) and very few have technology backgrounds or familiarity. NB: This is why I am registered in this course.

My suggestion therefore is to create a technology course tailored to executives in the aviation/airports industry that would give them the tools and resources necessary to leverage technology, data and AI in an aviation/airports operation.

## [Marco Carranza](https://student.emeritus.org/courses/3412/users/90865)

ThursdayLocal: Sep 23 at 11:39pm<br>Course: Sep 24 at 3:39am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

The industry where I work is **Technology applied to the Retail industry.**

The two dimensions would be **‘People and Skills’** and **‘Data and Infrastructure’**

**People and Skills** - Nowadays it is very difficult to find people with the right IT skill. There's a global scarcity of talent and it is also hard to retain the current talent, especially because IT professionals salaries are skyrocketing all over the world. Covid 19 changed how companies work and hire people, allowing companies to hire people from all over the world.

**Data and Infrastructure**-  The retail industry (Brick and mortar) hasn't received so many technological improvements as compared to other industries, but  with the Covid 19 pandemic they realized that there was a huge gap in infrastructure and data source. Most of the retail information isn't available as an API, so complex ways to scrape the data and transformations are needed.

**Recommendations:**

Reskill and upskill  current team members because this is cheaper and easier than onboarding new employees. Also, it's important to change company hiring strategy and hire remote talent that is in a similar time zone. Covid 19 has shown that it is possible to build hybrid teams.

The Retail industry is a bit outdated and there is a huge opportunity to build data sharing platforms and api that will facilitate innovation and allow the creation of new products on top of them. The same opportunities exist on the ecommerce platforms.

## [Ash Naidu](https://student.emeritus.org/courses/3412/users/164679)

SaturdayLocal: Sep 25 at 6:41am<br>Course: Sep 25 at 10:41am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

* What is your industry, and which two dimensions did you pick?

My industry is Telecommunications Services and the 2 dimensions I've picked are;

* Build or buy AI (R&S & Operational capabilities)
* Safeguarding Data and AI - Distilling Value Responsibly and Ethically

For each dimension, what are some challenges that organizations in your industry are facing?

**Build or buy AI (R&S & Operational capabilities)**

* One of the challenges we face as large telco organisation is the shared delusion that we are sitting on the gold mine of opportunities with AI in the Telco sector. We have strong deep domain expertise, ownership, control, & access to unique data, (the quality is sometimes questionable).  I'm sure we have a lot of opportunities to capitalise on as well. One example of this is predictive maintenance enabled by AI that help us monitor equipment, learn from historical information & anticipate failure & proactively fix it. However, there is a serious lack of expertise within the organisation to drive this in a strategic, consistent way forward, top down & bottom up. Sometimes also a case of too many chefs.
* Another challenge is the lack of proper training data for the organisation to work with. Forget training data, our operational data is incoherent and inconsistent. Mainly due to an overall lack of a data strategy. We think we are good enough to build AI, which we probably are in some cases, but not all. The inability of an organisation to honestly recognise its strengths and weaknesses will be a key difference between being successful in this transformation, or failing.

**Recommendations**;

* Invest, prioritize & focus on building a strong data strategy.
* Identify the types of data that we are actually collecting, and gain a clear understanding of what our opportunities are, and what are the best ways to capitalise on them.
* Hire the right talent base - top down & bottom up to revitalise the organisation for its journey.

**Safeguarding Data and AI - Distilling Value Responsibly and Ethically**

This is a serious challenge for my organisation today because of the 5 steps listed, we barely do any properly today.

* Need data checks - this does not exist today. Any manual process or check is questioned for its relevance anyway so it doesn't get done to a level that inspires any trust in the data.
* Sourcing and labelling data - 5 years into their cloud transformation journey, the organisation does not have a proper tagging strategy because its 'too hard'. If we don’t tag our data properly, how do we expect machines to learn/ get smarter?
* Governing AI Algorithms/ Algorithm audits - not happening today.
* Leverage system mapping - we do not have reliable, auditable, system mapping. It is one of the biggest problems of a large legacy telco looking to transform into a digital technology business.
* Ensure adaptive governance systems in place - does not exist today

**Recommendations**;

* Invest in the right tools (for example to automate Data checks for systems).
* Governing AI algorithms - invest in the right people, tools & processes to set up sustainable governance models.
* Sort out system mapping as a matter of priority,
* Invest in building the right data sourcing & labelling practices

**Articles :**

[https://www.forbes.com/sites/bernardmarr/2019/09/02/the-amazing-ways-telecom-companies-use-artificial-intelligence-and-machine-learning/?sh=4159a9174cf6 (Links to an external site.)](https://www.forbes.com/sites/bernardmarr/2019/09/02/the-amazing-ways-telecom-companies-use-artificial-intelligence-and-machine-learning/?sh=4159a9174cf6)>

[http://www.gridinfocom.com/ai-machine-learning-will-transform-telecom-sector-2020/ (Links to an external site.)](http://www.gridinfocom.com/ai-machine-learning-will-transform-telecom-sector-2020/)

<https://www.industry.gov.au/data-and-publications/australias-artificial-intelligence-ethics-framework/australias-ai-ethics-principles>

## [Jerry Li](https://student.emeritus.org/courses/3412/users/139854)

SaturdayLocal: Sep 25 at 12:12pm<br>Course: Sep 25 at 4:12pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

* What is your industry, and which two dimensions did you pick?

We are focusing on Hybrid cloud industry. I would like to discuss the AI readiness from the dimensions of "Data and Infrastructure" and "People and Skills".

* For each dimension, what are some challenges that organizations in your industry are facing?
* For each dimension, what are 1-2 recommendations you would make to these organizations to become more AI ready?

|  |  |  |
| --- | --- | --- |
| Dimension | Challenge | Recommendation |
| Data and Infrastructure | Too much data distributed in various systems and locations | Find or build a tool to review and analyze the data from a central platform; Use a third party tool to categorize the data |
| People and Skills | Hiring process is long and retention is low | Launch internal training sessions to enhance the skillsets of employees |

## [Jinmi](https://student.emeritus.org/courses/3412/users/163394)

YesterdayLocal: Sep 26 at 10:27am<br>Course: Sep 26 at 2:27pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

my industry is biopharma.

**Dimension 1: Data and infrastructure**.

Challenge: Data exist in silos, in different systems, format and organization are not standardized.

Recommendation: A digital transformation needs to happen prior to implementing AI. Strategy for data collection, storage, accessibility, flow, analysis, visualization, reporting needs to be defined through cross functional, cross organization effort, with strong Sr. management buy in and support.

**Dimension 2: People and Skills**.

Challenge:

* Hiring data scientists who have sustained interest in applying their knowledge in the biotech field (i.e. competing with other industry requiring same talent)
* Effective collaboration between people with diverse background

Recommendation:

* Identify adaptable learners and provide training opportunities for "home grown" talent, in combination with hiring key expertise.
* Identify integrators who can bridge  communication and facilitate collaborations across people with different backgrounds (e.g. data scientist, engineers, IT, quality, etc)

[Siva Pamarti](https://student.emeritus.org/courses/3412/users/163350)

## [Siva Pamarti](https://student.emeritus.org/courses/3412/users/163350)

YesterdayLocal: Sep 26 at 1:24pm<br>Course: Sep 26 at 5:24pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

Industry selected is downstream petroleum refining, where crude oil is converted to usable products. Refiners also engage in the marketing and distribution of crude oil and natural gas products.

Many of the products that consumers use every day come directly from downstream production, including diesel, natural gas, gasoline, heating oil, lubricants, pesticides, pharmaceuticals, and propane.

Two dimensions chosen are:'

**1. Implications for a company’s strategy**

Challenges:

* Entirely Operations Focused and emerging technologies like AI are not tied to organization’s goals
* Several legacy systems are being used and it takes heft investments to revamp using latest technologies

Recommendations:

* Gradually incorporate latest technologies, build Proofs of concept to show benefits to top management
* Communicate AI maturity in the oil& gas industry as well as in others to get the buy in to leverage more AI projects within the organization

**2. Accessing data and enabling data-driven decisions**

Challenges:

* Data is massive. Retail store transaction data (~1million per day) analysis can only be done at the summary level with the traditional tools
* Data is not available and 360 degree view of the operations is missing. Assumptions are made when data is not available.

Recommendations:

* Experiment with 1-2 systems and compare the benefits of data-driven decisions vs those that were employed using traditional methods
* Advocate data usage and work towards data democratization

## [Cherish Rhodeback](https://student.emeritus.org/courses/3412/users/164360)

2:53pmLocal: Sep 27 at 2:53pm<br>Course: Sep 27 at 6:53pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

I work in healthcare. The items I choose are data and infrastructure and people and skills.

Many of the challenges space in my organization related to data and infrastructure surround the mini systems we use to capture information and these systems do not communicate and create any for duplicated effort from staff and data maintenance/storage. There is certainly an opportunity for alignment in this area we are currently being presented demonstrations for possible integration solutions.

There is certainly an opportunity for alignment in this area we are currently being presented demonstrations for possible integration solutions.

Another challenge we continually face is recruitment and retention of staff. The recruitment and on boarding processes are quite cumbersome and timely. Many times candidates will except another offer prior to being fully on boarded and transitioned into an open requisition. When we are able to recruit staff many times they are approached and offered more money or better incentives from another organization. We must ensure our pay practices meet market standard and offer incentives to both new and existing team members.

## [Davide Clo'](https://student.emeritus.org/courses/3412/users/160377)

5:52pmLocal: Sep 27 at 5:52pm<br>Course: Sep 27 at 9:52pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/189340?module_item_id=745842)

**What is your industry, and which two dimensions did you pick?**  
    My industry is Food& Beverage and I choose these 2 dimensions: Implications for a Company strategy & Accessing Data and enabled Data Driven Decisions

**For each dimension, what are some challenges that organizations in your industry are facing?**  
    Implications for a Company strategy: challenges are that exists traditional business models that are not digital related. Digital is a must have in order to protect the business and not to really generate new ones.  
    Accessing Data and enabled Data Driven Decisions: to access data we need to enter in the physical world of real plants with real equipment. New one can be prepared for the "digital world" but old ones (the majority) are not digital natives so it becomes difficult to transform (technical issues + customers resistance).

**For each dimension, what are 1-2 recommendations you would make to these organizations to become more AI ready?**  
    Implications for a Company strategy: try to review the strategy to have at least part of that that is really connected to AI features and data driven  
    Accessing Data and enabled Data Driven Decisions: make partnerships in order to create a scalable customer solution for collecting the data.