Discussion 1.1: Applying Gartner’s Hype Cycle to Leverage a Technology in Your Organization

**Applying Gartner’s Hype Cycle to Leverage a Technology in Your Organization**

In Video 5, Professor Olaf Groth discussed how Gartner’s Hype Cycle has evolved over the recent years.

Now take a look at the [5 Trends Drive the Gartner Hype Cycle for Emerging Technologies, 2020 (Links to an external site.)](https://www.gartner.com/smarterwithgartner/5-trends-drive-the-gartner-hype-cycle-for-emerging-technologies-2020). Pick a technology in the cycle, and do some research about this technology online. Craft a discussion post that addresses the following:

* What technology did you select, and how would you describe this technology to those who are unfamiliar with it?
* Which step of the Hype Cycle is it currently in, and what does it mean?
* In what ways can your organization, or an organization of your choice, leverage this technology to achieve its strategic goals?
* Based on where the technology is in the Hype Cycle, what strategies could your organization deploy in the short- and long-term to better capture new opportunities enabled by this technology?

We encourage you to go through your peers' posts and share your feedback.

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

ThursdayLocal: Sep 9 at 7:48pm<br>Course: Sep 9 at 11:48pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

My company provides high performance materials for existing and new technologies. I specifically look at the electronics industry, and find hardware in need of our material properties. We use the Gartner hypecycle to plot new applications we could address with our materials, and revisit each application on a yearly basis to evaluate how much attention we should give to each application. One technology we are starting to focus more on now is AR/VR, because it has made it past the "trough of dissillusionment"  as a potential growth engine.

AR or Augmented Reality is the ability to have a digital canvas painted over reality- or human vision. This can either be through your phone, where the software plots objects over what the camera sees, or through glasses which can plot objects in your field of vision as you look through glasses.

VR, or Virtual Reality, is a totally emersive technology which puts the user in a virtual world, and allows them to interact with virtual objects through a screen, and usually have some type of tactile navigation system that they hold to navigate the virtual world.

AR/VR technology was identified as a relevant hardware technology which may have needs requiring our materials, but the production volume did not justify the investment in new materials for this special use.  I tracked have tracked this technology for several years at CES and in meetings with the top players (Microsoft,Google, Facebook, HTC ) and their vendors  (Kopin, Goertek, Foxconn) with little triggering of internal resources while it climed to the top of the hype cycle, and down into the trough of dispair.

As we see more use cases coming about (enterprise use for cheaper and contactless technical support for example, or the newly launched facebook/rayban glasses ) we start to approach the leading companies in this area, and ask if they need custom developments.

This allows us to not waste resources early on in the cycle, and only monitor. and only as real applications come about do we actually start engaging our operations, technology teams, and broader sales force to address the market.

plotting these technologies on a yearly basis helps us not waste resources too early, and also get comfortable with the landscape of developing technologies we could/should be working on as we evolve our business...

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

FridayLocal: Sep 10 at 3:27pm<br>Course: Sep 10 at 7:27pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

I have chosen "Embedded AI data fabric", this means as IBM mentioned: "*A data fabric supports better use of data as an enterprise asset by providing access to the right data just in time, regardless of where the data is stored. It is agnostic to deployment platform, data process, data use, architectural approach and geography while integrating core capabilities.*" [1] A data fabric helps to find data faster and better on time when it is needed. Today all companies and organizations have too much data but when they need them they cannot found the right data, so an AI driven data fabric helps to have the right data to the right time on access.

I am working in the financial industry and there it is important to have the right data available for example for fraud detection.

Source:  
[1] https://www.ibm.com/analytics/data-fabric

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

SaturdayLocal: Sep 11 at 11:51am<br>Course: Sep 11 at 3:51pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

I agree that Embedded AI Data Fabric will be an important technology that organizations should leverage to achieve critical business objectives. As more and more data becomes available, there is a need to have a more robust data management design and integration system across the Enterprise. Everything starts with having the right data!

[Collapse Subdiscussion](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)[Kenneth Kabaki](https://student.emeritus.org/courses/3412/users/145896)

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

YesterdayLocal: Sep 12 at 11:29pm<br>Course: Sep 13 at 3:29am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

Data fabric is certainly a promising technology considering that companies have (and continue) to collect vast amounts of data. In the past, it used to be that Information is King Knowledge is Power; now how quickly you can extract valuable and actionable intelligence from your data is truly King. It is good to see that there been some promising companies that have come up in this space such as Snowflake.

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

FridayLocal: Sep 10 at 6:54pm<br>Course: Sep 10 at 10:54pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

While reviewing the 2020 graph, **"2-way Brain Machine Interface (BMI)"** immediately caught my attention.

This is a technology to more efficiently, quickly and reliably facilitate brain-to-machine communication.  Our brains have extraordinary transmission speed estimated at 60,000 Terabits per second1, and are estimated to processes 1 exaFLOP (billion billion floating point operations) per second2.  While current machines cannot not yet scale to these levels, they are superior today in certain functions such as memory and calculations.  Additionally, as we will hopefully learn in this course, machines are gaining intelligence rapidly and are becoming superior in newer functions, such as judgement and decision making.

Therefore when contemplate a brain-computer system, we realize that the biggest challenge today is a **bandwidth problem**, not a processing problem.  Our traditional interfaces between the brain and a computer are simply too slow to benefit from the processing power on both sides.  Fingers on keyboards, eyes on screens, ears listening to speakers, voice speaking to microphones, etc. pale in comparison to what's possible with a direct link between the brain and a machine.  That is the technological goal of 2-way BMI - **speed up the pipe.**

The technology is currently in the Innovation Trigger Hype Cycle, indicating the nascence of the technology.  It's about 25% up on the curve with a 5-10 year plateau estimate.  Personally this "feels" too fast for me, but this probably exemplifies my lack of appreciation for how fast the technology is advancing.

Advanced companies such as Tesla, Google and Amazon will certainly benefit from this technology, as they can harness the faster "pipe" to add more and more value to the customer.  In fact, during my research I found a video with Elon Musk discussing a BMI project happening within Tesla right now.

Short-term strategies I would deploy include heavy investments into BMI technology to secure coveted patents and operational prototypes.  This is critical to gain Voice of Customer feedback using non-commercial prototypes.  This helps to define the requirements and investments needed for the products and solutions that eventually commercialize.  Long term strategies should involve investments in existing infrastructure and user experiences, in order to be ready to "plug in" BMI technology when it's ready.  I.e. proactively design products and services that are only applicable with a mature BMI technology, so that the company is ready to commercialize as soon as possible.

Sources:

(1) [https://blog.malwarebytes.com/artificial-intelligence/2019/08/how-brain-machine-interface-bmi-technology-could-create-internet-of-thoughts/ (Links to an external site.)](https://blog.malwarebytes.com/artificial-intelligence/2019/08/how-brain-machine-interface-bmi-technology-could-create-internet-of-thoughts/)

(2) https://www.scienceabc.com/humans/the-human-brain-vs-supercomputers-which-one-wins.html

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

YesterdayLocal: Sep 12 at 11:39pm<br>Course: Sep 13 at 3:39am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

I suppose it is safe to assume that a technology that Elon Musk has immersed himself in is certainly poised for big things. Neuralink seems to be moving quite fast and I actually think that the 10-year estimate is too conservative. There are certainly some ethical challenges that will have to be overcome but there seems to be great promise with this technology nonetheless.

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

SaturdayLocal: Sep 11 at 11:43am<br>Course: Sep 11 at 3:43pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

The technology I selected is “Multiexperience (MX)”. Gartner describes this as “the new omnichannel for a digital-first world. MX is about the shift both in user experience perception and in interaction models, which leads to a multisensory, multidevice, multilocation and multi-touchpoint digital journey.”

Multiexperience is in the Innovation Trigger step in Gartner’s Hype Cycle.

The COVID 19 pandemic has accelerated the adoption of digital platforms. Users are becoming more comfortable with interacting using a variety of digital tools such as mobile apps, web, video sharing apps, and collaboration software and this trend will continue to rise. Organizations must address this shift by offering solutions/services that meet evolving user expectations to provide a seamless experience across a variety of digital touchpoints.

Organizations must start to evaluate growth opportunities that align with their business strategies and selectively invest in key areas that will drive the highest impact for their customers, employees, and their organization.

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

SaturdayLocal: Sep 11 at 5:10pm<br>Course: Sep 11 at 9:10pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

On January 31st 2020, Spain (where I live) reported the first COVID case only after 1 month of Wuhan City outbreak.   It is well-known that COVID served as a catalyst effect on many technologies and among these the Health Passport (which from my readings came as a concept after only ~6 months).   “A health passport (digital app or online) is a certification that displays a traveler’s test result or vaccination record” (rephrased from [https://skift.com/ (Links to an external site.)](https://skift.com/)).  It is intended to provide freedom of movement when travelling.  Fundamentally it proves that a particular individual is at a low risk of acquiring or transmitting a disease.

The Technology was positioned in the “Innovation Trigger” stage when the 2020 Hype Cycle for Emerging Technologies was published on August 18, 2020 (9 month already in the Pandemic) and it was identified to reach plateau in only 2 years.  I went and checked the 2021 report ([https://www.gartner.com/smarterwithgartner/3-themes-surface-in-the-2021-hype-cycle-for-emerging-technologies/ (Links to an external site.)](https://www.gartner.com/smarterwithgartner/3-themes-surface-in-the-2021-hype-cycle-for-emerging-technologies/)) and I did not see it. In my opinion, a crisis fast tracks technology development stages.   The question “does this have an application?” is answered rapidly and roadblocks like privacy, data protection, validity and freedom (this last one being a big argument in some countries) might find a quicker way to the solution.

I work in Repsol which is a global energy provider and we have more than 25,000 employees in 30 countries.  A good percentage of our operations require travelling and this is defined in the job profile of each employee.  When this technology emerged, we developed a comprehensive plan to deploy this technology and extend it to all HSE (health, safety and environment) requirements. We connected therefore all training, HSE certifications and physical conditions necessary for each worker to carry out his/her work activities (which included certified labs test for COVID, Fit to Work) via app.

The strategy we actually implemented was a product development throughout a collaboration agreement.  When we started conversations on the possibility to accomplish this (mid last year), there were a series of start-up working with government agencies, health care institutions and the travel industry.  We map these companies and launched an innovation award.  The best offer got a PoC (prove of concept) opportunity which we fully funded.  This helped to move the product from conceptualization stage to MVP (minimum viable product) and this year was adopted; therefore, I totally agree with the “2 year” time frame that was given to this technology.

Note: for peers that are interested, during my research I went through the info below which talk about the different countries’ initiatives and companies working on Health Passport:

* Article: [https://www.bbc.com/news/world-europe-56522408 (Links to an external site.)](https://www.bbc.com/news/world-europe-56522408)
* Video[https://www.youtube.com/watch?v=-SxNvEGF9xE&list=PLCy9upfcYmpLIeh6eZLr5t04gGALAhVmy&index=2 (Links to an external site.)](https://www.youtube.com/watch?v=-SxNvEGF9xE&list=PLCy9upfcYmpLIeh6eZLr5t04gGALAhVmy&index=2)[](https://www.youtube.com/watch?v=-SxNvEGF9xE&list=PLCy9upfcYmpLIeh6eZLr5t04gGALAhVmy&index=2)

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

YesterdayLocal: Sep 12 at 7:42am<br>Course: Sep 12 at 11:42am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

The technology I chose from Gartner's 2020 Hype Cycle graph is **Generative Adversarial Networks (GANs)**. It is a technology in the machine learning domain, specifically deep-learning, where two neural networks compete with each other in order to achieve better results when generating content.

Basically, one network is generating new content based on a training set and the other network is trying to detect which content is generated. For example, one network is given images of cars and is trained to generate new images of cars. A second network is trained to detect which images are generated and not real and this is used as a feedback for the first network.  
This way the two networks improve each other. I like the idea behind this technology since it elegantly removes the human factor from the training process. When machines train other machines they can do so much more quickly and efficiently than a human does. This is even more relevant in deep-learning, where it is usually very difficult to understand what the network is doing.

This technology is currently at the innovation trigger phase of the Hype Cycle.

Businesses who rely on content generation can leverage this technology to achieve their goals more quickly and with lower costs. For example, a marketing/advertising company can generate large quantities of original, diverse high-quality marketing materials without the hours on hours of writing and design.

Since this technology is still in its early stages, implementing it will require hiring machine learning engineers and going into research, without knowing if the technology will live to the expectations and will pay off. For this reason I would advise organizations to keep track on the development of the technology and look for companies which provide these algorithms as a service and cooperate with them in order to evaluate the actual value of the technology. This kind of cooperation can be beneficial for both sides since one of the biggest problems machine learning engineers are facing is lack of real-life data.

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

YesterdayLocal: Sep 12 at 6:09pm<br>Course: Sep 12 at 10:09pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

The “Digital Twin of the Person” piqued my interest in the Hype Cycle for Emerging Technologies, 2020. Having been in biotech/pharma industry for many years, any thought of having a virtual model that can reflect a person’s complex innerworkings, physical, physiological, or emotional, is both exciting and nerve racking to me. Interesting to see it is placed more than halfway up the peak of inflated expectations. The ability to utilize Digital Twin effectively to monitor, predict or control desired outcome resides in two key aspects: 1) gathering the relevant inputs through extensive online or offline sensors and 2) establishing a reliable digital process that captures the essence of the corresponding physical process to generate outputs from inputs. After that, the digital twin can be used for system monitoring, simulation and feedback control. In our work to discover, develop and manufacture biopharmaceuticals, we have been pursuing digital twin applications in several areas. First area is manufacturing, where the digital twin has perhaps already progressed to the “slope of enlightenment” stage in some industries. For biotech/biopharma manufacturing, although real time monitoring and control can be done effectively for each individual unit operations, the system level integration and effective data utilization from varying scale and sources throughout the product development cycle is still what we are actively working on. The strategy is to leverage contract and consult firms which have more experience in this space to first help us develop an implementation roadmap, and then execute on it in stages. Second area we look into applying digital twin is in research and development. Since complex living organisms (bacteria or human cell culture) are used to produce biopharmaceuticals, many factors during cell line engineering and cultivation of cell culture can impact the cell biology, and subsequently the quality and quantities of medicinal product produced. We had been collaborating with company in this space, trying to use a combination of knowledge from complex metabolic networks in the cell and machine learning to construct “digital twin of a cell”, for purpose of better understanding and optimizing the production process of biopharmaceuticals. For this application, although “a cell” is definitely less complex than “a person”, it is still early in the hype cycle, perhaps at the stage of going downward the slope after peak of inflated expectations.  We continue to explore this space through collaboration with academic or other contract research company, and monitoring development through conferences and scientific literature without major capital investment.  With regard to “Digital twin of the Person”, it would be the ultimate holy grail from a healthcare perspective, and probably take a long time to get there. But we can envision the applications can range from some accessible aspects ( e.g. continuous glucose and diet monitoring for diabetic patient to predict best course of intervention), to much more complex tasks (e.g. can we predict patient outcome of diseases based on various biomarkers, model various intervention outcomes, and then suggest best course of treatment? …). I believe we will be able to tackle it through ever expending scope of accessible applications by new technologies we are learning in this course.

Some info link and articles of interest:

[https://www.ibm.com/topics/what-is-a-digital-twin (Links to an external site.)](https://www.ibm.com/topics/what-is-a-digital-twin)

https://www.sciencedirect.com/science/article/pii/S2666990021000136#!

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

YesterdayLocal: Sep 12 at 6:39pm<br>Course: Sep 12 at 10:39pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

My company is in the midst of a radical rethink on how to accelerate revenue based on common platforms, low-code, and platform integration across business lines. Composable Enterprises / Architecture is about flexibility and scalability across businesses from technology to business models.

* What technology did you select, and how would you describe this technology to those who are unfamiliar with it?

*“A composable enterprise is an organization that can innovate and adapt to changing business needs through the assembly and combination of packaged business capabilities.**” 1*

* Which step of the Hype Cycle is it currently in, and what does it mean?

*My estimate is that its about 80% upwards, which indicates that we might be close to the peak.  It's interesting that In my current role we are aggressively driving this model.  Right now its working and I'm not sure how aggressive it will drop.*

* In what ways can your organization, or an organization of your choice, leverage this technology to achieve its strategic goals?

*Leverage open source, open architectures, and join alliances that are strategic to your business model.  Technology is moving too fast for most companies to absorb quickly.  One fairly recent trend is low-code.*

*"The benefits of low-code are as far-reaching as its use cases. Different low-code platform types touch on a range of digitalization topics: multiexperience to help you innovate and meet customers where they are; business process visualization so you can more easily and automate the mundane tasks that can slow your business down to a crawl; and the enablement of secure development outside of IT, helping address the backlog of requests." 2*

* Based on where the technology is in the Hype Cycle, what strategies could your organization deploy in the short- and long-term to better capture new opportunities enabled by this technology?

*Short-term, funding can be put place for testing on a platform/portfolio or specific business.  Longer-term, put in place a working group across business units to see how a composable business model might look at the corporate level.*

*Thinking through how COVID impacted businesses globally with a lot of uncertainty.  Some companies embraced change and pivoted their business, which saw accelerated and some would say unprecedented growth.*

*1*[Gartner (Links to an external site.)](https://www.gartner.com/en/doc/465932-future-of-applications-delivering-the-composable-enterprise) and  [Third & Grove (Links to an external site.)](https://www.thirdandgrove.com/insights/composable-enterprise/)

2[Mendix](https://www.mendix.com/resources/gartner-identify-and-evaluate-your-next-low-code-development-technologies-mx/?utm_source=google&utm_medium=cpc&utm_term=&utm_campaign=NA_Low_Code&utm_adgroup=122213227117&gclid=CjwKCAjwyvaJBhBpEiwA8d38vIUPknah4qu3CT7fupHHUe9uzgO3Os2a3TQZWwnrrPeDEl-GLKIRwhoCiH8QAvD_BwE" \t "_blank)

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

YesterdayLocal: Sep 12 at 7:46pm<br>Course: Sep 12 at 11:46pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

**What technology did you select, and how would you describe this technology to those who are unfamiliar with it?**

I chose Explainable AI, "a set of processes and methods that allows human users to comprehend and trust the results and output created by machine learning algorithms." [1].

**Which step of the Hype Cycle is it currently in, and what does it mean?**Explainable AI is currently at the peak of inflated expectations in the Gartner Cycle of Emerging Technologies 2020, so expectations are probably higher than they should be. However, I believe this technology is critical for highly regulated industries where the wrong decision can be life-threatening.

**In what ways can your organization, or an organization of your choice, leverage this technology to achieve its strategic goals?**

I first learned about Explainable AI in 2018 when I was researching the use of machine learning (ML) within quality management systems (QMS) to improve critical decision-making in the life sciences industry. Until Explainable AI came along, the results from ML algorithms were a set of statistics that only data scientists understood. With Explainable AI, we can begin to augment the critical quality and regulatory decision-making that may have the patient, product, or regulatory impact with confidence.

**Based on where the technology is in the Hype Cycle, what strategies could your organization deploy in the short- and long-term to better capture new opportunities enabled by this technology?**

For now, I think we should run some proof of concepts while the technology is in the current stage and look to leverage a technology partner to exploit their learnings.

**Source:**

[1] <https://www.ibm.com/watson/explainable-ai?p1=Search&p4=43700064515261196&p5=e&gclid=EAIaIQobChMItbnZjcD68gIVEj5gCh3vgwcCEAAYASAAEgLK5_D_BwE&gclsrc=aw.ds>

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

7:53amLocal: Sep 13 at 7:53am<br>Course: Sep 13 at 11:53am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

Data has and will continue to be a core component of any company's business operations. As we are transitioning from the information age, the need to extract maximum value from this data will become necessary if not critical. As the old adage goes, Information is Power, so too will our ability to generate useful and actionable value from the data we have.

I am currently consulting for a manufacturing company which runs multiple applications, each acting as a silo generating ever-increasing amounts of data. I am constantly thinking of how this company could better extract the maximum value from the vast data it collects.

Data Fabric certainly piqued my interest as a technology that could be leveraged in my company. Data Fabric is currently in the peak of inflated expectations phase of the Hype curve, a critical phase where potential value of a technology is reconciled with the expectations.

Gartner's own definition of a Data Fabric is "a design concept that serves as an integrated layer of data and connecting processes." These connecting processes could be disconnected applications, such as in my case, ERP, CRM and Logistics systems that serve the three pillars of my company's core operations.  With a Data Fabric, my company could be able to enhance its customer experiences by ensuring that there is seamless integrations and singular access to data by each of the core applications.

There has been some promising companies that have come into prominence in this space within the last year.  One such company is Snowflake. This would be a good time for my company to review Snowflake's offerings as well as other vendors. Development work should be prioritized on applications which have vendors that are building components of the data fabric concept into their existing software.  Applications with outdated data structures should also be upgraded to a model that is more in tune with the Data Fabric paradigm.

Sources:

(1) [https://www.gartner.com/smarterwithgartner/data-fabric-architecture-is-key-to-modernizing-data-management-and-integration/ (Links to an external site.)](https://www.gartner.com/smarterwithgartner/data-fabric-architecture-is-key-to-modernizing-data-management-and-integration/)

(2) <https://www.ibm.com/downloads/cas/WNBGAWZ1>

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

8:13amLocal: Sep 13 at 8:13am<br>Course: Sep 13 at 12:13pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

I choose Generative Adversarial Networks (GANs), which is basically a technology under machine learning that mainly relies on two competing models until they "learn" from each other and eventually become "the same" [1]. One model generates (generative model), while the other checks (discriminative model). To understand more easily, a generative model may be thought of as a generator of fake money, while a discriminative model checks the "fakeness" of the money generated. The goal is to let the "difference" between the two approach zero so that the generated fake money will resemble real money. One reason I chose this is because it heavily relies on mathematics since it basically involves distribution functions [2,3].

As of now, GANs are in the Innovation Trigger phase, which means that it is a new tech ( it was formulated recently in 2014 [3]), and there are high expectations for this. In fact, lots of researches were done for different variations of GANs in recent years, may it be from the mathematical side or from the technology area.

Our organization aims to completely digitalize home-building. One part of the process is checking whether every software-developed house plan is viable such that it follows architectural and engineering regulations. This may be done "manually", but the process will be tedious. This is why I think that GANs are the perfect technology for us to leverage on on this part of the process. Not only will the "checking" of the house plans be made easier and more efficient, but this personally will be more familiar since it essentially involves mathematics.

GANs being on the early stage of Innovation Trigger allows us to better leverage on this. As mentioned, various researches are done regarding GANs because it is new, and so mathematical results arise frequently. Good thing that our digitalization is mathematics based, hence these researches aside from the actual advances on the technological side will be beneficial for us not only in the short-term, but for the long-term as well.

Sources:

* + [1] [https://machinelearningmastery.com/what-are-generative-adversarial-networks-gans/ (Links to an external site.)](https://machinelearningmastery.com/what-are-generative-adversarial-networks-gans/)
  + [(Links to an external site.)](https://machinelearningmastery.com/what-are-generative-adversarial-networks-gans/)[2] [https://towardsdatascience.com/the-math-behind-gans-generative-adversarial-networks-3828f3469d9c (Links to an external site.)](https://towardsdatascience.com/the-math-behind-gans-generative-adversarial-networks-3828f3469d9c)
  + [3] <https://arxiv.org/pdf/2009.00169.pdf>

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

8:58amLocal: Sep 13 at 8:58am<br>Course: Sep 13 at 12:58pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

* What technology did you select, and how would you describe this technology to those who are unfamiliar with it?

I chose Blockchain and its application to create smart contracts.

**Blockchain** can be defined as a decentralized, immutable, distributed ledger that facilitates the process of recording transactions and tracking assets in a business network. Virtually anything of value tangible or intangible can be tracked and traded on a blockchain network, reducing risk and cutting costs for all parties.

Businesses thrives on information — Blockchain is ideal for delivering that information as it provides immediate, shared and completely transparent information stored on an immutable ledger that can be accessed only by authorized network members. Network members share a single view of the truth and transaction details are transparent giving users greater confidence, efficiencies and new opportunities1.

**Smart contracts** are simply programs stored on a blockchain that run when predetermined conditions are met. They are used to automate the execution of an agreement so that all participants can be immediately certain of the outcome, without any intermediary’s involvement or time loss. They can also automate a workflow, triggering the next action when conditions are met. Once a condition is met, the contract is executed immediately. Smart contracts are digital and automated, there’s no paperwork to process and no time spent reconciling errors that often result from manually filling in documents1.

Authenticity of the transaction need not be questioned as there’s no third party involved and records of transactions are shared across participants. Blockchain transaction records are encrypted, which makes them very hard to hack. Moreover, each record is connected to the previous and subsequent records on a distributed ledger, hackers would have to alter the entire chain to change a single record1.

* Which step of the Hype Cycle is it currently in, and what does it mean?

Blockchain is at Slope of enlightenment stage in Gartner’s Hype cycle3,4. It means some early adopters overcome initial hurdles, begin to experience benefits and recommit efforts to move forward. Other organizations increasing their understanding and drawing on the experience of early adopters to assess their value proposition.2

* In what ways can your organization, or an organization of your choice, leverage this technology to achieve its strategic goals?

My firm produces large volumes of financial transactions and executes 100s of contracts every year. Currently, we manage these voluminous transactions through in-house or commercial-of-the-shelf software products. By leveraging this technology, I believe we can gain comparative advantage, reduce cost, gain efficiency, and increase productivity.

* Based on where the technology is in the Hype Cycle, what strategies could your organization deploy in the short- and long-term to better capture new opportunities enabled by this technology?

In short-term — our organization can spend more time in deeper understanding of this technology, study early-adopters, start a few use cases, and layout an adoption strategy. Additionally, we can increase awareness of this technology among our business partners, clients, and customers.

In the long-term, our firm can invest in this technology, refine technology roadmap, transform our systems, and encourage clients/customers to adopt Blockchain/Smart contracts.

Sources:

1. [https://www.ibm.com/topics/what-is-blockchain (Links to an external site.)](https://www.ibm.com/topics/what-is-blockchain)
2. [https://www.gartner.com/en/documents/3887767 (Links to an external site.)](https://www.gartner.com/en/documents/3887767)
3. [https://blogs.gartner.com/avivah-litan/2021/01/13/3-blockbuster-blockchain-trends-in-2021/ (Links to an external site.)](https://blogs.gartner.com/avivah-litan/2021/01/13/3-blockbuster-blockchain-trends-in-2021/)
4. <https://imiblockchain.com/gartner-blockchain-hype-cycle/>

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

12:16pmLocal: Sep 13 at 12:16pm<br>Course: Sep 13 at 4:16pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

Formative AI.

My first question was: what makes Formative AI, or more specifically, Generative AI differ from just AI? After some research and coming across the paper on “Analytics Insight” by Preetipadma [1], the definition was quite clear: an Ai that is capable of dynamically changing itself to respond to different situations in time or, with my words, just a more intelligent AI.

I then understood that, using “Gartner Hype Cycle for Emerging Technologies”, 2020 & 2021, [2] & [3], Generative AI as part of Formative AI is currently placed in the Innovation Trigger and, as such, is still generating great expectations in its development while getting closer to the Peak of Inflated Expectations.

Our organization is a traditional industrial based company historically world leader in providing component for the world electrification. One of the diversification we already identified and working on is to become a services provider to support our customers with not only providing hardware but also analyzing software benefiting on our knowledge. The Formative AI would be an ideal platform for developing this new business line as the capability of adapting to different conditions such as weather, operation conditions, time, etc., would be perfect to a faster the learning curve.

As for the implementation strategy, being not yet a mature technology whilst holding a forecast of reaching the plateau of productivity in 2-5 years, we should partner with someone investing in this technology for developing together the specific application to our business.

Sources:

[1] “Artificial intelligence technologies have always lived up to the hype. So what’s next?”, Analytics Insight, March 13, 2021 - [https://www.analyticsinsight.net/emerging-artificial-intelligence-technologies-of-2020s-formative-ai/ (Links to an external site.)](https://www.analyticsinsight.net/emerging-artificial-intelligence-technologies-of-2020s-formative-ai/)

[2] “Gartner Hype Cycle for Emerging Technologies”, 2020 - [https://images-cdn.newscred.com/Zz1lNWZiNWRjMmRlNWIxMWVhYjFjMjBlNjhjZDJlOWEzMw== (Links to an external site.)](https://images-cdn.newscred.com/Zz1lNWZiNWRjMmRlNWIxMWVhYjFjMjBlNjhjZDJlOWEzMw==)

[3] “Gartner Hype Cycle for Emerging Technologies”, 2021- [https://images-](https://images-cdn.welcomesoftware.com/Zz01ZmY4NGU1ZTAwZjgxMWVjYWI3MjY1MjhkNjNjMWEzNw==)

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

12:40pmLocal: Sep 13 at 12:40pm<br>Course: Sep 13 at 4:40pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

I selected “Data Fabric” from the 2020 Hype cycle. Data fabric is an architecture and set of data services that decouples from any physical implementation and provides seamless access across multiple clouds, datacenters (core), or even edge systems (such as Internet of Things devices, local machines, or even mobile devices) to accelerate digital transformation.1  
Data Fabric is currently (2021) at the peak of inflated expectation in the Hype cycle. It aligns with the current trends wherein companies and organization are starting to look at standardizing their data management practices. In our company, we have disparate data sources and standardization of data is gaining momentum. Using data fabric technologies, we can create a unified platform and ensure consistency across all our data environments.

We have already started to utilize this technology by moving our on-premise applications to cloud as well as working on creating data management strategies that will help us gain efficiencies, provide adequate data privacy and control and easy access to data across multiple platforms.

In long term, this will helps us respond quickly to business needs and gain competitive edge.

Sources: 1. Ebook: Data fabric for Dummies

https://www.netapp.com

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

1:00pmLocal: Sep 13 at 1pm<br>Course: Sep 13 at 5pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

I have selected  “ Embedded AI”  , Embedded AI is the application of machine learning at device level.  Embedded AI is at the peak of inflated expectations in the Gartner Cycle of Emerging Technologies 2020.  Based on my knowledge , Embedded will become very critical in near future as we are developing more Autonomous systems.

In Oceaneering , we are heavily invested in Subsea Robotics, Automated Guided vehicles and Autonomous people mover type of robotics solutions. With Autonomy system needs capabilities to make decision when they are not connected to border network or in case of system failure. Embedded AI provides the capabilities were Autonomous systems can make some decision at system level during its normal operations.

At this stage , there is good amount of knowledge on how Embedded AI can be achieve, with development of advance microprocessors this technology will accelerate for future use. We are actively working on educating our self and team to start the pilots to implement embedded AI in future generation of products.

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

5:46pmLocal: Sep 13 at 5:46pm<br>Course: Sep 13 at 9:46pm

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

* What technology did you select, and how would you describe this technology to those who are unfamiliar with it?
  + I chose the Composable enterprise and its relation to business models.  “Composable business is a natural [acceleration of the digital business (Links to an external site.)](https://www.gartner.com/smarterwithgartner/why-now-is-the-time-to-accelerate-digital/) that you live every day. It allows us to deliver the resilience and agility that these interesting times demand,” (1)
* Which step of the Hype Cycle is it currently in, and what does it mean?
  + With the rapidly evolving landscape that accelerated with the pandemic, it feels that this technology is nearing or nearly at the peak of inflated expectations
  + It means it is a good time to research and be prepared for when we make our way through the trough of disillusionment we are prepared to execute and stay ahead of competition
* In what ways can your organization, or an organization of your choice, leverage this technology to achieve its strategic goals?
  + 3M is vary familiar with a business model that has it's epicenter at St. Paul.   With the diverse products, customers, supply chains, and digital tansformations, it is critical that we adopt a composable business model that allows us to be agile and adapt quickly to the rapidly evolving market and supply chain.
* Based on where the technology is in the Hype Cycle, what strategies could your organization deploy in the short- and long-term to better capture new opportunities enabled by this technology?
  + Research the trends and align key business leaders to put time, people, and resources to determine path forward of how we would structure to better support emerging technologies and more modular approach.

Source:

(1)[The Future of Business Is Composable - Gartner Keynote](https://www.gartner.com/smarterwithgartner/gartner-keynote-the-future-of-business-is-composable/)

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

9:44pmLocal: Sep 13 at 9:44pm<br>Course: Sep 14 at 1:44am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

**Innovation Trigger: Multiexperience**

**Use Case: *Helping organizations build successful revenue-generating teams using multi-experience technologies such as chatbots and conversational intelligence technologies***

**Background & Problem Statement**

The pandemic has forced organizations to rethink how they reach/engage potential customers to sell and market their products and/or services. The traditional sales and marketing tactics no longer work in a world where consumers are more educated than ever, have numerous options to pick from, and hate to be sold to.

**Solution: Multiexperience digital strategy**

***Definition by Gartner:***Multiexperience is about designing and developing seamless and effortless experiences across apps, digital touchpoints and interaction modalities.

A couple of ways that this technology can be used at my organization are:

**Conversational Chatbots**

*Definition from IBM*

A chatbot is a support system for your customer service. Using artificial intelligence and natural language processing, your chatbot can simulate conversation with a user through messaging applications, websites, mobile apps, and more, giving them accurate and relevant information.

**Conversation Intelligence**

Organizations can now use conversational AI tools to help and coach salespeople better on how to best have conversations with prospects. Insights into keywords, call to action, competitor analysis can all help during customer conversations allowing salespeople to be more effective.

Edited by [Alfred Selvarajah](https://student.emeritus.org/courses/3412/users/161402) on Sep 13 at 9:49pm

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

11:19pmLocal: Sep 14 at 11:19pm<br>Course: Sep 15 at 3:19am

[Manage Discussion Entry](https://student.emeritus.org/courses/3412/discussion_topics/188601?module_item_id=742255)

My company Deluxe, that has been established by W.R. Hotchkiss a century ago who invented a little product that changed banking: the checkbook. He had a big idea and plenty of dedication, he took a $300 small business loan and founded the company. That humble beginning turned into a century of helping consumers, entrepreneurs, enterprises and financial institutions thrive. Our goal is to help enterprises, small businesses and financial institutions deepen customer relationships through trusted, technology-enabled solutions.*1*

* *What technology did you select, and how would you describe this technology to those who are unfamiliar with it?*

“A composable enterprise is an approach to design that embraces the API economy, delivering business outcomes through the assembly and combination of packaged business capabilities.*” 2*

* *Which step of the Hype Cycle is it currently in, and what does it mean?*

Based on the data that Hype cycle “Composable enterprise” is in the innovation trigger step however Gartner advising us plateau will be reached 2 to 5 years (as of 2020), this seems true because most of our services are based on these API calls and these are expanding and those will be evolving with AI supporting shortly.

* *In what ways can your organization, or an organization of your choice, leverage this technology to achieve its strategic goals?*

Our management team has a clear vision of adopting the new technologies and attracting the best talents which enable us to hone the best mix of packaged services for the benefit of our clients. Since we have a diverse set of customers, tailoring new functionality to address unique business needs and use cases might be a way for us to achieve the balance.

* *Based on where the technology is in the Hype Cycle, what strategies could your organization deploy in the short- and long-term to better capture new opportunities enabled by this technology?*

Identifying inefficiencies and bottlenecks and getting the most updated picture of our organization might be the first step of our strategy in the short term, then the allocation of our time, human resources, and capital ROI comes to the stage. The good part is, most of the new techs are coming as open-source and we have already solid ground and strong foundations to build these services on top of it or if needed we have the opportunity to expand our scale with the cloud service models.

*1*[https://www.deluxe.com/about/ (Links to an external site.)](https://www.deluxe.com/about/)

*2*<https://www.akana.com/blog/what-is-composable-enterprise>