GenAI Automation Navigation

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Business leaders are currently presented with the difficult problem of navigating GenAI automation. Agentic GenAI is beginning to [turbocharge automation](#). But at the current level of GenAI maturity, there are limits to what can be effectively automated. Looking down the road, there are disagreements about how much human work activity can be automated. The [pessimistic view](#) posits 80 percent. The optimistic view says [all work tasks including creative ones will be automated](#). Anxiety surrounding GenAI automation is already high. A recent poll showed that [52 percent of people expect their jobs to be automated](#) by AI.
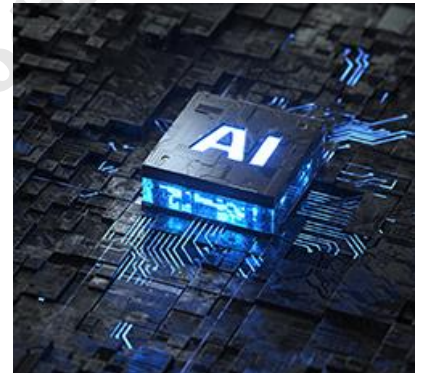
There are some guidelines that can be helpful to business leaders making decisions in this difficult environment. Five sets of guidelines can help business leaders make good decisions. They involve: avoiding all-or-nothing reactions; deciding if your business has to be an early adopter; paying close attention to the GenAI maturation curve; using an innovation funnel to select applications that fit the current maturation curve situation; and taking care of your employees so that they can take care of your business.

Maturity Background

GenAI is still early in its development and even much earlier with agents. The technology will get better as time allows it to mature. Agent applications allow GenAI to focus on relatively small domains. This allows specialization in training and fine tuning. Over time, this focus will help avoid many of the problems encountered in early chat and web-based applications.

Meantime, two of the leaders of the AI community are having a public argument over whether GenAI can automate creative work. That is, [create](#) fundamentally new knowledge and innovate. This is instructive in that it underlines the extent to which current work tasks can eventually be automated. Those stating that GenAI can perform creative tasks are arguing that it can automate all existing work tasks.

Employee Problem

Business leaders have to find a way to keep their employees motivated and working effectively. At the same time, they have to explore automating all the functions they perform. A way to provide current employees with the sense of security they need to work effectively is needed.

Currently, there is a lack of people with the necessary technical and business skills in GenAI. One of the results of the lack of people with the necessary skills is the generation of a lot of noise by unqualified people making pronouncements. This means that current employees need to be unskilled. Businesses also need to make sure that the educational system provides a pipeline of qualified people. This may get harder because schools are reinstating trade curricula. Assuming that white color jobs will be automated by GenAI while the trades will continue to be manual. This, in spite of the emergence of AI autonomous systems beginning to take over trades.

Pace of Change Problem

Two weeks ago in another forum, I predicted that in the future autonomous vehicles would replace farmers. At the time, this seemed a revolutionary prediction. However, two weeks later there was an announcement of a system that did exactly that.

GenAI capabilities have been growing very rapidly. Those working on frontier models (the leading technology edge) tend to be on a six month cycle. That is, a new model with new capabilities every six months. Since each group has a different starting date, there tend to be new capabilities every week or two. As the model sizes go from hundreds of billions of parameters to trillions, some say that they are reaching an asymptote. That is, entering a stage of diminishing returns. But then a completely new capability like reasoning appears.

Against this background, there is a significant probability that a fundamentally new technology approach will appear. After all, GenAI was kicked off by the unexpected Attention paper in 2017. Then, followed by the unexpected discovery that increasing parameter sizes would produce dramatic effects. So, it is reasonable to expect another unexpected technology breakthrough. Although reasonable to predict, it is not possible to predict when.

As with most new technologies, raw technology preceded applications. Now, there has been enough time that early application failures have produced enough learning that some successful ones are beginning to appear. However, the picture is blurred by many claiming to have AI applications that are actually implementations of previous generations of technology.

Guidelines for Successfully Navigating GenAI Application

The following five guidelines for successfully navigating GenAI application are inter-related:

1.) Avoid all or nothing reaction.

There is a normal human reaction when something new comes along. It is to either totally reject it or to totally embrace it. The first guideline is to do neither. Related to this guideline is to remember that not everything has to be GenAI. Previous generations of technology still have value. Starting a new or continuing an in-process application using other technologies may make economic and operational sense.

2.) Decide if your business must be an early adopter.

Think carefully about your business, your competitors and the environment you operate in. Given that, try to decide if your business needs to be an early adopter, middle stage adopter or late stage adopter. Although it can be exciting to be on the 'bleeding edge', not every business has to be there. Continue to make this assessment. Things are happening so quickly that you may need to change your assessment frequently.

3.) Pay close attention to the GenAI maturation curve.

As a business leader you may not have the time or the technical background to do this by yourself. In that case, find a trusted source that has the technical background and the inclination to follow the maturation curve closely. Be careful in the process of finding the trusted source. Remember that there are many claiming to have knowledge and expertise who don't yet have it. This kind of trustworthy source is a scarce resource and should be treated as such.

4.) Choose applications that fit the current maturation curve situation.

Maintain effective and productive [innovation funnels](). That is, a series of processes, budgets, with senior leadership support that promotes innovative ideas. Analyzes them. Filters them. Carries promising ones through stages to successful implementation. Leadership that values the knowledge learned from failure as well as successful implementations.

As part of the funnel process, place a strong emphasis on selecting applications that fit the current state of the GenAI maturation curve with special emphasis on the current state of [GenAI negative side]() effects. For example, make a clear estimate of the probability of hallucination with the particular GenAI instantiation being proposed for the proposed application. Then, estimate the damage that may occur as a result of that probability of hallucination. If the analysis shows that the application has promise, develop a prototype to test the estimate. If the analysis shows the application does not have promise, estimate where on the maturation curve GenAI technology will have to be to make it have promise. Watch for the technology to reach that point.

5.) Take care of your employees so that they can take care of your business.

Plan your people resources carefully. Make sure that your employees feel that they will be taken care of as GenAI automation matures and grows in the business. This is very important. Negative employee attitudes can create a toxic environment and produce mutually destructive behavior. Employees understand that there is some amount of competition inside a company. They want to feel that they will be okay if they work conscientiously on the things they have control over. In the past, up-skilling and retraining have been seen as a way to protect employees in areas being automated. But now GenAI promises to automate so much that other means must be found to make hard working employees feel that they will be able to continue to support their families.

To make sure that employees can effectively use the GenAI tools, provide appropriate, quality training to your employees. For technical staff good fundamental training in GenAI technology is important, i.e., training that focuses on the basic principles. Very detailed training of technical staff may not be necessary. The field is changing so rapidly that the details may quickly become obsolete. Those working on specific projects may need training and support on the technical details associated with their work in that project. Similarly, when hiring technical staff look more for understanding of the basic principles rather than detailed knowledge.

There needs to be GenAI technical training for business roles as well. That training should provide an

understanding of the basic principles of GenAI and a strong understanding of the negative side effects. The understanding of the negative side effects should be paired with a good understanding of the likely course of the maturation curve and its consequences. Tools for staying current should also be included.

To help assure a pipeline of qualified people for the business, work with educational institutions to help them understand what the likely projection in GenAI automation within your business will be. Help them understand the skill sets you will need and when they will be needed. Then, provide on-ramps for graduates to join you.

Conclusion

Business leaders are confronted by the question: Are GenAI systems in your business or is your business contained in GenAI systems? The answer to this question will change over time. Furthermore, the changes may come rapidly. The guidelines discussed above will help business leaders make smart decisions. smart decisions.