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Evolution

Inevitable Change

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In a scientific sense, evolution is the heritable change in organisms over a period of time. In a modern sense, it means change. Now, change has always been somewhat of a touchy subject with people. More often than not in history, it is observed that people are afraid of change, of what they do not know. With inventions as revolutionary as the printing press, people were worried monks would become lazy, and that the rest of humanity would follow suit. And when the locomotive was created, people were worried of the fatal accidents that would inevitably occur with their use. Though these great marks of history were not exactly welcomed with open arms at first, they became significant turning points in humanity, and were eventually accepted for the phenomena they were. This repeating cycle of skepticism and conceding to change seems to be a feat of human nature, one that is still observable today.

With the invention of the conveyor belt, plastic, industrial robots, 3D printing and more, manufacturing has never been the same. With the rapid growth and pioneering in the industrial field, beneficial technological advancements are constantly being made. Now, robots are extremely common in the production process of manufacturing, and corporations have grown to invest in the future innovation of robotics as well as the integration of new ideas involving robotics that will make the overall work environment more efficient (Benady).

Since the use of robots in the production environment, it has been found that they offer a form of flexibility that is extremely valuable to the food packaging industry due to the versatility of interchangeable machinery parts. One robot’s arms can be switched out to perform different functions, whereas it would take resources and time to train someone to do the different jobs, or to simply hire another person to do the task. A single robot can function for multiple jobs, ultimately saving time, money, and resources that would be otherwise spent on hiring and searching for new laborers. The success of robotic powered manufacturing warehouses have become so popular that innovation has seeped in through the process. Forward-thinkers have developed autonomous mobile robots (AMR’s) that can make their own factually-based decisions while navigating a warehouse, finding their own efficient route rather than sticking to a fixed one. This technological advancement offers flexibility and efficiency, which is arguably one of the most key aspects in the success of an industry or organization.

Though the presence of robotics instills fear in many people today, with the threat of humans becoming ultimately futile and impractical when compared to their mechanical counterparts, there are many examples of efficient work environments that utilize both people *and* robots—a method that has been coined as “co-botics.” Online grocery company *Ocado* utilizes this method by emphasizing the automatic and swift skills of the robot, and the careful attention and customization of human work, making an ultimately more efficient workflow (Benady, Ocado). Ground-breaking inventions and applications such as these are obvious reasons to be thankful for the benefits we receive from technological advancements, but there are other—more discreet—projects that could change the face of the packaging industry forever.

One of the main aspects of the packaging industry that is most scrutinized as a whole is the pollution epidemic it has encouraged and enabled in the past. For decades, single-use plastic waste has been building in the ocean, mostly consisting of plastic bags, food packaging, and straws. As 40% of all non-fiber plastic is packaging plastic, companies are fully aware of the steps the need to take to become a positive impact on the environment, and some are doing so by investing in inventive technology dedicated to the construction of fiber based materials.

Fiber based resources are an alternative to plastic packaging and include examples such as MFC, microfibrullated cellulose, which is essentially a mass of glucose molecules stripped away of their outer fiber layer (Sandquist). The material has a web-like structure that scientists are attempting to make larger quantities of in order to make a lighter, healthier, and safer alternative to modern packaging (Ritschel). Though high quantities of MFC have not been able to be produced, researchers are looking to utilize it as a reinforcing agent to existing packaging methods in order to make them more reliable alternatives. MFC acts as a barrier to most gasses, protecting the content from certain kinds of deterioration and corruption. Through the technologically fueled and continued research of healthier habits, it is arguable that packaging corporations will be reducing their waste output by more than half in some years to come (Ritschel).

It is because of the necessity for change that humanity has been able to fathom methods and ideologies that make these innovations possible. Leading packaging conglomerates around the world are taking small but sure steps toward the rejuvenation of their industry through cutting-edge technology that will allow them to achieve feats otherwise dreamed about by researchers and engineers alike. New technology is constantly being created every day, and with these new inventions, alternative solutions. Throughout history it has granted the world’s smartest minds to create life-altering tools where we would be nowhere without. We’ve been given the tools to make a phenomenal product with the resources we have, all that is left to do is take the first step towards building it.

It is through these small steps where we must remember that change is inevitable, and should be embraced in order to make any difference from where we are now, to where we want to be. It can be anything from robot co-workers to web-like packaging; the limit to what a group of people can achieve is only their imagination and innovation. Let these technologies inspire you to think bigger, work harder, and package smarter. To evolve.