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### Lesson I: Spotting the IT Trend

The three Forbes tendencies I found that could have an impact in the future are Ambient User Experience, 3D-Printing Materials, and Autonomous Agents and Things. The world is a never-ending cycle of change. The necessities of people are also changing due to the new technological demands. These three new tendencies will make a difference in society because they will help human beings manage their time, economy, and health.

We live in a society of change, what was new yesterday might not be new tomorrow, what we were used to do yesterday, it might be old-fashioned the following day. Young adults are usually the ones setting this standard. They have more capacity to adapt and change, as opposed to older people. Older people therefore can get stuck in the ordinary and not move forward, especially in technology. Therefore, I believe that one of the keys that could most influence the future of technology is to focus it on a much wider audience. As has been said before, we live in a world where time is money, so we want to do many tasks very quickly. Ambient User Experience can be a useful tool to meet the needs of older people. In many countries there are a large number of elderly people that outnumber the number of people dedicated to helping the elderly (Pulli et al., 2012). Therefore, the incorporation of technologies in the daily life of these people can be of more help to them and to the health personnel (Pulli et al., 2012). Offering older people an Ambient User Experience that is easier to understand and manage could improve their quality of life. The article "User interaction in smart ambient environment targeted for senior citizen" tries to find easier interfaces that do not have to be controlled from a single device but are projected on other surfaces such as walls and can be controlled directly by hand.

Another technology that could suppose an important change for the future of our society is 3D printing. This technique of printing creates more customize objects that adapt better for each person's necessities. 3D printing would be a major breakthrough in the healthcare world, as more personalized prostheses could be made that would fit people better. 3D printing has also been used to generate different organs of the human body. In this way, people in need of organ transplants do not have to wait for a specific candidate to donate.

Some of the most commonly used materials for prosthetics are titanium, due to its low density, high strength, high corrosion resistance, and high biocompatibility (Wang et al., 2021).

But 3D printing is not only used in the healthcare world, and neither titanium is the only material used to print different objects. One of the materials being tested is carbon-derived materials, such as carbon nanotubes, graphene, carbon black, or carbon fibers (Zheng et al., 2021). Many of the advantages of these materials are their price and lightweight, as well as their low energy cost and emission reduction (Zheng et al., 2021). Autonomous Agents and Things I believe will be one of the technologies that will influence life in the future and the way we do business. Autonomous agents are technological agents that do not need necessary human intervention to allow them to function. These autonomous agents would change the life of society. Imagining the existence of an agent that "teaches itself" and adjusts to circumstances without the need for human intervention would make life much easier. Autonomous Economic Agents

(AEA) would be a technological and economic breakthrough that would affect many aspects of society such as finance, social networks, or marketplaces. These Autonomous Economic Agents could improve the economic situation of a businessperson. AEA could buy a product from its owner when its market value is the lowest, as well as sell a product when its market value is the highest. All this without the owner's intervention, thus saving him time. The use of these AEAs would also remove unnecessary intermediaries, reducing friction and costs for buyers and sellers", therefore saving time.

In five to ten years, I envision a very technology-dependent world. Many of the devices such as computers, cell phones, iPads, or smartwatches will not exist as such but will be embedded in us in some way. Therefore, it is as if we live in a continuous interface, in a continuous user experience. Autonomous agents are something that could have a huge impact globally, specifically if Autonomous Economic Agents (AEA) can be generated. The world would undergo a huge economic change, and I believe AEA would be something that only privileged people, someone who already has a very important business globally, could use. Therefore, technologies like Autonomous Economic Agents would greatly increase the economic competition between large companies and create a bigger gap between poor and rich people.

## References

Introducing Autonomous Economic Agents: What is an AEA? | Blockchain AI | Fetch.ai <https://www.youtube.com/watch?v=xpJA4IT5X88>

Pulli, P., Hyry, J., Pouke, M., & Yamamoto, G. (2012). User interaction in smart ambient environment targeted for senior citizen. *Medical & Biological Engineering & Computing*, 50(11), 1119–1126. <https://doi-org.ezproxy.nyack.edu/10.1007/s11517-012-0906-8>

Wang, B., Feng, C., Pan, J., Zhou, S., Sun, Z., Shao, Y., Qu, Y., Bao, S., Li, Y., & Yang, T. (2021). The Effect of 3D Printing Metal Materials on Osteoporosis Treatment. *BioMed Research International*, 1–7. <https://doi-org.ezproxy.nyack.edu/10.1155/2021/9972867>

Zheng, Y., Huang, X., Chen, J., Wu, K., Wang, J., & Zhang, X. (2021). A Review of Conductive Carbon Materials for 3D Printing: Materials, Technologies, Properties, and Applications. *Materials (1996-1944)*, 14(14), 3911. <https://doi-org.ezproxy.nyack.edu/10.3390/ma14143911>