



St. Aloysius' College (Autonomous), Jabalpur
Reaccredited 'A+' Grade by NAAC: (CGPA: 3.68/4.00)
College with Potential for Excellence by UGC
DST-FIST Supported & Star College Scheme by DBT

IT TRENDS 2020-21

Vol: IT-Trends/September/2020

Price: Rs. 4/-



Upcoming Trends in 2020

Each and every Industry now uses innovative technologies in today's competitive market to sustain and compete. The companies in today's world makes solution in every field more powerful and reliable. Well, a clear proof of the companies who invested valiantly in the latest technological trends like Big Data, AI, block chain technology etc. for enhancing the user experience are ruling the market. Clearly, technology is changing and transforming very fast. Innovation in the business world is flourishing exponentially. Hence, there is no doubt that universal digital transformation will soon be a reality. Here, we present to you the latest trends in technology that will surely bring significant innovative growth in 2020.

Hyper automation

Hyper automation refers not only to the breadth of the pallet of tools, but also to all the steps of automation itself (discover, analyse, design, automate, measure, monitor and reassess). Hyper automation is the combination of multiple machine learning (ML), packaged software and automation tools to deliver work.

Understanding the range of automation mechanisms, how they relate to one another and how they can be combined and coordinated is a major focus for hyper automation. Hyper automation requires a combination of tools to help support replicating pieces of where the human is involved in a task.

Autonomous Driving

The idea of a driverless car in itself generates a considerable amount of excitement. Functions like automated braking, lane-changing, and automation of the other in-car systems are on its way to being streamlined with the guidance of data capture and analytics. There is still time for the modulation of the laws for autonomous driving by legislators, regulators, and authorities. Over that, significant tweaks will be required in the

existing infrastructure, laws and social attitudes before we can embrace autonomous vehicles in the current technology trends.

Human Augmentation

The augmentation humans will not only enhance the physical endurance of a person but also, it will enhance the human's ability to think and decide better. To put it simply, we can say that human augmentation does hold substantial potential in the future of technology. Human augmentation can be defined as a process by which a person's physical and cognitive ability is strengthened. Once implanted in a human being, it will enable the person to execute tasks that were earlier impossible for him. For instance, miners use wearables to enhance their safety. Then the cases of human augmentation in soldiers are a highly anticipated topic and are running silently by the armed forces of many countries, as per reports.

Data Policing

Ever since the European Union's General Data Protection Regulation (GDPR) tightened the bolts on privacy and data protection laws, businesses and consumers alike have become more aware of their vulnerability to data breach and cyber-attacks. According to Researches, nearly 70% of organizations will be exposed to personal data archiving, that's a 60%

growth since 2018 when the number was at 10%. In fact, emerging technology trends like crypto currency will be one of those upcoming technologies that are yet to be compliant with privacy laws. An insertion of personal data into public blockchains can be a major worry for 75% of public blockchains by 2020. As a result, an entire ecosystem, based on data-driven technologies, that is constantly growing in its interconnections is a key tech trends that businesses can benefit from by forging early-on partnerships

Robotic process automation (RPA)

Like AI and Machine Learning, **Robotic Process Automation**, or RPA, is another technology that is automating jobs. RPA is the use of software to automate business processes such as interpreting applications, processing transactions, dealing with data, and even replying to emails. RPA automates repetitive tasks that people used to do. RPA offers plenty of career opportunities, including developer, project manager, business analyst, solution architect and consultant. And these jobs pay well.

Voice Search

Voice is a medium that tends to be organic and free-flowing, something not easily translated into digital technology. We've seen developments in voice technology in the past like Siri, Alexa, and others. In the near future, Voice commands and voice

assistants will prove even more useful to our daily lives, muddying the line between the human-technology interfaces. As these industries' underlying technology gets better (AI, Voice processing, Machine learning), it will only be propelled into greater technological significance. In the realm of voice technology, one specific aspect on the cutting edge is Neuro-linguistic programming. Called NLP, this realm of programming would allow computers and systems to understand the true meaning of voice. This new programming language of sorts would give computers an understanding of underlying human tone, sarcasm, pun, and even deeper context clues like double meanings.

Analytics

Analytics are playing an increasingly important role in the growth and measurement of companies across the world. Not only can analytics tell you if you're successful in your market, but they can help you predict where the markets will move next. **Analytics**, while seemingly simple on the surface, actually involves a significant amount of data processing to turn large chunks of raw data into something actionable and useful. With cloud computing, IoT, and big data growing, data is getting murky and clouded. Analytics tools utilizing machine learning will be needed at a far greater extent than currently implemented to make sense of the data, identify issues, and even recommend action. In essence, analytics is

one specialty that AI and machine learning technologies will be particularly useful in. Analytics will be the perfect use case for many of the next decade's emerging tech.

How Education Will Possibly Look Like in 2050

#StudentLife



1. Widely spread homeschooling approach

Due to the need to give education more individual approach, the priority will be given to homeschooling. Students will be able to study and learn what they want, when they want, and for as long as they want. It will also give more physical, emotional and religious freedom as well as opportunity to spend more time with family.

- Significantly less money is spent on homeschooling than on an average public school
- A school environment is more favorable at home. Peer pressure, competition, boredom, and bullies are no longer the part of an education process.

Statistics:

- There are approximately 2.3 million home-educated students in the United States. This is about 2 million children homeschooled.

- Parents of homeschooled children save \$27 billion that would be spent on taxes annually if their children attended public school
- Statistics says that home educated graduates read more, understand politics better and are more involved in their community

2. Personalized learning

Students will cover the material with study tools adapted to capabilities of a student. As a result, students will be challenged with harder tasks and questions when a certain level is achieved. Those who experience difficulties with a subject will get the chance to practice more until they reach the required level.

- Individual, self-paced curriculum enabling comfortable and effective learning
- Learning environment that adheres to student's needs
- Technologies that enriches learning potential and boost creativity
- Frequent skills checks that help to be in a constant study progress

Statistics:

- 93% of education professionals agree that personalized pacing helps students close achievement gaps and accelerate learning
- 94% of education professionals say that students improved their academic performance after technologies became incorporated into classroom

3. More e-learning platforms

With the help of technology, the way knowledge is passed on will undergo significant shift towards online platforms. Learning will incorporate virtual reality and multiple perspectives. New platforms will give students an opportunity to learn how to negotiate issues and exchange

ideas online. It is the right way to online education.

- E-learning is much more affordable for people with limited budget
- Distant learning enables to mix study, work and family duties, and maintain the balance between them
- Physical presence is not required, so learning becomes affordable in any corner of the world.

Statistics:

- In 2016, The Babson Survey Research Group reported that 28 percent of all U.S. college students attended at least one class over the internet.
- 39% of all adults say the format's educational value is equal to the traditional course taken in a classroom.
- 71% of students think that virtual learning provides more flexibility and freedom to take classes.

4. No physical campuses

There will probably be no campuses as we know them today. Learning won't be limited to a physical school. Traveling classrooms and the real world environment will be a new campus. However, city libraries and city laboratories will remain to help students complete their projects.

- Students are no longer dependent upon a certain place and are able to study wherever they are.
- Students become closer to nature as they have a chance to spend more time out of the classroom
- Unlimited study space makes students more open to the world around facing its real challenges

Edited & Compiled:
COMPUTER FORUM
 Department of Computer Science & Application
comp.sac@gmail.com,
sibysam@staloyisus.ac.in
 Phone: 2620738-208