



STRATEGIC TECHNOLOGY TRENDS 2016

Here comes a highlight of top technological trends that our [mobile app development company](#) has identified to be key for many organizations this year. Strategic technological trends will play a tremendous role in the upcoming years as they influence long-term plans, agendas and tactics. With the high risk of disturbance for businesses and end users the main danger is becoming a late adopter.

To help companies stay ahead, we've identified and created this list of key trends that shouldn't be ignored when it comes to strategic planning. That said, companies and [software developers](#) shouldn't rush to implement all of them right away, instead we urge you to make a strategic plan for the next couple of years to incorporate them into your overall strategy.

Top IT trends cover the following topics: reality and virtual reality merge, the dawn of intelligence all around, and the shift in digital business towards technology.

Ubiquitous Computing

With the rapid rise of [mobile devices](#) everywhere, the safe bet is to focus on anticipating and meeting the needs of mobile users in different environments and on different gadgets. You can no longer afford to just focus on one type of device with so many options around and many new ones coming out. Phones, tablets, smart watches and consumer electronics in general are all part of ever growing computing environment, which has become a common necessity in our daily lives. If you haven't done so already, now is high time to start adjusting to the demands of mobile users with a special focus on user experience and design. This might pose some challenges for IT companies, since they won't be able to control endpoint user devices, but overall it's becoming a must.

Leveraging models of use

By combining digitized service and data streams, we can see four basic models of use - Management, Operation, Monetization and Extension. Companies shouldn't think that they can only leverage these models through Internet. For example a [pay per use scheme](#) can be widely applied to services, people, assets, places and systems. Companies in all industries can and should find ways to leverage these four models.

The rise of 3D Printing

Shipments of 3D printers have almost doubled in 2015 worldwide. This number is expected to keep rising in 2016 and reach the peak of demand in the next three years, as the costs of 3D printing diminish and the market itself grows. New applications, including biomedical, industrial and consumer versions, continue to grow, proving that 3D printing is a genuinely viable and cost-effective way of reducing costs through better design, prototype streamlining and improved manufacturing.

Analytics is the key

Over the next couple of years, analytics will be key, with the increasing volume of data inside and outside companies that needs to be analyzed. There is a high demand for analytic apps already and it will just keep growing. Companies need to find the best way to manage all the data that is coming their way from various online and offline sources, to be able to deliver best results to the right person on the right device at the right time. Analytics will slowly but steadily get embedded into everything. Big data is still the best enabler of the trend, but big questions have to be addressed first, since the value comes from analysing the data and getting the answer, not the data itself.

Responsive applications

Embedded intelligence all around, together with data from analytics will result in development of solutions and systems that can react to their environment and make appropriate responses. Security that is context-aware is one of the examples of this capability, but many others will arise in the future. By understanding the background behind user request, [applications](#) will be able to adjust their response and the way information reaches the end user, which, in return, will simplify the computing world, that is becoming increasingly complex.

The era of smart machinery

Analytics that back context and help understand trends compose a perfect environment for the era of smart machines and devices. A foundation as such, together with advanced data and algorithms allows for understanding of environments. It also allows systems to learn themselves and act independently. Autonomous devices, vehicles and artificially intelligent assistants and virtual advisors already exist in prototypes and will rapidly evolve in the near future to usher in the new era of helpful machinery. The age of smart machines will probably become the most troublesome in the IT history.

The future of Cloud

The merge between mobile and [cloud computing](#) will keep encouraging the development and growth of applications that can be coordinated and delivered to any existing device. Cloud is becoming increasingly popular platform for building internal and external applications that are scalable and provide self-service computing. Management and coordination will shift towards cloud, even though apps that use intelligence and clients' device storage effectively will benefit from bandwidth and network costs. In the nearest future the main focus for cloud computing will be content synchronisation across different platforms and devices as well as addressing app portability issues. In time, evolution of applications will lead them to supporting multiple devices simultaneously. There is also an evolving trend of watching television and using a mobile device simultaneously. In the future, this phenomenon of using a second-screen will also be used by many industries, like gaming. Smart wearable devices will also be leveraged to increase user experience.

Software-adjustable applications

[Agile development](#) is the key to successful programming in the future as it is the only way deliver flexible results highly needed in the growing world of digital business. Everything is maturing, from networking to storage to data centers and security. Cloud services are also becoming software-configurable by means of API. Many applications also started using more APIs to programmatically access their content. To adjust to rapidly changing environment in our digital world, computing needs to shift to dynamic model use. There should be a code, rules and models that can dynamically change various elements the network provides through application.

Web-Scale IT

[Web-scale information technologies](#) is an architectural approach that works within enterprise IT setting and delivers large cloud service providers' capabilities. More companies need to follow the lead from web giants like Google and Amazon, but it takes time. In the future, hardware platforms will start using new models and cloud-adjusted, software based approaches will become widely used and accepted. The first step is collaboration between development and operation that will ensure rapid growth and development of necessary applications.

New security measures

And the final tip relates to security. In a digital world, it is becoming increasingly more difficult to work and provide a totally secured environment. On the companies come to this realization they can start applying more advanced risk assessment techniques and tools. The realization itself gives way to a new security approach, a multifaceted one. Advanced security measures need to apply to everything from application design and testing to self-protection of runtime application active context awareness and changing access controls. This will all lead to incorporation of security directly into applications. Every app should become self-protected.

At Magora, we implement all top technological trends. We also care a great deal about security issues of mobile and [web apps](#), created for you, our clients, by our developers. We are ready to discuss your ideas or projects to find the best solutions, which will be done in accordance with your business needs.