

# Emerging Trends in Information Technology

## ABSTRACT

21st century has been defined by application of and advancement in information technology. Information technology has become an integral part of our daily life. According to Information Technology Association of America, information technology is defined as “the study, design, development, application, implementation, support or management of computer-based information systems.”

Information technology has served as a big change agent in different aspect of business and society. It has proven game changer in resolving economic and social issues.

Advancement and application of information technology are ever changing. Some of the trends in the information technology are as follows:

### 1. Cloud Computing

One of the most talked about concept in information technology is the cloud computing. Clouding computing is defined as utilization of computing services, i.e. software as well as hardware as a service over a network. Typically, this network is the internet.

Cloud computing offers 3 types of broad services mainly Infrastructure as a Service (IaaS), Platform as a Service (PaaS) and Software as a Service (SaaS).

Some of the benefit of cloud computing is as follows:

- Cloud computing reduces IT infrastructure cost of the company.
- Cloud computing promotes the concept of virtualization, which enables server and storage device to be utilized across organization.
- Cloud computing makes maintenance of software and hardware easier as installation is not required on

each end user's computer.

Some issues concerning cloud computing are privacy, compliance, security, legal, abuse, IT

governance, etc.

Continued cloud adoption, with growth in hybrid cloud: In 2015, IT organizations will continue to move IT services to third-party cloud service providers. Security will continue to be a cause for concern -- especially as the media's frenzied coverage of data breaches continues -- but integrations and service availability will rise to be two very practical concerns for enterprise cloud adoption.

The hybrid cloud, defined by analyst firm Gartner as «a combination of private, public, and community cloud services,» will rise in popularity during 2015 as companies look to get the best benefits from the private cloud such as cost savings, flexibility, or scale and from public cloud such as cloud cost savings while still meeting internal or external governance requirements.

From an IT management point of view, companies will continue to seek out people with the ability to manage suppliers and cloud service delivery over the technology itself.

### 1. Mobile Application

Another emerging trend within information technology is mobile applications (software application on Smart phone, tablet, etc.)

Mobile application or mobile app has become a success since its introduction. They are designed to run on Smartphone, tablets and other mobile devices. They are available as a download from various mobile operating systems like Apple, Blackberry, Nokia, etc. Some of the mobile app are available free where as some involve download cost. The revenue collected is shared between app distributor and app developer.

### 2. User Interfaces



User interface has undergone a revolution since introduction of touch screen. The touch screen capability has revolutionized way end users interact with application. Touch screen enables the user to directly interact with what is displayed and also removes any intermediate hand-held device like the mouse.

Touch screen capability is utilized in smart phones, tablet, information kiosks and other information appliances.

### 3. Big Data and Analytics

**Big Data:** While there will continue to be big talk about big data, the real big data issue for 2015 will be the availability of big data people, and their big data skills, rather than big data technology itself. Companies will need big data people with analytics skills and also skills for building the new data architectures required to handle unstructured data and real-time input. Other advances will be required in areas such as product innovation, customer insights, internal decision-making, or IT service availability as the focus on large data sets continues to disrupt business and IT operations.

The field of analytics has grown many folds in recent

years. Analytics is a process, which helps in discovering the informational patterns with data. The field of analytics is a combination of statistics, computer programming and operations research.

**Analytics:** The field of analytics has shown growth in the field of data analytics, predictive analytics and social analytics.

**Data analytics** is tool used to support decision-making process. It converts raw data into meaningful information.

**Predictive analytics** is tool used to predict future events based on current and historical information.

**Social media analytics** is tool used by companies to understand and accommodate customer needs.

The every changing field of information technology has seen great advancement and

changes in the last decade. In addition, from the emerging trend, it can be concluded

that its influence on business is ever growing, and it will help companies to serve

customers better.