The course will address the business role and importance of Information Technology trends in a management context. It will provide an overview of the current digital landscape in the context of IT trends over the past thirty years in order to gain insights into the likely scale and nature of future changes. Current technology markets will be analysed in terms of industry structure and dynamics of the hardware, telecommunications, software and IT consultancy/business services markets. Specific historical technology trends that will be covered are: the emergence of the software industry, Materials Requirement Planning I and II, Enterprise Systems, Electronic Data Interchange (EDI), emergence of B2B electronic markets based on standards, e.g. RosettaNet and COVISINT, the development of consumer trading hubs such as eBay, the emergence of Internet giants, the development of search engines, decision support systems and the failure of expert systems. These IT trends will be discussed in the context of the emergence of global companies, supply chain integration, smart business networks and virtual organisations. Future trends that will be discussed include different models of cloud computing, software as a service, the emergence of web 2.0 and the semantic web, mobile computing and open versus proprietary technologies in the context of technology ecosystems. Integrative themes that will be used to tie together the historical analysis and place the technology within a management context are: IT cost models, MRP theory, models of organisation design and global organisations, information models of supply chains, electronic market theory, standardisation of technology and innovation adoption theory.

Learning Outcomes

On completion of the course, students will be able to:

- Have an understanding of current technology markets and future IT trends
- Appreciate the origin and historical development of today’s IT infrastructure
- Be able to relate business developments such as globalisation and smart business networks to enabling technologies such as Enterprise systems and electronic trading networks
- Apply theoretical models, e.g. IT costs, MRP and electronic market theory to company and market data to gain insights into general patterns and
- forecast future developments
- Have an understanding of business and IT trends including an IT vocabulary
- Gain an appreciation of key technologies and their relevance to management problems

**Syllabus, by week.**

1. IT and business mega-trends
2. Business 2020 project
4. Production management case study
5. Electronic Data Interchange and e-commerce standards: International examples
6. Case study of COVISINT in the European and US automotive industry
7. Development of search engines and consumer behaviour, case study on paid search in European consumer markets
8. IT cost model and case vignette
9. The battle between proprietary and open technologies: a platform perspective. Case study on global music industry.
10. Future trends and investment opportunities

**Reading List**

1. Business week tech 100 special report. [www.businessweek.com/it100](http://www.businessweek.com/it100)
3. COVISINT (B): BUILDING AN AUTOMOTIVE SUPPLY CHAIN EXCHANGE, SUPPLEMENT, Reference no. 9-805-111
7. **Assessment, Illustrative Example Only**

*Individual essay, guideline 3,000 words*
1. Discuss the impact of digital technologies on innovation in business models.