

SUBJECT

INFORMATION SYSTEMS PROJECT MANAGEMENT

SESSION 5 Information systems in business context
Understanding information systems architecture

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Enterprise architecture and system development defines the broad structure of a system, consisting of its parts, their interrelationships and other visible properties. It consists of constituent units such as business architecture, technology architecture and information systems architecture.

Taken together, they ensure that an organization:

Meets stakeholder needs

Aligns its IT with business purposes

Integrates all departments

Promotes security

Brings about data integrity and consistency and

Reduces duplication and is cost-effective.

Collaborative effort through enterprise architecture engagement

Mere enunciation of the architecture tasks in an organization is not enough. These objectives can be put into practice only with a proper engagement process. This helps to establish the rules of governance and the ways in which the architecture process can be managed. Enterprise architecture engagement ensures that EA standards and guidelines are put into effect. It sets out rules specifying ways in which Enterprise Architecture and strategic planning can be carried out by projects. It is an intrinsic part of enterprise architecture governance process.

For effective engagement, interaction between the project team and the architects is critical. It includes various steps such as developing EA standards, carrying out project activities and performing compliance and conflict resolution activities.

It is a process by which the key stakeholders are involved in the company's IT and business goals. The key stakeholders in the governance process include the

company's overall management, business unit management and project management team.

Transparent decision-making in the enterprise architecture governance process

Governance is the process that ensures that organizational changes are moving in the desired direction, implementing the goals and objectives. Enterprise architecture governance process may consist of clearly spelled or enforced rules or can be broad declaration of IT principles. It helps in creating accountability and achieving an organization's IT vision.

Enterprise architecture engagement is an important component of the governance process. A collaborative information systems architecture representing all stakeholders will be more effective and successful for the organization.

Enterprise architecture planning: key to success

While enterprise architecture (EA) defines what needs to be done, planning defines when Enterprise Architecture framework will be implemented. Enterprise architecture planning is the process of defining architecture for the use of information in support of the business and the plan for implementing them. In a top-down approach, EA approaches the business processes plan, develops the IT plan or the applications plan and a plan to better align business with IT, called a functional plan. Planning EA is critical to a company's performance. It can benefit an organization in several ways: identifies gaps between baseline and targeted states and recommends a sequencing plan to bridge the gap, helps in information sharing across the board and helps to track performance and minimize overall costs.

Enterprise architecture life cycle explained

Life cycle is the basic planning format applied to enterprise architecture and strategic planning . Within an enterprise architecture life cycle (EALC), different activities in the project are implemented in a timely and effective manner.

There are several activities involved in enterprise architecture planning. First is to envision and define the scope of the architecture environment. Second is to identify key stakeholders. Third is to create a business case for systems and finally to create the project and evaluate and maintain it.

The various steps in an EALC are: EA development, portfolio management, project management, solution delivery and organization change management. These are the broad areas that must be looked into in order that enterprise architecture and system development go hand in hand.

Enterprise architecture and system development ensure mutual coexistence

All large companies plan, develop, test and install software systems to rely on their information and data needs. A system is essentially a set of processes by which an organization achieves its objectives. No system functions in a vacuum. They coexist with numerous other systems in an organization. Enterprise architecture and system development is concerned with the fact that every system in an enterprise must not only fit in, but should also reflect the strategy and vision of the business.

Within an enterprise architecture life cycle, a given application must be developed so as to take advantage of a shared infrastructure. It should not adversely affect other systems in an organization.

Since information systems are prevalent in almost every aspect of modern business and are required to achieve today's business strategies, it is important to understand the wider business context of information systems as well as how they should be designed to reach sound technical performance and interaction qualities.

Modern information systems do not have to be limited to the standard desktop computer or terminal and can be designed for user needs of mobile workers or businessmen, which places new demands on design work and interaction models. Likewise, many of the bread-and-butter systems are either already built

and exist as Legacy systems or are nowadays ICT commodities bought in the form of COTS, Commercial off-the-shelf, like Enterprise Resource Planning (ERP) systems, Supply Chain Management (SCM) systems, Business Process Management Systems (BPMS), Enterprise Decision Management (EDM) systems, and so on. These are then deployed in the organisation. Thus, the role of IS and ISD changes to accommodate new use patterns and business processes and strategies in a world of agile and global e-Businesses.

What does the programme offer?

The overall goal of the programme is to provide students with an advanced understanding of these aspects of IS and ISD. Following this comprehensive goal, theoretical concepts, models and tools will be compared with real and complex problems in IS and ISD in order to train students in advanced problem solving. The programme also aims at introducing, explaining and applying the methodological aspects of studying ISD.

The programme is capabilities-driven which means that after completing the programme graduates have specific valuable IS design capabilities and skills. The programme serves to provide students with deepened and thorough knowledge of IS theories, concepts, techniques and their applications.

Graduates are expected to demonstrate the skills and ability to:

design IS in order to achieve improvements and innovative change in organisations and society

apply theories, design methods, and tools for the development of IS

participate in and manage IS-related change and innovation projects in national and international contexts

deploy IS and IT in organisations and business activities

plan, carry out and report design and social science investigations and studies

Since information systems (IS) are prevalent in almost every aspect of modern business and are required to achieve today's business strategies, it is important to understand the wider business context of information systems, as well as how they should be designed to reach sound technical performance and interaction qualities. Modern information systems do not have to be limited to the standard desktop computer or terminal and can be designed for user needs of mobile

work-ers or business people, which places new demands on design work and interaction models. Likewise, many of the bread-and-butter systems are either already built and exist as legacy systems, or are nowadays information and communication technologies (ICT) commodities bought in the form of COTS (commercial off-the-shelf) like enterprise resource planning (ERP) systems, supply chain management (SCM) systems, business process management systems (BPMS), enterprise decision management (EDM) systems, and so on. These are then deployed in the organisation.

Thus, the role of information systems and information systems development is changing to accommodate new usage patterns, business processes and strategies in a world of agile and global e-businesses. The overall goal of the programme is to provide students with an advanced understanding of these aspects of IS and ISD. Following this comprehensive goal, theoretical concepts, models and tools will be compared with real and complex problems in IS and ISD in order to train students in advanced problem solving. The programme also aims at introducing, explaining and applying the methodological aspects of studying ISD.

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When you apply for this programme, you must also submit supporting documents such as CV, letters of recommendation and a statement of purpose in your application package.

Career prospects

This programme targets students seeking to pursue careers in information and business architecture and design. Graduates of the program are highly sought after by employers, and will be able to work both nationally and internationally as, for example, IS/IT consultants, business and system analysts, IS designers or IS/IT project managers. It is evident that the labour market values graduates that have a combination of business knowledge and IS design knowledge.

Former students have found work at companies such as Tetra Pak, Capgemini, IBM, Microsoft, Goldman Sachs, Sony Mobile, Ericsson, Price Waterhouse Coopers, IKEA, the United Nations, Accenture and Ernst & Young.

More information can be found at

Project Market Value

Master's team projects are an incredible opportunity for firms and not-for-profits to engage a team of highly educated and experienced professionals that have been vetted by a [top ranked](#) academic program. Each team will contribute at least 450 work hours towards the client project. Using very moderate contracting numbers, this is equivalent to \$35,000 in consulting value, plus an opportunity to observe potential employees in action.

Student Team Profile

The faculty selected student teams typically have five (5) student members who are selected so that each team will have a balanced mix of skills and talents. These students will have the benefit of a rigorous semester of core training in database, data communications and networking, enterprise data management, and business communications. In addition, they may also be enrolled in courses in business intelligence, web analytics and business foundations.

Students have outstanding academic records and substantial prior work experience consistent with admission to a MIS program. Past experience and education, Eller education, and faculty mentoring result into formidable professional teams that can be leveraged to create significant value for the client.

Client Profile



The success of the projects depends on the active engagement and commitment of clients and the student teams during the project scope formation, execution, and closing. Clients are asked to:

Provide any data, resources, and background information necessary to complete the project

Provide a primary contact person(s) that are available for regular status reports, consultation on issues that may arise, and

Attend a final presentation of the project report

The Eller MIS department is committed to a “no surprises” engagement for the client and constructive feedback for the students. This mandates effective bilateral communication throughout the engagement.

Examples of Projects

Technology selection and evaluation

Feasibility studies and proof of concept for new products and services

Data analytics projects related to demand estimation, diagnostic systems, market

Competitive intelligence capture and analysis using advanced web crawlers and analytics

Work flow analysis and design, process improvement

Business intelligence/OLAP analysis and design

Web-based portals and dashboards

Project management information system

From Wikipedia, the free encyclopedia

A project management [information system](#) (PMIS) is the coherent organization of the information required for an organization to execute projects successfully. A PMIS is typically one or more software applications and a methodical process for collecting and using project information. These electronic systems "help [to] plan, execute, and close [project management](#) goals."^[1] PMIS systems differ in scope, design and features depending upon an organisation's operational requirements.

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PMIS [PMBOK](#) 4th edition definition[

Project management information system (PMIS) [Tool]. The Project Management Information System (PMIS), part of the enterprise environmental factors, provides access to an automated tool, such as a scheduling software tool, a configuration management system, an information collection and distribution system, or web interfaces to other online automated systems used during the Direct and Manage Project Execution effort.

Project management information system software[

At the center of any modern PMIS is software. Project management information system can vary from something as simple as a [File system](#) containing [Microsoft Excel](#) documents, to a full blown enterprise PMIS software.

Characteristics of a PMIS Software[

The methodological process used to collect and organize project information can match normalized methodologies such as [Project Management Professional](#) or [PRINCE2](#).

A PMIS Software supports all [Project management](#) knowledge areas such as : Integration Management, Project Scope Management, Project Time Management, Project Cost Management, Project Quality Management, Project Human Resource Management, Project Communications Management, Project Risk Management, Project Procurement Management, and Project Stakeholders Management.[\[2\]](#)

A PMIS Software is a multi-user application, and can be cloud based or hosted on-premise.