An Analysis Of Paperless Academic Administration

Dr. Nanjundamurthy

Assistant Professor, Department of Political Science,

Government First Grade College – Jayanagara, Bangalore-70

Abstract:

Recent increase in access to personal computer and networking systems have made it feasible to perform much of cumbersome and costly paper-based administration in all organization. Desktop computers, networking systems, high capacity storage devices and telecommunications system is currently allowing the transfer of various format of data to be processed, stored and dissemination for the purpose of decision making. Going paperless is more of benefits compared to full paper-based office. This paper proposes a model for design and implementation of e-administration system (paperless campus) for an educational institution of learning. If this model is designed and implemented, it will reduce the cost and complexity of educational administration also eliminate menaces and environmental hazards attributed to paper-based administration with in Universities and Colleges.

Keyword: e-administration, educational administration, paperless campus, paper-based administration.

Introduction

A paperless office is a work environment in which the use of paper is eliminated or greatly reduced. This is done by converting documents and other papers into digital form. E-Administration, or electronic administration, refers to any of a number of mechanisms which convert what in a traditional office paper processes into electronic processes, with the goal being to create a paperless office. Both involved the use of ICT tools, with the goal being t improve productivity and performance in business organization. The aim is to cut back, trim expenses, and bring technology into a collaborative innovation state where it can work for the educational system.

The technology is available today to provide information and data in a paperless environment. The paperless system can be viewed as a knowledge representation activity in which analysts implement and maintain a qualitative model of a software application that provides some desired functionality. In a traditional setting, this application model is described in text and the model's realization is encoded in an imperative language that favours performance over flexibility.

Educational administrators are frequently inundated with paperwork including student admission and registration forms, supply requests, grade reporting, financial aid applications, housing packets, faculty reviews, student grade data, and course schedule etc. Some of the advantages of paperless office include; Increased Productivity, Improved Customer Service, Reduce Operating Costs, Better Security and Environmentally Sound.

Recent increase in access to personal computer and networking systems have made it feasible to perform much of cumbersome and costly paper-based administration in all organization. Desktop computers, networking systems, high capacity storage devices and telecommunications system is currently allowing the transfer of various format of data to be processed, stored and dissemination for the purpose of decision making. Going paperless is more of benefits compare to full paper-based office. This research work is focused on conceptual framework for design and implementation of paperless office to enhance e-administration in an institution of learning.

When this research work is completed, the following benefits could be achieved; Enjoy time flexibility and freedom, Enjoy location flexibility and freedom, Become environment friendly and live greener, Enhance efficiency and productivity, Save Money, Reduce, or eliminate the clutter and gain focus, Staffing flexibility, Organizational flexibility and resilience, Enhanced customer service and Improved public image.

Purpose of Study

Many educational institutions rely on traditional office paper process which is costly, non-environmental friendly and in-efficiency. The purpose of this research work is to propose a model for design and implementation of a paperless administration platform that will enhance efficiency and reduce the cost of educational administration in schools and colleges.

Objective of Study

The objectives of this study are:

- To proposed e-administration platform to educational administrators in our schools and colleges.
- To provide a platform that will allows educational administrator that will allows educational administrator to work anywhere at any time.
- Support increased communications speeds between stakeholders in education

Scope of the Study

The scope and area of study is limited to design and implementation of e-administration application system for educational administration in schools and colleges.

Significance of the Study

This research work when completed and implemented, it will add values to educational administration in many ways;

- It will help to reduce cost and complexity of administration in schools and colleges.
- It will enhance efficiency and productivity in school administration processes.
- Educational administrator can work at anytime and anywhere hence removes the vacuum in administration processes when the administrator is not in his physical office.
- Reduce environmental hazards due to paperless office work.

Literature Review

Historic Perspective of Paperless Administration

The "paperless office" was a publicist's slogan intended to describe the office of the future. It was facilitated by the popularization of video display computer terminals like the 1964 IBM 2260. An early predication of the paperless office was made in a 1975 Business Week article. The idea was that office automation would make paper redundant for routine tasks such as record-keeping and bookkeeping, and it came to prominence with the introduction of the personal computer.

Environmental Impact of Paper

Paper product manufacturing contributes significantly to deforestation and man-made climate change, and produces greenhouse gases. According to the American Forest and Paper Association, paper manufacturing is the third largest user of fossil fuels worldwide. Although measures such as recycling and using tree-free paper can help reduce the environmental impact of paper, most paper still ends up in landfills. Paper production also leads t air pollution, as paper manufacturing releases nitrogen dioxide, sulphur dioxide, and carbon dioxide. Nitrogen dioxide and sulphur dioxide are major contributors to acid rain, whereas CO_2 is a greenhouse gas responsible for climate change. Waste water discharged from pulp and paper mills contains solids, nutrients, and dissolved organic matter that are classified as pollutants. Nutrients such as nitrogen and phosphorus can cause or exacerbate eutrophication of fresh water bodies.

Hazard from Carbon Paper: Carbon paper allows those marking on it to make a copy onto another piece of paper below. Impressions made on the surface of the carbon paper will make identical marks on whatever is under it. However, the resulting carbon dust poses a number of different health and fire hazards that people should be aware of; fire Hazards: Carbon paper is very flammable, as both carbon dust and paper are combustible. Carbon paper must be thrown away in a responsible fashion. Placing disposed sheets of carbon paper in a fire-safe wastebasket, all to them, is a good idea. Carbon dust is also flammable, and enough of it in the air could cause a small explosion. If in doubt, be sure to open windows in the room or run a fan to clear any dust out. Skin and Respiratory Problems: Dust from carbon paper is not only flammable; it can also cause respiratory problems if inhaled. This will only occur if the room is not well-ventilated, and a lot

of carbon paper is being used; even so, it is wise not to inhale carbon dust if it can be avoided. If a large amount of carbon gets onto the skin, it can also cause itching and a painful rash.

The Menace of Full Paper-Based Office

Menace of full paper-based administration range from hazards to the environments and individuals which includes office congestion, difficult in location and searching for documentation etc

Paperless office Design

There are six key components you'll need to create a paperless office.

i.   The first is a heavy duty/high quality scanner. With that scanner, you'll be able to convert all of your existing documents and records to PDF format. That in turn will allow you to create an cosily assessable filing system on your computer to replace your old metal filing cabinet.

ii.   Second, you'll also need to invest in a shredder so that your paper documents are properly destroyed after they have been electronically copied.

iii. The third component is document management system that allows you to file, index, manage and access your documents and records from your computer or computer network. This system comes in the form of software or online programs that can provide content indexing, document accessibility and version control.

iv.   The fourth component is chosen of online system tool, either intranet, extranet of internet. The choice of any of the tools depends on nature of organizations.

v.   The fifth is having an adequate backup system for your data. Backing up your data to disc is fast becoming obsolete. Backing up to disc does not protect you from fire, flood, theft and other natural disasters that may happen at your office.

vi.   The 6th and the final component is to creating a paperless office is to provide employee training for the information systems you use. No matter how well designed a paperless office system is, your company will not enjoy the benefits of it if your employees are not taught how to use it to full advantage. Training should be mandatory, not optional.

ICT Versus Organization Behaviour

Information plays a vital part in the lives of individuals, organizations and institutions. Organization behaviour (OB) is the study of how people think, feel, and act in organization and similarly, how they are affected by the activities within the organization. Organization behaviour is the term related to the study of individual and group dynamics in an organization setting, as well as the nature of the organization themselves. Whenever people interact in organizations, many factors come into consideration. The goals of the organization attempt to understand and model these factors. The goals of the organization are becoming more important as people with diverse backgrounds and culture values have to work together effectively and efficiently, organization is interested in the behaviour of people embedded in specific contexts of organization systems.

Organization behaviour seeks to emphasize the understanding of the behaviour organizations so as to develop competency in foreseeing how people are likely to behave. In this era of ICT, the Organization behaviour has great influence on the people behaviour within an organization which in turn affects the way organizations behave. The use of ICT in Organization could affect organization behaviour in the following ways.

Leadership

Leadership can be refers to a process that helps direct and mobilize people and their ideas, leadership is the person who hold an office and direct the affairs his followers. With ICT we can have virtual leadership we could in turn result to indiscipline or Laziness. The first level emphasize within organization behaviour is that of the organization actor as an independent decision maker or leader. Since personality of an individual plays a crucial role in shaping an organization, several method have been evolved to measure personality, by and large, three methods assessment are being used. These are personality inventories, project test, and assessment and all this assessment could be done virtually. Within the organization behaviour, teams are analyzed at several levels, including the relationship (also refers to as a group dynamics) as well as the relationship between the teams and the rest of the organization.

Management

Management is integral part of any organization, the survival of any organization will dependent largely on the quality of management or administration service. Management can simply be defined as the organization and mobilization of all human and material resources in a particular system for the achievement of the identified objective in the system. The two keywords are human and materials. It is the business of management that both human and material resources within a system should be organized and mobilized so that the objective or the system can be achieved to the fullest.

Management Function

Management functions such as: Planning, Organizing, Directing, Controlling etc. This is the first step in any administrative functions, it involve making arrangement for the future, defining the goals, establishing the strategies and developing plans to coordinate activities, it deals with time management, personnel and equipment in future. Planning is usually regarded as a search for the best method of achieving the goals. Virtual office can be setup with the help of technology today through the use of internet without having a physical office. This note is to elaborate the impact of ICT in an organization both positively and negatively. ICT is rapidly changing global production, work and business method and trade and consumption patterns in and between enterprises and consumers. ICT enables a radical change in structures of organizations and means of learning, researching, developing, producing, marketing, distributing and servicing digital and traditional goods and services. It also has a great potential to enhance the quality of life.

Analysis and Design of the Proposed System

Description of its Components

The e-administration system cannot completely replace educational administrator; it is only an updating for technology, concepts and tools, giving new content, concepts and methods for educational administration towards reduction of educational administration and menaces attributed to paper-based administration in schools and colleges, so the roles of educational administrator cannot be replaced. The proposed web based e-administration system architecture can be divided into the following layers:

- **Infrastructure Layer**: this is composed of information infrastructure and administrator resources. Information infrastructure contains Internet/Intranet, system software, information management system and some common software and hardware; accumulated mainly in traditional educational model and distributed in different departments and domain. This layer is located in the lowest level of administration service middleware, the basic computing power like physical memory, CPU, memory is provided by the layer.

- **Software Resource Layer**: this layer mainly is composed by operating system and middleware. Through middleware technology, a variety of software resources are integrated to provide a unified interface for software developers, so they can easily develop a lot of applications based on software resources and embedded them in the system, making them available for the system users.

- **Resource Management Layer**: this is the key to achieve loose coupling of software resources and hardware resources. Through integration of virtualization and cloud computing scheduling strategy, on-demand free flow and distribution of software over various hardware resources can be achieved.

E-administration System Users

The categories of users to interact with this system are the system administrator, educational administrators (management staffs), students and general staffs in the schools and colleges. The initial idea that leads to this paper was based on management procedures and protocol in the author's institution.

Recommendations

To make for the smooth implementation of the e-administration system in schools and colleges, the following measures are recommended.

- There is a need to intensify the public enlightenment programme about the need for web-based e-administration system within schools and colleges so that everybody will be acquainted with the system before its implemented, since it will affect everybody.

- There should be a careful study of the management hierarchy to determine the rules and protocols involved in administration processes of an institution that which to adopt the system, that will ensure its smooth running and prevent unnecessary friction in the system.

- The government needs to ensure that the cost of telecommunications, hardware and software are made cheap, which will involve examining existing taxes and import duties.

CONCLUSION

An e-administration system is a welcome idea in this modern day life, because of the massive proliferation of affordable computers, Internet broadband connectivity and complexity in administration processes. This paper presents the conceptual framework for design and implementation of e-administration platform for schools and colleges. Authors proposed the system architecture and flowchart for e-administration system which implemented will reduce all menaces and hazard attributed to paper-based office administration, and enhance efficiency within the school and colleges.

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