Chapter 19

Cloud Libraries—Limitations and Concerns

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ABSTRACT

Digital libraries have arrived. New frontiers are being pioneered and technological superhighways being paved for a future researcher to tread on to go farther than humankind has ever gone before to create advanced knowledge-based communities. It is only possible to see how fast the horse will run its race once it has been tamed. Can the digital library be saddled with cloud computing and reined with e-books? The Industrial Revolution has brought disparity between poor and rich, widening the ozone layer gash. Advancements in nuclear technology have not necessarily resulted in worldwide peace. Identifying pitfalls and shortcomings in strategies and policies that govern developing technologies can help prevent issues and problems that can rear their heads at some later stage. This chapter continues to bring forth the issues concerning digital libraries and the challenges, current and ahead. Implications of such issues must be addressed constructively in time at several conceptual and factual levels in the context of a set of values that are ethically and scientifically acceptable by individuals from all walks of life worldwide.

INTRODUCTION

The advancement in the information technology with every passing day brings the nations, organizations and individuals closer. Business models are transforming, means and methods of waging wars are revolutionizing, data is being mined into useful information to disseminate knowledge, corporations’ yearly budgets are burgeoning at faster than many wealthy countries’ social security expenses. New crimes are emerging at a faster pace than the laws and regulations that are developed to restrain them. Health risks are reaching almost epidemic levels whether they are related to physical, psychological and emotional or social issues.

What defines advancement when it comes to technology? The running cars and the humming engines are signs of prosperity or that of dying healthy environment is a concern that most of the well educated individuals who are pro green computing often wonder about. Advancement in computer science specifically, and information
technology in general has its pros and cons. At what stage are we standing on one of the two sides is yet to be realized.

Cloud computing is pervasive like its carrier-the Internet. It is a multilayered foundation upon which the phenomenon of virtual libraries has begun to spawn incessantly creating in its wake new patterns of economies and stake holders. This is a phenomenon which could be vastly appreciated on account of its advantages. Highly secure and guarded edifices that conventional knowledge based data centers are, would they be accessible to the masses once the local public libraries would be rendered obsolete? Would local libraries have to assume a different role for survival? It is still debatable.

Digital Libraries are being implemented in every major university and educational institution in the modern world. They are evolving and gaining strength in terms of popularity. Not only the privileged few but also the laymen across the world could reap benefits from this relatively cheaper and possibly more convenient form of education. However, if we ask the similar question: What is the opportunity cost and how it can be evaluated?

This knowledge age is at the doorsteps of the modern world. The need to record, store, and disseminate timely information has ushered in a new era of electronic books, digital libraries and cloud computing. The asynchronous and synchronous hybrid educational models’ commercial and social success depends upon vital elements like storage, preservation, dissemination of data, information or knowledge. Digital library is the route toward that success, but not without a price. It is fraught with well known though widely neglected issues like escalating physical and psychological health concerns, no regard for copyrights, democratization of knowledge for the haves and complete disregard for the unprivileged ones.

Copy right issues, controversies surrounding e-books in libraries, digital divide within a country, matters of confidentiality, technical issues about uniformity in user interfaces and interoperability issues between distributed Digital Libraries, dependability of storage issues on the cloud, matters of differences in taxonomy of intellectual property in the form of different media and their accessibility by the end users, Issues in implementation of cloud computing for Digital Libraries, overdependence on Internet technology applications such as online courseware, drop boxes, and e-libraries are meaningless unless compatibility with human needs and nature in the form of ergonomics is thoroughly tested and proven. With e-mails being continuously monitored, faces being scanned and credit cards being stolen, how can human needs such as to be free and not contained, to be able to trust and not be paranoid, to be progressive and not suppressed, to be protected and not exploited, to be able to socialize and shake hands over a cup of coffee or tea with likeminded people without being observed through digital cameras, be satisfied?

Concepts such as e-learning having been reinforced by cloud computing and e-libraries with all their bells and whistles to impress the untrained eyes are not yet ready, just like a fabric waiting to be tailored into a modest smart dress for the society. They are not flawless. It is a well known fact that mostly, outcomes are results of intentions. Do we need to peek into the room of a fifteen year old lad who has five hundred friends all over the world, has read a vast number of comic books online, but has not seen the kid who is just about his age and has moved recently in his neighborhood.

Does it matter if all the books in the world are monopolistically controlled by one corporation? Should corporations like Google be allowed to manipulate world’s best writers and publishers? Should every aspect of academia be guided by the stock market or should there be checks and balances? What will be the nature of relationship between the publishers and the writers? Will there be many writers and not as many readers? Excess in life causes issues of different kinds so who will control the supply and demand and on what basis? One needs to ponder over such queries.