Perception and Usage Level of Information Communication Technology (ICT) at Personal and Professional Arena by the Lawyers in Bangladesh

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Abstract: This study was conducted to determine the level of using information and computer technology (ICT) and acceptance of new technology by lawyer in Bangladesh in their professional and personal purpose. The study reveals that in Bangladesh most of the lawyers use computer and internet for their professional purpose due to the field of judiciary system requires the use of computers to support in information processing, decision making and records keeping. The study reveals most of the times lawyer are using ICT for their professional life. The reasons are unavailability of high speed and wireless connections, lack of computer knowledge, high cost at start-up and unwillingness of them. The success of information and communications technology (ICT) applications in legal practice is profoundly dependent on the level of computer use by lawyer. But the scenario is changing gradually. Majority of the lawyers are interested to accept the new technology for their professional capability enhancement and serve to the nation. This questionnaire-based study assessed the level of computer and internet use by lawyer in Bangladesh is low satisfactory but perception of lawyer for accepting new technology is positive both in their personal and professional arena.

Keywords: Computer, Lawyer, Bangladesh, IC, IT, IS

Introduction:

We are living in the age of information, an individual, whether in personal life, or in professional life, spend much of his time to gather, record and process information. Computer enthusiasts like to claim that they have changed the world, and it is hard to deny that computers have had a significant impact. More the information is accurate and exact; more is the chance for better decision making for all types of professionals. The computer as the most important tool has transformed information and data handling in all fields of human endeavor (Chan, 1999). Most recently Bangladesh is trying to go under the umbrella of digital controlling systems with the slogan "Digital Bangladesh", it is only possible by ensuring use of computer technology in all aspects of life especially in

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the professional perspective. As a singularly information-dependent profession, the field of law could hardly escape the impact of the Information Age.

"The professional lives of lawyers have been fundamentally and forever altered by the introduction of a new medium— the Internet. For many, it is difficult to imagine practicing law for even one day without using the Internet in some form." The question is whether we should regard these present and potential changes as evolutionary or revolutionary. Certainly technology has been important to the legal profession for a long time. From the time of Bartleby the Scrivener to the twenty-first century, technological change has profoundly altered how lawyers work and, to some extent, what they do (Donovan, 2007). The most radical of consequences predicted for the legal profession certainly have not yet occurred, but it is also difficult to be sure whether they will occur. The cumulative effect of other changes enabled by the computer may bring about changes that are indeed revolutionary.

The available information reveals that computer or internet facilities actually used by various types of professionals in developed countries in the world but the country like Bangladesh the lawyer have a few implications of computer or internet on their professional practices. In most of the developing world, separated by the digital divide due to many reasons including high cost of hardware, software and connectivity, computer use and literacy though rising is still very low. Moreover, little is known about the level of computer use in legal facilities within developing countries (Ayres & Crunchers, 2007).

Rationale for the study:

Responding to the clause 'the world is turning into a global village', one needs to know where exactly we are and what needs to be done to make us get along with the other parts of the world in achieving this goal. A broad variety of industries have incorporated sophisticated data-manipulation techniques in recent decades. High-profile examples include the use of statistical data-mining techniques to detect credit card fraud, as well as the use of related anomaly-detection methods to identify potential terrorist activity. Businesses have shifted toward data-driven decision-making this shift is reflected in the incorporation of data-mining techniques into leading relational database management systems. In addition to data-mining techniques, machine learning techniques are now central to applications ranging from cars that drive themselves, to spam filtering, to the classification of astronomical objects Although modern legal practice has adopted IT in many areas, these legal tools do not typically match the sophistication of tools found in other industries. Besides basic office software like word processors and e-mail, law firms often have comprehensive, networked document retrieval systems, while courts and

government agencies have electronic filing systems. However, these tools lack the analytical power of IT used in other sectors of the business world. Some case management systems do include automatic text processing. Legal professionals have two primary motivations for integrating new information technologies into the practice of law. First, the volume and diversity of data that attorneys must analyze in the course of their work have exploded. Second, the efficiency gains in other industries highlight the cost savings that can be achieved by adopting more sophisticated technology. A few researches had been conducted to find out the extent of computer and information technology use in health sectors, some researchers had found out usage of IT for law educations, some researchers had found out the impact of ICT on legal profession and some researchers had found out the impact of computer on the legal profession. No researcher had found the Lawyer perception and the extent of Information and Communication Technology in their personal life and their professional life. So the researchers had conducted this research to find out the lawyer perception and their level of usage of ICT in their personal and professional life. Researchers had also tried to find out the lawyer intention to accept the new and improved ICT communication both their personal and professional life (The Authors).

Objectives of Study:

- To assess the usage level of Information and Communication Technology (ICT) in personal and professional area by lawyer in Bangladesh.

- To find out the perception of lawyer for ICT in personal and professional arena.

- To determine the difference of usage of ICT between male and female & among lower, higher and mid level lawyer.

- To find out the lawyer acceptability of new IT in their personal and professional life.

Literature Review:

Nowadays, computers and Internet plays a significant role in connecting all the participants in the legal community. Observe that, "sources of information and other opportunities available via the Internet are increasing exponentially. This is reflected in the steady increase in the use of computers and the Internet in teaching and learning. As law office operations have changed markedly due to computers, so have the operations of courts. As in law offices, word processing is crucial to courts. But electronic filing is probably the major development computers have had on court operations. Electronic filing has become effectively universal in U.S. federal courts (U.S Court, 2006). From courts' perspectives, e-filing offers the promise of saving space on storage—not an

insignificant consideration in a time of shrinking court budgets. It can also eliminate or greatly reduce the likelihood that court files will turn up "lost" when needed, even protecting against permanent destruction of court files because backup services are available to reconstruct files in the event of a catastrophe. For example, after the dislocation of the court system in New Orleans caused by the aftermath of Hurricane Katrina, e-filing enabled lawyers to get up and running more rapidly than otherwise would have been the case (Richard, 2008). Although contemporary legal practice incurs significant costs because of repetitive inefficiencies, new technologies can potentially produce considerable savings. Some of the documents that lawyers currently handle are already structured in limited ways that are amenable to computer-reading — for instance, the federal district courts of the Northern District of California require motions to contain the case number, date and time of a hearing at particular locations in the document (Jenkins, 2008). Lawyers need a means for dealing with the increasing bulk of legal data. In common law jurisdictions, the body of case law expands each year: a large portion of new case law does not over rule old law, but instead refines or adapts old law to new circumstances (Levi, 1949). Model based legal knowledge engineering deals with modeling legal problem solving methods and modeling legal domain knowledge. The model based approach involves the construction of a set of models of problem solving behavior where a system is a computational realization of these models (Breuker & Velde, 1994). There are potentially more important changes, for better or for worse, to the law student's and professor's daily experiences. Already there is surely less reliance on books, at least for research, although it is less clear that electronic versions have superseded hard copy casebooks (Matthew, 2007). The London-based law firm Clifford Chance has relocated significant parts of its back-office operations to India. Beyond that, legal outsourcing to India and other places is expected to expand enormously. Law firms are even using online video clips to attract associates (Donovan, 2007). Thus, both the growth in the volume of documents attorneys must handle and potential cost-savings from efficiency gains offer significant motivations for legal practitioners to adopt better information technologies. From the lawyer's perspective, the immediate impact of this change is the (slightly) more flexible deadline for submitting documents to courts. As one lawyer put it, "I love e-filing. It makes it so easy (Jenkins, 2008). Almost 85 percent of detectives confirm that computers have brought the easiness for getting information and saving their time (Huang & Chuang, 2007).

Word processing, along with the use of Westlaw and Lexis, has been going on in law offices for more than thirty years, and the pervasive importance of computers for legal practice extends far beyond word processing and research activities (Law office computing, 1990). The impact has proven sufficiently important to be the focus of books and specialized journals. Flanagin (2002) claimed that law enforcement agencies face

more impediments as compared to other agencies in provisions of obtaining advantages from information technology. By 2006, an estimated four million people per month used the Internet to search for law-related services, and the number was expected to hit seven million per month by the end of 2007 (Dreiling, et. al 2007). But it is not clear that all, or even most, law firms are embracing the full potential of computerized communication. Some law firms resist off shoring because they emphasize the significance of having an "integrated service. Email, in particular, has produced headaches for law firms. In part, this is due to problems of confidentiality (Hricik, 2005). Law school is where the legal profession begins for the twenty-first century aspiring lawyer. Some changes are obvious at a glance. Faculty can now communicate with students more often and readily via the Internet. Various entertaining computer-based methods are available to enliven classes. But while many legal research tasks are now done online, there may be a viable argument that for some purposes books are actually faster and more effective (Wang, 2008). Use of laptops is another pervasive impact. At present it is not possible to predict the overall effect of these changes. Part of the pressure for law firms to change comes from clients, who increasingly insist that law firms adopt certain types of IT arrangements, including e-billing and corporate client access to the law firm's information systems (Paonita, 2008). Although this sort of outcome might have been foreseeable, other effects might be surprising.

Bringing micro-computer technology to the lawyer' desk has a multitude of benefits. Perhaps because the many administrative advantages of legal computing have been well explored, legal computing remains, in many ways, an administrative chore shunned by practitioners. "It is often considered axiomatic that the more structured the information system, the better the care. However, computers are less likely to be of value in the loosely ordered world of general practice, where people present with a wide variety of undifferentiated problems. This makes the impact of computers in consultations even more important for primary care, in which intuitive response may be as valid as more structure management" (Sullivan & Mitchell, 1995).

Communication is the keystone of the lawyer–client relationship. Whether verbal, written or computer mediated, what people convey, 'hear' and remember, has important implications for the successful delivery of quality legal practice" (AAMC News Room 1999).

Methodology:

The research design adopted for this study is descriptive in nature. Descriptive research includes surveys and fact finding enquires of different kinds (Kotahri, 2006). This study aims to look at Perception and Usage level of Information Communication Technology (ICT) in personal and professional arena by Lawyer in Bangladesh.

At this point exploratory research would probably be unnecessary and the research design could be begin with descriptive research. For descriptive research design two methods can be employed: survey and observation. Survey method was used for this study to collect primary data from the lawyer through a structured questionnaire. The population for this study consisted of lawyers who use ICT in their professional and personal life. To ensure a heterogeneous sample the sampling frame was developed from lawyer of various demographics in Bangladesh. Respondents were selected using stratified random sampling. It is a superior method to simple random sampling and ensures representativeness in terms of variables important to the study. While exploring differences by group was not the primary purpose of this study, this sampling method ensured variability on demographic factors (age, income, and gender) important to this study. Before selecting the factors/variables used for this research we had conducted a pretest for identifying more important variables. So researchers had chosen variables on the basis of pretested result. The survey was followed by face to face interviews with 45 lawyers in Bangladesh. They have been interviewed at their workplaces, and home. A structured questionnaire was designed for this research. This questionnaire has three phases. First phase collects the data about the professional details such as age, sex, level of profession, e-mail etc, second phase collects data about their usage level such as hours usage of computer in normal day, hours usage of internet in a normal day, type of connection, purpose of connection etc. and third phase collects the data about their perception of ICT in personal and professional life. Third phase has 5 scale questions (where1= strongly disagree, 2= disagree, 3= neutral, 4= Agree and 5= strongly agree) was developed to find out the Perception and Usage level of Information Communication Technology (ICT) in personal and professional arena by Lawyer in Bangladesh. Several secondary sources were used for enhancing the insights of this paper, such as articles published in different journals, books, working papers and websites. Through the questionnaire researchers tried to find out Perception and Usage level of Information Communication Technology (ICT) in personal and professional arena by Lawyer in Bangladesh. The collected data were analyzed by using SPSS software.

5.0 Result and Discussion:

Questions asked in the survey were in three parts .The Third phase has 5   scale questions (where 1= strongly disagree, 2= disagree, 3= neutral, 4= Agree and 5= strongly agree).Variables covered included sex. level of profession, hours use of computer in a day, hours use of Internet in a day, types of connection ,purpose of use, acceptability of new IT, willingness to expend for IT, enhancement of professional capability, enhancement of national and International interest by IT.

Table: 01
Correlations between sex and ICT usage

		Hours use computer in a normal day	Hours use Internet in a normal day	Type of Internet connection of respondent	Purpose of Internet Use of the respondent	Responde nt view about the expense TK 5000 in IT
Sex of the responedent	Pearson Correlation	.198	.210	-.031	-.140	.204
	Sig. (2-tailed)	.192	.166	.839	.359	.179
	Sum of Squares and Cross-products	1.956	2.689	-.311	-1.289	1.800
	Covariance	.044	.061	-.007	-.029	.041
	N	45	45	45	45	45

* Correlation is significant at the 0.05 level (2-tailed).

From the table # 1, it is found that correlation between purpose of internet use and sex, type of internet connection and sex is negative so there is no direct relationship between purpose of internet use and types with sex. On the other hand hours use of internet, hours use computer and view about IT expense has positive relation that means hours use of internet, hours use computer and view about IT expense has positive impact on male and female lawyer in Bangladesh.

Table: 02
Correlations between professional level and ICT usage

		Hours use computer in a normal day	Hours use Internet in a normal day	Type of Internet connection of respondent	Purpose of Internet Use of the respondent	Respondent view about the expense TK 5000 in IT
Level of Profession of the respondent	Pearson Correlation	-.094	.114	-.174	-.202	.181
	Sig. (2-tailed)	.538	.455	.254	.182	.235
	Sum of Squares and Cross-products	-2.333	3.667	-4.333	-4.667	4.000
	Covariance	-.053	.083	-.098	-.106	.091
	N	45	45	45	45	45

* Correlation is significant at the 0.05 level (2-tailed).

From the table # 2, it is found that correlation between hours use computer and level of profession, types of connection and level of profession, and purpose of use and level of profession are negative so there is no direct relationship between hours use of computer, purpose and types of connection with level of profession that means mid, low and high level lawyer use IT. On the other hand hours use of internet & level of profession and expense for IT & level of profession has positive relation that means the uses internet and expense has positive impact depending on the level of profession.

Table: 03
Correlations between sex and perception of ICT

		Enhancement the capability to solve issues	Enhancement of professional capability and arm the population in BD	Enhancement of service to the nation, relative to rapid electronic advancement	Acceptance of new IT in professional arena
Sex of the respondent	Pearson Correlation	-.029	-.024	-.013	-.108
	Sig. (2-tailed)	.850	.878	.932	.479
	Sum of Squares and Cross-products	-.178	-.133	-.089	-.556
	Covariance	-.004	-.003	-.002	-.013
	N	45	45	45	45

* Correlation is significant at the 0.05 level (2-tailed).

From the table # 3, it is found that acceptance of new IT and enhancement of professional capability, enhancement of population interest and enhancement of capability to solve issue has negative relation with male and female lawyer. So we can say that perception of male and female lawyer about the Information and communication technology is same.

Table: 04
Correlations of professional level and ICT perception

|		Enhancement the capability to solve issues	Enhancement of professional capability and arm the population in BD	Enhancement of service to the nation, relative to rapid electronic advancement	Acceptance of new IT in professional arena
Level of Profession of the respondent	Pearson Correlation	.109	-.141	.197	.104
	Sig. (2-tailed)	.478	.356	.195	.498
	Sum of Squares and Cross-products	1.667	-2.000	3.333	1.333
	Covariance	.038	-.045	.076	.030
	N	45	45	45	45

* Correlation is significant at the 0.05 level (2-tailed)

From the table # 4, it is found that acceptance of new IT, enhancement of professional capability to solve issue, and enhancement of service to the nation have positive relation with low.mid and high level lawyer that means different level of lawyer perception is different. Enhancement of professional capability and arm the population has negative relation that means the perception of different level of lawyer is same about this.

Table: 05
Purpose of Internet Use of the respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Totally Official	7	15.6	15.6	15.6
	Totally personal	12	26.7	26.7	42.2
	Mostly Official, Partly personal	16	35.6	35.6	77.8
	Mostly personal, partly official	10	22.2	22.2	100.0
	Total	45	100.0	100.0	

From the table # 5, we can say that 35.6% respondents' lawyer use ICT for majority of official and partly for personal use. It indicates lawyers are interested to use ICT for their official purpose. They are very interested to use ICT in their official life not the personal sectors.

Hours use Internet in a normal day

Hours use Internet in a normal day
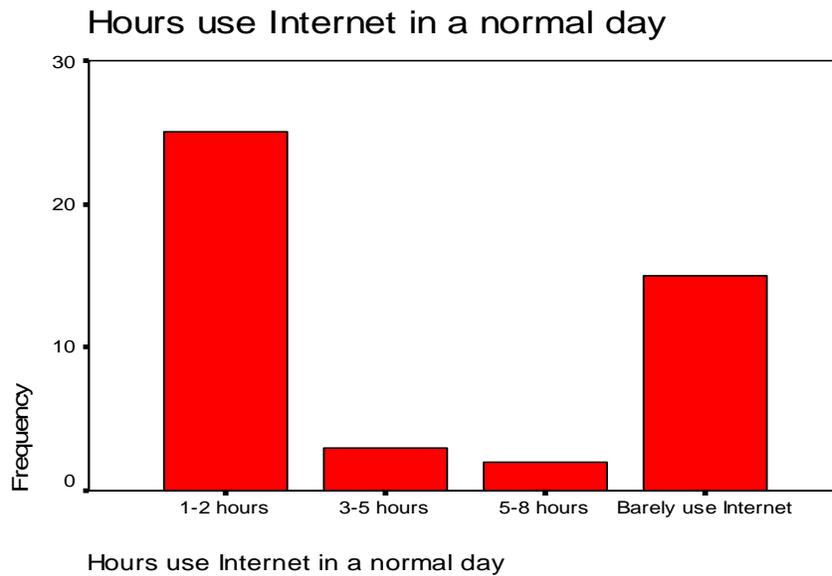
From this graph we can say that 55.6% lawyer use internet 1-2 hours in a day and 33.3% lawyer barely use internet. It indicates lawyer are not so interested to use internet .They are not totally dependent to Internet for their personal and professional task.

Hours use computer in a normal day

Hours use computer in a normal day
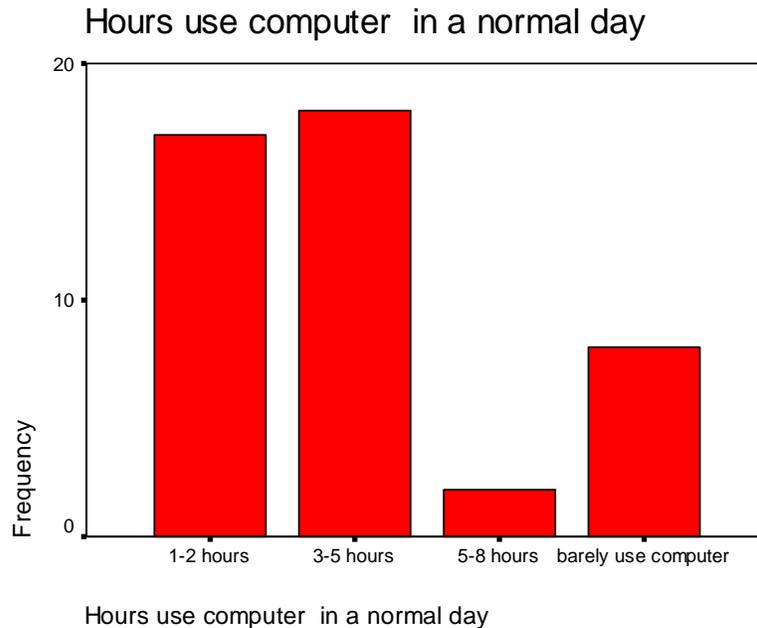
From this graph we can say that 40% lawyer use computer 3-5 hours in a day and 37.8% use computer 1-2 hours in day. It indicates lawyer are interested to use computer in a day. They are not totally dependent to computer for their personal and professional task.

Table: 06
Acceptance of new IT in professional arena

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately	13	28.9	28.9	28.9
	Positively	29	64.4	64.4	93.3
	very Positively	3	6.7	6.7	100.0
	Total	45	100.0	100.0	

From the table # 6, we can say 64.4% lawyer positively accept the new Information &communication technology (ICT) at their personal and professional life.28% will accept the ICT moderately and 6.7% will accept the ICT very positively at their personal and professional life. That means perception of majority lawyer to accept the ICT in personal and professional arena is positive.

Table: 07
Enhancement of professional capability and arm the population in BD

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	2.2	2.2	2.2
	Neutral	4	8.9	8.9	11.1
	Agree	31	68.9	68.9	80.0
	Strongly Agree	9	20.0	20.0	100.0
	Total	45	100.0	100.0	

From the table # 7, we can say 68.9 % lawyers agree that ICT will improve their professional capability at professional life. 20% strongly agree that ICT will improve their professional capability at professional life. It indicates that majority lawyers believe that ICT improves their professional capability.

Table: 08
Enhancement of service to the nation, relative to rapid electronic advancement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	2.2	2.2	2.2
	Neutral	5	11.1	11.1	13.3
	Agree	29	64.4	64.4	77.8
	Strongly agree	10	22.2	22.2	100.0
	Total	45	100.0	100.0	

From the table # 8, we can say 64% lawyer agree that ICT will improve the services to the nation. 22.2% strongly agree that ICT will improve services to the nation. That indicates that majority lawyer believe that ICT improve services to the nation, relative to rapid electronic advancement.
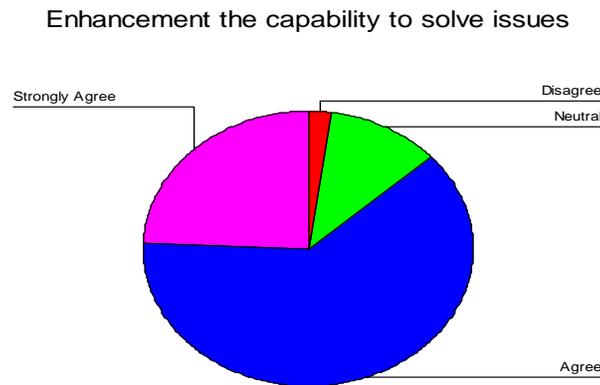
Enhancement the capability to solve issues

Figure: 1

From the figure # 1, we have found 62.2 % lawyer agree that ICT will enhance the capability to solve new issue in their professional life. 24.4 % strongly agree that ICT will enhance the capability to solve new issue in professional and personal life. That indicates that majority lawyer believe that ICT will enhance the capability to solve new issue in personal and professional life.

Recommendation and Conclusion:

From the discussion it is found that level of ICT usage among the lawyers in Bangladesh is satisfactory. Though majority of the time they use ICT for professional arena. They should use more repeatedly for their personal life. Majority of lawyer use mobile broadband connection for using internet at professional and personal arena. They should use mobile phone to access the internet at any place that will increase their accessibility to use ICT. All lawyers realize the benefit of using practice management software in the running of their practices. At the same time, most lawyers already have a practice management system running. Though lawyers find their services to be beneficial, it seems they are not sure whether or not they want ICT in professional and personal life. The acceptability of new technology among the lawyer is positive. But they should be very positive to accept the new technology in their processional and personal life. Their perception relating to enhance the professional capability and services to the nation is also positive. So they should be more attentive to use of ICT and adaption of new

technology for betterment of the nation. Lawyers in Bangladesh are not so much interested to expense about five thousand taka for ICT purpose. They should be more positive about this expense in ICT sector that will improve their professional and personal capability. More over day by day our juridical systems are being digitalized. Bangladesh Supreme Court already has introduced digital recording for all verdicts. Though perception of lawyers in Bangladesh is positive they should be more attentive in using ICT in their professional and personal life

References:

Ashley, K. D. (2004). Case-Based Models of Legal Reasoning in a Civil Law Context. Retrieved January 10, 2013, from http://www.lrdc.pitt.edu/Ashley/Mexico.pdf.

Ayres, I. & Crunchers, S. (2007). Discussing examples of data driven decision-making by modern businesses.

Bodie, M. (2007). The Future of the Casebook: An Argument for an Open-Source Approach, 57 J. LEGAL EDUC. Vol. 10, pp 14–19

Breuker, J & Velde, W. V. D (1994). Common KADS library for expertise modeling. Reusable problem solving components

Chan, P. K et al. (1999). Distributed Data Mining in Credit Card Fraud Detection. *IEEE Intelligent sys*. p 67.

Donovan, K (2007). Law Firms Go a Bit Hollywood to Recruit the YouTube Generation, N.Y. TIMES

Dreiling, A., M. Rosemann, W. van der Aalst and W. Sadiq (2007): From Conceptual Process Models to Running Systems: A Holistic Approach for the Configuration of Enterprise System Processes. *Decision Support Systems* (available online since 23 February 2007).

Ellahi, A & Manarvi, I. (2010). Understanding attitudes towards computer use in the police department of Pakistan. *The Electronic Journal on Information Systems in Developing Countrie*s.Vol.42.No.1.pp 1-26. Retrieved January 11, 2013, from http://www.ejisdc.org

Flanagin, A. J. (2002) The Impact of Contemporary Communication and Information Technologies on Police Organizations, in Giles, H. (Ed.), *Law Enforcement, Communication, and Community*, John Benjamin, Amsterdam, pp.85-105.

Hricik, D. (2005). Slighting Context: On the Illogic of Ordinary Speech in Statutory Interpretation, 52 U. Kan. L. Rev. 325 pp. 47-63

Huang, E. & Chuang, H.M. (2007) Extending the Theory of Planned Behavior as a Model to Explain Post-Merger Employee Behavior of IS Use, *Computers in Human Behavior, Vol.* 23, No. 1, pp 240–257.

ICT Act 2006. Retrieved March 02, 2013, from http://www.bcc.net.bd /index New Bangla.html

ICT Converging on Law: Next Generation Services for Citizen Enterprises, Public Administration and Policy Maker. Retrieved March 03 2013, from http://www.ict4law.org/

Jenkins, J (2008).what can information technology do for law**?** *Harvard Journal of Law & Technology.* Vol. 21, No. 2. pp 589-607.

Kotahri, C. R. (2006). Research Methodology: Method & Technique. India: New age International.

Levi, E. H (1949). An Introduction to legal reasoning. *Journal of Civil law jurisdictions*. Vol. 23, No.3 pp 1–8

Marcus, R. L (2008*).*The impact of computers on the legal Profession: evolution or revolution? *Northwestern University Law Review* Vol. 102, No. 4, pp 1828-1864.

Muntjewerff, A. J. (2011). ICT in Legal Education. *German L aw Journal*. Vol. 10 No. 07, pp 669-716.

Sahami, M, et al., (1995), A Bayesian Approach to Filtering Junk E-mail, Learning for text categorization: papers from the 1998 workshop. AAAI Technical Rep. WS-98-05, 1998. Retrieved January 16, 2013, from http://ic.arc.nasa.gov/ic/projects/ bayes-group/autoclass/

Seifert, J. W. (2004), Data mining: an overview .Cong. Research Serv., CRS Report for Congress Order Code RL31798 Retrieved December 16, 2012, from http://www.fas.org/ irp/crs/RL31798.pdf.

Sullivan, F. & Mitchell, E. (1995). Has general practitioner computing made a difference to patient care? A systematic review of published reports. *British Law Journal*. Vol. 311, pp 848 – 852.

U.S. Courts, Case Management/Electronic Case Files, Retrieved January 10, 2013, from http://www.uscourts.gov/cmecf/cmecf_about.html

Wang, X. (2008). Evolution and potential function of fibrinogen-like domains across twelve Drosophila species. BMC Genomics 9(1): 260.

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