

Technical and Business Writing (SS2007)

Date: November 2nd 2024

Course Instructor(s)

Ms. Hajra Ikram, Ms. Uzma Safdar, Mr. Ali Zulfiqar, Ms. Irum Zahoor, Ms. Nayyab Mufti, Ms. Maha Hijab, Mr. Arslan Rasheed, Ms. Javeria

Sessional-II Exam

Total Time (Hrs.): 1

Total Marks: 30

Total Questions: 2

22i-2505

Roll No

SE- SA

Section

TRS

Student Signature

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Attempt all the questions on the answer sheet.

Q1: Write an informal proposal addressed to Dr. Amir Masood, Director of Student Affairs, suggesting the creation of a student-led peer tutoring program at FAST National University of Computer and Emerging Sciences, Lahore Campus. Your proposal should include the following:

- ABC Format for informal proposal
 - ✓ it should have an introduction explaining the purpose and benefits of the program.
 - ✓ Create an overall idea that how this program will work, focusing on logistics and administrative requirements.
 - ✓ Conclude it with future benefits and perspectives.
- Use factual data or research to support the effectiveness of peer tutoring in enhancing academic performance, retention, and student engagement.
- Ensure your proposal is concise yet thorough, clearly presenting a strong case for implementing the peer tutoring program at the university.

[20]

Q2: Write short answers to the questions.

1. To conduct research on existing peer tutoring programs at other universities, what specific kind of data would you collect for:

- i. to compare the student satisfaction, and the teacher's views about similar programs
- ii. To analyze the students' success rates and dropout rates to determine if the tutoring program has a positive impact on student retention

2. Define secondary data sources and explain by providing at least three examples. In which section of a Formal Report are secondary sources primarily used?

[10]



| | | | |
|-----------------|--------------------------------|--------------|-----------|
| Course Name: | Technical and Business Writing | Course Code: | SS-2007 |
| Degree Program: | BS CS/DS/SE | Semester: | Fall 2023 |
| Exam Duration: | 60 Minutes | Total Marks: | 30 |
| Paper Date: | Nov 8, 2023 | Weight | 15% |
| Section: | ALL | Page(s): | 1 |
| Exam Type: | Midterm-II | | |

Student's IVA

Instruction/Notes: Attempt all questions.

- Since 2 yrs Axent Anex Purpose Critique Recommended
- Q1.** You are the Student Representative of the Campus Committee at National University of Computer and Emerging Sciences, Lahore Campus. You have been tasked with overseeing the setup of a recreational area (Common Room for boys and girls), at the university campus. As a part of the administration plan, you need to highlight how crucial it is to purchase certain appliances for the common area including the toaster and coffee maker. Your team requested an evaluation of the current appliances, to determine their suitability for the use in the shared recreational space. You need to consider the preferences and needs of the students, the functionality of the appliances, and their potential impact on the overall campus experience. You may also suggest purchase of additional equipment that is needed there, like exercise machines.

Write an Equipment Evaluation Report to the Director of the university (Dr. Hammad Naveed) about the current appliances in use in the recreational area, outlining their performance, user-friendliness, and suitability for enhancing the overall experience at the campus.

- Proximity to Service Centres — Friendlily & Maintain Interface [20 Marks] — Easy to clean Performance &

- Grant Solicited Insolited Variable Level of he
- Q2.** Read the following Cases and identify whether the case is an example of Solicited, Unsolicited or Grant Proposal. Justify your answer in one sentence:
- A county health department wants to improve health literacy among its clients. A doctor in the department reads that a medical technology company offers grants for community health literacy programs. He works with administrators and health education experts to develop a specific plan and write a proposal that meets the requirements of the health technology company's program.
 - Hassan Chief Financial Officer has received the results of an internal audit that found problems in the way, client has stored the information. Since he is not satisfied with it. He asks his manager to write a proposal to propose changes that will improve IS security and training of all affected employees.
 - Ali has recently found out that the equipment the client's company is using is not up to the safety standards. He has not discussed the issue with any of the other colleagues but decides to write a proposal to offer changes in the way company procure equipment. He has done his research and found out many possibilities from where the company can buy safe Equipment.

[2 + 2 + 2]

- Q3.** What are the possible sources of information to be used for writing a Formal Report? Explain your answer with relevant examples.

- Books
- Periodicals

[4 Marks]

Department of Computer Science

- Newspaper
- Web
- Dictionaries/Encyclo

Page 1 of 1

National University of Computer and Emerging Sciences, Lahore Campus



Course: Technical and Business Writing
 Program: BS (Computer Science)
 Duration: 90 Minutes
 Paper Date: 23-November-2020
 Section: ALL
 Exam: Sessional II

Course Code: SS153
 Semester: SS-108
 Total Marks: Fall 2020
 Weight: 25
 Roll No.: 10%
 Section: [REDACTED]

Instruction/Notes: All questions to be attempted on the answer sheet.

Q1. Read the case study identify the following: (Support your answer with a valid reason for each point). [10]

- a. The problem
- b. Type of report to be written
- c. Data sources (both categories)
- d. Audience needs (enlist)

Case Study: Prof. Davies is interested in studying how technology is transforming the higher education and learning. Recently, he formed a two member team of senior students to work on a project to examine how and why automated content analysis could be used to assess essays written by university students. For the purpose, one hundred and fifty sample essays of freshmen students were collected. The texts were already hand scored by the teachers. These texts were autoscored using the Natural Language Processing software and statistical tests were used to analyze the relationships between the teacher score and the automated score. A group of 25 teachers were asked to fill in a questionnaire about the issue. Recently published articles and books were used to gather information on recent development in the area. Prof. Davies wants his students to present this data analysis to him, which he later, would be presenting to the university authorities to let him develop automation in marking of students' texts. He is also concerned about the costs that would be involved in purchasing the necessary equipment, and about the university's in-house policies on research grants.

Q2.

- a. Writing 'Literature Review', is an integral component of a research project. Write a paragraph, as a part of Literature Review. Make use of the two articles, given below. Your write-up must have the elements of Argument and Voice.
- b. Give two types of references, i.e. In-text Citation and entry for Reference List. Document by using IEEE Style.

[5]

| | Article Info. | Text from the article |
|----|---|---|
| 1. | Name of the Article: How AI Fits into Your Data Science Team Authors: BY ERIK BRYNJOLFSSON AND ANDREW MCAFEE Publication Date: JULY 2020 Harvard Business Review | The biggest advances in Artificial Intelligence have been in two broad areas: perception and cognition. In the former category some of the most practical advances have been made in relation to speech. Voice recognition is still far from perfect, but millions of people are now using it — think Siri, Alexa, and Google Assistant. The text you are now reading was originally dictated to a computer and transcribed with sufficient accuracy to make it faster than typing. A study by the Stanford computer scientist James Landay and colleagues found that speech recognition is now about three times as fast, on average, as typing on a cell phone. |

13

| | | |
|----|--|---|
| | | Image recognition, too, has improved dramatically. The error rate for recognizing images from a large database called ImageNet, with several million photographs of common, obscure, or downright weird images, fell from higher than 30% in 2010 to about 4% in 2016 for the best systems. The error rate, once 8.5%, has dropped to 4.9%. The speed of improvement has accelerated rapidly in recent years as a new approach, based on very large or "deep" neural nets, was adopted. |
| 2. | Name of the Article: Artificial Intelligence in Service Authors: Ming-Hui Huang and Roland T. Rust Publication Date: 2018 Journal of Service Research Vol. 21(2) 155-172 | The strategic management, economic, scientific, and practitioner literatures focus more on the impact of AI on human labor and jobs, such as the use of deep learning for more accurate skin cancer detection than dermatologists, the augmentation effects of AI on knowledge workers, digital technologies as the driving force of work and life, the growth of low-skill service jobs in the U.S. labor market due to automation, and AI-enabled workplace redefinition. |

Q3. Write an Abstract for a Formal Report, making use of the details given from the research article.

[10]

Cloud Computing Adoption at Higher Education Institutions in Developing Countries: A Qualitative

International Journal of Information and Education Technology, Vol. 7, No. 12, December 2017

INTRODUCTION

Cloud computing is a new paradigm, which provides applications and services that can be accessed through the internet with the ability to share, managing and storing data, which is physically hosted on remote servers instead of using in-house resources or personal machines [1]. Cloud computing provides advances in technology, such as high processing speed, distributed and grid computing availability, and high storage capacity. In addition, through its use, the common problems of limited computational power and limited physical data storage can be ameliorated [2]. This synthesis integrates hardware, software, networks, and storage options to deliver shared computing solutions in which applications and other services would be provided over the Internet [3].

Cloud computing has four deployment models: public, private, community, and hybrid. According to Chou [4], the public cloud is considered to be the most popular model in cloud computing. Service providers such as Google, Amazon, and IBM offer inexpensive or even free Cloud Manuscript received October 24, 2016; revised December 14, 2016. The authors are with the Coventry University, Priory St, Coventry CV1 5FB, United Kingdom. computing services to the public [5]. However, despite the

low cost and broad availability of public cloud services, it is widely believed that this cloud model has less security protection compared with other models [2], [4]-[7]. In addition, the shared resources pool in public cloud computing model has physical capacity limitations as well as low processing performance unless the customer agrees to pay more for a premium edition [8].

METHODOLOGICAL APPROACH

This study requires in-depth analysis to understand the current and expected future situation. Therefore, the researcher will endeavor to adopt a qualitative approach, because this will provide a better understanding of the situation in real life, as well as investigate the main factors affecting the adoption of cloud computing. The data collection in this research comes from semi-structured interviews with professors from the Jordanian universities as well as experts in cloud computing technology. The analysis process of collected data has been conducted using Computer Assisted Qualitative Data Analysis (CAQDA). Accordingly, this research employed Nvivo software, which is considered to be one of the most useful software tools for qualitative data analysis. Using Nvivo software enables the researcher to code the

collected data as well as to link and create relationships between codes [26].

FINDINGS

A. Security and Privacy

The findings show that security and privacy concerns are considered to be the most important issue affecting the adoption of cloud computing at higher education institutions, as one of the professors (P2) in management information systems explained: "Privacy is the main concern in using cloud computing. A considerable amount of publications agreed that privacy and security are the main issues in cloud computing and we cannot ignore this fact".

B. Cost effectiveness

Cost benefits of cloud computing is a significant factor in this study. All participants agreed that the primary benefit of introducing cloud computing is the cost effectiveness of this technology. "The Main feature of cloud computing technology, which makes it worthwhile to use is that there is no need to spend upfront costs that are usually supposed to be a heavy investment. For example, in the last five years, our university has initiated three new buildings, and each building costs the university around 90,000\$ for IT infrastructure. If we adopted cloud computing instead, I believe this may avoid this waste in the university budget" (P5). As a result, the cost-effectiveness of cloud computing is a positive enabler to the addition of this technology in higher educational institutions in developing countries.

C. Compatibility

According to the findings from the interviews, the compatibility of cloud computing with current technology is an important factor in cloud technology adoption. The compatibility feature in cloud computing application could be one of the most important enablers of cloud computing at universities. Accordingly, cloud computing compatibility with any device as well as the high ability of integration with in-house technology is one of the most important enablers of cloud computing technology.

D. Easy to Use

The finding of this study showed that stakeholders in universities who took part in this study consider this factor as an enabler of cloud computing adoption. The simplicity of implementing and using cloud computing makes this technology adoption one of the best options for universities in developing countries, as one of the IT managers (TE8) argued that: "In most cases, the adoption of cloud computing technology is not complicated, except in very rare scenarios when the migration of cloud with in-house technology has a major difference in platforms. Therefore, this simplicity motivated us to accelerate the cloud adoption decision"

To summarise, it is clear that cloud computing technology has the ability to increase the sharing knowledge level among students. Therefore, this factor is considered as an enabler of cloud computing technology adoption at higher education institutions in developing countries.

CONCLUSION

This paper investigates the main factors that affect the adoption of cloud computing at universities in developing countries from both academic and technical perspectives. Semi-structured interviews were conducted with participants including professors in IT and technical experts in IT. Since this study employed an interpretive approach using qualitative methodology, all interviews were recorded after gaining the ethical approval from participants. In addition, the researchers have applied the Nvivo program for transcribing, coding, and finally generating the study's conceptual framework.

The finding suggests that the adoption of cloud computing at educational institutions in developing countries is strongly recommended by academic experts as well as technical professionals. The cloud computing adoption is supported by several enablers such as cost effectiveness, ease of use, improving the level of sharing knowledge, compatibility with devices and software, and geographical decentralization ability to use cloud applications. However, some concerns have arisen as barriers for adopting this technology, such as security and privacy, awareness of top management about this technology's benefits and limitations, compatibility of cloud with in-house technology in case of migration, and resistance to using new technology.

Further research on the adoption of cloud computing may focus on developing a framework for cloud computing adoption at universities in developing countries. Though cloud computing is a new technology, especially in developing nations, further studies in this domain would help academic institutions to understand the benefits, weaknesses, and challenges of adopting this technology.

National University of Computer and Emerging Sciences, Lahore Campus

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|--|-----------------------|--------------------------------|--------------|--------------|
|  | Course Name: | Technical and Business Writing | Course Code: | SS-108' 2007 |
| Degree Program: | BS (Computer Science) | Semester: | Fall 2021 | |
| Exam Duration: | 60 Minutes | Total Marks: | 30 | |
| Paper Date: | 3rd December 2021 | Weight | 15% | |
| Section: | ALL | Page(s): | 1 | |
| Exam Type: | Midterm- II | | | |

Student : Name: Mawali Ali Roll No. 19L-1048 Section: D

Instruction/Notes: Attempt all questions on the answer sheet. Attach the question paper with the answer sheet.

| Q1 | Q2 | Total |
|----|----|-------|
| 20 | 10 | 30 |
| | | |

Q1. Write an informal proposal following a typical memo format.

[20]

Due to the spread of COVID-19, a huge burden presents itself to different educational institutions including FAST-NUCES, Lahore campus. Although fever checking at the gates of all institutes has become a regular practice, but the authentication of this idea is questionable because many students aren't tested after a certain time because the staff is not enough to cater to the temperature record of each and every student.

You being an active member of the research committee at FAST, ORIC, are required to present an idea of a software solution through which Temperature can be recorded, and Attendance of students and teachers can be maintained for foolproof record-keeping. You must present this proposal to the Dean of the Computer Science department, Mr. Kashif Zafar, so that it can be approved by the committee and implemented by Spring 2022.

Follow informal document guidelines in your answer. Mention the possible Technical Requirements, Management of personnel and time, and Cost details.

Q2. Give Short Answers:

[10]

1. RBM Software is preparing to release a new product, and it will need documentation to support its new software. Alveena Majid, a documentation specialist is working on a Formal Report. What are the basic strategies to organize a formal document that she needs to consider while writing the report?

2. What are the different types of questions that can be used in a Questionnaire while conducting a Survey. List four types with examples of each.

National University of Computer and Emerging Sciences, Lahore Campus



| | | | |
|--------------------|--------------------------------|---------------------|-----------|
| Course: | Technical and Business Writing | Course Code: | SS 153 |
| Program: | BS (Computer Science) | Semester: | Fall 2021 |
| Duration: | 3 Hours | Total Marks: | 70 |
| Paper Date: | 7 th January-2022 | Weight: | 50% |
| Section: | ALL | | |
| Exam: | Final | | |

19L-1048

Instructions: Attempt all questions on the answer sheet.

- Q1.** Alizay Waheed, the VP of Human Resources decided to propose a Presentation Skills course. She therefore needed someone to design a course which was personalised to the needs of everyone, developing their skills and exploring how they might adapt their approach to suit different presentation settings, and to engage with audiences of different sizes.

She has to write an Informal Proposal to Shams Iqbal (Manager at the Department of Communication) highlighting the issue and the need to design a two-day Presentation Skills course for 25 employees.

[20]

Additional details for report: Alizay will direct Shams to keep in mind the business needs and context while designing the course. The course has to be highly practical, with each delegate having an opportunity to make an initial presentation on day 1, followed up with detailed individual feedback, and a second presentation on day 2 to put the feedback into practice. All the presentations will be video recorded, to give the delegates a better understanding of the way they came across and a permanent record to support their development.

benefits
outline
Methodology

The course may focus on these areas:

- What makes a good presenter (focusing on generating credibility, using visual aids, vocal techniques and stagecraft)
- How to select and organise your material.
- How to use PowerPoint and create effective slides.
- How to promote audience engagement.
- How to handle Q&A sessions and deal with challenges from the audience.
- How to manage nerves.

- Q2.** As the President of SOFTEC society at FAST NU Lahore, you were recently invited by president student affairs at University of Lahore to give a lecture on Robotics. Unfortunately, you will be away that week. You are grateful that they asked but are unable to attend. You have to politely refuse the invitation to speak, giving the reason, why. Perhaps you would be able to speak at another time, in the near future.

Based on this situation, write an Email to the Program Organizer, Dr. Yasir Zafar.

(Word limit 150 -200 words)

[15]

Follow the email writing protocol, of the ABC format for Positive or Negative Messages, whichever you think renders necessary, in this situation.

Q3. Write a Job Application/cover letter to the HR Manager, Zamir Naqvi at ZetaTech Lahore, responding to the job advertisement, given below.
(Word limit 200 -250 words)

[15]

Follow the ABC format of a Cover Letter. You may fictionalize some part of the information about your degree program and other experiences not yet acquired. This way, the job letter and résumé reflects the background you would have if you were applying for the job.

We're HIRING

JOB openings

SOFTWARE DEVELOPER

Masters in Software Engineering 2 Positions
5+ years exp. C/C++, HTML, JavaScript, CSS, JSON, XML, PHP, ASP, traffic, SSL protocols & understanding, MySQL, SQL, Service Oriented Architecture(SOA), TCP/IP working understanding, JIRA and Git experience

NETWORK & SYSTEM ENGINEER

Masters in Computer Engineering, Information Technology 2 Positions
4 years exp. Linux technologies (CentOS and Ubuntu), firewalls, IPsec, vulnerability assessment tools, network scanners, Virtualization technologies (VMware, KVM, OpenStack), TCP/IP, SSL/TLS protocols, understanding NAS, SAN, iSCSI etc

SERVICE CENTRE ENGINEER

Bachelor's in Computer Engineering 5 Positions
exp. SSL, RDBMS and SQL queries for data retrieval and manipulation, TCP/IP fundamentals, signaling protocols, Linux(CentOS and Ubuntu)

SOFTWARE ENGINEER

Bachelor's in Computer Science, IT Engineering or Equ. 2 Positions
experience in software development in general, experience in C++ or Java knowledge of International IT and Mobile Telecom Standards and Protocols (SS7)

Q4. Read the case studies and answer the questions that follow:

[10]

A. Assume that you received a call for a job interview from a software house in your city where you had aspired to work in your professional career. Even though the Director of Human Resources is an acquaintance, but he has told you that the interview will be a rigorous one with a group of 5 panel members including the executives of the company. That adds to your anxiety about the situation other than the apparent excitement. To perform well and potentially succeed in the job interview, you must prepare well. Even if your responses are technically fantastic and prove that your qualifications are a perfect match for the position, there are some other strategies for giving successful interviews, which should be the part of your preparation.

Question: What seems to be the issue and what are the strategies that can help you overcome it?

B. Ahmer completed his Ph.D. working on a problem in the field of Medicine and suggest an IT related solution to it. He gets a new job at CureMD. He arrives at the new job and discovers that the work done as a student, which is in the patent (licensing) process, will solve the problem at his new company. If he reveals what he knows to his new employer, he will be an immediate hero but will compromise the rules of privacy of the patent process. It was a project report that he worked on with his Supervisor, and this step could have important financial implications for the original institution in the form of royalties.

Questions: What should he do? What are the relevant ethical considerations in this dilemma?

~~Q5.~~ Write Short Notes on the following:

Explain with examples where necessary.

[10]

- A. Parts of an Abstract
- B. Three Cs strategy for organizing technical correspondence

Respect privacy
Confidentiality

Technical and Business Writing (SS2012)

Date: 9th April 2025

Course Instructor(s)

Hajra Ikram, Uzma Safdar, Irum Zahoor, Maha

Sikandar, Huma Asif, Arslan Rasheed

[REDACTED]
Roll No

[REDACTED]
Section

Sessional-II Exam

Total Time (Hrs): 1

Total Marks: 35

Total Questions: 3

[REDACTED]
[REDACTED]
[REDACTED]
Student Signature

Do not write below this line

Attempt all the questions. Do not attach the question paper.

Q1: You are the Students Affairs Officer at National Institute of Computer Sciences (NICS), Lahore. The Department of Computer Science is currently considering an upgrade of its computer labs to meet modern technological standards. However, before finalizing any decisions, the Head of Department has requested to collect information about the current state of the lab facilities and potential areas for improvement.

Memo.

You are required to write an informal problem analysis report addressed to the Head of Department. Your report should identify the problem, analyze the data, and suggest potential solutions.

[20]

Q2: Read the case study and answer the question given below:

[5]

CodeMatrix Solutions, a mid-sized software house in Karachi, specializes in developing custom web and mobile applications for clients in Pakistan and the Middle East. In 2024, the management initiated a research project to improve employee productivity and client satisfaction. The company used a mixed-method approach, combining different types of data to gain deeper insights into internal performance and external perceptions. The company conducted surveys distributed to both employees and clients. The surveys included Likert-scale questions measuring productivity levels, time spent on tasks, communication efficiency, and client satisfaction with deliverables. Over 80 employees and 50 clients responded, providing a broad data set. To complement this, in-depth interviews and focus group discussions were conducted in which Project Managers and senior developers were interviewed about workflow challenges, motivation, and communication gaps. Based on the results, the company introduced new project management practices, clearer communication protocols, and revised its estimation models.

Question: What were the types of data collected during the research through which CodeMatrix Solutions was able to see the full picture, and bring improvements?

Q3: (a) Why is an abstract/executive summary considered to be an essential component of a formal report?

Q3 (b) Using the sample abstract provided, identify its key parts and arrange them in the correct order. *You may mention the number in the correct order along with the name of each sections of the abstract.*

[5 + 5]

Title: Enhancing Strategic Decision-Making through AI-Powered Data Analytics

Abstract: Using machine learning algorithms and advanced data visualization tools, the system identifies patterns and trends that would otherwise remain hidden. (1) These results demonstrate the potential of combining AI with data analytics to drive efficiency and innovation across various industries. (2) This project explores the integration of data analytics and artificial intelligence (AI) to enhance business decision-making processes. (3) The project achieved an accuracy rate of 92% in predicting customer behavior and significantly reduced decision-making time by 35%. (4) The objective was to design a predictive analytics model capable of analyzing large datasets and generating real-time insights to support strategic planning. (5)

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