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Ethical Considerations in Computer Lab among Faculty and Students of Computer Science Department

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ABSTRACT

Aim: Aim of this literature review to develop the understanding regarding ethics in computer lab environment to avoid from misconduct and malpractice. The other aim of this article is to disseminate to the students and faculties to guide the importance of ethics in computer lab environment. **Background:** mostly students in University in Pakistan are not following ethics in computer lab environment among faculty and students of computer science department. There is noise pollution was noted in the computer lab, some students and faculties are observed to eating in the computer lab. Students were observed shouting in computer lab on lab assistant to claim system regarding issues, students are observed that after the completion of assignment they do not log out their Email IDs, and they do not switch of the computer to avoid the loss of electricity. Therefore, this malpractice impacts on behavior of students and quality of education in Universities in Karachi. **Methodology:** this is literature review article, google scholar was used to searching the articles for construct this literature review. Endnote program was used to create the citations and references in this article. Total 35 literatures were searched to understand this literature review than 17 articles were finalized to create the literature review citations. Out of those 17 articles, 9 are international articles and 8 were national articles. In this literature review 5 articles were review articles and other 12 were original research articles. Boolean operators "OR" and "AND" were used to searching the articles according to keywords. **Conclusion:** Mostly students and faculties in computer lab environment

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followed ethics in computer lab environment very well due to motivations from teachers in computer lab and lab assistant in computer labs. There are notice boards pasted on wall in computer lab to guide the ethics in computer lab among faculty and teachers to avoid misconduct.

Keywords: Ethical Considerations, Computer, Lab, Department, Faculty, Computer Science and Students

Introduction

As the effectiveness of algorithms to make decisions improves and as the use of algorithms in domains, which can have a significant impact in determining one's life prospects increases, it is important to understand undergraduate students' perceptions of algorithmic decision making and reasoning behind that perception. We conducted a study to understand engineering students' perception about algorithmic decision making in two different scenarios using a trolley problem at the end of an introductory programming course. The motivation to conduct this study was to gain insights on how they reason about the ethical use of algorithms. Data of eighty-two undergraduate engineering students was analyzed to understand ethics [1]. Our hypothesis is that $1/10$th-scale autonomous vehicles sufficiently capture the scaled dynamics, sensing modalities, decision making and risks of real autonomous vehicles, but are a safe and accessible platform to teach the foundations of autonomous systems. We describe the design, deployment and feedback from two offerings of this class for college seniors and graduate students, open-source community development across 36 universities, international racing competitions, student skill enhancement and employability, and recommendations for tailoring it to various settings [2]. Teaching autonomous systems is challenging because it is a rapidly advancing cross-disciplinary field that requires theory to be continually validated on physical platforms. For an autonomous vehicle (AV) to operate correctly, it needs to satisfy safety and performance properties that depend on the operational context and interaction with environmental agents, which can be difficult to anticipate and capture [3].

Literature Review

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Furthermore, when asked to analyze variou s scenarios they invariably chose a strategy y that emphasized monetary gain for the employee without regard to an y consideration for the company for which h they worked or the interests of society in general. It is not only reasonable, but of great urgency to at least sensitize students to controversial issues. Occasional l allusions during technical lectures are NOT sufficient. To ensure student attention to the importance of their attitude (carelessness can have legal consequences!) the format of a separate e course on Computer Ethics is inevitable [4]. Computer Ethics is one of the important courses that's needed in the current information age. By dealing computing issues and responsibilities it provides valuable information to both students and society. Students would learn from such a course but what about society and other individuals' Also can we motivate students to be remarkable members in their

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society through community services using ethics? In this paper we present a remarkable story of adding a new course activity that helps raising students and society awareness [5]. In an enquiry-based first year team project, students are encouraged to develop their social skills through both non-technical and technical activities which, over the course of the year, increase in complexity, and have higher demands in terms of interaction. During a short period of tutor absence, two virtual chat sessions were conducted to maintain continuity in the tutorial program [6].

Interest in data science education and degree programs has rapidly expanded over the past several years. An integral part of many degree programs is a capstone experience, where students complete a major research or real-world project at the culmination of their educational program. In engineering and computer science, many have shown that client-sponsored projects lead to better student engagement and improved training. In this paper, we discuss experiences with developing an interdisciplinary, client-sponsored capstone program in data science and machine learning. We show how we set up the capstone program, including how the program is structured, how projects are set up, how the course is managed, how students are assessed, and outline the newly [7]. Historically, professional associations have viewed codes of ethics as mechanisms to establish their status as a profession or as a means to regulate their membership and thereby convince the public that they deserve to be self-regulating. Self-regulation depends on ways to deter unethical behavior of the members, and a code, combined with an ethics review board, was seen as the solution [8]. This paper presents an approach to teaching Computer Ethics that blends the use of contemporary media, subscriptions to digests of current technology news, and reflective writing in a learner-centered strategy. This approach is designed to make use of activities and assignments that take advantage of (1) student interest in contemporary media (video and film) to provide motivation and context beyond historical case studies, (2) breaking news about technology and technology use in education to provide current real world context, and (3) reflective writing to stimulate thinking critically about the course content outside the classroom context. Digests published three times weekly provide a constant flow of current real-world issues that can be used for focused [9]. Even in the turn toward justice-oriented pedagogy, computing education tends to overlook the quality of

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intergroup relationships, which risks entrenching division. In this article, we establish an intercultural approach to computing education, informed by intercultural and peace education, prejudice reduction, and the sociology of racism and ethnicity. We outline three major concerns of intercultural computing [10]. In this article, we share our experiences offering an original course entitled *Intelligent Systems* targeted at undergraduate social and behavioral science students. *Intelligent Systems* provides a rigorous introduction to robotics and surveys selected topics in artificial intelligence. This course is tailored to students with little mathematical background and no programming experience [11]. Recently, there has been a growing emphasis and support for the inclusion of ethics in post-secondary computing courses. This emphasis has come in part from *ticklish*, a growing discontent with privacy violations, monopolies, and strategies of technology companies and critical reflection on technology use. Curriculum guidelines such as the 2023 ACM/IEEE-CS/AAAI Computer Science Curricula have expanded the Society [12]. we propose the first threat model for Attribute Inference Attacks (AIA) in the Dota2 context. We explain how (and why) attackers can exploit the abundant public data in the Dota2 ecosystem to infer private information about its players. Due to lack of concrete evidence on the efficacy of our AIA, we empirically prove and assess their impact in reality. By conducting an extensive survey on 500 Dota2 players spanning over 26k matches, we verify whether a correlation exists between a player's Dota2 activity and their real-life. Then, after finding [13]. Critical commentary on data science has converged on a worrisome idea: that data scientists do not recognize their power and, thus, wield it carelessly. These criticisms channel legitimate concerns about data science into doubts about the ethical awareness of its practitioners. For these critics, carelessness and indifference explains much of the problem—to which only they can offer a solution. Such a critique is not new. In the 1990s, Science and Technology Studies (STS) scholars challenged efforts by AI researchers to replicate human behaviors and organizational functions in software (for example, Collins[3]). The scholarship from the time was damning: expert systems routinely failed, critical researchers argued, because developers had impoverished understandings of the social worlds into which they intended to introduce their tools.[6] At the end of the decade, however, Mark Ackerman reframed this as a social-

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technical gap between "what we know we *must* support socially and what we *can* support technically."[1] He argued that AI's deficiencies did not reflect a lack of care on the part of researchers, but a profound challenge of dealing with the full complexity of the social world. Yet here we are again [14]. There is little research on why underrepresented minorities are less likely to specifically study Machine Learning and Artificial Intelligence (ML/AI). We surveyed 159 undergraduate students about their interest in, exposure to, and personal views on ML/AI in order to explore variations in responses by self-reported gender and race/ethnicity groups. We found that students underrepresented by race/ethnicity are ~6 times less likely to take a traditional ML/AI course than those not underrepresented by race/ethnicity, but no significant difference was found between gender representation [15]. Rising enrollments and limited instructor resources underscores the growing need for reusable, scalable curriculum. In this paper, we describe an open-source introductory Python course for non-Computer Science majors in STEM, designed following best practices of Instructional Design (a process similar to Software Engineering). The created resources include 234 learning objectives, 51 lesson videos, 45 lecture slides [16]. In this paper, we adopt the CAE approach to reflect on our experiences of working at the intersection of disciplines, and our progress and future plans for integrating FATE/CDS into the curriculum. We identify a series of challenges for deeper FATE/CDS integration related to our own competencies and the wider socio-material context of Higher Education in the UK. We conclude with recommendations for ourselves and the wider FATE/CDS orientated Data Science community [17].

Discussion

As the effectiveness of algorithms to make decisions improves and as the use of algorithms in domains, which can have a significant impact in determining one's life prospects increases, it is important to understand undergraduate students' perceptions of algorithmic decision making and reasoning behind that perception. We conducted a study to understand engineering students' perception about algorithmic decision making in two different scenarios using a trolley problem at the end of an introductory programming course. The motivation to conduct this study was to gain insights on how they reason about the ethical use of algorithms. Data of

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tutorial program [6]. Mostly students and faculties in computer lab environment followed ethics in computer lab environment very well due to motivations from teachers in computer lab and lab assistant in computer labs. There are notice boards pasted on wall in computer lab to guide the ethics in computer lab among faculty and teachers to avoid misconduct.

Conclusion: Mostly students and faculties in computer lab environment followed ethics in computer lab environment very well due to motivations from teachers in computer lab and lab assistant in computer labs. There are notice boards pasted on wall in computer lab to guide the ethics in computer lab among faculty and teachers to avoid misconduct.

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