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Traditional Bulletin Board: Benefits and Drawbacks

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Abstract: In institutions and organizations where posting, moving, and removing notices requires human work, manual notice boards are a typical sight. In our daily lives, communication is crucial. One method of communication is to post information and announcements. Generally, when someone wants everyone to know essential information in a corporate setting, a recreational setting, a school setting, or the community at large, they use notes and display them in various locations. Announcements, ads, and critical information have traditionally been sent on fixed sheets that are adhered to a backing. This requires a lot of time, energy, and fatigue. Furthermore, because some staff members assume that no new information is uploaded, vital information is frequently overlooked. With this, it turns into one of the main issues that Lemery Senior High School's staff, parents, instructors, and students deal with. Paper is used for presentation on traditional bulletin boards, and because sustainability is being promoted, it is obvious that using paper that is only meant to be used once is extremely wasteful. LED bulletin boards are not only more practical and efficient than traditional ones, but they are also better for the environment.

Keywords: Bulletin Board, Notice Board, Students, Lecturers, Business Centers, Schools.

Review Paper

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I. INTRODUCTION

Our world is one in which technology is developing daily. Technology has advanced in a number of areas, including the ability to communicate data remotely [1]. On the other hand, we believe that individuals can be replaced by technology. Technology has advanced significantly during the past fifteen years [2]. The sole explanation for the decline in landline usage is that people prefer to use mobile phones as they must always connect to the network, which has greatly aided in the development and growth of network technology [3]. But using bulletin boards, from elementary classrooms to large message companies, is problematic these days [4]. The currently in use paper is then wasted by organizations. These exacerbate global warming and enhance the vulnerability of forests [5]. If certain guidelines are not followed, even modest efforts toward bringing technology to the desirable world condition could turn into an environmental catastrophe [6]. There is a scarcity of frequencies in networks as a result of the growth of mobile networks in the 1970s [7]. As a result, cutting-edge mobile system technology emerged [8]. This indicates just analogous transfer [9]. The three generations of mobile networks are as follows: FPLMTS UMTS IMT-2000, GSM ERMES, and AMPS [10]. Many public spaces allow the use of bulletin boards. They are all hand maintained. It goes through a protracted procedure in advertising [11]. L.E.D.: Train entrance information monitors used in railroads [12]. Negative aspects: Expensive: requires heating in order to function for an extended period of time [13]. L.C.D.: These are notice boards that are used in malls and buses, but the information is pre-programmed into memory [14]. As a result, it takes a long time or its warnings cannot be altered [15]. With short extensions, Bluetooth technology has the potential to quickly cover a significant portion of short circuits [16–18]. He employed cables to connect electronic gadgets including laptops, PCs, cell phones, and digital assistants [19–21]. Homes, workplaces, schools, hospitals, and automobiles can all be equipped with Bluetooth technology [22, 23]. Additionally, Bluetooth allows users to quickly connect to several devices [24, 25]. The assurance against outside interference and the ease of data transfer are aspects of the data transmission method that are related to the security of this technology [24, 26, 27]. Resistance, affordability, energy efficiency, simplicity of usage, and minimal complexity are the main and advantageous aspects [28]. Microchips operating at 2.4 GHz are required for usable devices, as well as the ability to receive and transmit data across numerous bandwidth regions [29-31]. Furthermore, data can be exchanged between three audio channels at a rate of one megabit per second (or two megabits in the second generation) [32-34]. Hop frequency: This is a frequency that enables devices to connect to locations where electromagnetic waves are interfered with [35, 36]. The majority of gadgets, including computers, cell phones, and cars, can interchange remotely thanks to Bluetooth [14, 37–42]. Bluetooth is not supported by the Arduino Uno board alone [43-45]. This prevents wireless connections to Android devices, which call for the usage of an interface [46-48]. The study's main subject was the Bluetooth module HC-O6 [49]. The causes of use HC-O6 are user friendly, requires basic knowledge, it can be programmed according to the Art commands, and available in a fixed or master mode only [50, 51]. This study describes a wireless matrix bulletin board that uses Bluetooth and features an Android application with unique innovations. The matrix can be used to create a huge screen by combining multiple colors and displaying information in public areas [52]. The present study aims to construct a content-based e-system bulletin board that utilizes the Arduino Microcontroller IDE to convey vital messages in a more efficient and time-efficient manner. This will be achieved by employing new technologies such as moving LED matrix display boards. Additionally, the technology will be convenient for users, since it will allow announcements to be typed on a desktop or laptop keyboard and digitally shown on an LED matrix display board. The administration of the school will save time and effort by using the system to post significant announcements. The idea is visually appealing and has the potential to educate a significant number of teachers and students on a vital topic. It is believed that the research will spread pertinent and significant knowledge. The Lemery Senior High School pupils as a whole will benefit from the system in addition to the faculty and staff [53].

Figure 1: Traditional Bulletin Board

Figure 2: Modern Wireless LED Message Board: For Text Messaging and Digital Time Display

II. ADVANTAGES OF BULLETIN BOARD

1. The student's attention is heightened by it. Publicizing the announcement or advertisement is simple.
2. It is simple to comprehend and ought to be executed in a stylish way.
3. That notice is the only one that matters.
4. Add to the lessons taught in the classroom.
5. It enhances our capacity for observation.
6. Contributes to the effectiveness of the teaching session.
7. Describe a unique activity.
8. The fact that bulletin boards are reusable is one advantage.

III. DISADVANTAGES OF BULLETIN BOARD

1. The board's preparation takes longer.
2. It can be challenging to acquire data at times.
3. Help only those who possess education, not those who lack it.
4. Comprehension difficulties if the board is not in a well-lit region.
5. Expansive for making the bulletin board.
6. Sometimes pins come out and fall down [54].

CONCLUSION

Many articles have been reviewed based on smart bulletin boards, and we have seen their impacts and their advancements in technology. Also, we have seen the advantages and disadvantages of the traditional bulletin board used in our schools, organizations, industries, and hospitals.

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