INTERNET OF THINGS DATA INTEGRATION SYSTEM FOR COVID 19 TRACING

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INTRODUCTION

In December 2019, Chinese health officials reported an unknown origin pneumonia epidemic in Wuhan, Hubei Province. A few days later, the genetic data of a novel coronavirus was released. Since its discovery, the virus has spread globally, causing thousands of deaths and having a massive impact on our health systems and economies.

This COVID-19 pandemic is one of the global health crises of our time that we have faced since World War Two. However, this pandemic is more than just a health crisis; it is also a unique social-economic crisis. The global pandemic has completely altered the way things are done, not just in the Philippines but worldwide. Many countries implement their preventive protocol like total lockdown and social distancing. The Philippines Implemented various actions, including community quarantine in Metro Manila which expanded to Luzon and other parts of the country . Aside from that Philippines also implement preventive measures such as facemask, faceshield, and proper hand sanitizing.

As recommended by WHO (World Health Organization), hand hygiene is the primary prevention step in transmitting the disease. Hygiene refers to activities that encourage health conservation and disease prevetion, primarily through cleanliness, such as washing hands, coughing in the elbow, etc. One of the most frequent symptoms of Covid-19 is fever, and temperature restrictions have been introduced by healthcare, establishments, and facilities to help avoid the possible transmission of the virus.

In this project, the researcher came upon innovating the standard preventive measures

that can be more useful and safe. Allowing the system device to monitor, lessen the physical interaction and contribute to modern technologies.

GENERAL OBJECTIVE

This project's main objective is to build standard preventive measures that will help minimize human interaction. It will contribute through modern technologies by utilizing the Internet of Things.

SPECIFIC OBJECTIVES
The Specific objectives of this project are:

• To minimize human interaction.

• To contribute to the enhancement of the community hygiene.

• To help ensure a safe and healthy workforce and turn a safe and healthy community.
• To spend less time answering the covid-19tracing form.
• To have an accurate monitoring/ contact tracing.
• This project enabled the administration to ensure only accredited people access the premises.

STATEMENT OF THE PROBLEM

This study aimed to implement the Data Integration System for Covid-19tracing that will help to minimiz the human interactions.

Specifically, this study sought answer to the following questions:

1. How many the respondents be described in terms of
1.1 Students
1.2 Professional; and
1.3 Community?

2. What improvement can be made out of the existing device/system?

3. What is the level of acceptability in the respondents' assessment on the developed Integration and Monitoring System in terms of the following characteristics;
3.1 Functionality;
3.2 Reliability;
3.3 Usability;
3.4 Maintainability;
3.5 Efficiency;

METHODOLOGY

There are two categories of developmental research, both of which are examined. The two types varies in terms of the extent to which the conclusions resulting from the research are generalizable or contextually specific. This article describes developmental research in terms of the traditional stages of planning, conducting, and reporting a research project-problem definition, literature reviews, and research

procedures. Examples of adapting a literature review to a developmental study are identified.

Problem definition procedures encompass focusing on and framing the problem and identifying the limitations of the research. Research procedures are adapted to developmental studies, particularly with respect to determining the study's participants, creating a research design, and collecting and analyzing the data. Finally, issues with respect to reporting developmental research are discussed (Klein at.al, 2005).

Technical aspect of traditional developmental research, including the following topics: the design of studies, the measurement, of variables, the analysis of data, and ethical considerations. To the neophyte who has attempted to rea the method and result sections of developmental papers, these largely "methodological" aspects of research appear to be bewildering, and infinitely varied in type, form, and perhaps function (Hartman et.al, 201).

In light anticipated changes in mathematics education, an alternative for well-known "research-development-diffusion" model is presented. It is based on an integration of curriculum research and design embedded in "education" development." In this context curriculum development is described as purposeful and sensible tinkering. It is argued that the theory production implied in this process may be exploited in " developmental research". However, developmental research is no yet well established as a research discipline (GraveMeijer, 1994).

SUMMARY OF FINDINGS

This chapter shows the findings resulting from this study.

SOP 1. How many respondents be described in terms of

1.1 Students;
10/10 of the respondents are students in different major like I.T., EE, ECE, and COE that have a knowledge in the operation of the device

1.2 Professional;
10/10 of the respondents are professional in different filed like Teachers, Finance Consultant, RF Engineer and Business Owner that also have knowledge on the operation of this device

1.3 Community?
10/10 of the respondents are in the Community or like volunteer that that belong to the priority of this device.

SOP 2. What improvement/recommendation can be made out of the existing device/system?

Student/Professor should broaden and deepen their knowledge and abilities in relation to the device, and be aware of the issues

that people face as a result of covid-19 epidemic.

School Administration be more open in implementing digital tolls or projects related this study that can help further expand security and enforce safety against the covid-19 virus.

Future researchers may continue what the researchers had started and to discover more about the device that will help students, school administration and community.

SOP 3. What is the level of acceptability in the respondents' assessment on the developed Integration and Monitoring System in terms of the following;

    3.1 Functionality;

-     Functionality with a composite means of 4.52 and interpreted as Very Satisfactory.

    3.2 Reliability;

-     Reliability with a composite mean of 4.55 and interpreted as Very Satisfactory.

    3.3 Usability;

- Usability with a composite mean of 4.52 and interpreted as Very Satisfactory.

    3.4 Maintainability

-     Maintainability with a composite mean of 4.37 and interpreted as Very Satisfactory.

    3.5 Efficiency

- Efficiency with a composite mean of 4.46 and interpreted as Very Satisfactory.

TITLE	SIMILARITY	DIFFERENCES
AU2020101947 SMART COVID KIT: Designing Automatic Hand Sanitizer Dispenser and Temperature checker for Use During Pandemic	It is contactless sanitize and temperature.	The temperature of the human is in separate location.
IN202031044140 Smart Covid-19 Security System	It is to provide low cost ddisenfection.	The devic has an automatic door lock system.
IN20201017916 Automatic Device to Sanitized Door Handle	It is hand sanitizing apparatus and triggered bymotion of hand.	It is disinfecting door handle when triggered by motion of hand.
IN202011043517 Smart Covid-19 Kit Dispenser	It is contactless manner and device that can away from the spread of Covid-19 virus.	It is Covid-19 Kit that can purchase via Mobile App.

CONCLUSION

This chapter presents the claim and conclusions based on the data analyzed in the summary of findings.

This papers has discussed the design implementation of Internet of Things: Data Integration System for Covid-19 Tracing. It is designed to build standard preventive measures that will help minimize human interaction.