Investigation of what influences user design and best practices for protecting sensitive information

Bernadette Murphy

AGENDA

Overview
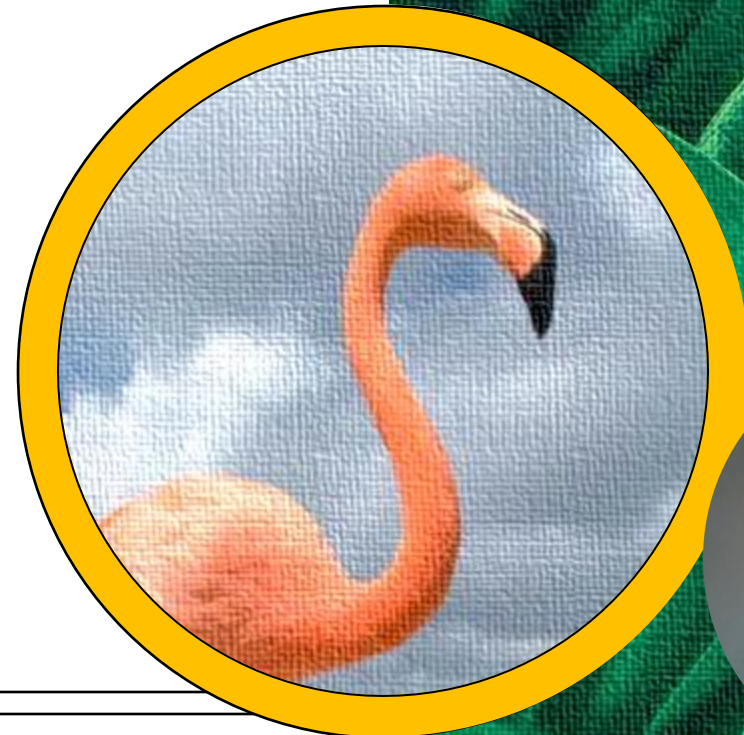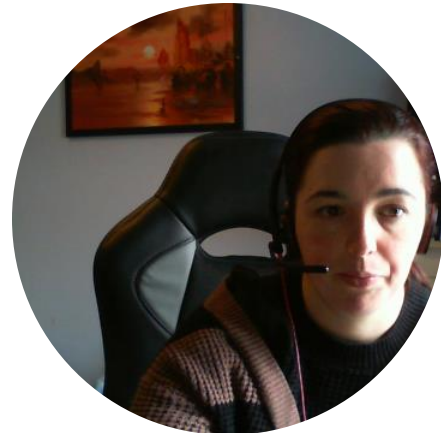
Our research aims to investigate the software system used by a corporation to label their food products. User-friendliness affects productivity and error rates, so we recommend enhancing software quality and security. A survey showed that most employees believe MFA would improve software security.

poster

Bernadette Murphy

Investigation of what influences user design and best practices for protecting sensitive information

Bernadette Murphy PGDip, BA

Abstract

Our research aims to improve the software system used by a corporation to label their food products. User-friendliness affects productivity and error rates, so we recommend enhancing software quality and security. A survey showed that most employees believe MFA would improve software security

Aims

Aims

.This research aims to evaluate the quality of user experience and security measures of EMOS, a software system used in post-food production. The data collected will be analysed and presented in charts. The survey constructed for this study includes questions to gauge the level of security and user-friendliness of the software. Questions also cover the availability of user support and the ease of performing daily tasks. The employee's input will be valuable in identifying areas for improvement and optimizing the software's usability.

Research Questions

Research Questions

The study focuses on the following questions

1. How does the software ensure data security and user privacy?

2. How resilient is the software against current and emerging cyber security threats?

3. How effective are the user-supports that are available

Methods and Materials

Participants

- The employees came from various departments of a food labelling production company.
- This allowed the study to provide diverse opinions on the software in question.
- A survey was completed by 22 employees.

Gathering the Data

The survey was conducted using Microsoft Forms.. The survey consisted of drop-down questions, allowing the researcher to gather information about the user's perception of the software's user-friendliness and security measures.

- When creating the questions

"Can the user-friendliness be improved?"

The researcher assessed the user's perception on the software surrounding user-friendliness by asking users to rate the software

The researcher inquired if there were any suggestions that the employees would like to share that could enhance the user-centric aspect of the software.

Security measures

Attention will be paid to the security of the information stored by EMOS. Ways to enhance its security will be explored to ensure that it remains protected from unauthorized access and other potential security threats.

Discussion

The security measures used in the software include a username and password system which helps to ensure that only authorized users can access the system. The system is designed to prevent unauthorized access, and users are required to provide a valid username and password to gain access. However, it seems that one user may not have fully understood the question or how to properly use the system. It's important to make sure that all users are properly trained on how to use the system to avoid any potential security risks
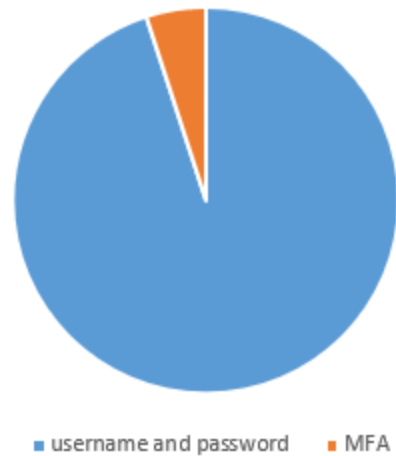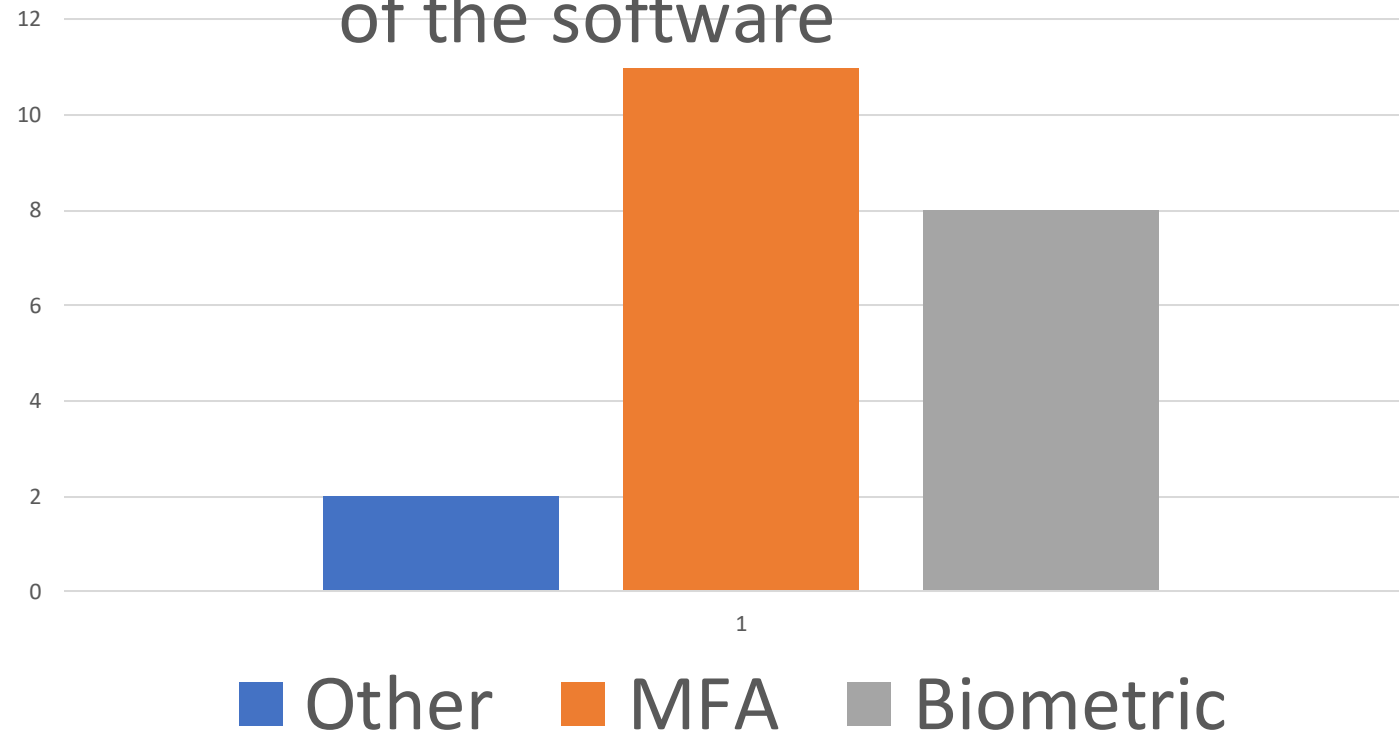
Discussion

- 55% suggested Multi-factor Authentication (MFA)
- 36% suggested biometric authentication- 9% had other suggestions, such as SSO/Active Directory integration
Note: Some concerns about MFA/biometric authentication for floor operators.

23 %of people that answered yes
76 % no

The security measures used in the software include a username and password system which helps to ensure that only authorized users can access the system. The system is designed to prevent unauthorized access, and users are required to provide a valid username and password to gain access. However, it seems that one user may not have fully understood the question or how to properly use the system. It's important to make sure that all users are properly trained on how to use the system to avoid any potential security risks

Name the security used in the software

■ username and password   ■ MFA

Results

Methods to ehance the secuirty of the software

Other MFA Biometric

Discussion
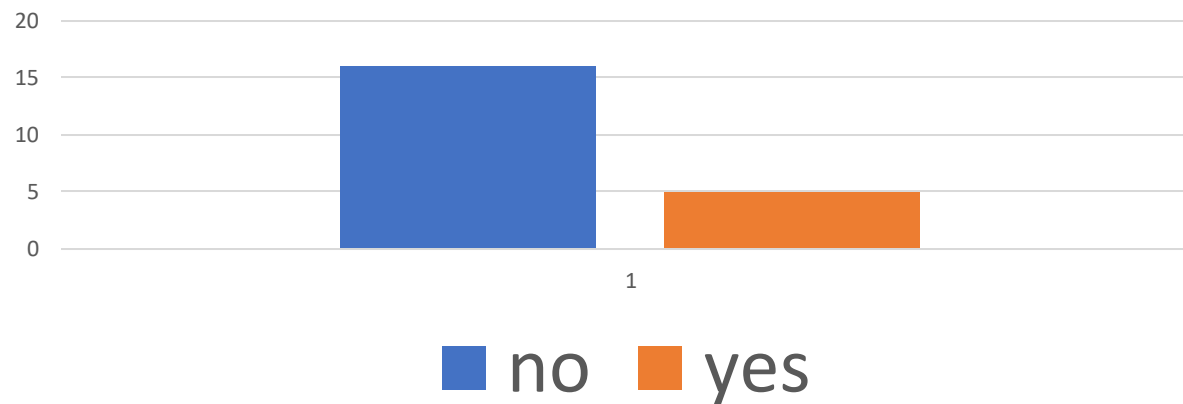
See Fig2
- 55% suggested Multi-factor Authentication (MFA)
- 36% suggested biometric authentication-9% had other suggestions, such as SSO/Active Directory integration
Note: Some concerns about MFA/biometric authentication for floor operators.

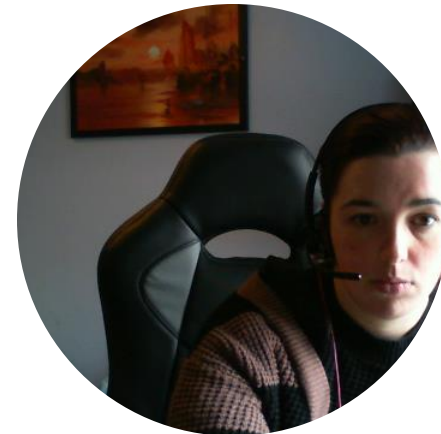# Results

23 %of people that answered yes
76 % no
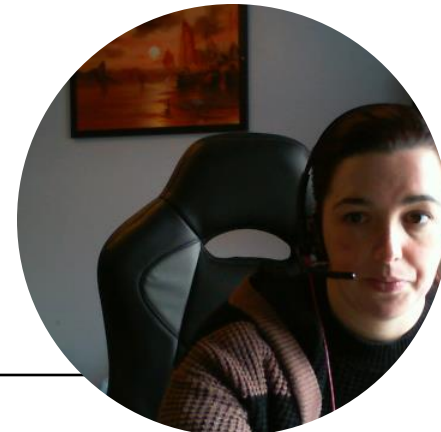
Are you aware of the manual that shows you how to do certain tasks ?

Discussing user friendliness

Pick only one on of these choices
to help enhance the user-friendliness

- A little section where you can raise a ticket with your issue rather than having to send an email
- A little chat bot that answers the users questions
- updating the manual help section
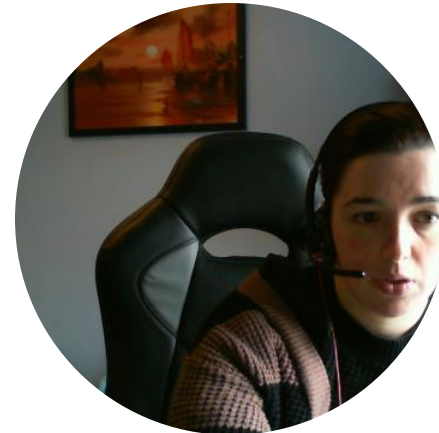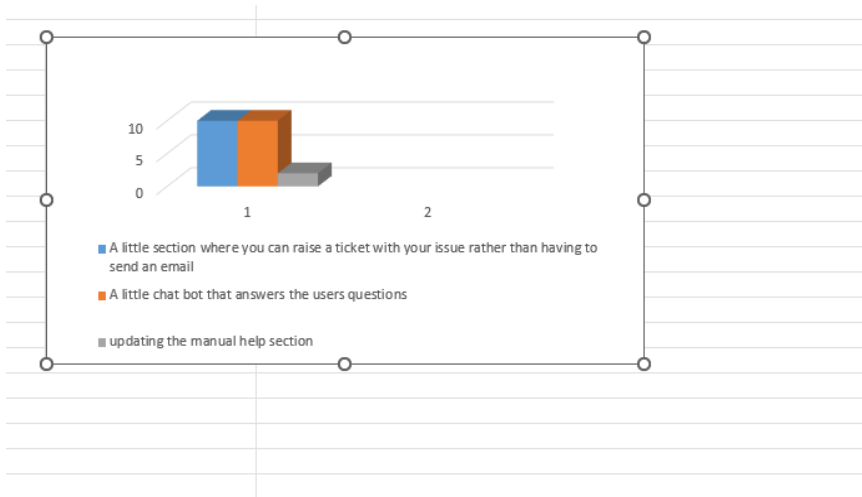
SUMMARY

Based on the results of our observations, it has come to light that a significant proportion of the population, specifically 76%, is not aware of the manual for the software. This finding suggests that the current method of sharing information may not be optimal in reaching our target audience. As a result, it becomes crucial to explore alternative methods to disseminate the information to the users in a more effective and efficient manner that caters to their needs.

Also, MFA will be suggested to the company to secure the data.

The software is user-friendly this has been gleaned from the research.
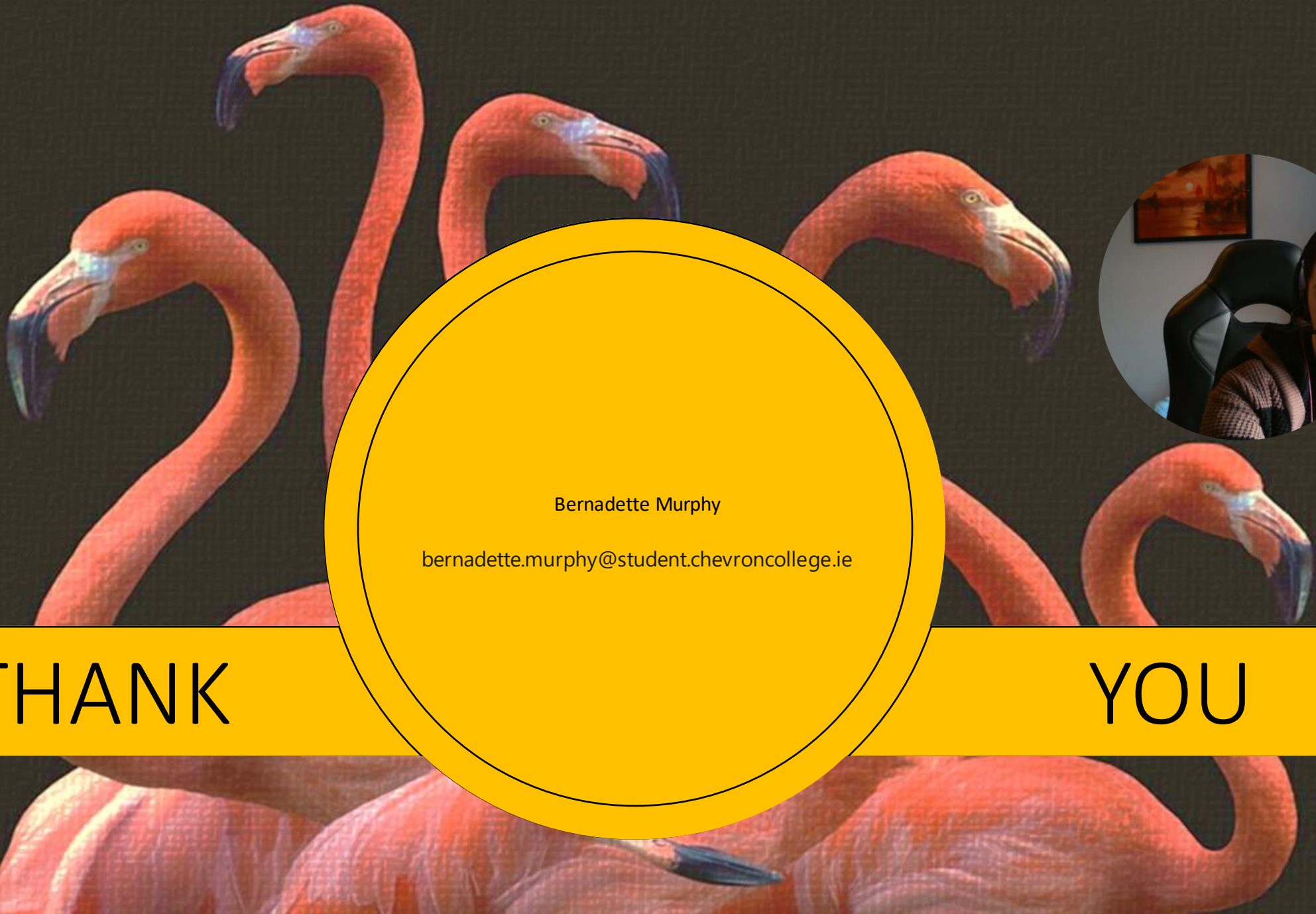
Bernadette Murphy

bernadette.murphy@student.chevroncollege.ie

THANK   YOU