TRUST INDICATORS STATEMENT OF WORK

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Client: SABRINA CALDWELL

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Background:

With the widespread use of social media and online digital media, the authenticity of photos and creative images has become a global concern. In this digital age, the extensive dissemination of images and advanced editing techniques make it difficult for ordinary users and consumers to discern the authenticity and credibility of images. Misleading, manipulated, or artificially generated images can lead to inaccurate and confusing information dissemination.

Objectives:

The project aims to develop a photo repository website with Australia as its theme, aiding consumers in better understanding and evaluating the credibility of images by displaying uploaded image metadata and providing visual cues. The website will be an open-source project, allowing users to upload their own images while adhering to knowledge sharing (CC) license requirements. By collecting image metadata and displaying credibility signals, the website will assist users in identifying and discerning authentic images. Additionally, website members can contribute contextual information, such as photographer statements, to provide more background details. The project's objective is to offer consumers a reliable resource to improve their ability to judge image authenticity. It also provides photographers and creators with a platform to showcase their works and offer additional information, enhancing public understanding and awareness of images. By being an open-source project, the website encourages other developers to contribute and improve, facilitating ongoing project development and enhancement.

Technique Overview

ASP.NET and Entity Framework

Our backend development will be implemented using ASP.NET along with the Entity Framework, leveraging a code-first approach to construct and map our databases. This methodology is familiar to our team and is expected to reduce development durations significantly.

HTML, JavaScript, and CSS

HTML forms the structural basis of our websites, which are further enhanced and styled using CSS and JavaScript. CSS governs the site's presentation, formatting, and layout decisions, whereas JavaScript handles the behavior of interactive elements. These three languages are fundamental to the creation of web content globally.

Linux Servers

Linux servers are now standard due to their stability, security, and adaptability, and they are compatible with ASP.NET operations.

Vanilla JS

Among JavaScript frameworks, Vanilla JS stands out as the most streamlined option, offering the quickest execution across the spectrum.

Bootstrap

Bootstrap remains the leading CSS framework for developing responsive, mobile-first sites. Its libraries offer ready-to-use code that accelerates UI development tasks considerably.

React

React is a JavaScript library designed for crafting user interfaces with a component-based approach and employs a virtual DOM. This setup enhances UI development by making it more declarative and sustainable, supported by a robust ecosystem of tools and libraries ideal for dynamic web applications.

MySQL

MySQL is a widely utilized open-source relational database management system for storing and managing structured data, supporting SQL for data manipulation. While not designed for large binary data storage such as images, it manages photo storage by incorporating file paths or binary data (BLOBs) within the database. For optimized photo storage and retrieval, it is advised to employ dedicated storage solutions or cloud services, storing file paths or links within the MySQL database for streamlined access and retrieval.

Risk Management Plan for Trust Indicator

Introduction

This document outlines the Risk Management Plan for the Trust Indicator project. The purpose of this document is to identify and assess potential risks that may impact the project and to develop a plan to mitigate those risks.

The plan focuses on three key objectives:

1. The algorithmic model for the Trust Indicator is accurate and reliable.
2. The Trust Indicator application and webpage is user-friendly and accessible.
3. The Trust Indicator project is completed on time and within budget and timeline.

Risk Management Process

The Risk Management Plan will be updated according to the current status of the project. The Risk Management Plan will be reviewed and updated at the following stages: reviewing and documenting.

Risk Identification

1. Definition: according to the PMBOK guide, risk identification is the process of determining which risks might affect the project and documenting their characteristics.

2. Methods for Risk Identification:

    - Brainstorming
    - Interviews
    - Delphi Technique
    - SWOT Analysis
    - Root Cause Analysis
    - Checklists
    - Assumption Analysis
    - Diagramming Techniques

3. Results:

    - Risks are identified and documented in the Risk Register.

Risk Assessment

1. Definition: risk assessment is the process of evaluating the probability and impact of risks on the project.
2. Tools and standards:
    - Probability and Impact Matrix
    - Risk Data Quality Assessment
    - Risk Categorization
    - Risk Urgency Assessment
    - Risk Score
    - Risk Tolerance
    - Risk Appetite
    - Risk Thresholds
    - Risk Triggers

Likelihood-Qualitative Scale

	likelihood	**description**
1	Rare	May occur in exceptional circumstances

	likelihood	**description**
2	Unlikely	Could occur at some time
3	Possible	Might occur at some time
4	Likely	Will probably occur in most circumstances
5	Almost Certain	Is expected to occur in most circumstances

Harm-Qualitative Scale

	Harm	**description**
1	Insignificant	Minimal impact on project objectives
2	Minor	Minor impact on project objectives
3	Moderate	Moderate impact on project objectives
4	Major	Major impact on project objectives
5	Catastrophic	Severe impact on project objectives

Risk Matrix

	1	**2**	**3**	**4**	**5**
1	Low	Low	Medium	Medium	High
2	Low	Medium	Medium	High	High
3	Medium	Medium	High	High	High
4	Medium	High	High	High	High
5	High	High	High	High	High

Industry standards: ISO 31000, PMBOK Guide, etc.

- Results: Risks are assessed and documented in the Risk Register.

Risk Response Planning

1. Definition: risk response planning is the process of developing options and actions to enhance opportunities and reduce threats to project objectives.

2. Strategies for Negative Risks (Threats):

    - Avoidance
    - Mitigation
    - Transfer
    - Acceptance

3. Strategies for Positive Risks (Opportunities):

    - Exploitation
    - Sharing
    - Enhancement
    - Acceptance

4. Results: Risks are assessed and documented in the Risk Register.

Risk Monitoring and Control

1. Definition: risk monitoring and control is the process of implementing risk response plans, tracking identified risks, monitoring residual risks, identifying new risks, and evaluating risk process effectiveness throughout the project.

2. Tools and techniques:

    - communication
    - risk reassessment
    - control measures
    - risk audits
    - risk monitoring

3. Results: Risks are monitored and controlled according to the Risk Register.

Risk Register

The Risk Register is a document that contains all the identified risks, their likelihood, impact, response plans, and status. The Risk Register will be updated throughout the project to reflect the current status of risks.

Risk	Risk Description	Likelihood	Impact	Response Plan	Status
R1	Algorithmic model is inaccurate	3	4	Mitigation	Open
R2	User interface is not user-friendly	2	3	Mitigation	Open
R3	Project is delayed	2	4	Mitigation	Open

Resources:

Technical Resources:

Website Development and Maintenance:

This part includes the design, development, and keeping of the website, containing front-end development (UI/UX design), back-end development (server and database management), and ongoing maintenance (bug fixes, updates, and security measures). These are essential to ensure the platform operates smoothly and provides a good user experience.

Trust Indicator Model:

This is a core technical component used to analyze and tag the credibility of images. It involves designing and training machine learning algorithms, validating and optimizing the model. The model helps to automatically identify the origin and authenticity of images, which directly affects user trust.

Image Processing Technology:

This technology is used for analyzing and processing images, including image recognition, feature extraction, and classification. It supports the trust indicator model by helping to determine the authenticity and reliability of images.

Human Resources:

Project Management:
Our team is responsible for coordinating various aspects of the project, including resource allocation, progress tracking, and goal setting. To ensure that the project is completed on time and meets the requirements and quality standards.

Content Review:
Our team also includes member to review the images and the descriptions to ensure accuracy and authenticity. Their work directly impacts the reliability of the project and user trust.

Community Support:
This part of member is to handle feedback, answers questions, and provides assistance. It's part is to enhance the user experience by resolving issues and maintaining a positive community environment.

Data Resources:
Image Datasets:
Used for training and testing the trust indicator model, including original images, artificially generated images, and modified images. These datasets are crucial for the model to learn and assess image credibility.

User-Generated Content:
Includes images and descriptions uploaded by users, which are vital for building and maintaining the project's database. This content allows the model to continuously update and improve, providing more accurate trust indicators.

Potential Costs
Development Costs:
Website Design and Development:
Includes expenses related to designing user interfaces, implementing functional modules, and ensuring website responsiveness and stability. This is fundamental for the project's launch and achieving its goals.
Development of Trust Indicator Model:
Involves costs for data collection and processing, model development, training, and testing. These expenses ensure that the model can accurately evaluate image credibility and provide reliable results.

Operational Costs:
Server and Storage Costs:
Covers the costs of hosting the website and storing user data. Servers need regular maintenance to ensure platform stability and security.

Content Review and Community Support Costs:
Includes time costs for content review and community support team members, as well as related operational expenses. These costs are used to ensure the accuracy of platform content and user satisfaction.

Technical Support and Website Maintenance:
This covers the costs for technical support and technical maintenance and updates for the website. These expenses are necessary to resolve technical issues and optimize platform performance.

Cost Bearers:
Project Client:
Responsible for the overall management and planning of the project, the allocation and utilization of resources and potential costs involved in the project.
Project Team:
Responsible for costing time and energy for processing the project, including all parts related to website design, development, and the creation of the trust indicator model. And for further support and maintenance.

Client vision and objectives:
Our client envisions creating an innovative, Australian-themed photograph repository website to address the challenges of image authenticity in today's digital media landscape. In an era where the genuineness of photos and creative images is increasingly problematic, and social media platforms often strip away image metadata, our vision is to develop a platform that not only showcases beautiful Australian-themed images but also uncovers and displays the metadata of these images. This approach aims to help users better understand and evaluate the credibility of the content they encounter. The project seeks to establish a user-friendly website that allows member registration and image uploads while adhering to Creative Commons (CC) licensing requirements, implement a credibility signaling system based on metadata information, and design an intuitive method for displaying photos alongside their metadata.
The objectives of this project extend beyond mere image display. We aim to provide functionality for website members to add contextual information, such as photographers' statements about their images, enhancing the provenance of the content. As an open-source initiative, the project encourages community involvement and continuous improvement, driving long-term development. We will evaluate the website's utility and visitor appeal, particularly focusing on the effectiveness of metadata display and image credibility visual cues, comparing different design approaches to determine best practices. Additionally, we will explore the feasibility and scalability of this solution for larger-scale applications, laying the groundwork for future expansion. Through these objectives, we strive to offer users a reliable resource for enhancing their ability to discern image authenticity while providing photographers and creators with a platform to showcase their work and offer additional insights, ultimately contributing to broader awareness and solutions for digital media authenticity issues.