

Likhang Kamay: An Online Art Service

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Abstract

This research aims to provide artists and art aficionados a convenient way to directly customize and order paintings. The proposed system also shows the artwork's historical and stylistic contexts, aesthetic artifacts, and visual language for better understanding and appreciation of the piece. Most paintings have elements that can be customized such as size, material, painting type, frame, image customization, and suggestions. Each aspect plays a part in determining the painting's quality and performance during and after application.

In order to start the interaction, users need to sign up or to log in to the system where various features, navigational elements, and informational components can be accessed. Using the system allows art enthusiasts to find more options and to minimize their efforts in going physically to the stores.

The proposed system met the requirements of the customers as assessed by the IT experts and respondents. With a mean rating of 3.79, which is equivalent to "Very Good" from the IT experts and a mean rating of 4.29 which is equivalent to "Excellent" from the respondents, this demonstrates that the system has met the necessities of the users.

Keywords: *art, paintings, art service, artwork*

Introduction

Painting, as a process, is the use of a paint color by which a painter arranges mixed paint. Using fingers, brushes, palette blades, and different apparatuses, individuals have applied paints to surfaces to enrich and memorialize, to teach or engage, to love or incite (Anindita, 2014).

As an art form, paintings are the most seasoned and well-known human types of workmanship, with cavern compositions going back to 32,000 BCE. The oldest known paintings are approximately 40,000 years old and more likely to have been painted by Neanderthals than early modern humans (Sanchidrián, 2012). It is said that people usually paint to showcase their creativity and to express their emotions using various strokes and colors.

The creation of a painting may be inspired by various aspects such as the observation of the surroundings for a specific subject or scenery or the imagination of a certain place such as a landscape or still life. Overall, painting or fine art is done to capture the nature of a subject, a scene, or to test a composition (Boddy-Evans, 2019).

One well-known painter is Leonardo da Vinci, who is famous for his paintings such as the Mona Lisa and The Last Supper. The Mona Lisa's estimated price is worth more than \$860 million, while The Last Supper, during 1958, was worth \$59, but today is worth \$100 million (Vaidyanathan, 2020).

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As a business model, the selling and buying of paintings is often seen as an expensive and time-consuming venture. Then again, it is also regarded as a profitable one.

Artplode is an online art gallery where one can buy and sell artworks. It was launched in London in August 2014 by Maureen McCarthy, the company's founder and CEO. Since its launch, many artists, art galleries, dealers, and collectors were able to sell their artworks in the internet. The price ranges from \$60 to \$10 million.

In the Philippines, the art scene has seen an influx of new blood in recent years, both in the form of talented artists and new art lovers (Ecomparemo, 2018). Many recent conversations about the Manila art market have focused on the rising number and purchasing power of local art patrons. Historically, the Philippine Art Gallery, founded by Lydia Arguilla in Manila, was one of the famous galleries during the mid-20th century. Famous artists like Fernando Amorsolo and Felix Hidalgo had sold many of their artworks in the Philippine Art Gallery, with the price ranging from ₱1,050.00 to ₱82,320.00.

An artwork's price is influenced by various factors such as the level of the artist's career, the scale, and the medium used. The more expensive an artwork is, the more time and money it took to create it. An oil painting, for example, is a time sensitive medium with a high price tag.

In the context of a developing country, some challenges faced by artists that affect the product of art include inadequacy of workplace, lack of support funding, and daily living costs (Montera, 2018). The lack of public funds channel for the administration of culture in governance has contributed to the insufficiency of national and local policies on artists' careers and welfare.

In the Philippines, artworks are usually displayed for sale in museums, art galleries, as well as in non-profit events that sell donated artworks at

lower prices. Museum art pieces are displayed for the public to appreciate the works of local artists and as a reminder of one's culture, history, society, and identity—things that are people barely remember these days but are critical in terms of a country's political, fiscal, and socio-cultural domains.

The assault of social media into all facets of daily life has also proven to be a valuable tool for all types of artists to build on their reputation and to market their artworks. As more and more people get active internet users, it is proving to be a valuable channel for people to promote, to market, to showcase their talent, or to earn by posting their artworks in various social media platforms such as Facebook, Instagram, Twitter, and other online portals.

Given the limited options in this particular field, this study, Likhang Kamay, is an online art service that provides an avenue for Filipino artists, especially the new ones, to showcase their artworks and to sell them to people who might be interested in their works. This online art service will be beneficial both for artists and art enthusiasts as the shift to online platform will make the transaction easier and more efficient.

Statement of the Problem

One common challenge in buying and selling artworks is not knowing the channel or platform to accomplish the said task. This study aims to solve the following problems:

1. Some artists do not have the resources to sell their artworks.
2. People who are busy find it time consuming to look for an artwork.
3. People usually have difficulty looking for credible and legitimate artists to trust.
4. Some people have no idea regarding the various types and categories of paintings such as acrylic, charcoal, digital, pastel, oil and watercolor paintings.

Objectives of the Study

The developed website, Likhang Kamay, resolves the problem of seeking channels to look for a legitimate and a credible artist and connect them to people who are interested to buy and sell such masterpieces or works of art. Specifically, the objectives of the study are:

1. To provide an online art service where budding and established artists can sell their artworks
2. To save the time of the customers who are looking for artworks to purchase
3. To verify the legitimacy and credibility of artists through customer ratings and feedbacks
4. To determine information about a specific artwork that would help customers in choosing what artwork to purchase

Method

System Development Methodology

The researchers decided to use Rapid Application Development (RAD). This promotes fast, efficient, accurate program and/or system development and delivery (David C. Yen, 2019). Using Rapid Application Development, the developers can update and create several changes to the software anytime. There are four stages:

Requirements Planning

During this stage, developers, customers (software clients), and researchers convey the objectives and assumptions for the venture just as current and potential issues that would be tended to during the form.

The first thing that the researchers did was to collaborate in order to achieve their specific goals. After the brainstorming, they gathered the requirements needed, including related studies and literature.

User Design

During this stage, the researchers needed to meet all the system specification, all the efforts in planning and analyzing the system were exerted. The researchers identified the software and hardware needed, database to be used and user-interface design in creating the system.

First, the researchers deliberated what would be the design of the interface. After a thorough analysis and brainstorming, the researchers agreed on the software to be used, the language for coding, and the software and database to be used. The researchers agreed to use Adobe Photoshop for the graphic design. The following features of the user interface enabled to increase the popularity of the website.

Construction

In this stage, once new requirements are agreed, and the initial design or a change in the design of the new requirements is done, then the researchers will begin developing a website. The website is iteratively modified to respond to initial design for new requirements.

The researchers started improving and developing the process for the system based on the functionalities of the other system that is needed and the interfaces that will satisfy the users or customers. The users must continue to cooperate with the client segments' suggestions for them to make changes to improve the system.

Cutover

In this stage, when application quality is good, it will last longer and will perform resourcefully even if pressed to maximum capacity. Also, software can be configured so that it will operate well even when conditions are less than optimal. Testing can also improve overall security, but testing is not a simple process. Each day, there will be difficult challenges that involve coding and decoding. The testing process is an important phase

during the software development because each small module must be tested to ensure its accuracy and validity. The researchers finalized the features, functions, and interface of the whole system. The system has been tested and debugged in the process of its functionality. The desired output is being used in the present.

Results

Evaluation Results

This segment presents the results about of the studies conducted through analysis. The system execution was assessed in terms of functionality, performance effectiveness, compatibility, usability, reliability, security, maintainability, and portability. The assessment came from the IT specialists and non-IT experts.

Table 1. Assessment of the Respondents

Criteria	Mean	Descriptive Rating
Functionality	4.29	Excellent
Reliability	4.20	Excellent
Usability	4.32	Excellent
Efficiency	4.27	Excellent
Maintainability	4.30	Excellent
Portability	4.33	Excellent
Overall Mean	4.29	Excellent

Table 1 shows the summary of the results of the evaluation of the non-IT experts, which included respondents identified as painting lovers and people who are interested in artworks. The overall mean of the system was given a 4.29, which is equivalent to an Excellent descriptive rating.

Functionality was rated 4.29 or an excellent rating, which means that the users found very minimal errors when they tested the system. Reliability, the degree to which a system, product or component performs specified functions under specified conditions for a specified period of time, got a mean of 4.20 which is equivalent to Excellent.

Usability was also given a rating of 4.32 which equates to an Excellent rating. This shows that the users found the system easy to use regardless of their background and inclination towards computer and system usage in general.

The performance efficiency of the software was given a rating of 4.27 or an Excellent rating, meaning it processes inputs in a timely manner. Maintainability was given an Excellent rating or a mean score of 4.30 which indicates that the system is easily tested and navigated easily by the users.

The last characteristic, Portability was given a rating of 4.33 which equates to an Excellent evaluation. This indicates that the system can be effectively adapted for different hardware software and other operational or usage environments.

Table 2. Assessment of the IT Experts

Criteria	Mean	Descriptive Rating
Functionality	3.89	Very Good
Efficiency	3.56	Very Good
Compatibility	3.83	Very Good
Usability	3.16	Good
Reliability	3.83	Very Good
Security	3.93	Very Good
Maintainability	4.00	Very Good
Portability	4.11	Very Good
Overall Mean	3.79	Very Good

Table 2 summarizes the results of the evaluation of the IT experts. Based on the evaluation, the system acquired an overall mean of 3.79, which is equivalent to a very good descriptive rating.

Functionality, which is how the system works or functions as a whole, got a mean of 3.89 which is equivalent to a rating of very good.

Performance Efficiency, which represents the performance relative to the amount of resources used under stated conditions, got a mean of 3.56 which is equal to a rating of very good.

Compatibility, a degree to which a product, system, or component can exchange information with other products, systems or components, and/or perform its required functions, while sharing the same hardware or software environment, got a mean of 3.83 which is equal to a rating of very good.

Usability got a mean of 3.16 which is equivalent to rating of good.

Reliability, the degree to which a system, product or component performs specified functions under specified conditions for a specified period of time, got a mean of 3.83 which is equal to a rating of very good.

Maintainability, represents the degree of effectiveness and efficiency with which a product or system can be modified to improve it, correct it, or to adapt to changes in environment, and in requirements, got a mean 4.00 which is equal to a rating of very good.

Portability got a mean of 4.11 which is equivalent of a very good rating.

Discussion

The researchers resolved the problems and achieved the objectives that needed. It is also stated the delimitations of the system. Moreover, the researchers indicated the use of descriptive method as a research design as it was found to be useful in developing the system and the employment of Rapid Application Development (RAD) for fast, efficient, accurate system development and delivery. The researchers also presented what procedures were undertaken in the research. It also mentioned the five-point Likert Scale used for the evaluation and the diagrams used such as ERD, DFD and Use Case. the researchers had the choice to find out that the proposed system was effectively accomplished and met the requirements of the customers as assessed by the IT experts and respondents. With a rating mean of 3.79, which is

equivalent to "Very Good" from the IT experts and a rating mean of 4.29 which is equivalent to "Excellent" from the respondents, this demonstrates that the system has met the necessities of the users.

Conclusion

The conclusions of the study are based on the objectives and the results generated from data analysis. The researchers accomplished the first and second objectives of the study, which is to provide an online art service where artists can sell their artworks. The researchers created the system with a buy and sell module where artists can upload and showcase their artworks or paintings and for the customers to easily look for a certain kind of artwork that they wanted to purchase.

The objectives of the study also included the challenges of checking for the credibility of artists and information about specific artworks to help customers in choosing what artwork to purchase. The researchers solved these objectives by adding a ratings and feedback module on every item and adding customized paintings where customers can make their desired sizes, materials, type of paintings, and frames.

All of the objectives formulated in the study has been accomplished; therefore, it is concluded that the researchers have met the objectives of the proposed study.

Based on the results of the study, the following are the recommendations for future researchers:

1. It is recommended to add other payment methods like DragonPay, PayMaya, and other payment methods.
2. It is recommended to improve and develop a more accurate tracking system.
3. It is recommended to develop a mobile application that is accessible in the Philippines.
4. It is recommended to establish a partnership with delivery couriers for more options for nationwide delivery.

5. It is recommended to put a chat box or inbox in the system between the buyers and the sellers for a better communication.
6. It is recommended by the IT experts to use proper label for notifications and to use consistent sizes for the images.

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