
Online Exhibition System: “Sense” A Systematic Literature Review

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Abstract

Introduction: *This case study is discuss regarding the benefit of using online Exhibition System which enable people to tour exhibition stands from the comfort of their home and with the use of the internet, people can view online Exhibition round the clock 24 x 7.*

Methodology: *The author explored via a scientific literature review investigating empirical research of online exhibition system locomotion strategies from 2003–2021. It is attached with a subdivision of data and accommodates thoughts inclusive of pattern, hypothetical prototype, and stages of improvement*

Result and Discussion: *Result show have found all aged people (all are 18+) got access to the smart phone or laptop and 78.3% of people are holding passion and 17.4% people are not sure of passion. Talent is versatile, so we are keeping our platform open for people who has absolute confidence to hold their talents and also wants to earn money*

Conclusion and Recommendation: *the software program be more user-pleasant as viable as non-tech won't be capable of spotting the complicated system*

Keywords: *risk assessment, risk analysis, systematic literature review, VR, real-time, WebRTC, creating a virtual room, online ticketing system*

1.0 Introduction

Online Exhibition System is an interactive environment that one can visit and explore and interact with real life and exhibition stands. Online exhibitions present a beneficial and fee-powerful answer while time, distance, and area are limited. Instead of being open to the public at certain times of the day, they are available round the clock thru Internet i.e. 24 x 7. An extra advantage is people need not tour all the way to the exhibition web page to see it. The online exhibition is distributed properly up to their homes and classrooms or everywhere through the Internet. The preserving cost can be cut by keeping those objects in digital form. . Number one for online exhibition is where a audience can go and explore Art Gallery . “Sense” the virtual exhibition hall, is a bit traditional on a

way to keep it simple and easy to use, so anyone with minimal instructions or little tech

knowledge or even with their experience from other social app like facebook, youtube, tiktok or others, can explore “Sense”; true for both audience and Artist. One of the key things about Virtual exhibition system is the sense of realism. Each gallery supports pictures, text, videos and supports information that anyone can log in themselves. System will have several user interfaces to help artist to log in and audience to log in as well as one common home page interface for everyone. Purpose of the system will being benefit to Art, Finance and Passion. Artists can exhibit their Art (Photography, Writing, Cinematography, Singing, poetry videos or other Arts in form of Images / Video / Text) and Audience can visit their Exhibition. This application is going to help passionate people with their talent and enhance their interest towards ART and Knowledge to make the world more productive and valuable. There is 100% record where people ensure and think Art/Talent should be “Seen and paid” and most of them are keen to visit exhibiton. “Sense” could be a great support to those who extremly into their passion ,in need of fancial support and enhance and improve their knowledge towards Art. On “Sense” , level of interaction really makes a virtual exhibition in 2D form now, in future planning for 3D platform to create for all to enjoy a 2D and 3D hybrid hall and also planning for the platform to support webinars, live streaming, video online chat anything else user’d expect to get from digital exhibition. Virtual reality is receiving interest sufficient to be considered as its revival age in each the economic and academic fields. Since VR structures have diverse forms of interplay with users and new varieties of interaction are continuously being developed, numerous studies investigating the user experience UX of VR structures are constantly needed. However, there's nevertheless a loss of research at the taxonomy which can apprehend the primary traits of Virtual exhibition system at a look through reflecting the influencing elements of UX. Therefore, we accumulated and reviewed the research associated with the virtual exhibition system so as to discover the current research status and to indicate future research direction. An overall of 32 specific articles has been studied to be reviewed thru the Systematic Reviews and Analyses methodology. The elected articles have been analyzed consistent with predefined taxonomies. As a result, the current reputation of research may be diagnosed base on the proposed taxonomies. Besides, problems associated with Virtual technology, and research techniques for future studies instructions can be suggested.

The structure of the paper proceeds as follows: Section 2, presents the research methodology. 2 Section 3, presents the overview of data concerning the reviewed studies. Section 3, gives the detailed description of the reviewed papers. Section 4, shows the analysis of the systematic review, and finally the conclusion is presented in section 5,

2.0 Research Methodology

The methodology is a one of a kind hypothetical research to a place of study. It is attached with a subdivision of data and accommodates thoughts inclusive of pattern, hypothetical prototype, and stages of improvement. The online exhibition layout and improvement may taken into consideration as a software program engineering task, due to the fact, the final output is 100% software program-based. In the design layout and improvement in developemnt of a project such "Sense" there are 4 principal phases:

1. Requirement analysis;
2. Design;
3. Implementation; and
4. Testing and user evaluation.

1) Requirement Analysis: It defines the goal consumer population, analyzing the consumer's needs, setting the targets of the system, figuring out consumer responsibilities to be performed, getting acquainted with the surroundings wherein the system will operate, and additional information on the constraints wherein the the system would be implemented.

2) Design: It enables in getting ready the system layout specs report from the consumer's requirements. The design has to be a fundamental part of the online exhibition, so as to make the website effective.

3) Implementation: Implementation interprets the layout specs into the last working product, outcomes.

4) Testing and User Evaluation: Testing and consumer assessment are first-class management mechanisms in which the final product conforms to the software program requirements precise withinside the layout report.

Here the very last product conforms to the user's requirements and additionally meets their expectations. Methodology is distinct hypothetical research to an area of study. It is connected with a subdivision of data and contains thoughts such as patterns, hypothetical prototypes and stages of improvement. Methodology is one of a kind hypothetical research to an area of study. It is connected with a subdivision of data and contains thoughts such as pattern, hypothetical prototype, and stage.

2.1 Research Questions:

In this phase, the review method is deliberate and study questions have been identified. The following research questions are addressed on this study: RQ1.

Which are the interaction-related characteristics of the studied digital locomotion techniques? RQ2. What kind of Web-based exhibitions as tools on virtual exhibition scopes are present in terms of user’s prospective?

2.2 Defining the Review Protocol:

After the choice of the research query, a fixed of seeking phrases known as key phrases were extracted. The key-word and applicable projects that make up research questions and that have been used in the course of the assessment protocol are: risk assessment, risk analysis, systematic literature review, VR, real-time, WebRTC, creating a virtual room, online ticketing system. The studies became narrowed down via the set of inclusion and exclusion standards. A high-satisfactory assessment checklist (QAC) is evolved to evaluate the individual studies. The QAC is prepared primarily based totally on kitchenham. The Checklist consists of the subsequent questions: a) Does the research paper truly specify the research methodology? (b) Is the research methodology suitable for the trouble under consideration? (c) Is the analysis of the observation well done? If the study fulfils evaluation standards then it's filled with yes.

2.3 Data Extraction and Synthesis

We identified a complete of 20 researchs. After filtering those studies in step with inclusion/ exclusion standards and QAC, 13 publications have been recognized as a primary study for review. These covered journals, conference proceedings, white papers, and articles. The year of publication of the papers is proven in Fig. 1. Fig. 2 indicates the distribution of papers in terms of the research questions (RQ).

Fig. 1. Paper distribution over publication year

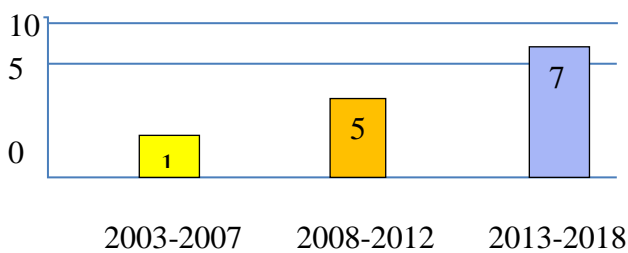
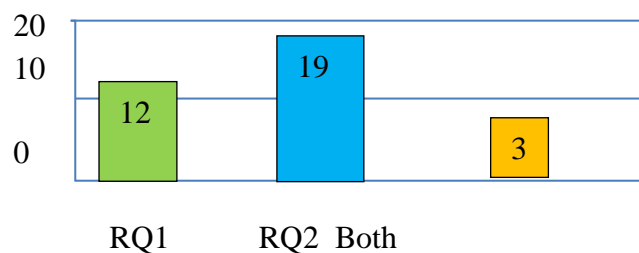


Fig. 2. Paper distribution in relation to RQ



3.0 Results

The online exhibitions reviewed on this look at cowl many exceptional regions withinside the fields of art, geography, history, literature, and technology. [11]. Online exhibitions are utilized by museums or data to showcase their collections on the World Wide Web. There is a want to categorize the works or artifacts using established records. This is in which metadata is useful in annotating artifacts or collections in order that they may be accessed to benefit more records and re-purposed to provide new knowledge. [11]. The following is a evaluate of online exhibitions which are to be had on the Internet. Most of them were created through libraries, information, and historic societies to commemorate remarkable events, rejoice anniversaries, function periodic themes, or exhibit treasures or unique collections.

1. Technology:

1. Technology	[1],[2],[3],[4],[5],[6][8],[9],[11],[13]
2. Framework methodology	[2], [6]
3. User friendliness	[1], [2], [7] , [8], [9] [10]
4. Virtual Team	[8], [9],[10], [11], [12]
5. Monitoring and Control process	[12]

Online exhibition is an event which can be viewed on computers and mobile phones using internet anywhere, any vicinity and any time. Virtual exhibitions on the web to preserve and present display [2]. The procedure of designing structures or merchandise in large part relies upon on some of the choices, like "who do I layout for?", "what need to my product do?", "what are the user requirements?" etc. The growing groups generally base their choices on revel in and/or heuristics and that is especially the case, withinside the improvement of online products and mainly online exhibitions [3]. Virtual exhibitions are collections of Web pages revolving around a topic [4]. It is one in all the great methods of disseminating virtual information on any region including showing culture and heritage, archives, library information, marketing, exchange shows, conference exhibits and educating visitors 365 days in a year. Online exhibitions offer a practical and cost-powerful solution and triumph over the obstacles of bodily exhibitions and additionally offer very good interactivity to customers. Nowadays, archivists and museums professional are exploiting the blessings of on line exhibitions for education and instructional purposes. Virtual exhibition is the series of virtual replicas of actual events or objects evolved with the help of

multimedia and virtual fact tools which produce a simulated environment in a computer, and added through internet so that customers will get the same

satisfaction as they are seeing or using the bodily objects in actual life. The distinction between on line and virtual exhibition is marginal. All virtual exhibitions are on line exhibitions but not vice versa. Normally all virtual exhibitions will offer a simulated actual environment which is a bit more difficult, expensive, and time consuming to develop than a simple on line exhibition. Technologies and online exhibitions go hand in hand. In fact, the technology made these on line exhibitions possible in the first place. Here, some of the latest ongoing tendencies in on line/digital exhibitions are discussed. Nowadays, maximum sophisticated digital/virtual exhibitions are making whole use of the conceptual, instrumental, and linguistic gear supplied by numerous new technology, and the use of the total extent of their potential. Some of the popular structures used for growing on line/digital exhibitions including 'ViEx System', the 'Norfolk System', 'XMP-CMS' and 'ARCO'. All these structures have a not unusual place feature: they facilitate growing multiple versions of the same exhibition in different contexts by isolating content and presentation. Similarly, museum curators collections control structures including The 'Museum System', 'KE EMu', 'MultiMimsy', and for smaller museums, 'PastPerfect' are to be had in the market. Recently, open supply structures came into the field such as 'CollectionSpace' for museums, 'Pachyderm' for people with little experience in authoring on line exhibits, 'Omeka' is for building community collections and exhibits with Web 2.zero features, 'OpenCollection' is to handle large virtual collections and exhibits in archives and libraries, 'MOVIO' for cultural and tourist information users, '3-d (Discovery and Delivery of Digital collections)' is an exhibition tool for libraries, 'Viewshare' is for generating interactive maps, timelines, facets, and tag clouds in libraries, The eXtensible Text Framework (XTF) is for providing access to virtual content, 'Blacklight' provides different information displays for different kinds of objects, 'Exhibit 3.zero' is a publishing framework for large-scale data-rich interactive web exhibits, and finally 'Open Cobalt' is for constructing, accessing, and sharing digital worlds each on LAN or internet. Google has opened a Lab in Paris and experimenting with 3-d scanners, super high-resolution cameras and interactive screens to see how those technology might be useful in museum exhibits, and how they can help in improving the online shows of cultural artifacts. Now Google is coming out with 'Open Gallery tool' which is far more advanced than the existing structures for designing on line exhibits. The recent tendencies in on line art and galleries arise with gear for artists, galleries and collections. The real environment and the virtual object in real-time are superimposed onto the same screen, the mix reality is integrated development of real reality, VR, AR and interactive media. Not only it provides new projects of theoretical study with modern technology but also creates a new world for the development of

modern products. Mixed realities are used in Huret & Spector Gallery (Boston), Turbulence.org, and Ars Virtua. [13]

2. Framework:

The final goal is to installation those content instructions and applies them for a digital exhibition by following the visiting scenarios experienced so that the set up becomes a comparable form of feeling, impression, content material pattern and revel in for the users of a digital exhibition than for the ones of an actual physical one. The basic concept for the improvement of this framework technique has been that we need to provide a unique visual enjoy content material in a digital hall with a comparable program or comparable revel in content material as the visitors generate for themselves in an actual exhibition. This is based on the observation of site visitors' movements, visiting points of interest they experience. In this case, the room is simple and easy and familiar design, the room has a complex shape, and the exhibits are not hanging on the wall but they are placed all over the digital room [2] [6].

3. User Friendliness:

System using approach with the text readability (font size & style) appropriate use of colours, appropriate use of icons and buttons, site attractiveness and user friendliness [1], [2]; are design issues must to ensures to enhancing user friendliness. [7], [8], [9]. [10].

4. Virtual Team:

Although there are various strategies to task control, none of the present methodologies is absolutely appropriate for dealing with tasks related to digital groups. Traditional venture control (TPM) has no efficient mechanisms to continuously reveal and manipulate the tasks, that could without problems slip from a deliberate path in disbursed environments. This can manifest due to uncertainties resulting from crew dispersion and in-depth utilization of much less rich verbal exchange media. TPM can't without problems cast off such uncertainties and can't appropriately alter to frequent modifications. In uncertain, undefined, and swiftly changing environments, minimization of dangers and maximization of enterprise cost is carried out with an iterative method [12]. An iterative method is a function of agile methodologies. The agile method promotes decreased making plans restrained to a single, impending iterative phase. In digital environments, decreased making plans can also additionally lower basic venture cognizance that can also additionally bring about expanded efforts required for venture tracking and manipulation. The want for crew contributors

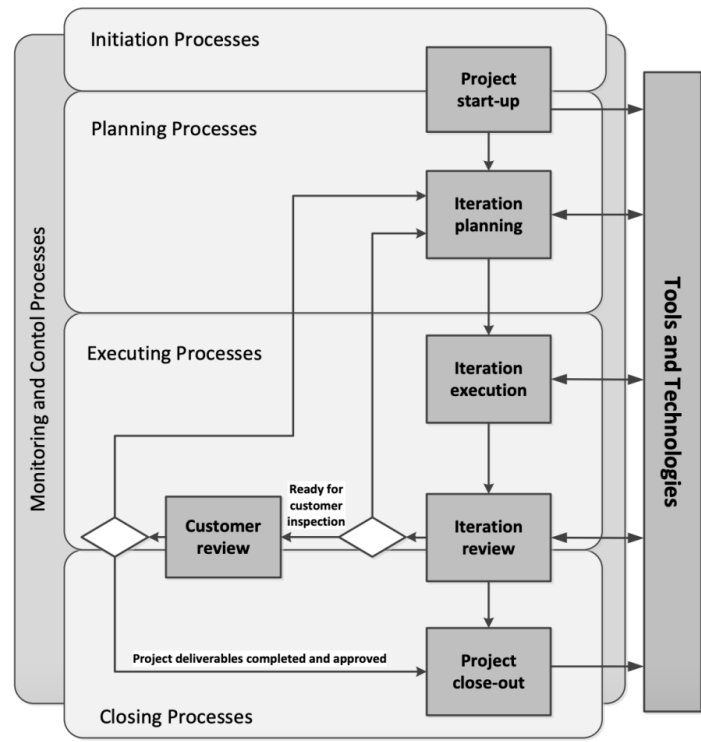
interplay can also be extensively expanded. Agile venture groups exercise frequent, most customarily every day face-to-face conferences, and as such require a co-region of crew contributors which will manipulate modifications and

produce increments. Usage of agile strategies in disbursed environments calls for great transition effort, in addition to in-depth synchronous verbal exchange amongst crew contributors. Among present methodologies, an adaptive method such as Adaptive Project Framework (APF) is the nearest to be appropriate for utilization in digital environments. APF is primarily based totally on iterative making plans wherein mid-degree Work Breakdown Structure (WBS) and capabilities prioritization is achieved initially, and greater distinct making plans and time table are achieved prior to every cycle. Time spent on making plans is optimized since only the matters which are sure are protected withinside the plan. However, this method might not be the nice one for digital groups. In the digital crew venture initiation stage, it is essential to make clear expectancies as whole lot as possible. Discussions on clearing dreams and visions, the definition of roles and an illustration of what's anticipated from every crew member all through every venture stage, agreements on paintings organization and formalization of tactics must take region on face-to-face conferences early withinside the venture. Another wonderful impact of initial distinct face-to-face discussions is the development of private relationships, mutual trust, and crew the brotherly love that therefore improves virtual team results. All those may have a wonderful impact in clearing vagueness that in later levels can motive great issues ensuing with delays lasting a whole lot longer than it'd were wanted to behavior preliminary discussions on precise issues. Daily conferences carried out in APF also are impractical to hold out with the aid of using digital groups. Furthermore, AFP promotes in-depth interactions with the customer, which aren't absolutely appropriate for digital venture environments. Another hassle of AFP is the truth that it, just like the agile method, promotes restrained utilization of software program equipment which are in any other case the cornerstone of tasks in digital team environments. Applying the right venture control method is important for venture success. The conventional control tactics must be complemented with a greater adaptive view. A hybrid method to venture control with both conventional and agile practices can be the maximum legitimate method. As a result, the proposed methodological framework for digital team project management combines the maximum appropriate factors of the present methodologies with International Journal of Innovation, Management, and Technology, an addition of system and generation support. The proposed the framework is characterized through: (1) greater distinct collaborative making plans to lessen uncertainty and improve socio-emotional tactics, (2) iterative project stages for decreasing risks in digital environments, (3) device-supported monitoring and management with standardized inputs and outputs, unifying deliverables and intermediates, (4) customer method good enough for digital environments, and (5) intensified

utilization of data and verbal exchange technologies, compensating for the shortage of face-to-face interactions among team members [12]; [11].

5. Monitoring and Control Process:

Figure taken from [12]



4.0 Discussion and Analysis

Literature is some other place wherein online exhibitions maybe used to attain out to the public. As era turns into ubiquitous, reliable, cheap and simpler to maintain, extra museums are expected to make the most them to offer data to offer a better carrier and content particularly for researchers, academics and museums data seekers. The sector of digital locomotion has been pretty diverse, with numerous hardware, software, and environments mixed to shape VR locomotion strategies in the past. This range made the conceptual contributions of the study's subject difficult, probable as it becomes extraordinarily tough for researchers to discover a not unusual place floor on which to evaluate or overview digital locomotion strategies below an “umbrella” concept. That can be the purpose there has now no longer but been a popular VR locomotion literature overview. In widespread, the present-day systematic literature overview confirmed that the digital revival. Naturally, throughout the path of this overview, some of the difficult problems needed to be dealt with to set up that the reviewed

research may be applied for significant effects even as respecting and emphasizing the interaction-orientated nature of the overview. In this online exhibition, content material changed into considered first, the format appearance

changed into second, and the navigation turned into the last. Design issues regarding the net exhibition consist of interfaces design, content material coverage and organization, system structure, and screen format was used withinside the design. Nevertheless, the preferred feeling following this overview is that the brand new era of digital locomotion unearths the sphere mature and homogeneous sufficient for researchers to map it and to broaden similarly tremendous conceptual understanding for the studies network and the public. The evaluation helped to identify the inadequacies in the design and development of the system and recognize the strengths and weaknesses of the online exhibition. Evaluation become carried out using a survey approach and questionnaire tool to examine this exhibition. A questionnaire became organized and distributed to 23 participants online. During our survey, we have found all aged people (all are 18+) got access to the smart phone or laptop and 78.3% of people are holding passion and 17.4% people are not sure of passion but they still belief in them having talent. Talent is versatile, so we are keeping our platform open for people who has absolute confidence to hold their talents and also wants to earn money. On the other hand , there are more than 78% yes with 17.4% maybe ; supporting their friends and family with their passion. Multi-modal and multimedia structures integrate some of modes and media including hypertext, audio, video, etc., into higher-bandwidth communication interfaces. These are used for a virtual fact, interfaces for customers with unique needs, etc. Virtual truth is an instance of non-command based interface, which can immerse the consumer in a simulated fairly interactive international wherein the consumer can circulate approximately withinside the same manner as withinside the bodily world. Visitors are immersed in digital surroundings thru using real-time computer pictures and superior show devices including head hooked-up displays. Visitors can learn through lively participation in doing little duties with the system, including manipulating objects in a scene. [5]

In this way, the issue being taught can be higher absorbed through the beginners because they've performed an active position in obtaining it. The upward push of community orientated web-based tools that sell records sharing, including blogs, wikis and photo-sharing services can be of interest the hall can placed up a web version of an existing physical exhibition speedy as a wiki website, with multimedia assets including videos, snapshots, and hyperlinks to other websites with extra records. Online visitors can be capable of share their reports with others through writing approximately their visits of their private web-logs (blogs). [11]

5.0 Conclusion

In a conclusion, based mostly on the cease end result of our methodology, we try to increase software program that fulfills the requirements just so our software program may be effects used by the intended audience. With the records obtained, we've located out that it's some distance important to make the software program as user-pleasant as viable as non-tech won't be capable of spotting the complicated system. Our interface with a purpose to be created desires to be user-pleasant to every age of humans and every character needs to be able to appear even as not having mistakes or insects whilst using the software program. Our systematic literature evaluation targets to find out the modern style of Digital Exhibition Hall to guide passionate ones and the Visitors on this platform.

References

- Design and Development of an Online Exhibition on the Tangkhul Tribe Festivals Somipam Article in *DESIDOC Journal of Library & Information Technology* · March **2015**
- Framework methodology for virtual museums for the design of visiting scenarios based on the behaviour of real exhibition visitors - October **2008**
- A methodology for the design of online exhibition - **2013** ; *DESIDOC Journal of Library & Information Technology* 33(3) DOI:[10.14429/djlit.33.4615](https://doi.org/10.14429/djlit.33.4615)
- Creating Virtual Exhibitions from an XML-Based Digital Archive, June **2003**, *Journal of Information Science* 29(3):143-158
- THE 'SYNTHESIS' VIRTUAL MUSEUM Chairi Kiourt^{1,2} , Anestis Koutsoudis¹ , Stella Markantonatou¹ and George Pavlidis¹ - **2018**
- The New Era of Virtual Reality Locomotion: A Systematic Literature Review of Techniques and a Proposed Typology - SINTEF Digital, Forskningsveien 1, 0373 Oslo, Norway - *Multimodal Technol. Interact.* **2017**, 1(4), 24;
- Visualizing museum visitors' behavior: Where do they go and what do they do there? - Received: 14 July **2016** / Accepted: 30 October 2016 - Springer-Verlag London 2016
- Facebook immune system - [SNS '11: Proceedings of the 4th Workshop on Social Network Systems](#) April **2011** Article No.: 8
- Text-in-context: a method for extracting findings in mixed-methods mixed research synthesis studies - First published: 27 August **2012**
- The Commodification of YouTube Vloggers; Zoe Glatt; MA Digital Media Dissertation **2017**; Submitted by Zoe Glatt (3329087101) in partial requirement for the degree of MA Digital Media: Technology & Cultural Form (Theory Pathway), Goldsmiths, University of London.
- An Overview of Online Exhibitions; *DESIDOC Journal of Library and Information Technology*, Vol. 28, No. 4, July **2008**, pp. 7-21 © 2008, DESIDOC
- Methodological Framework for Virtual Team Project Management; A. Martinic, K. Fertilj, and D. Kalpic; *International Journal of Innovation, Management and Technology*, Vol. 3, No. 6, December **2012**
- Trends in Online Exhibitions - March **2014**; *DESIDOC Journal of Library & Information Technology* 34(2):83-86; DOI:[10.14429/djlit.34.6757](https://doi.org/10.14429/djlit.34.6757)