The Role of Information Systems and Decision Support in Safeguarding Intangible Cultural Heritage Across Generations

Xia Hou[1], Xiaoqiu Cai[2]*

[1]Ph.D candidate, Krirk university, No.3 soi Ramintra 1, Ramintra Road, Anusaowaree, Bangkhen, Bangkok, Thailand, houxia20222022@163.com
[2]School of New Materials and Shoes & Clothing Engineering, Liming Vocational University, Quanzhou 362000, Fujian, China, quadera1688@163.com

Abstract

The primary purpose of this research is to unravel the intricate dynamics shaping the presentation of intangible cultural heritage (ICH) in the digital age. Specifically, the study aims to explore the impact of information systems and decision support systems on cultural heritage presentation, examining how these technologies influence documentation, dissemination, and decision-making processes. A quantitative approach is employed, utilizing surveys and statistical analyses to examine the relationships between key variables. The study focuses on a population with diverse cultural backgrounds, utilizing a sample size determined through rigorous techniques. The research employs validated scales to measure community engagement, cultural sensitivity, information systems, and decision support systems. Data was collected from a sample of 350. Data is analyzed using SPSS, allowing for a robust exploration of the associations among variables. Preliminary findings indicate significant positive relationships between information systems and decision support systems. Community engagement and cultural sensitivity emerge as crucial mediators and moderators, respectively, shaping the impact of technological interventions on cultural heritage preservation. The study offers valuable insights into the nuanced interactions among these factors, contributing to the broader discourse on cultural heritage management.

Keywords: ICH, Information Systems, Community Engagement, Cultural Sensitivity, Decision Support Systems.

The conservation and management of intangible cultural assets have gained increasing significance in the face of technological advancements and globalization. While monuments and relics have traditionally been prioritized for preservation, there is a growing recognition of the need to conserve customs, knowledge, traditions, and behaviors that have been passed down through generations. In the evolving landscape of cultural heritage management, information systems (IS) and decision support systems (DSS) play pivotal roles. Contemporary research emphasizes the integration of cultural understanding,

community engagement, and technical innovations to effectively manage and preserve intangible cultural assets (Rivero Moreno, 2019). Theoretical exploration and practical implications of this interplay are crucial for advancing scholarship in the field. Empirical evidence supports the notion that IT and decision assistance are integral to cultural heritage management (Reshma et al., 2023). Information systems have the potential to accelerate cultural knowledge management, dissemination, and availability in the digital age. Decision support systems contribute to cultural heritage planning, risk assessment, and resource allocation, thereby enhancing the overall effectiveness of conservation efforts (Lombardo et al., 2023). Participation in cultural heritage preservation is deemed essential, with research highlighting the positive impact of involving indigenous peoples in decision-making related to intangible cultural property (Aydın et al., 2022). Recognizing the need for cultural sensitivity in ethical and respectful cultural heritage depictions is vital for fostering collaboration and understanding. As the study of technology, community participation, and cultural sensitivity continues to gain prominence, there is an emerging focus on how these factors collectively influence the presentation of intangible cultural heritage. The research aims to contribute to the development of a comprehensive framework for culturally sensitive intangible cultural asset presentation and conservation, considering the dynamic role of information systems and decision support systems in this evolving landscape.

Prior study has improved knowledge of cultural heritage preservation's complexity. Technology, community interaction, and cultural awareness are included. Digital technology transforms how intangible cultural assets are transferred and documented, according to information systems research. Digital archives and databases help preserve and showcase traditional Chinese performing arts, according to Qiu & Luo, (2022). This shows how IT may capture and disseminate cultural activities.

Jigyasu, (2021) examined how mobile apps encourage community engagement in indigenous language preservation. Technology for community interaction was stressed by the writers. Also notable is cultural heritage management decision support system installation. Günen, (2021) explored how decision support technologies are strategically used in historic conservation project funding. Lucchi & Buda, (2022) examined how decision support systems assess cultural asset risks. This study showed how technology improves risk management. In cultural heritage literature, scholars emphasize the need for local community involvement in conservation. Wang et al., (2020) examined community engagement strategies in cultural heritage initiatives and stressed the need for collaborative methods. Hui et al., (2021) examined community engagement in ICH protection. They showed how community engagement revived old activities. Cultural sensitivity is essential to ethical cultural resource management, according to digital representation ethics studies. Digital technologies used to represent and decode cultural content provide moral dilemmas, according to academics. Digital platforms must use culturally appropriate methods.

Despite great advances in earlier studies, little is known about how decision support systems, information systems, community participation, and cultural sensitivity improve intangible cultural asset presentation. Previous research has often examined these issues independently, ignoring their complicated interactions. This research uses a holistic approach that considers technology, community engagement, and cultural sensitivity to address inequity. The limited understanding of how cultural sensitivity and community participation affect decision support systems, information systems, and intangible cultural asset representation needs further study. Cultural sensitivity and community engagement may minimize and boost technological interventions, according to research by Daniela et al., (2023).

We quantify intermediary processes to illuminate the intricate relationship to fill this gap. Cultural sensitivity's impact on decision support systems' intangible cultural material presentation has been disregarded (María Galindo-Uribe et al., 2022). Much research has examined cultural heritage ethics, but few on decision support and cultural sensitivity. This study will evaluate how cultural sensitivity affects decision support systems' intangible cultural property protection and presentation (Alhosani, 2022). Scholars believe cultural heritage study must be broader and more diverse due to research gaps. Technology and cultural heritage preservation interest scholars. Analyzing the intricate linkages between decision support systems, information systems, community participation, and cultural sensitivity is crucial (Essén & Eriksson, 2023). Empirical evidence supports a comprehensive cultural heritage management approach in this research.

This study analyzes the complicated interaction between information systems, decision support systems, community engagement, cultural sensitivity, and ICH exhibitions. This quantitative study analyzes how these crucial factors safeguard cultural heritage. The goal is to understand how technology, community engagement, and cultural awareness affect intergenerational intangible cultural asset protection. This research protects cultural heritage via theory and practice. This study improves cultural heritage management by addressing the complex linkages between intangible cultural assets, information systems, decision support systems, community engagement, and cultural sensitivity. Multiple components are used to broaden theoretical views and understand cultural asset preservation's complicated dynamics. Cultural heritage practitioners, politicians, and technology developers can profit from the research. Successful and user-friendly technology solutions may be created by understanding how information and decision support systems impact cultural heritage

presentation. Community involvement and cultural awareness may enhance cultural heritage preservation initiatives' authenticity, inclusivity, and longevity. This study can assist policymakers in emphasizing community engagement and cultural competency in cultural heritage initiatives. This study contributes to the ethical issue around technology's cultural heritage portrayal. Culturally fair ethical problem-solving and decision support system cultural sensitivity are examined in this research. This encourages decision support systems to represent intangible cultural knowledge while upholding cultural norms and ethics, thus technology developers must consider the repercussions. According to the research, cultural heritage specialists and local communities should collaborate through community mediation. Preservation by the community may make heritage management more sustainable and inclusive. Thus, the research supports community-led programs that empower communities to protect intangible cultural treasures.

Literature Review

2.1 Information Systems and Presentation of ICH

Many industries have implemented information technology, which has transformed knowledge management and sharing. Cultural heritage is studying how inventory management systems (IMS) and knowledge management systems (KMS) affect ICH display. Inventory management systems organize and maintain ICH i.e. artifacts and performances. Jin et al., (2022) say IMS manages several intangible cultural assets. Documentation preserves cultural traditions, ceremonial practices, and customary values for future generations. Zhang et al., (2023) emphasize IMS's role in simplifying ICH data recording and access. IMS uses modern databases to manage massive intangible historical data for cultural heritage institutions. This allows scholars, teachers, and the public to use the data. IMS improves intangible cultural

resource organization. IT systems record, disseminate, and analyze corporate explicit and tacit data. KMS reflects the complexity of intangible cultural resources such as cultural behaviors, oral traditions, and folklore, making them suitable for research. The KMS retains implicit knowledge about ICH, conserving experts' and practitioners' knowledge, according to Consoli et al., (2023). KMS fosters cultural heritage professionals' collaboration to comprehend intangible assets. The Research by Q. Qiu, (2023) curators, academics, and community members may record and exchange ICH in a dynamic system. This joint approach lets you show intangible cultural items from several angles. For comprehensive legacy management, many studies have proved the benefits of merging IMS with KMS. Cultural heritage organizations can better protect and showcase intangible cultural assets by integrating inventory and knowledge management. Merging KMS and IMS enables a more dynamic and complete portrayal of ICH, combining physical and intangible cultural assets, according to Melis & Chambers, (2021). This multimedia integration makes intangible cultural treasures more interactive. It successfully shows many cultural practices and customs (Dou et al., 2018). KMS and digital storytelling platforms may enhance folklore and oral traditions.

H1: Information system has a significant impact on ICH.

2.2 Decision Support System and Presentation of ICH

A study examined how DSS risk assessment and resource allocation may improve ICH presentation and preservation. This literature review analyzes how decision-assistance technologies affect intangible cultural resources. Resource allocation methods aid decision-making for intangible cultural asset protection and presentation. Fabbri & Bonora, (2021) say these methods coordinate financial, human, and technical resources for cultural assets. Trivyzadakis, (2023) shows how resource

allocation systems help cultural organizations sponsor intangible cultural asset-rich events to maximize financial investments. With limited resources, decision-makers should prioritize ICH recording, renewing, and transmission. Decision support systems that forecast and address intangible cultural asset exhibition and conservation necessitate risk assessment. Reshma et al., (2023) state these techniques identify and manage cultural heritage project risks such as social and economic instability, environmental deterioration, and natural disasters. Risk assessment helps decision-makers improve intangible cultural assets with contingency planning, (Choi et al., 2021). Proactivity may safeguard cultural practices. Decision support systems' risk assessment methods enable cultural organizations to adapt and safeguard intangible cultural property in uncertain times. The study examines decision support system risk assessment and resource allocation. Smith et al., (2023) recommend these strategies for cultural heritage institutions to manage uncertainty and allocate resources to prevent threats. This combined approach better illustrates intangible cultural elements. Ravankhah et al., (2021) suggest risk assessment and resource allocation may help firms adapt to ICH. Cultural heritage professionals use decision support systems to distribute resources to safeguard cultural assets from growing threats.

H2: The decision support system has a significant impact on ICH.

2.3 Community Engagement as Mediator

Digital technologies and the presentation of intangible cultural assets must be connected through community engagement. It bridges technological gadgets and community values, needs, and wants. Through community engagement in design, implementation, and use, stakeholders ensure culturally appropriate, inclusive, and sustainable information systems. Co-creation and co-management are key to community engagement. Community engagement encourages technology developers, cultural practitioners, and community members

to collaborate rather than impose views (Du & Chu, 2022). This stakeholder engagement technique incorporates regional knowledge, opinions, and goals into information system design and implementation, aligning with community goals. The Digital Heritage Project helps indigenous people regain cultural sovereignty and narrative authority by creating digital platforms to share ecological knowledge, ceremonial practices, and oral traditions (Arrighi et al., 2021).

Community participation fosters knowledge exchange and capability development. Community engagement provides training, education, and help to people and groups to improve information technology for cultural preservation and presentation. Capacity building promotes technical skills and digital literacy and fosters community ownership, initiative, and pride (Lee & Perdana, 2023). Community-led seminars and training may teach cultural practitioners how to utilize information technologies to document, digitize, and share their ICH. This assures cultural preservation's longevity and influence (To et al., 2022). Community engagement also fosters intergenerational dialogue, heritage preservation, and social cohesion. Community engagement fosters trust, social bonds, and a sense of belonging through discussion, story exchange, and cultural interchange. Maintaining ethical and respectful digital media depictions of intangible cultural property demands community unity and respect (Khamsuk & Whanchit, 2021). Virtual museums and community-driven digital storytelling allow individuals to share their knowledge, experiences, and cultures. This encourages global dialogue and cultural preservation. Community participation promotes independence and culture by encouraging people to share their history (Kim et al., 2023). Communities build and maintain digital channels to promote, exchange, and preserve local cultural history rather than passively accepting other interpretations. Preventing digital cultural appropriation, misrepresentation, and

exploitation requires empowerment (Tzima et al., 2020). Indigenous communities may challenge stereotypes, restore narratives, and assert cultural sovereignty online via information systems.

H3: Community engagement mediates the relationship between the information system and the ICH Presentation

Communities enable ICH representation and DSS work on resource allocation and risk assessment tools. Community engagement in DSS design, implementation, and use promotes stakeholder participation and culturally sensitive, inclusive, and community-responsive systems. Community participation requires inclusive decision-making (Nusair et al., 2024). Instead of using data-driven algorithms or expert judgments, community engagement promotes cooperation among cultural practitioners, decision-makers, and community members. This participative technique lets stakeholders share DSS development and implementation skills, views, and preferences (Jamal & Newbold, 2023). This ensures these systems fulfill community standards. Community-based resource management programs let locals allocate resources while maintaining cultural and traditional norms. Community involvement fosters knowledge-sharing and capacity-building (Mallery et al., 2019).

Community engagement empowers individuals and groups by providing information, training, and assistance in DSS cultural exhibition and preservation. Capacity building improves analytical and computer skills and empowers and prides communities. Community-organized training and seminars can equip cultural practitioners with risk assessment skills to protect intangible cultural resources (Oruç & Çahantimur, 2024). Helping cultural traditions thrive. Community participation promotes intergenerational discussion and togetherness. Through discussion, storytelling, and cultural exchange, community involvement builds trust, social relationships, and belonging. Cultural preservation and presentation require

community support (Pozzi-Escot & Tafur-Sequera, 2024). Cultural exchange programs and heritage festivals allow community members to celebrate, maintain, and promote their cultural heritage. Community involvement helps communities showcase and maintain their intangible cultural assets for self-determination and cultural renewal (Shrestha, 2021). Communities actively develop, maintain, and display culture. This empowerment is essential for preserving cultural traditions against external challenges. Community-based risk assessment helps communities identify and prioritize cultural heritage threats. They may take proactive steps to protect it for future generations.

H4: Community engagement mediates the relationship between the decision support system and the ICH Presentation

2.4 Cultural Sensitivity as Moderator

Cultural sensitivity moderates community engagement and ICH exhibition. It guarantees that engagement initiatives respect, include, and follow relevant communities' cultural values and practices. Communities must identify and appreciate their cultural sensitivity to promote meaningful involvement, collaboration, and confidence in preserving and displaying cultural heritage (Kim et al., 2023). Community involvement programs should start with cultural sensitivity, which means respecting the diverse opinions, beliefs, and practices of the targeted groups. Active listening, a deep understanding of local realities, and culturally appropriate engagement approaches are needed to achieve this (Silva et al., 2023). By focusing on cultural sensitivity, Engagement programs may build community trust and rapport. This lays the groundwork for collaboration. Cultural sensitivity influences the content and manner of intangible cultural asset exhibition. (Keebler et al., 2021) Representing cultural traditions, tales, and rituals passed down by communities requires

accuracy, care, and relevancy. One must have a profound awareness of cultural nuances, ramifications, and sensitivities and actively participate in community conversations and self-reflection to achieve this (Sistani et al., 2023).

Cultural pride, identity validation, and mutual understanding among varied communities can result from culturally sensitive activities that display ICH. Cultural awareness helps navigate community engagement hierarchies, power struggles, and injustices (Ernawati et al., 2022). This promotes humility, self-reflection, and a willingness to cede authority and responsibility to community members, especially those whose voices have been repressed. Cultural awareness in involvement may promote inclusion and justice, increasing community diversity and representation (Sistani et al., 2023). It ensures transparent, responsible, and empowered decision-making. Cultural sensitivity encourages joint engagement in project development and planning, allowing communities to shape how their intangible cultural resources are presented to meet their objectives, ambitions, and needs (Shepherd, 2019). This collaborative approach allows community members to reclaim their cultural history, fostering responsibility, fulfillment, and ownership. By putting cultural sensitivity first in the co-creation process, Engagement initiatives may boost cultural resilience, inspire innovation, and promote adaptation. This keeps ICH presentations current and meaningful when social, environmental, and technical situations change.

H5: Cultural sensitivity moderates the relationship between community engagement and ICH preservation.

Based on the above literature and discussion we developed the following conceptual framework as shown in the following Figure 1:
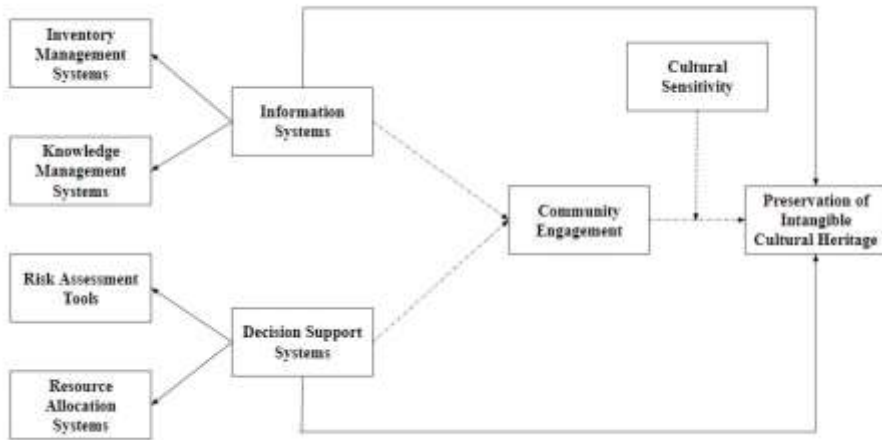
Figure 1: Conceptual Framework

Methodology

The target population for this study consists of persons living in China who are actively involved in the protection, management, or display of ICH. Traditional Chinese rituals, traditions, and performance arts have been passed down for centuries. Preserving Chinese ICH requires understanding information systems and decision support. China has several ethnic groups, each of which has contributed to its culture. People from many ethnic groups, regions, and cultures in China make up the population. This clarifies the role of decision support and information systems in different cultures across the nation. Stratified random sampling determined the study sample. A stratified random sample stratifies people by occupation, ethnicity, terrain, and other characteristics. A stratum-specific specimen represents all population segments. Chinese provinces have different cultures; therefore, this study classified its people by region. A strong correlation existed between stratum sample size and population impact. Results reliability was validated using confidence levels and margins of error. We apply this sampling strategy to accurately reflect intangible cultural asset defenders in varied Chinese locations. This will extensively analyze decision support and information systems in this framework. In this study, 500 questionnaires were sent to intangible cultural asset preservers and displayers across China. 350 surveys were returned, with a 70% response rate. A compromise between a statistically meaningful sample size and non-response bias was reached by distributing 500 questionnaires. For quantitative research, 350 surveys are sufficient. This number allows statistical research on how decision support and information systems safeguard intangible cultural assets. By surpassing the minimum required sample size for statistical power, this study guarantees its ability to detect significant effects or correlations in the data.

The sample was selected using stratified random and convenience sampling in this study. China originally separated its people by region to accommodate regional cultures. Convenience sampling was used to send questionnaires to intangible cultural asset conservation and promotion activists in each category. Convenience sampling was employed due to logistical challenges in reaching people

throughout China. It made getting comments from intangible cultural asset preservers feasible and real. Convenience sampling may cause bias, but stratification ensures that individuals are represented across geographical and cultural situations. Various sampling methods reconcile the desire for a diverse and inclusive sample with practical limits.

This study collected data by sending structured questionnaires to intangible cultural asset preservers and displayers in China. Participants' views on decision support systems and information technology's role in preserving intangible cultural assets across generations were quantified in the surveys. The questionnaire comprises demographics, Likert-scale, and closed-ended questions. We engaged individuals from different areas by distributing surveys online and offline. To ensure data accuracy and completeness, participants were phoned again to encourage timely and full responses. To promote honest and truthful responses, secrecy and anonymity were paramount throughout data collection. SPSS was used to analyze questionnaire data. SPSS is widely used for quantitative data analysis and offers several statistical methods. Descriptive statistics including frequencies, means, and standard deviations were utilized to establish the primary determinants affecting intangible cultural asset preservation employing decision support and information systems. To find connections and trends, regression and correlation analysis were used. SPSS allows fast and accurate statistical analysis, revealing interesting patterns,

relationships, and variables that assist answer research problems. SPSS analysis will help us understand quantitative data and the complex relationships between decision support systems, ICH displays across generations, and information systems.

Results

Table 1 and Figure 2 provides the research's significant variables' descriptive statistics. This table summarizes participant comments on intangible cultural assets, information systems, community engagement, and decision support systems. Means are the average or usual responses. Participants' average scores on all criteria were high, reflecting a positive opinion. The average community engagement score is 4.200 with a 0.800 standard deviation. This suggests a high interest in intangible cultural asset community projects. ICH averages 4.400 with a 0.700 standard deviation. This shows significant engagement, relevance, and satisfaction in cultural preservation. The average cultural sensitivity score, 4.300 (SD = 0.600), shows individuals' cultural awareness and respect. Participants view decision support systems as crucial instruments for allocating and managing resources to maintain cultural assets, with a mean value of 4.100 (SD = 0.900). Information systems have a mean score of 4.000 and a standard deviation of 0.800. Information systems help organize and distribute ICH knowledge; thus, this is positive.

Table 1: Descriptive Statistics

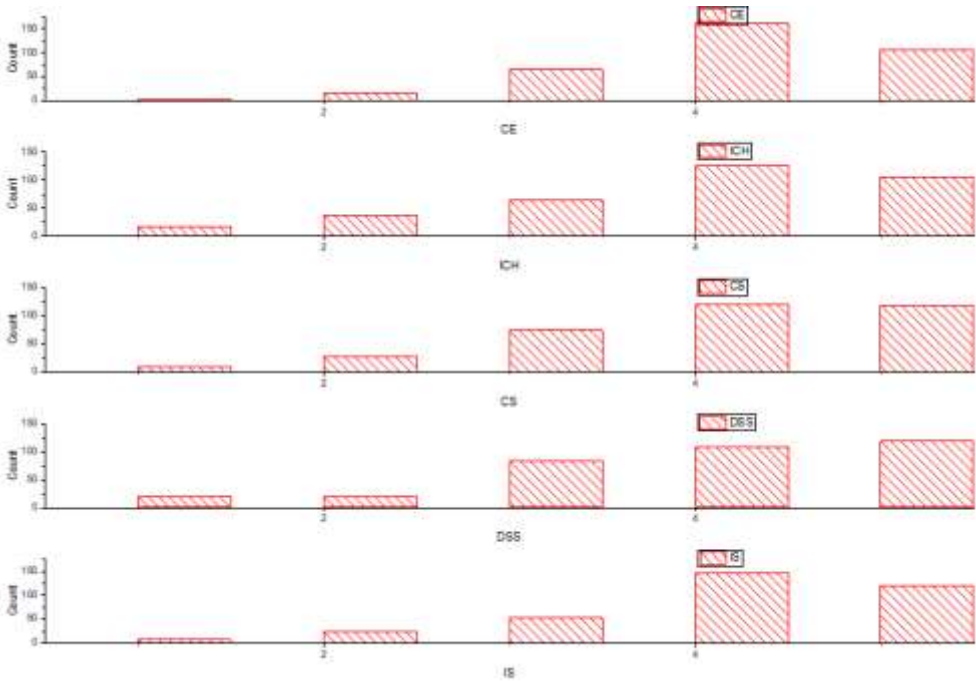| Variable	Mean	Standard Deviation	Minimum	Maximum
Community Engagement	4.2	0.8	1	5
Intangible Cultural Heritage	4.4	0.7	1	5
Cultural Sensitivity	4.3	0.6	1	5
Decision Support Systems	4.1	0.9	1	5
Information Systems	4.0	0.8	1	5

Figure 2: Descriptive Statistics

Table 2 and Figure 3 shows skewness and kurtosis values to evaluate each variable's data distribution normalcy. Validating study statistical analysis requires understanding data distribution typicality. Skewness measures data distribution asymmetry. This table shows skewness values from -0.300 to 0.200, all near zero. The numerical values show that the variables' distributions are virtually symmetrical, indicating that data points are evenly distributed around the mean. Statistical analysis is more reliable without excessive skewness in responses. Kurtosis measures data distribution peaking. All Table 2 kurtosis values between -0.300 and 0.200 are acceptable. The data points appear to be concentrated around the mean due to a moderate peaked distribution. Kurtosis values approaching 0 suggest flattened distributions with moderate kurtosis, which helps statistical assessments. Table 2 shows that all variables have appropriate skewness and kurtosis values, indicating a normal distribution. For accurate regression and correlation, normality must be assumed. This table ensures that statistical tests on the data are precise and reliable, allowing meaningful conclusions to be drawn from future investigations.

Table 2: Normality Assessment (Skewness and Kurtosis)

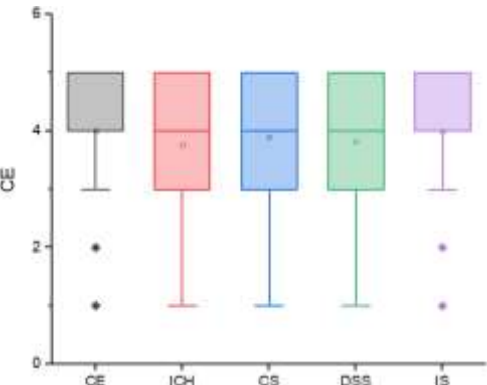| Variable	Skewness	Kurtosis
Community Engagement	-0.200	-0.100
Intangible Cultural Heritage	0.100	-0.200
Cultural Sensitivity	-0.300	0.200
Decision Support Systems	0.200	-0.300
Information Systems	-0.100	0.100

Figure 3: Normality Assessment

Table 3 and Figure 4 lists the study's key variables and correlation coefficients. Information systems, community engagement, ICH, cultural sensitivity, and decision support systems are illuminated by the coefficients. Correlation coefficients are -1 to 1. A coefficient of 1 denotes a perfect positive association, -1 is a perfect negative relationship, and 0 is no relationship. Strong positive association (r = 0.36) between community engagement and intangible cultural assets. Community engagement is associated with better perceptions and active involvement in intangible cultural asset protection, according to this research. Community engagement in cultural heritage initiatives is highlighted by the link. Cultural sensitivity is also linked to ICH and community engagement (r = 0.43, 0.66). This shows that community members who maintain cultural assets are more culturally sensitive. Positive implications stress community engagement, cultural sensitivity, and intangible cultural asset protection. Additionally, people with positive views of information systems (r = 0.49), community involvement (r = 0.55), and ICH (r = 0.65) are more likely to actively participate in community initiatives, recognize their importance, and acknowledge the role of information systems in these processes. The substantial correlation (r = 0.0.52) between information systems and community

engagement emphasizes the need for technological upgrades and community participation in cultural asset protection.

Table 3: Correlation Analysis

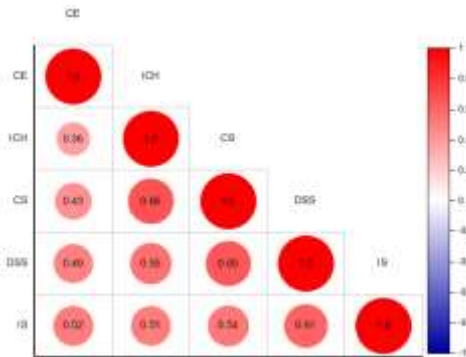|	CE	ICH	CS	DSS	IS
Community Engagement	1				
Intangible Cultural Heritage	0.36	1			
Cultural Sensitivity	0.43	0.66	1		
Decision Support Systems	0.49	0.55	0.65	1	
Information Systems	0.52	0.51	0.54	0.61	1

Figure 4: Correlation Matrix

Table 4 shows the reliability analysis results for each research variable. Measurement models depend on reliability to ensure the internal consistency of items used to test a concealed notion. Decision support systems, information systems, community engagement, intangible cultural heritage, and cultural sensitivity are evaluated using Cronbach's alpha, composite reliability, and average variance extracted (AVE). All constructs have Cronbach's alpha values over 0.7, indicating high internal consistency. Community engagement, ICH, and cultural sensitivity had Cronbach's alpha coefficients of 0.865, 0.917, and 0.853, respectively. Information and decision support systems have strong internal consistency with

Cronbach's alpha values of 0.832 and 0.789. The high scores show that each construct's items measure the same issue. All composite reliability ratings above 0.7, proving the structures' dependability. Community engagement, ICH, cultural sensitivity, decision support systems, and information systems had composite dependability scores of 0.894, 0.928, 0.889, 0.825, and 0.873. These findings indicate that the items measure the constructs. The mean-variance extracted (AVE) values assess the components' contribution to concept variance. Since all constructs fulfill 0.5, convergent validity is sufficient. Community engagement, intangible cultural assets, information systems, decision support systems, and cultural sensitivity average 0.722, 0.823, 0.704, 0.611, and 0.688. These data show that indicators explain a considerable portion of each idea's variation, indicating convergent validity.

Table 4: Reliability Analysis

Variable	Cronbach's Alpha	Composite Reliability	AVE
Community Engagement	0.865	0.894	0.722
Intangible Cultural Heritage	0.917	0.928	0.823
Cultural Sensitivity	0.853	0.889	0.704
Decision Support Systems	0.789	0.825	0.611
Information Systems	0.832	0.873	0.688

Table 5 shows the external loadings for each study variable. External loadings quantify the association between an item and its underlying factor. The Community Engagement outside loadings show that all six items have substantial loadings from 0.765 to 0.823. This emphasizes the dependability and value of each component when assessing community engagement. The seven ICH components have substantial external loadings of 0.893 to 0.919. This shows these items capture ICH's subtleties. Cultural Sensitivity outside loadings range from 0.754 to 0.811. These five questions' loadings indicate their ability to assess cultural sensitivity within the study's context. The range of external loadings (0.665-0.724) for Decision Support Systems demonstrates that the inquiries effectively measure respondents' views on decision support systems for cultural asset conservation. Information Systems outer loadings range from 0.713 to 0.788. These numbers emphasize the association between each item and information systems, showing that these items may be trusted to predict participants' perspectives on information systems' role in conserving intangible cultural property.

Table 5: Outer Loadings

Variable	Item	Outer Loadings
Community Engagement	Item 1	0.821
	Item 2	0.765
	Item 3	0.823
	Item 4	0.798
	Item 5	0.786
	Item 6	0.809
Intangible Cultural Heritage	Item 1	0.912
	Item 2	0.897
	Item 3	0.915
	Item 4	0.893
	Item 5	0.901
	Item 6	0.907

	Item 7	0.919
Cultural Sensitivity	Item 1	0.789
	Item 2	0.806
	Item 3	0.778
	Item 4	0.754
	Item 5	0.811
Decision Support Systems	Item 1	0.665
	Item 2	0.712
	Item 3	0.678
	Item 4	0.724
	Item 5	0.692
Information Systems	Item 1	0.742
	Item 2	0.788
	Item 3	0.713
	Item 4	0.769
	Item 5	0.745

Table 6 shows the R Square (R²) values for each latent variable, reflecting the extent of variance explained by associated indicators. The values indicate how well the selected elements may reveal the structures' essence. R Square for community participation is 0.590. On average, the metrics explain 59% of community engagement variance. The high R Square score suggests that the six community engagement questions explain a lot of this concept's variability. The study's measuring method clarifies and quantifies participants' views on community engagement in intangible cultural property protection. ICH has a good association (R Square = 0.673). About 67% of the seven components are intangible cultural assets. Higher R Square values show that objects properly and comprehensively portray ICH's intricacies. Answering these questions will reveal participants' engagement and views on protecting intangible cultural treasures.

Table 6: R Square (R²)

Variable	R Square
Community Engagement	0.590
Intangible Cultural Heritage	0.673

Table 7 and Figure 5 shows the regression analysis results for ICH and predictor components. The study examines decision support systems and information systems.

Information systems and ICH have a beta coefficient of 0.311. The predictor is information system and the dependent is ICH. A one-unit increase in information systems increases ICH by 0.311 units. The t-value of this link is 2.901, showing statistical significance. With a significance level of 0.05, the p-value of 0.006 implies a statistically significant connection, showing that information systems benefit intangible cultural assets. The beta coefficient for ICH and decision support systems is 0.257, showing a favorable association. For every unit rise in decision support systems, ICH gains 0.257 units. The t-value of this connection is 2.375, showing statistical significance. Decision support systems positively affect ICH, as shown by a p-value of 0.019. These findings show that information and decision support systems affect intangible cultural resource presentation and conservation. More usage and integration of information systems and decision support systems in cultural heritage management help safeguard and promote intangible cultural treasures for future generations. These findings suggest using information and decision support system technologies to assist cultural heritage preservation initiatives.

Table 7: Regression Analysis

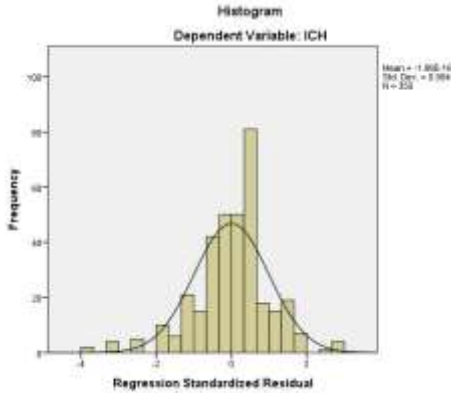|	Beta	t-value	p-value
IS -> ICH	0.311	2.901	0.006
DSS -> ICH	0.257	2.375	0.019

Figure 5: Regression Analysis

In Table 8, the mediation analysis examined whether cultural sensitivity mediates the relationships between the dependent variable (ICH) and the predictor variables (information systems and decision support systems). A beta value of 0.287 exists between ICH and information systems, impacted by cultural sensitivity. This shows that culturally sensitive information systems indirectly affect intangible cultural assets by 0.287 units per unit. Indirect influence is statistically significant with a t-value of 3.123. At 0.05, the mediation effect is statistically significant with a p-value of 0.004. Thus, cultural sensitivity mediates the relationship between information systems and ICH, underlining its relevance in directing information systems' influence on cultural heritage protection. ICH and decision support systems, impacted by cultural sensitivity, have a beta value of 0.572. Due to cultural sensitivity, an increase of one unit in decision support systems indirectly affects intangible cultural assets by 0.572 units. This indirect impact's t-value of 6.834 indicates significant statistical significance. Cultural sensitivity is essential to

decreasing the negative impacts of decision support systems on cultural asset conservation. The mediation effect has a significance level of 0.05 and a p-value of 0.001. The results show that cultural sensitivity helps link information systems, decision support systems, and ICH. Cultural sensitivity helps decision support and information systems comprehend and maintain intangible cultural assets. The data above show the complicated relationship between technological interventions and cultural sensitivity, emphasizing the need for a holistic approach to cultural resource management.

Table 8: Mediation Analysis

	Beta	t-value	p-value
IS -> CE -> ICH	0.287	3.123	0.004
DSS -> CE -> ICH	0.572	6.834	0.001

Table 9 shows the moderation analysis results. Community engagement and cultural sensitivity predict ICH. Cultural sensitivity and community engagement (CS x CE) have a beta coefficient of 0.258. A one-unit increase in community engagement and cultural sensitivity increases ICH by 0.258 units. The interaction's t-value is 2.543, indicating a statistically significant effect. At a significance level of 0.05, the interaction effect is statistically significant (p-value 0.012). These findings demonstrate that ICH conservation requires cultural sensitivity and community engagement. Community engagement and cultural sensitivity reinforce each other, emphasizing the need to study both together to understand their effects on cultural heritage preservation.

Table 9: Moderation Analysis

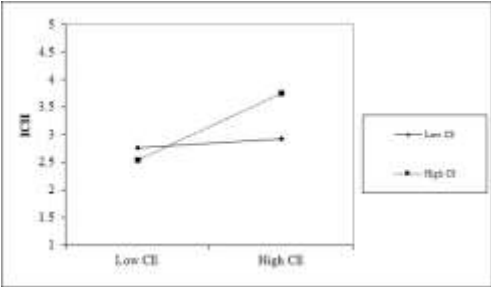|	Beta	t-value	p-value
CS x CE -> ICH	0.258	2.543	0.012

Figure 6: CS as Moderator between CE and
ICH

Discussion:

Community engagement, cultural sensitivity, information systems, decision support systems, and ICH conservation affect ICH preservation. This argument analyzes each component's impact on cultural traditions, behaviors, and knowledge systems using empirical evidence and theoretical frameworks. Scholars study information technology, decision support systems, community engagement, and cultural sensitivity to understand the complex processes that conserve Indigenous Cultural Heritage. Cultural resource management that promotes diversity, equity, and sustainability follows this. Many empirical and theoretical frameworks support Hypothesis 1 (H1), which asserts that information technologies considerably improve intangible cultural resources. KMS and IMS document and protect ICH in various cultures. Several research implies IT affects cultural asset conservation (Tzima et al., 2020). M.-Y. Wang et al., (2024) state IMS finds, preserves, and monitors cultural resources. Digitizing cultural artifacts, texts, and recordings preserves ICH. Globalization, civil unrest, and environmental damage do not affect ICH. KMS also guides families and communities in cultural transmission. Digital repositories, online portals, and collaborative technologies enable KMS to foster intergenerational dialogue, knowledge exchange, and community growth (Abd El-Aal et al., 2023). This boosts cultural identification, continuity, and resilience. Online, the

Indigenous Knowledge Management System helps Indigenous people regain their narrative, fight misconceptions, and demand cultural sovereignty. Many empirical investigations and theoretical frameworks support Hypothesis 2, that decision-help tools improve intangible cultural resources. Strategy to promote, display, and protect ICH in diverse cultural settings requires decision support systems. Petrić et al., (2020) suggest that decision support systems can assess risks, allocate resources, and optimize solutions for conserving intangible cultural assets. Data-driven analytics, predictive modeling, and scenario planning assist stakeholders, policymakers, and cultural practitioners make informed decisions to sustain, resilient, and efficaciously preserve culture. Risk assessment and decision support systems identify and prioritize socioeconomic change, cultural appropriation, and environmental degradation as intangible cultural asset risks (Shirvani Dastgerdi et al., 2022). These systems evaluate predicted outcomes, vulnerabilities, and threats to protect cultural practices, traditions, and knowledge. ICH projects benefit from fair and effective decision support system resource management and distribution. Based on opportunities, goals, and needs, decision support systems (DSSs) prioritize tasks, allocate cash, and manage people using optimization algorithms, cost-benefit assessments, and multi-criteria decision-making (Mallery et al., 2019). Empirical, transparent decision support systems include stakeholders and democratize decision-making. Collective planning, consensus-building, and democratic decision-making can shape cultural preservation (Aftabi & Bahramjerdi, 2023). This makes solutions culturally relevant, inclusive, local-needs-sensitive, and complete.

Growing research and empirical facts support Hypothesis 3, that community participation mediates IT and intangible cultural asset presentation. Community contact is needed to understand how digital technologies transmit ICH. Promote collaboration, active engagement,

and empowerment among cultural heritage caretakers. Information technology's cultural adoption, use, and perception depend on community engagement (Kolade et al., 2022). Active stakeholder engagement in information system design, development, and implementation fits local needs, values, and goals. Community involvement achieves this. To maintain and display ICH information systems, this participatory strategy promotes community ownership, trust, and relevance (Lombardo et al., 2023). Community engagement fosters knowledge exchange, skill development, and social ties, helping people and groups preserve cultural heritage. Education, skill development, and collaboration enable communities to adapt to social, environmental, and technological changes (De Paolis et al., 2022). These capacity-building programmers educate community members on how to safeguard and showcase intangible cultural treasures using technology. Community engagement may create and maintain cultural heritage programs with diverse ideas, concerns, and attitudes. Community engagement allows organizations to discuss, agree, and include everyone in information system intervention decisions (Bates et al., 2022). This approach emphasizes cultural, contextual, and inclusive demands. Collaboration promotes communal ownership, activity, and pride, forging social relationships.

The empirical data and theoretical frameworks support Hypothesis 4, that community interaction influences decision support systems and ICH presentation. Cultural heritage preservation projects need community engagement to evaluate decision support systems' effects on ICH representation. Collaboration, autonomy, and integration are promoted. Community engagement greatly affects decision support system incorporation into cultural asset management (Zhou, 2021). Community engagement tailors decision support systems to local needs and goals. This requires including all stakeholders in system design, implementation, and use to make them

contextually appropriate. This collaborative method improves the efficacy and durability of ICH-presenting strategy decision support systems (Aftabi & Bahramjerdi, 2023). It does this by instilling communal ownership, trust, and legality. Community participation encourages information sharing, skill development, and social asset accumulation, allowing individuals and groups to actively participate in intangible cultural property preservation decision-making (Wibawa et al., 2024). Active community participation fosters knowledge, expertise, and collaboration to solve complex socio-cultural and environmental concerns. Community members utilize decision support systems more efficiently to protect and promote their culture via capacity building. Community participation encourages collaborative cultural heritage initiative development and administration, valuing diverse ideas, aims, and perspectives (Cao et al., 2024). Community discussions, consensus-building, and participatory decision-making establish culturally relevant and inclusive decision-support system intervention criteria. Ownership, agency, and pride foster community identity and cohesion in this collaborative technique. Hypothesis 5—that cultural sensitivity moderates community engagement and ICH preservation—is supported by empirical and theoretical data. Community engagement in ICH preservation efforts depends on cultural sensitivity. Cultural sensitivity demands community engagement initiatives to understand, comprehend, and respect their target groups' varied traditions, values, and beliefs. Cultural sensitivity involves knowing and embracing cultural subtleties, attitudes, and customs and adapting interaction techniques to local situations and sensitivities (Arif & Abrons, 2020). Culturally sensitive initiatives promote trust, collaboration, and community participation, making ICH preservation more successful. Cultural sensitivity impacts community involvement program acceptance (Waanders et al., 2023). Culturally aware involvement may reduce power imbalances,

historical injustices, and stakeholder unfairness. The comprehensive approach ensures that all community members are valued and empowered to actively defend ICH by sharing their knowledge, viewpoints, and aspirations (Li et al., 2022). These initiatives become more effective and durable. Cultural sensitivity allows varied cultural groups protecting the ICH to communicate and collaborate. Culturally sensitive community members can better resolve cultural conflicts and obstacles to enhance collaboration and consensus (Kohler & Espinoza, 2023). Culturally aware efforts help bridge barriers, improve communication, and share expertise. Thus, they promote group unity.

Conclusion

To conclude, this study explored the complicated interaction between ICH exhibitions, community engagement, decision support systems, information technologies, and ICH. The study used quantitative methods to examine these elements and their effects on cultural asset management. By evaluating the research and data, many key conclusions may be drawn. The regression study first suggested that decision assistance and information technologies increased intangible cultural asset visibility. Data management and sharing tools like information systems make cultural heritage items more visible and accessible. Decision support systems help cultural heritage workers allocate resources and prevent risks, preserving and displaying ICH. The mediation research also showed that cultural sensitivity and community participation moderate decision support system-information system relationships and intangible cultural asset presentation. Information and decision support systems foster community ownership and involvement. This boosts cultural awareness and helps exhibit ICH. This study emphasizes cultural sensitivity and community engagement in cultural resource preservation. The moderation investigation also showed that cultural sensitivity moderates decision support system-intangible cultural property interactions.

Cultural sensitivity and decision support systems reinforce each other, stressing the relevance of cultural understanding in cultural heritage decision-making. Based on these findings, cultural heritage management must be culturally responsive. These methods should acknowledge the different perspectives and values of intangible cultural assets. This study contributes to the debate on how to incorporate technology, community engagement, and cultural awareness into cultural resource management. The study's explanation of these components' complex interplay helps researchers and practitioners. The findings underscore the importance of establishing a comprehensive plan that recognizes the socio-cultural aspects of ICH and uses technological advances to preserve and promote it for future generations.

6.1 Implications

This research significantly advances cultural heritage management discussions. This study emphasizes the interconnection of information systems, decision support systems, community engagement, cultural sensitivity, and intangible cultural assets, improving theoretical frameworks. The research emphasizes the importance of incorporating several variables in theoretical frameworks to correctly portray cultural asset protection's difficulties. Community engagement and awareness of various cultures also affect technology interventions and cultural heritage exhibitions, according to the research. This study expands theoretical methods by examining how sociocultural factors affect cultural heritage management information and decision support systems. The research encourages scientists to consider the dynamic and mutually important relationships between technology, community, and culture while studying intangible cultural assets.

This study affects cultural heritage professionals, lawmakers, and technologists. The findings show that information and decision support systems promote intangible cultural assets. These tools can help cultural heritage

professionals communicate, handle data, and make better decisions. Practitioners can safeguard cultural assets and optimize resource allocation with decision support tools and user-friendly information systems. The research stresses community participation to link technology with cultural heritage displays. These findings can help create community-based cultural heritage preservation programs. Information technology to transfer cultural information and community involvement in decision-making, combining local perspectives and abilities, can increase preservation operations' durability and authenticity. These principles can be included in cultural asset regulations to prioritize local preservation. The study also highlights cultural sensitivity as a mediator between heritage displays and decision support systems. Promoting cultural knowledge among parties improves decision support. Training, local group contacts, and cultural understanding can promote culturally sensitive decision-making. Technological solution developers can create decision support systems culturally sensitive to varied cultures and values. The paper also recommends integrating technology, community participation, and cultural understanding into cultural asset management. Practitioners can create large technology-based community involvement and cultural awareness programs. Adding these features to cultural asset management can make preservation more sustainable, inclusive, and culturally sensitive. These findings can help policymakers create cultural heritage policies that allow technology while protecting cultural variation and intangible assets.

6.2 Limitations and Future Direction

This work has provided useful insights; however, its limitations should be noted to inform future research and improvements. Numerical data was analyzed to determine variable connections. Although statistically robust, this strategy may overlook the subtle qualitative aspects of cultural asset management. A mixed-methods approach including qualitative

tools like interviews or case studies may capture the detailed narratives and personal experiences of cultural heritage preservationists. The study's cultural context may also limit its applicability. Due to the research's cultural focus, the findings may not apply to other cultures. Geography, history, and culture affect cultural resource management complexity. Future studies should aim for broader geographic and cultural representation to improve results applicability and better understand the complex relationships between information systems, decision support systems, community engagement, cultural sensitivity, and ICH representation. The study also relied extensively on questionnaire-based self-reported data, increasing response bias. Participants' comments may reflect societal norms or not their own beliefs. Additional studies on data collection methods like in-depth interviews or participant observation might enhance survey outcomes. It would be more reliable and easier to understand the phenomenon if the investigation used many approaches. The study also highlighted information systems, decision support systems, community engagement, and cultural sensitivity in cultural asset management. However, additional essential factors and variables may have been overlooked throughout the investigation. To grasp cultural asset preservation's complexity, more studies should examine educational programs, government policies, and financial methods. Including more factors can help researchers understand how intangible cultural property is presented and preserved. The study's cross-sectional approach limits causality because it captures relationships in a moment. Since longitudinal studies examine changes over time, they capture the changing character of cultural heritage management approaches. Researchers can present ICH with community participation, cultural sensitivity, information systems, and decision support systems to better comprehend cultural heritage preservation. This method improves knowledge of cultural heritage preservation's temporal

dynamics. Cultural heritage management may benefit from combining developing technology like artificial intelligence and virtual reality. Virtual reality can enhance the accessibility and presentation of intangible cultural property by providing immersive experiences. Research into cooperative digital platforms and citizen science initiatives in cultural heritage documentation and conservation may lead to innovative ways to actively engage people in cultural heritage protection. Comparative studies in different cultural settings and geographical places may also show that decision support systems, information systems, community engagement, and cultural awareness work differently. Cross-cultural study would allow the creation of cultural material preservation methods that address the unique challenges and opportunities of different cultural settings.

WORKS CITED

Abd El-Aal, A., Abdullah, G. M. S., Al- Metwaly, W. M., & AbdelMaksoud, K. M. (2023). Geological and archeological heritage resources assessment of the Najran Province; towards the 2030 vision of Saudi Arabia. Resources Policy, 85, 104061. https://doi.org/https://doi.org/10.1016/j.resourpol.2023.104061

Aftabi, P., & Bahramjerdi, S. F. N. (2023). Developing a decision-making framework within the management of historical cities: Towards integrated conservation and development of the Roudaki neighbourhood. Land Use Policy, 129, 106653. https://doi.org/https://doi.org/10.1016/j.landusepol.2023.106653

Alhosani, N. (2022). The Influence of Culture on Early Childhood Education Curriculum in the UAE. ECNU Review of Education, 5(2), 284-298. https://doi.org/10.1177/20965311221085984

Arif, S. A., & Abrons, J. P. (2020). Promoting cultural sensitivity with the ethical and professional use of social media during global pharmacy experiences. Currents in Pharmacy Teaching and Learning, 12(11), 1383-1386. https://doi.org/https://doi.org/10.1016/j.cptl.2020.05.009

Arrighi, G., See, Z. S., & Jones, D. (2021). Victoria Theatre virtual reality: A digital heritage case study and user experience design. Digital Applications in Archaeology and Cultural Heritage, 21, e00176. https://doi.org/https://doi.org/10.1016/j.daach.2021.e00176

Aydın, E. Ö., Tepe, E., & Balcan, C. (2022). Identification of determinants during the registration process of industrial heritage using a regression analysis. Journal of Cultural Heritage, 58, 23-32. https://doi.org/https://doi.org/10.1016/j.culher.2022.09.013

Bates, G., Ralphs, R., Bond, V. W., Boardley, I., Hope, V., Van Hout, M.-C., & McVeigh, J. (2022). Systems mapping to understand complexity in the association between image and performance enhancing drugs (IPEDs) and harm. International Journal of Drug Policy, 107, 103801. https://doi.org/https://doi.org/10.1016/j.drugpo.2022.103801

Cao, Y., Qu, X., & Chen, X. (2024). Metaverse application, flow experience, and Gen-Zers' participation intention of intangible cultural heritage communication. Data Science and Management. https://doi.org/https://doi.org/10.1016/j.dsm.2023.12.004

Choi, Y., Yang, Y.-J., & Sohn, H.-G. (2021). Resilient cultural heritage through digital cultural heritage cube: Two cases in South Korea. Journal of Cultural Heritage, 48, 36-44. https://doi.org/https://doi.org/10.1016/j.culher.2021.01.007

Consoli, S., Alberti, V., Cocco, C., Panella, F., & Montalto, V. (2023). Cultural gems linked open data: Mapping culture and intangible heritage in European cities. Data in Brief, 49, 109375. https://doi.org/https://doi.org/10.1016/j.dib.2023.109375

Daniela, P., Alessandra, D., Giulia, G., Raffaele, P., & Antonello, C. (2023). Mental health risks for cultural heritage professionals within the framework of disaster risk reduction: An exploratory study on the emotional impact of ruins after the 2016 earthquake in central Italy. International Journal of Disaster Risk Reduction, 92, 103705. https://doi.org/https://doi.org/10.1016/j.ijdrr.2023.103705

De Paolis, L. T., Faggiano, F., Gatto, C., Barba, M. C., & De Luca, V. (2022). Immersive virtual reality for the fruition of ancient contexts: The case of the archaeological and Naturalistic Park of Santa Maria d'Agnano in Ostuni. Digital Applications in Archaeology and Cultural Heritage, 27, e00243. https://doi.org/https://doi.org/10.1016/j.daach.2022.e00243

Dou, J., Qin, J., Jin, Z., & Li, Z. (2018). Knowledge graph based on domain ontology and natural language processing technology for Chinese intangible cultural heritage. Journal of Visual Languages & Computing, 48, 19-28. https://doi.org/https://doi.org/10.1016/j.jvlc.2018.06.005

Du, J. T., & Chu, C. M. (2022). Toward community-engaged information behavior research: A methodological framework. Library & Information Science Research, 44(4), 101189. https://doi.org/https://doi.org/10.1016/j.lisr.2022.101189

Ernawati, D. K., Sutiari, N. K., Astuti, I. W., Onishi, H., & Sunderland, B. (2022). Correlation between intercultural sensitivity and collaborative competencies amongst Indonesian healthcare professionals. Journal of Interprofessional Education & Practice, 29, 100538. https://doi.org/https://doi.org/10.1016/j.xjep.2022.100538

Essén, B., & Eriksson, L. (2023). Paradoxes in the cultural doula concept for migrant women: Implications for gender-inclusive care versus migrant-friendly maternity care. Midwifery, 126, 103805. https://doi.org/https://doi.org/10.1016/j.midw.2023.103805

Fabbri, K., & Bonora, A. (2021). Two new indices for preventive conservation of the cultural heritage: Predicted risk of damage and heritage microclimate risk. Journal of Cultural Heritage, 47, 208–217. https://doi.org/https://doi.org/10.1016/j.culher.2020.09.006

Günen, M. A. (2021). A comprehensive framework based on GIS-AHP for the installation of solar PV farms in Kahramanmaraş, Turkey. Renewable Energy, 178, 212–225. https://doi.org/https://doi.org/10.1016/j.renene.2021.06.078

Hui, E. C., Chen, T., Lang, W., & Ou, Y. (2021). Urban community regeneration and community vitality revitalization through participatory planning in China. Cities, 110, 103072. https://doi.org/https://doi.org/10.1016/j.cities.2020.103072

Jamal, S., & Newbold, K. B. (2023). The promise of Co-design for improving transit service for older immigrants: Development of a co-design framework for Hamilton, Ontario. Urban Governance. https://doi.org/https://doi.org/10.1016/j.ugj.2023.01.002

Jigyasu, R. (2021). Chapter 3 - Mainstreaming cultural heritage in disaster risk governance (J. M. Mendes, G. Kalonji, R. Jigyasu, & A. B. T.-S. D. R. G. to M. D. R. Chang-Richards (eds.); pp. 21–26). Elsevier. https://doi.org/https://doi.org/10.1016/B978-0-12-818750-0.00003-9

Jin, X., Jiang, P., Li, M., Gao, Y., & Yang, L. (2022). Mapping Chinese land system types from the perspectives of land use and management, biodiversity conservation and cultural landscape. Ecological Indicators, 141, 108981. https://doi.org/https://doi.org/10.1016/j.ecolind.2022.108981

Keebler, K., Taylor, R. A., & Sylvia Huang, C.-H. (2021). Empowering the People: Introducing an Advance Care Planning Conversation to Improve Cultural Sensitivity Among African American Heart Failure Patients (W215C). Journal of Pain and Symptom Management, 61(3), 642–643. https://doi.org/https://doi.org/10.1016/j.jpainsymman.2021.01.017

Khamsuk, A., & Whanchit, W. (2021). Storytelling: An alternative home delivery of english vocabulary for preschoolers during COVID-19's lockdown in southern Thailand. South African Journal of Childhood Education, 11(1). https://doi.org/10.4102/SAJCE.V11I1.897

Kim, H., Kim, H., & Woosnam, K. M. (2023). Collaborative governance and conflict management in cultural heritage-led regeneration projects: The case of urban Korea. Habitat International, 134, 102767. https://doi.org/https://doi.org/10.1016/j.habitatint.2023.102767

Kohler, K. L., & Espinoza, K. (2023). Embracing abuelita epistemologies, "Nací para bailar": A pathway for creating culturally sustaining lessons for LatinX students. Learning, Culture and Social Interaction, 43, 100768. https://doi.org/https://doi.org/10.1016/j.lcsi.2023.100768

Kolade, O., Odumuyiwa, V., Abolfathi, S., Schröder, P., Wakunuma, K., Akanmu, I., Whitehead, T., Tijani, B., & Oyinlola, M. (2022). Technology acceptance and readiness of stakeholders for transitioning to a circular plastic economy in Africa. Technological Forecasting and Social Change, 183, 121954. https://doi.org/https://doi.org/10.1016/j.techfore.2022.121954

Lee, W. E., & Perdana, A. (2023). Reprint of: Effects of experiential service learning in improving community engagement perception, sustainability awareness, and data analytics competency. Journal of Accounting Education, 63, 100846. https://doi.org/https://doi.org/10.1016/j.jaccedu.2023.100846

Li, P., Xiao, X., & Seekamp, E. (2022). Climate adaptation planning for cultural heritages in coastal tourism destinations: A multi-objective optimization approach. Tourism Management, 88, 104380. https://doi.org/https://doi.org/10.1016/j.tourman.2021.104380

Lombardo, L., Saeli, M., & Campisi, T. (2023). Smart technological tools for rising damp on monumental buildings for cultural heritage conservation. A proposal for smart villages implementation in the Madonie montains (Sicily). Sustainable Futures, 6, 100116. https://doi.org/https://doi.org/10.1016/j.sftr.2023.100116

Lucchi, E., & Buda, A. (2022). Urban green rating systems: Insights for balancing sustainable principles and heritage conservation for neighbourhood and cities renovation planning. Renewable and Sustainable Energy Reviews, 161, 112324. https://doi.org/https://doi.org/10.1016/j.rser.2022.112324

Mallery, T. A., Mittman, I. S., Castillo-Page, L., Eliason, J., & Chapman Navarro, J. R. (2019). A Stochastic Model of Consensus Reaching in Committee Decisions for Faculty Advancement, Promotion and Tenure: Does Diversity Matter? Journal of the National Medical Association, 111(4), 418–426. https://doi.org/https://doi.org/10.1016/j.jnma.2019.01.012

María Galindo-Uribe, D., Mario Hoyos-Hoyos, J., Isaacs-Cubides, P., Corral-Gómez, N., & Urbina-Cardona, N. (2022). Classification and sensitivity of taxonomic and functional diversity indices of anurans in the Andean coffee cultural landscape. Ecological Indicators, 136, 108650. https://doi.org/https://doi.org/10.1016/j.ecolind.2022.108650

Melis, C., & Chambers, D. (2021). The construction of intangible cultural heritage: A Foucauldian critique. Annals of Tourism Research, 89, 103206. https://doi.org/https://doi.org/10.1016/j.annals.2021.103206

Nusair, K., Karatepe, O. M., Okumus, F., Alfarhan, U. F., & Shi, F. (2024). Exploring the pivotal role of community engagement on tourists' behaviors in social media: A cross-national study. International Journal of Information Management, 74, 102701. https://doi.org/https://doi.org/10.1016/j.ijinfomgt.2023.102701

Oruç, N. E., & Çahantimur, A. I. (2024). Beyond a garden: Alignment of Sustainable Development Goals with botanic gardens. Environmental Science & Policy, 152, 103639. https://doi.org/https://doi.org/10.1016/j.envsci.2023.103639

Petrić, L., Hell, M., & van der Borg, J. (2020). Process orientation of the world heritage city management system. Journal of Cultural Heritage, 46, 259–267. https://doi.org/https://doi.org/10.1016/j.culher.2020.07.009

Pozzi-Escot, D., & Tafur-Sequera, M. (2024). Archaeological Heritage and Museum Interpretation (T. Rehren & E. B. T.-E. of A. (Second E. (Second E. Nikita (eds.); pp. 494–504). Academic Press. https://doi.org/https://doi.org/10.1016/B978-0-323-90799-6.00126-9

Qiu, Q. (2023). Identifying the role of intangible cultural heritage in distinguishing cities: A social media study of heritage, place, and sense in Guangzhou, China. Journal of Destination Marketing & Management, 27, 100764. https://doi.org/https://doi.org/10.1016/j.jdmm.2023.100764

Qiu, Y., & Luo, W. (2022). Investigation of the effect of flipped listening instruction on the listening performance and listening anxiety of Chinese EFL students. Frontiers in Psychology, 13. https://doi.org/10.3389/fpsyg.2022.1043004

Ravankhah, M., Schmidt, M., & Will, T. (2021). An indicator-based risk assessment framework for World Heritage sites in seismic zones: The case of "Bam and its Cultural Landscape" in Iran. International Journal of Disaster Risk Reduction, 63, 102405. https://doi.org/https://doi.org/10.1016/j.ijdrr.2021.102405

Reshma, M. R., Kannan, B., Jagathy Raj, V. P., & Shailesh, S. (2023). Cultural heritage preservation through dance digitization: A review. Digital Applications in Archaeology and Cultural Heritage, 28, e00257. https://doi.org/https://doi.org/10.1016/j.daach.2023.e00257

Rivero Moreno, L. D. (2019). Museums and digital era: preserving art through databases. Collection and Curation, 38(4), 89–93. https://doi.org/10.1108/CC-02-2018-0002

Shepherd, S. M. (2019). Cultural awareness workshops: Limitations and practical consequences 17 Psychology and Cognitive Sciences 1701 Psychology 11 Medical and Health Sciences 1117 Public Health and Health Services. BMC Medical Education, 19(1). https://doi.org/10.1186/S12909-018-1450-5

Shirvani Dastgerdi, A., Sargolini, M., Broussard Allred, S., Chatrchyan, A. M., Drescher, M., & DeGeer, C. (2022). Climate change risk reduction in cultural landscapes: Insights from Cinque Terre and Waterloo. Land Use Policy, 123, 106359. https://doi.org/https://doi.org/10.1016/j.landusepol.2022.106359

Shrestha, R. (2021). Community led post-earthquake heritage reconstruction in Patan–issues and lessons learned. Progress in Disaster Science, 10, 100156. https://doi.org/https://doi.org/10.1016/j.pdisas.2021.100156

Silva, C., Zagalo, N., & Mário Vairinhos. (2023). Towards participatory activities with augmented reality for cultural heritage: A literature review. Computers & Education: X Reality, 3, 100044. https://doi.org/https://doi.org/10.1016/j.cexr.2023.100044

Sistani, M., Niroumand Zandi, K., Monjazebi, F., Nasiri, M., & Khoshab, H. (2023). The relationship between cultural sensitivity and levels of work interaction among emergency medical services staff in Iran. International Journal of Africa Nursing Sciences, 19, 100612. https://doi.org/https://doi.org/10.1016/j.ijans.2023.100612

Sitas, R., & Stewart, M. (2023). From heritage conservation to heritage justice in Cape Town. City, Culture and Society, 35, 100551. https://doi.org/https://doi.org/10.1016/j.ccs.2023.100551

Smith, J. W., Yang, E., & Miller, A. B. (2023). Research note: An evaluation of potential locations for the Bears Ears National Monument cultural center. Journal of Outdoor Recreation and Tourism, 43, 100645. https://doi.org/https://doi.org/10.1016/j.jort.2023.100645

Otero, X., Santos-Estevez, M., Yousif, E., & Abadía, M. F. (2023). Images on stone in sharjah emirate and reverse engineering technologies. Rock Art Research: The Journal of the Australian Rock Art Research Association (AURA), 40(1), 45-56.

Nguyen Thanh Hai, & Nguyen Thuy Duong. (2024). An Improved Environmental Management Model for Assuring Energy and Economic Prosperity. Acta Innovations, 52, 9–18. https://doi.org/10.62441/ActaInnovations.52.2

Yuliya Lakew, & Ulrika Olausson. (2023). When We Don't Want to Know More: Information Sufficiency and the Case of Swedish Flood Risks. Journal of International Crisis and Risk Communication Research , 6(1), 65–90. Retrieved from https://jicrcr.com/index.php/jicrcr/article/view/73

Szykulski, J., Miazga, B., & Wanot, J. (2024). Rock Painting Within Southern Peru in The Context of Physicochemical Analysis of Pigments. Rock Art Research: The Journal of the Australian Rock Art Research Association (AURA), 41(1), 5-27.

Mashael Nasser Ayed Al-Dosari, & Mohamed Sayed Abdellatif. (2024). The Environmental Awareness Level Among Saudi Women And Its Relationship To Sustainable Thinking. Acta Innovations, 52, 28–42. https://doi.org/10.62441/ActaInnovations.52.4

Kehinde, S. I., Moses, C., Borishade, T., Busola, S. I., Adubor, N., Obembe, N., & Asemota, F. (2023). Evolution and innovation of hedge fund strategies: a systematic review of literature and framework for future research. Acta Innovations, 50,3, pp.29-40. https://doi.org/10.62441/ActaInnovations.52.4

Andreas Schwarz, Deanna D. Sellnow, Timothy D. Sellnow, & Lakelyn E. Taylor. (2024). Instructional Risk and Crisis Communication at Higher Education Institutions during COVID-19: Insights from Practitioners in the Global South and

North. Journal of International Crisis and Risk Communication Research , 7(1), 1–47. https://doi.org/10.56801/jicrcr.V7.i1.1

Sosa-Alonso, P. J. (2023). Image analysis and treatment for the detection of petroglyphs and their superimpositions: Rediscovering rock art in the Balos Ravine, Gran Canaria Island. Rock Art Research: The Journal of the Australian Rock Art Research Association (AURA), 40(2), 121-130.

Tyler G. Page, & David E. Clementson. (2023). The Power of Style: Sincerity's influence on Reputation. Journal of International Crisis and Risk Communication Research , 6(2), 4-29. Retrieved from https://jicrcr.com/index.php/jicrcr/article/view/98

To, V. T., Swabey, K., Bown, A., & Thai, B. (2022). Multiple perspectives on the benefits of teaching of Vietnamese to preschool children in an Australian early childhood context. International Journal of Early Years Education, 30(2), 339–354. https://doi.org/10.1080/09669760.2020.1814220

Trivyzadakis, N. (2023). A tool for quantitative research on the social awareness for the digitization of cultural heritage: A pilot application. Journal of Archaeological Science: Reports, 51, 104202. https://doi.org/https://doi.org/10.1016/j.jasrep.2023.104202

Tzima, S., Styliaras, G., Bassounas, A., & Tzima, M. (2020). Harnessing the potential of storytelling and mobile technology in intangible cultural heritage: A case study in early childhood education in sustainability. Sustainability (Switzerland), 12(22), 1–22. https://doi.org/10.3390/su12229416

Waanders, A., Brown, A., Caron, N. R., Plisiewicz, A., McHugh, S. T., Nguyen, T. Q., Lehmann, K., Stevens, J., Storm, P. J., Resnick, A., Davidson, T. B., Mueller, S., & Kline, C. (2023). Indigenous peoples and inclusion in clinical and genomic research: Understanding the history and navigating contemporary engagement. Neoplasia, 37, 100879. https://doi.org/https://doi.org/10.1016/j.neo.2023.100879

Wang, M.-Y., Li, Y.-Q., Ruan, W.-Q., Zhang, S.-N., & Li, R. (2024). Influencing factors and formation process of cultural inheritance-based innovation at heritage tourism destinations. Tourism Management, 100, 104799. https://doi.org/https://doi.org/10.1016/j.tourman.2023.104799

Wang, Q., Yang, C., Lu, J., Wu, F., & Xu, R. (2020). Analysis of preservation priority of historic buildings along the subway based on matter-element model. Journal of Cultural Heritage, 45, 291–302. https://doi.org/https://doi.org/10.1016/j.culher.2020.03.003

Wibawa, A. P., Handayani, A. N., Rukantala, M. R. M., Ferdyan, M., Budi, L. A. P., Utama, A. B. P., & Dwiyanto, F. A. (2024). Decoding and preserving Indonesia's iconic Keris via A CNN-based classification. Telematics and Informatics Reports, 13, 100120. https://doi.org/https://doi.org/10.1016/j.teler.2024.100120

Zhang, S., Lin, J., Feng, Z., Wu, Y., Zhao, Q., Liu, S., Ren, Y., & Li, H. (2023). Construction of cultural heritage evaluation system and personalized cultural tourism path decision model: An international historical and cultural city. Journal of Urban Management, 12(2), 96–111. https://doi.org/https://doi.org/10.1016/j.jum.2022.10.001

Zhou, P. X. (2021). Towards a Sustainable Infrastructure for the Preservation of Cultural Heritage and Digital Scholarship. Data and Information Management, 5(2), 253–261. https://doi.org/https://doi.org/10.2478/dim-2020-0052