

## **Literature Review of QR-Code-Based Transparency Democracy Learning Design of Pancasila and Civics Education**

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**Abstract:** This research aims to design QR Code-based digital media that can be used in learning Pancasila and Citizenship Education. This media is expected to increase student participation in the election of the head of the organization, as well as provide easy access to information related to the election. By using QR codes, students can easily access relevant information, thus increasing transparency in the election process. This research shows that the application of QR Code-based digital media in learning Pancasila and Citizenship Education not only increases transparency in the election of the head of the organization, but also contributes to the development of students' critical thinking skills. By utilizing information technology, it is expected that the election process can be carried out in a more accountable and transparent manner, in line with the principles of democracy expected by Indonesian society.

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## **Introduction**

On Infotopia, People may find a lot of information on the organizations they depend on to meet their essential needs on Infotopia. The democratic transparency principles govern the dissemination of such information. The contemporary fervor for transparency is both expanded upon and critiqued by democratic transparency. It challenges us to think politically about information as a tool for influencing big businesses' actions in ways that benefit society. We should consider the goals of transparency initiatives to be major entities, both public and civic, but particularly private and corporate. There are four guiding principles of democratic transparency. First and foremost, there should be abundant, comprehensive, and open information regarding the activities and decisions of major organizations that have an impact on the interests of the public. Second, the quantity of information that is accessible ought to be commensurate with the degree to which these groups undermine the interests of the public. Third, information has to be arranged and made available in a manner that makes it easy for the people and organizations that utilize it to obtain. Finally, the social, political and economic structures of society must be organized in a way that allows individuals and groups to take action in accordance with the applicable provisions (Fung, 2013).

When democracy is put into practice, it turns into a phony shadow of a supreme authority that is desperate for power. In this phony order, Indonesian society compares the specifics of violations that take place but remains silent when the law turns into the most dangerous instrument for demanding political transparency in order to establish the truth. McGee and Gaventa (2010), suggesting transparency and accountability initiatives around the world highlight the limited conclusions that can be drawn about the relationship between transparency and governance outcomes. Pro-transparency arguments tend to combine normative and technocratic justifications, asserting transparency as the ultimate goal and assuming that access to information improves welfare and accountability. Lack of clarity about the goal of these policies and the precise channels via which change might occur has impeded progress in bolstering transparency measures. Furthermore, proponents of transparency frequently portray democracy and transparency as two intertwined and sometimes indivisible ideas. The normative presumption is that democracy requires transparency. From the technocratic side, proponents argue that transparency regulations will function well if there is political space for citizens and civil society to use disclosed information to hold the State accountable (Tan, 2014).

Since the start of the reform era, Indonesian society has grown more open and transparent. This contrasts with the New Order era, when people appeared less free and more closed up. One of the demands of the populace at the time was democracy. Democracy was restored after the Reformation era. It had a significant impact on education as well as many other facets of life, leading to educational democracy. Following the new rule, the Indonesian populace appeared to be literate and could easily perceive how democracy was being implemented sporadically, with the use of digital media to spread information and create friction amongst interested parties.

One of the main concerns of the modern social sciences is the revelation of information about organizations that is necessary for assessing them. Transparency has been acknowledged in the field of international relations for its potential to increase the effectiveness of regimes (Mitchell, 1998), lower the likelihood of conflict and war (Schultz, 1998, Fearon, 1995), and serve as a potential remedy or replacement for the lackluster prospects of democratic accountability of international organizations (Keohane and Nye, 2003).

Transparency is one of the most important safeguards against corruption and the unethical use of public power for personal gain. Over the past ten years, research and discussion on the causes of corruption have exploded, partly due to the rising realization that corruption is not only a moral concern but also a major obstacle to growth and advancement in many parts of the world. Naurin and Lindstedt (2010).

Indonesia is a country with population of 279,072,446, Indonesia will rank fourth in the world in 2024. Naturally, the country faces challenges due to the lack of transparency in its democratic politics, particularly in light of the February 14, 2024, rolling presidential election that featured three pairs of candidates for president and vice president and served as a test of the benefits of Indonesian democracy.

Dadi, et. al. (2024). examines the intricate dynamics of presidential elections from 2015 to 2020, with an emphasis on international comparisons between Indonesia and other nations. The study looks at the sociopolitical environment, historical background, democratic process, changing voter demographics, and overall goals of the presidential election. The discussion of Indonesia's distinct democratic transition and its effects on the electoral process emphasizes the interaction between the country's democratic principles and the features of presidential

elections. Voter behavior is influenced by socio-economic, linguistic, and regional variances, making the socio-political landscape a significant influencer. Analysis of changing voter dynamics highlights how regional differences, educational attainment, and economic circumstances influence voter preferences. The investigation of broad electoral goals is guided by thematic organization, which covers topics such as media influence, campaign tactics, and voter turnout. In order to synthesize existing research and add to the global conversation on presidential elections, a comparative lens is used to examine similarities and differences. backed by a strict process that includes a methodical search plan and quality evaluation (Maria & Djou, 2024).

In line with Dadi's investigation, Yusril Izha Mahendra was quoted in Indonesia Lawyers Club 2024 on the question of the inquiry right.

**"From election to election, the way we calculate the results of the vote is very long, very long and of course opens up opportunities for fraud everywhere and it is already known like that. Why! We do not learn from Malaysia, which has been implementing the district system from the beginning, the Philippines has implemented a digital-based proportional system with elections using mobile phones that have proven to be without problems and the presidential election is going well, the election is also going well while we are still using nails to vote in the city of votes, do we not think about improving our election system, so that there are no high costs, no bribery, bribery" (Yusril Izha Mahendre, 2024).**

Departing from the investigation and expression of the election system, researchers are interested in designing a learning simulation as a form of democratic transparency system in the upper middle generation of class XI SMA Negeri 5 Bandar Lampung based on digital media Qr-Code in Pancasila and civics education learning. The application of this digital-based learning system certainly does not escape the decline in critical thinking skills in Pancasila and citizenship education learning. Civics learning is actually learning that emphasizes critical thinking skills, with the C4 cognitive domain. the implementation of the k13 curriculum is designed so that it can bring changes to the mindset of students, especially in Civics subjects, in the formation of the way of thinking of students, Civics subjects are designed as a science that has the capability to build character, the identity of students, teachers and students not only do Civics learning but also have a personality, character and mindset that is in accordance with the basic written Pancasila of the Republic of Indonesia.

The headline of the current president of the Republic of Indonesia, "The Mental Revolution," describes the decline in one's ability to think in response to issues that are currently developing, particularly in the morning of high school adolescents who are susceptible to environmental influences. This is especially true in the 21st century, when scientific and technological advancements have made it easier for students to think thanks to the internet.

Education plays a significant role in determining a country's future because it is expected to produce intelligent and capable individuals who can advance the country. 21st century education is no longer just a discourse or idea; it must be able to be realized through learning. Education must always be designed to be ready to face the times. In light of the industrial revolution 4.0, the education sector must be able to use technology in the learning process in order to have the ability and be able to compete in the workplace. In this context, 21st century learning, which is equivalent to technological advancements, includes learning media. (Aransyah & Adha, 2022). Digital media will be used to realize democratic transparency in the election of the anti-corruption chairman.

The Japanese company Denso Wave invented the two-dimensional barcode known as QR-Code Media Quick Response Code, or just QR-Code, in 1994. One benefit of QR codes is their ability to hold data both vertically and horizontally. Nowadays, QR-Codes are widely used in applications such as QR-Code Readers and QR-Code Generators, making it simple for anyone to create information in the form of a QR-Code and obtain the information they seek by simply scanning data using a mobile camera. (Anastasia, Istiadi, and Hidayat, 2010).

Furthermore, the QR code can also practice learning media, easy to access using a smartphone. Along with the development of information needs, the link results from Google Sites can be converted into a Quick Response code (QR). QR code as a displacement of the barcode (code with two ways to scan the QR code and open the browser). The use of QR codes has a positive impact, including being able to motivate learning and affect learning outcomes, facilitate the interaction of educators with students, increase learning motivation so that learning changes become interactive and fun (Prihatiningtyas et al., 2022).

Research conducted by Desi, (2023), revealed that education has a strategic role in preparing graduates who meet the qualifications in accordance with 21st century skills, which include critical thinking and problem solving skills, communication and collaborative and creativity and discovery (Desy et al., 2023). Aransyah, (2023) The modern view in the 21st century era today causes the world to be increasingly complex with the support of the rapid development of science and technology, especially in communication and information media. Educators and students are required to be able to maximize and even develop technological media that are developing at this time, with the increasingly sophisticated learning media, it is hoped that educators and students will have innovation and creativity in the learning process (Aransyah, et. al, 2023), especially in seeing the development of democracy in Indonesia. Based on this explanation, this research aims to design digital media qr code in learning Pancasila and Citizenship Education for the election of anti-corruption education leaders as a form of transparency of democracy in learning the political system in Indonesia in terms of decreasing students' critical thinking skills, as well as a form of transparency of elections in Indonesia.

## **Research Method**

This research uses two approach methods, namely the literature study method. The reason for using literature review studies is to collect information related to developments that have similarities with the keywords in this study. Biomedcentral, Garuda Portal, and Google Scholar were used to search for journals. Full-text articles in English and Indonesian were used. Following the interpretation of the study's results in the form of a table, a review is conducted, which includes the research findings and objectives. These are then examined, compared, and conducted or critiqued as a guide for future development.

## **Result and Discussion**

The selection of literature review studies used amounted to 5 literature studies that have similarities with the research title as for the keywords used in this study, namely democratic transparency, learning qr code media, election of organization leaders. The following is the researcher's study:

Table 1 Literature Review Study

No	Author and year	Research Title	Research Results
1	Priyono, E., & Dihan, F. N. (2015, July).	E-Voting: The Urgency of Transparency and Accountability.	Research Findings One of the primary challenges in establishing a democratic party is creating a network system that enables the election itself to be transparent; in this sense, the advancement of digital technology and the internet allows elections to be conducted in a transparent and accountable manner; one of the real concepts that is relevant for the implementation of democracy in Indonesia is e-voting, which must be backed by electronic data collection through the digital ID card format that minimizes the occurrence of multiple voters; the geographical location of Indonesia is also crucial for the implementation of e-voting in order to conduct real-time online vote counting; the literature review on e-voting highlights the urgency of accountability and transparency systems to support the legitimacy of the results.
2	Darnawati, D., Rahayuni, R., & Maulia, S. T. (2024).	Democracy in the Digital Age.	The digital age presents both fresh opportunities and difficulties for democracies. Technological developments have changed how we obtain information, communicate, and engage in politics. These developments do, however, carry the potential of misinformation, online divisiveness, and dangers to data security and privacy. Governments, tech companies, civil society, and individuals must

No	Author and year	Research Title	Research Results
			work together to strengthen democracy in the digital era. Enhancing people's digital literacy, fortifying democratic institutions, and promoting inclusive and productive political engagement in the internet sphere are crucial first steps. To make sure that algorithms and corporate policies do not encourage the spread of misinformation or deepen polarization, social media platforms and other digital technologies also need to be subject to stricter regulation. Strengthening digital democracy also requires accountability and transparency. Information regarding the decision-making process in both government and IT corporations must be accessible to the public. In this sense, technology has the potential to strengthen rather than diminish democratic participation.
3	Da Silva Neto, V.J., & Chiarini, T. (2021).	Technological progress and the political system: non-institutional digital platforms and political transformation.	Our analysis shows that those two non-institutional platforms focus on the democratic deficit in Brazil and, in a sense, both seek to reshape the political landscape of the nation by establishing new avenues for political engagement and encouraging a shift in the political ethos. More precisely, they support constituent mobilization, truth-based advocacy, and direct digital democracy. However, both platforms continue to face obstacles in utilizing network externalities to their benefit, which are both political and



No	Author and year	Research Title	Research Results
			economic (both monetary and institutional). They represent a movement that believes it can change politics by creating new venues for technological mass mobilization, despite being founded on the digital services of a global oligopoly. The Big Five worldwide oligopoly serves as the foundation for and a source of strength for the most effective non-institutional digital venues for political involvement. We found preliminary evidence that suggests two key points in the relationship between digital platforms and democracy: (i) specific digital platforms for political participation face greater challenges in scaling up the number of users than general-purpose social networks.
4	Wahyudy, FI (2023).	Analysis of Transparency and Public Participation in the Selection Process of the Subdistrict Election Supervisory Committee at the Bandung City General Election Supervisory Board in 2022.	The study's findings demonstrate that a number of issues, most notably limited preparation time and funding assistance, continue to limit the Sub-district Panwaslu's selection process. Regarding transparency, the working group-supervised selection process appears to have shown some encouraging aspects, such as efforts to disseminate all selection outcomes via print and digital information sources. There is still room for improvement, particularly with regard to the distribution of applications and the 30% representation of women in all stages of the selection process, even though public participation in the registration of

No	Author and year	Research Title	Research Results
			candidates for Sub-District Panwaslu members far exceeded the goal..
5	Wahyudi, R., Syelly, R., & Laksana, I. (2023).	Design of Voter Data Collection Application in General Election Using QR Code.	This study on the creation of QR Code-based voter data collection applications for general elections was carried out in Limapuluh Kota Regency's Kenagarian Mungo Luak District. In order to support the election committee's work, this project intends to create a voter data gathering application system. Previously, the election committee collected election data manually or through bookkeeping. Applications created with the Visual Studio.net 2010 programming language and QR codes. SQL Server 2008 is the database that is utilized. The application's output was created as a resident election card with a QR Code already on it. When the general election is held, this card can be used to help with election recapitulation.

## Discussion

The goal of this research is to create digital content based on QR codes that may be utilized for citizenship education and Pancasila learning. It is anticipated that this media will facilitate simple access to election-related material and boost student involvement in the organization's head election. Students may quickly obtain pertinent information by employing QR Codes, which increases election process openness. A crucial component of democracy is transparency, which also applies to elections for organization chairs. This study demonstrates that all students can freely obtain information about the chairperson candidates and the election process through digital media that uses QR codes. This supports the claim that openness can boost public confidence in the democratic process and accountability.

Civics and Pancasila It is anticipated that education will enhance pupils' capacity for critical thought. Students are encouraged to take a more active role in knowledge analysis and selection by utilizing a digital-based learning system. According to this study, creative and engaging teaching strategies are required to counteract pupils' deteriorating critical thinking abilities.

The democratic order in Indonesia has undergone substantial changes as a result of the reform era. People's receptivity to knowledge and involvement in politics has increased. As



demanded by the post-reform society, this study highlights the significance of using information technology to promote accountability and transparency in elections.

A two-dimensional matrix code that can store up to thousands of alphanumeric characters is the standard definition of a QR code. The Barcode is a one-dimensional matrix that can only hold 20 integers, in contrast to the QR Code. That is the primary distinction between barcodes and QR codes. The Quick Response Code, or QR Code, is a two-dimensional barcode that was first introduced in 1994 by the Japanese company Denso Wave. Originally designed to collect inventory data for the manufacturing of automobile components, this type of barcode is currently utilized in many corporate service areas as well as for marketing and promotional purposes.

The ability of the QR Code to hold data both vertically and horizontally is one of its advantages. Nowadays, QR codes are extensively used in programs such as QR Code Readers and QR Code Generators, making it simple for anyone to generate information in the form of QR codes and access the information they are looking for simply by using a smartphone's camera to scan data. (Anastasia, Istiadi, and Hidayat, 2010).

The ability of the QR Code to hold a lot of data is one of its features. Theoretically, it can store up to 7089 maximum numeric characters, has a high density (100 times greater than linear symbol codes), and can read codes quickly. There are further benefits to QR codes in terms of functionality and performance. (Ariadi, 2011).

In this perspective, teachers now have a slightly different role. Students no longer get their knowledge from their teachers. The process of learning has evolved from "knowledge transfer" to a process of integrating concepts and knowledge. Teachers must create learning circumstances more intelligently. In order to effectively use constructivism, teachers are expected to be more innovative in their design of the learning experience. (Nia Siti Sunariah: 2014).

The use of QR codes in schools can have a considerable impact. First, more student engagement. Qr Code helps teachers interact with students and encourages students to learn more and in a concise manner. Second, Qr Code encourages changes in the teaching and learning experience to become an interactive and fun place to learn. Ciptaning and santoso, 2018, in stating that the discovery learning process with the help of Qr Code can bring improvement to the science process of students, which includes: 1) increased observation by 14.14%, 2) increased communication by 21.21% 3) increased classification by 10.11% and conclusions by 29, 3% (Agustini, 2021).

## **Conclusion**

This research shows that the application of QR Code-based digital media in learning Pancasila and Civics Education not only increases transparency in the election of the head of the organization, but also contributes to the development of students' critical thinking skills. By utilizing information technology, it is expected that the election process can be carried out in a more accountable and transparent manner, in line with the principles of democracy expected by Indonesian society.

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