Enhancing Democracy For The People of Iran Through Social Digital Innovation

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I. Abstract

This research aims to explore innovative solutions, platforms, and tools for enhancing the democray for the people of Iran by leveraging digital technologies. By examining the current state of digital democracy and considering potential future developments, this study seeks to provide actionable insights for both immediate implementation and long-term planning. The research addresses the unique cultural, social, and political context of Iran while drawing upon global best practices and emerging trends in digital democracy. Ultimately, this research aspires to promote a more inclusive, participatory, and responsive democratic environment in Iran. The project's open source, transparent, and accessible nature is maintained through its Github repository: https://github.com/oalee/os-digital-democracy-iran.

II. Introduction

The rapid advancement of digital communication technologies has significantly impacted political and social interactions in recent years. Digital democracy, a relatively new concept, has gained substantial traction as a form of democracy enabled by digital technologies. Characterized by the utilization of digital tools and platforms, digital democracy facilitates the democratic process and incorporates innovative approaches to democracy. This work investigates state-of-the-art digital democracy platforms and methodologies, providing digital democracy solutions tailored for the Iranian context. Furthermore, this research proposes an open-source, open-science methodology and platform for democratic writing that addresses the needs of the Iranian people.

III. Motivation

Democracy is essential for fostering inclusive and just societies. However, the people of Iran currently face a totalitarian regime that restricts their access to democratic processes. Digital democracy offers a potential solution by leveraging digital technologies to overcome the challenges posed by the current regime. For instance, the Mahsa Prism's democracy could be enhanced using the proposed methodology. This would involve open-sourcing the Mahsa Prism, increasing the transparency of the process, analyzing public opinions on social media, and establishing a question-and-answer platform to address the concerns of the Iranian people. Furthermore, research on digital democracy can contribute to the development of democratic processes in a future democratic Iran. This can be achieved by investigating the current state of digital democracy and proposing new solutions that align with the diverse cultural context of the Iranian people.

IV. Research Questions

This research project aims to address the following research questions:

1) What innovative digital democracy platforms and methodologies can be employed to facilitate democratic processes for the people of Iran in the present, considering their restricted access to democracy under the current regime?
2) How can digital democracy platforms and methodologies be adapted to ensure their effectiveness in the Iranian context, taking into account the unique cultural, social, and political landscape of the country?
3) In a future scenario where Iran transitions to a democratic system, what scientific methodologies and digital democracy solutions can be implemented to strengthen and sustain democratic processes in the country?

By addressing these research questions, the study aims to contribute to the understanding of digital democracy and its potential impact on the Iranian context, providing insights for the development and implementation of digital democracy solutions tailored to the needs and aspirations of the Iranian people under different political scenarios.

V. Background Information

A. Open Source

Open source is a development methodology that emphasizes collaboration, transparency, and community involvement [1]. This approach involves sharing software code, enabling individuals to view, modify, and distribute it, in contrast to proprietary or closed-source software, where the code remains inaccessible for such purposes [1]. Open source has been a driving force behind numerous technological advancements, including the development of the internet, which is largely built on open-source software such as Linux [1].

B. Open Science

Open science is the movement to make scientific research and its dissemination accessible to all levels of society, whether amateur or professional. It promotes transparency and accessibility of knowledge, fostering its development and sharing through collaborative networks. Open science encompasses various aspects, including open access to publications, open data, open-source software, and open educational resources [2].

Open Science Schools of Thought: There are five main schools of thought within open science, each emphasizing different aspects and motivations:

1) Democracy: This perspective asserts that scientific knowledge should be accessible to everyone, regardless of their social, economic, or professional background, as a matter of democratic principle [3].
2) Infrastructure: This view emphasizes the importance of providing open-source infrastructure and tools to facilitate collaboration and knowledge sharing among researchers and the wider public [3].
3) Pragmatic: The pragmatic school of thought focuses on the practical benefits of open science, such as increased efficiency, reproducibility, and accelerated scientific progress [3].
4) Public: This perspective is concerned with the accessibility of knowledge creation, aiming to increase public engagement with science and promote science literacy across society [3].
5) Measurement: This school of thought is focused on alternative impact measurement, considering new metrics to evaluate the success and impact of scientific research beyond traditional citation-based indicators [3].

C. Open Science and Education

Open science also extends to education, promoting open access to educational materials, resources, and courses, enabling more people to engage with scientific knowledge and research [4]. This approach encourages lifelong learning, scientific literacy, and public engagement with science, empowering individuals and communities to make informed decisions and contribute to the scientific process [3].

D. Transparency

Transparency is a critical aspect of democratic societies, as it ensures equitable access to information and prevents power monopolization through secrecy [5]. Modern technology advancements have enabled increased transparency in governmental affairs, leading to improved trust, accountability, and efficiency in public administration [6].

Governments can leverage contemporary technologies, such as live streaming and automatic transcription using AI, to enhance information access, citizen engagement, and decision-making accountability [7]. As technology evolves, it provides new opportunities for implementing transparency measures that further promote open governance and foster democratic values.

E. Deliberative Democracy

Deliberative democracy is a political theory that emphasizes the importance of well-informed and thoughtful discussions among citizens for making democratic decisions [8, 9]. Instead of simply counting individual preferences, this approach encourages people to actively participate in policy debates and evaluate the merits of various arguments [9]. This type of democracy is considered more inclusive and focused on achieving decisions that serve the common good [10].

In a deliberative democracy, citizens engage in rational and respectful conversations, taking into account different viewpoints and assessing the strengths and weaknesses of each perspective [11]. The goal is to reach an agreement or, at a minimum, to better understand the issues being discussed. These conversations can take place in different settings, such as public forums, town hall meetings, or online platforms [12].

The concept of deliberative democracy provides a valuable foundation for understanding how to promote effective political decision-making processes. To achieve this, it is essential to focus on the quality of the discussions, the diversity of participants, and their ability to make well-informed decisions [13].

F. Open Governace

The open government was proposed by an international organization called the OGP (Open Government Partnership). Open governance is adhering to open value and engaging with citizens to improve services, manage public resources, drive innovation and build safer communities. With the principle of transparency and open government, we will achieve prosperity, well-being and a society in line with human dignity in our own country and in an increasingly connected world. The four elements of an open government are:

1) Transparency: Politics is everyone's business, and the policy process should allow the public to have a clear understanding of "what's going on." Friends in the public sector may be worried whether there will be any problems if we let the outside world see the communications before it's finished. In fact, the earlier the information is provided, the easier it is for the public to understand what the public sector is preparing for, so that the public sector can save the effort and time of repeated communication and further reduce the communication burden.

2) Participation: In the process of policy formation, the public is given the opportunity to participate in discussions, express opinions, and even further influence the content of policy on topics of interest. As a result, while the public sector needs to spend more time building consensus, when the policy takes shape, it is less likely to be opposed by the public or totally objected.

3) Accountability: When the public has doubts about the process of policy formation, we can look back to see who does and what are the reasons

4) Inclusion: Public issues are broadly oriented. In the course of discussion of an issue, if the public sector is able to allow the various stakeholders who are directly affected by policy to fully voice their views and able to listen to their dialogues, it can collect as many views as possible so as to reduce the likelihood of policy errors.

G. Digital Democracy

Digital democracy refers to the application of digital technologies and the internet to enhance political participation, transparency, and accountability in democratic processes [14].

It encompasses a range of tools and practices, such as electronic voting, e-petitions, and digital platforms for public consultation and deliberation [15]. By leveraging digital technologies, digital democracy aims to make political processes more accessible, responsive, and efficient, thereby fostering a more inclusive and empowered citizenry [16].

Digital democracy can contribute to the deliberative democratic framework by providing new opportunities for citizens to access information, voice their opinions, and engage in discussions with others. Digital platforms can help overcome geographical barriers and increase the diversity of voices heard in political debates, promoting greater understanding of diverse perspectives [17]. However, digital democracy also presents challenges, such as the risk of misinformation, echo chambers, and online harassment, which can undermine the quality of deliberation.

When examining digital democracy in the context of deliberative democracy, researchers should explore the following aspects:

1) How can digital platforms be designed to encourage informed and respectful deliberation among citizens?
2) What are the effects of digital tools on the quality of public debate and decision-making processes?
3) How can digital technologies help bridge social and political divides and promote greater understanding of diverse perspectives?
4) What are the potential drawbacks of digital democracy, and how can they be mitigated to preserve the integrity of deliberative processes?

By addressing these questions, academic research on digital democracy can contribute to the development of digital tools and practices that better support deliberative democratic processes and foster more informed and inclusive political decision-making.

H. Civic Technology of Democracy

Civic technology, also known as civic tech, refers to the employment of technology to enhance the relationship between citizens and their governments, facilitate public participation, and promote democratic processes [18]. It encompasses the development of digital platforms, tools, and applications that empower citizens to voice their opinions, engage in decision-making, and hold governments accountable [19]. Examples of civic technology include online platforms for policy deliberation, participatory budgeting, and crowdsourcing solutions to local problems [20].

As articulated by Dr. Tsai Ing-Wen, the former President of Taiwan, the goal is to ”build a unified democracy, not hijacked by ideologies; an efficient democracy that responds to the demands of the environment; and a pragmatic democracy that will let people take care of each other’s feelings”

Civic technology constitutes a critical component of digital democracy, as it can help bridge the gap between citizens and their governments, fostering greater transparency, responsiveness, and collaboration in addressing societal challenges [21]. By leveraging civic technology, democratic processes can become more inclusive and effective, leading to improved public policies and services that reflect the needs and values of all citizens [18].

A case in point is the 1922 Citizen Hotline in Taiwan, which enables citizens to voice their opinions and concerns, provide feedback on government decision-making, and report issues related to public services. During the COVID-19 pandemic, a child called the hotline to complain about receiving a pink mask and expressed embarrassment at having to wear it due to gender stereotypes. In response, hospitals and government officials announced that they would begin using pink masks, challenging gender stereotypes and promoting social innovation.

I. Safeguarding Technology Integration in a Modern World

As technology advances at an exponential rate, it is crucial to strategically integrate it into our lives without allowing it to dominate our existence. One effective approach to achieve this balance is by implementing a systematic trial and error process, as demonstrated by Taiwan’s Smart City initiative. This innovative sandbox system allows for the testing and evaluation of new ideas and technologies, such as robotics, whose implications are yet to be fully understood.

By temporarily relaxing regulations and monitoring the impact of these innovations over a one-year trial period, Taiwan gains valuable insights into how new technologies can be safely integrated with their legal framework and the lives of their citizens. This method fosters a controlled environment for innovation and technological advancement, ensuring a secure path towards the future for our species.

Iran can take inspiration from Taiwan’s Smart City model to develop multiple smart cities tailored to the unique needs and characteristics of its various regions or ethnicities. This approach not only encourages investment and capital growth but also offers opportunities for cutting-edge research in areas that would otherwise remain unexplored. By adopting a similar system, Iran can ensure safe technological integration while promoting innovation and progress in the modern world.

VI. Related Work

A. Pol.is

A digital democracy widely used tool is pol.is. Pol.is is a social media platform equivalent to a town hall. In contrast, other social media platforms could be viewed as nightclubs and bars where people shout, fight, scream and the extreme ends of society are highlighted. Pol.is is a platform where people can participate in deliberation and rational discussions, synthesize solutions and reach consensus. With social innovation and deliberative digital democracy platforms, even with controversial and polarized subjects people can reach consensus.

B. vTaiwan

Digital democracy in Taiwan was started in 2014. This initiative is called vTaiwan and the “v” stands for “vision”, “voice”, “vote” and “virtual”. The participatory and deliberative democracy process in Taiwan has four stages and it is

based on the focus conversation method. In the first stage, issues are identified, and then people's facts, objectives, and experiences about the issues are collected. In the second stage, people's feelings about objectives and statements are collected. In the third stage, after people converge on sets of feelings that resonate with everyone, ideas on how to address them are collected. In the fourth state, the idea that is consensus is translated into legalese and signed into law. At each stage transition to the next one is done when a rough consensus is formed.

C. Public Digital Innovation Space

PDIS, or Public Digital Innovation Space, is a public innovation lab that has emerged as a leading force in promoting digital democracy and social innovation in Taiwan. PDIS seeks to foster collaboration and co-creation among citizens, government agencies, and civic groups to develop innovative solutions to public problems. In line with a human-centered design approach, PDIS places citizens' needs and experiences at the forefront of its innovation efforts. Its various initiatives, such as the Social Innovation Action Plan and the Digital Social Innovation Hackathon, are aimed at empowering citizens to participate in decision-making processes and develop innovative solutions that meet the needs of their communities.

VII. Methodology

The methodology employed in this research is a collaborative, data-driven approach that embraces open-source and open-science principles.

A. Open Source Open Science Methodology

This study adopts an open source open science methodology that combines both principles to promote transparency, reproducibility, and collaboration in research. The methodology emphasizes sharing of privacy aware data, tools, and results through open-source platforms such as Git, thereby enhancing collaboration, transparency and reproduciliy of this work. To ensure the rigor and validity of the research, the open source open science methodology also involves open peer review and open collaboration and platforms for analyzing public opinion such as open question answers. Experts in the field will be invited to review and provide feedback on the work, while collaboration with other researchers and stakeholders will be encouraged. This will enable a more comprehensive and diverse evaluation of the research, and contribute to enhancing its validity and generalizability.

B. Dissmination of Knowledge

The dissemination of research findings is also a critical aspect of the open source open science methodology. This will include publishing articles in open access journals, making presentations at conferences, and sharing results and data through social media and other online platforms. The aim is to make the research findings widely accessible and understandable, even to those without a technical background. To achieve this, the methodology includes the dissemination of knowledge at various levels of complexity, ranging from academic publications to online articles and videos with a more accessible language. This dissemination potencially can enable a wider audience regarless of their educational background, including children, to understand the significance and implications of the research.

C. Research Plan

This research plan is grounded in empirical data. The first step involves gathering data on research questions to determine their relevance to people in Iran. Public opinion will be analyzed, and the plan refined accordingly. The next step is to release open resumes of the applications of this assembly and analyze the data to further refine the plan. By using a collaborative, data-driven approach, this research aims to produce results that are relevant, transparent, and replicable.

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