E-voting Adoption in Many Countries: A Literature Review

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Review

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Abstract
Although the number of countries that have adopted e-voting has decreased lately, the number of academic publications on e-voting adoption has increased in the last two years. To date, there is no coherent narrative in the existing literature that explains the progress of the research on e-voting adoption. This article aims to answer the following research question: "How has research on the topic of e-voting adoption progressed over the last 15 years?" The article provides a semi-systematic review of 78 studies that were conducted from 2005 to 2020. In this article, I argue that although the studies on e-voting adoption are dominated by a single case study, by research in the United States, and by the positivist paradigm, scholars have employed the term "e-voting adoption" diversely and the research on e-voting adoption has evolved to address more specific research questions. Recommendations for the future agenda of research on e-voting adoption are also discussed.

Keywords
e-voting adoption, literature review, semi-systematic review

Introduction

Electronic voting[1] (e-voting) is a method of voting that is different from manual voting because in an election with e-voting the voters cast their votes by employing electronic devices. Despite having several drawbacks (for example, secrecy and security), e-voting has several strengths over manual voting, such as its accuracy (Pan et al., 2012) and the reduction in time to count the results (Musa

1. "E-voting" is an abbreviation of "electronic voting." In this article, e-voting is defined as the use of electronic devices to vote with a machine, a computer, or the internet.

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and Aliyu, 2013). Moreover, with the risks of conducting elections with manual voting in difficult times, such as during the Covid-19 pandemic, Rosacker and Rosacker (2020) suggest the employment of e-voting to ensure the right of people to vote. Rosacker and Rosacker (2020) add that usage of e-voting aligns with the worldwide use of cellular phones. Therefore, researching e-voting adoption is crucial to capture the phenomenon of e-voting as the current and potential future major mode of voting in the changing world and societies.

Furthermore, two contrasting phenomena exist, where some countries in Europe (for example, the United Kingdom, the Netherlands, and Norway) have abandoned e-voting, whereas some countries in Asia (i.e. Jordan, the Philippines, and India) have adopted it for their elections. In general, the number of countries that have adopted e-voting has decreased from 43 countries in 2010 (ACE Project, cited in Darmawan et al., 2014) to 33 countries in 2019 (International IDEA, 2019). Despite the decreasing trend when it comes to e-voting adoption, the number of academic publications on the topic of e-voting adoption[2] has increased in the last two years from one journal article in 2019 to 14 journal articles in 2020. The increasing interest in the study on e-voting adoption reflects an urgency to provide insights on the existing studies as well as ideas for further research for researchers on e-voting adoption. In other words, this article is important to facilitate the development of the research on e-voting adoption.

Concerning the need for a review on e-voting adoption, scholars from various fields—political science, public policy, and public administration—are addressing queries about e-voting adoption. These scholars address the topic from divergent viewpoints with extensively different methods and publish their findings in the academic outlets of their varied fields. This produces mixed and diverse findings on the topic. To date, there is no coherent narrative in the existing literature that explains the development and progress of the research on e-voting adoption. There is a study on reviewing e-voting adoption by Gibson et al. (2016) that focuses only on internet voting, whereas the current article includes both practices: internet and traditional e-voting. The inexistence of an academic publication that reviews both types of e-voting might have led the review by Gibson et al. (2016) to become biased and incomplete. Furthermore, the body of research on e-voting adoption mainly consists of isolated case studies. To the best of my knowledge, this article is the first comparative study reviewing the existing literature on e-voting adoption. In other words, this literature review contributes to filling this lacuna by offering scholars an overview of the research on e-voting.

This article focuses on reviewing the literature on e-voting adoption from many countries in order to apprehend the diversity of the adoption of e-voting in various case studies. For example, it can answer the questions that could not be answered if so many countries were not included, such as "Is the publication of research on e-voting adoption dominated by case studies on a certain country or region?" or "Which countries or regions in the world need attention from scholars on e-voting adoption as potential cases for future research?" In addition to that, the inclusion of many countries aligns with the goal of this article in providing elaboration on the progress of research on e-voting adoption over the last 15 years.

This article aims to answer the following research question: "How has research on the topic of e-voting adoption progressed over the last 15 years?" It argues that although studies on e-voting adoption are dominated by a single case study, by research in the United States, and by the positivist

2. In this article, e-voting adoption includes two scopes. First, e-voting adoption is the employment of e-voting as the method to cast a vote by the election management body in an election using one or more devices. Second, it is the intention of individuals to use e-voting in elections. The scope of elections can be national, local, rural, or even campus.

paradigm, scholars have employed the term "e-voting adoption" diversely, and its research has evolved to address more specific research questions. This account is important for studies on e-voting adoption to capture the existing research and to advance from its prevailing selected case studies, addressed research questions, and employed paradigm. This article offers an overview and pivotal discussion of the selected cases, the ongoing research agenda, and the philosophical traditions found in the literature so that prospective scholars can extend the research on e-voting adoption.

The article includes a semi-systematic review of 78 studies from four sources (Google Scholar, ACM Digital Library, Science Direct, and J-STOR), researching e-voting adoption, followed by a discussion of the future research agenda (see Figure 1 for details). The publications are selected because they are part of Scopus indexed journals ranging from 2005 to 2020, and the journals are

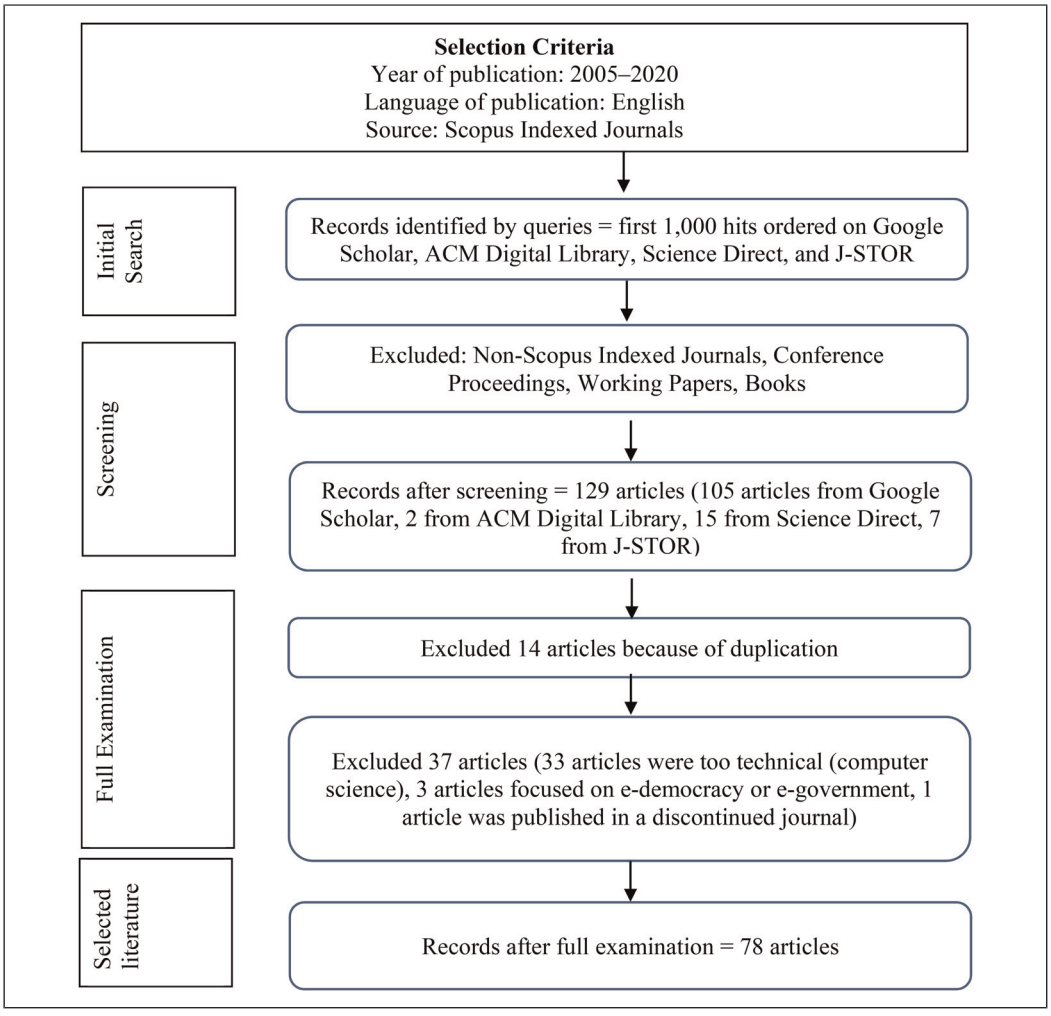

Figure 1. Selection of literature.

not categorized as discontinued journals by Scopus. Besides this, they are not too technical as they do not fall into the category of journals of computer science. Furthermore, although usage of the term "e-voting adoption" varies across journal articles, the selected articles focus only on e-voting adoption and do not explore other terms such as "e-government" or "e-democracy."

This article will proceed as follows. The second section will elaborate on the methods of this literature review. The third section will explain the review results. The fourth section will elaborate on the conclusion and provide recommendations.

Methods

This review follows the best guidance for conducting a literature review from Snyder (2019). The process of research started from "designing the review" (Snyder, 2019: 336), where one of the activities was to explain the reasons behind conducting a literature review on the topic of e-voting adoption. Besides that, in this phase, one important step is to determine which type of literature review is the best to produce the greatest possible contribution on this topic (Snyder, 2019: 336). As mentioned before, this review chose a semi-systematic review type because it fits with the purpose. As there are no existing reviews on the chosen topic, publishing one would be beneficial for scholars who are interested in this topic. This review's research question has led to the search term "Factors that are associated with e-voting adoption." This search term was chosen because it is not too broad, such as "e-voting adoption," and not too specific, such as "the impact of e-voting adoption on voter turnout." The search term is also open to two possibilities: e-voting adoption as a cause or e-voting adoption as the result of a cause.

The second phase is "conducting the literature review" (Snyder, 2019: 337). In this phase, the steps are: examining "whether the search plan developed in phase one works or needs adjustment," elaborating "the practical plan for selecting articles," and determining "how the search process and selection will be documented" (Snyder, 2019: 337). There are four search engines used in this review: Google Scholar, ACM Digital Library, Science Direct, and J-STOR. Google Scholar was selected because it could provide huge numbers of publications related to the search term. ACM Digital Library is one of the most trusted and specific search engines for the topic of e-voting adoption. Science Direct and J-STOR were selected because they are well-known academic search engines that are more specific on journal articles than Google Scholar.[3] The inclusion and exclusion processes consist of several criteria: they must be journal articles, must be written in English, and must be published within 2005 and 2020 in the Scopus indexed journals. While collecting the related journal articles, I looked at the title and the abstract of every article. If the selected article explained the factors that are associated with e-voting adoption in the title and/or abstract, the article was pulled onto a table. In the first screening process, there were 129 selected articles. The next phase was a full examination where the duplication of journal articles' titles was checked. Fourteen articles were found in this category using two search engines, and they were excluded. In addition, I also excluded 37 articles because: they were too technical (computer science articles), they focused on e-democracy or e-government and not on e-voting adoption, or the journal had been discontinued by Scopus. In the final selection, there were 78 selected journal articles to be included in the next steps of the review (Figure 2).

3. To ensure the transparency of the review process, the screenshots of the four search engines are included (see Appendix). See Supplementary File for the articles included and excluded from the selection process.

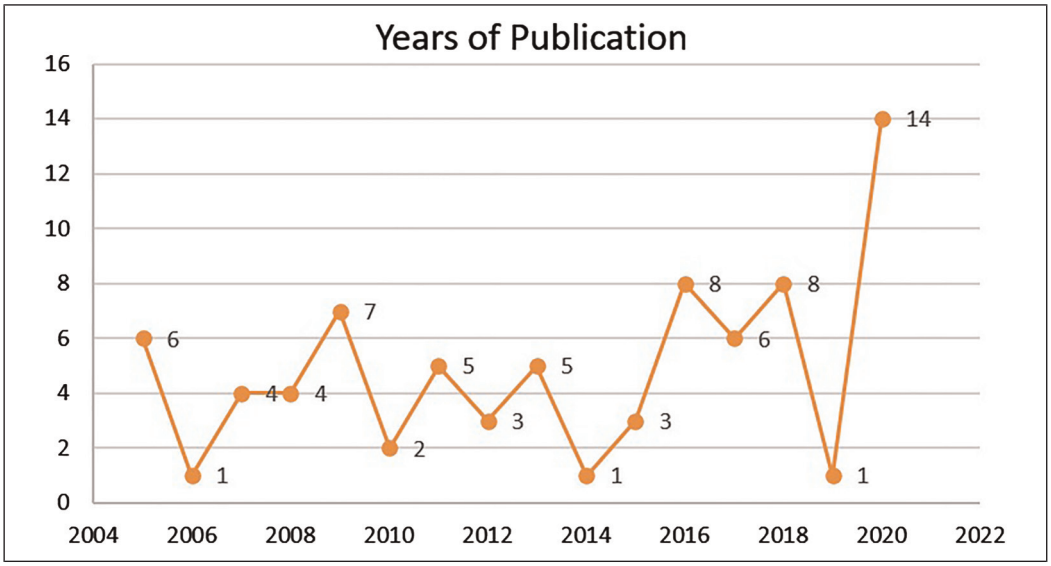

Figure 2. Publication years of selected literature.

The third phase is the "analysis" (Snyder, 2019: 337). The selected literature is classified into several categories: year of publication, case study (country or countries), terms used by the author(s) for e-voting adoption, and research questions. These categories are aligned with the purposes of this article: to overview the development of e-voting adoption and to provide suggestions for further research agenda on e-voting adoption for researchers.

The last phase of this review was "writing the review" (Snyder, 2019: 337). This comprised checking whether the content had been "clearly communicated" (Snyder, 2019: 337). It also included a detailed explanation of how the review was conducted and elaboration on its contribution to the existing literature (Snyder, 2019: 337).

The research employed a qualitative approach, especially a semi-systematic review (Snyder, 2019: 335). This method aligns with the purpose of this research: to overview the topic of e-voting adoption within the last 15 years. The quantitative method does not fit with this article's goals because the meta-narrative review only centers attention on measuring the effect (Snyder, 2019: 335) of e-voting adoption on other factors or measuring the effect of certain factors on e-voting adoption, and this paper is broader than that goal.

Results

The number of publications on the topic of e-voting adoption within the last 15 years is fluctuating. Over 15 years, the number of publications tended to shift. For example, in 2005, there were six published articles, and in 2006, the publication went down to only one article. However, it went up again in 2007 with four articles. In addition to that, there was a relatively huge gap in the number of publications between the lowest and the highest publication number in a year. The lowest number was one article being published, and this occurred in 2006, 2014, and 2019. The highest number of published articles was 14 articles in 2020.

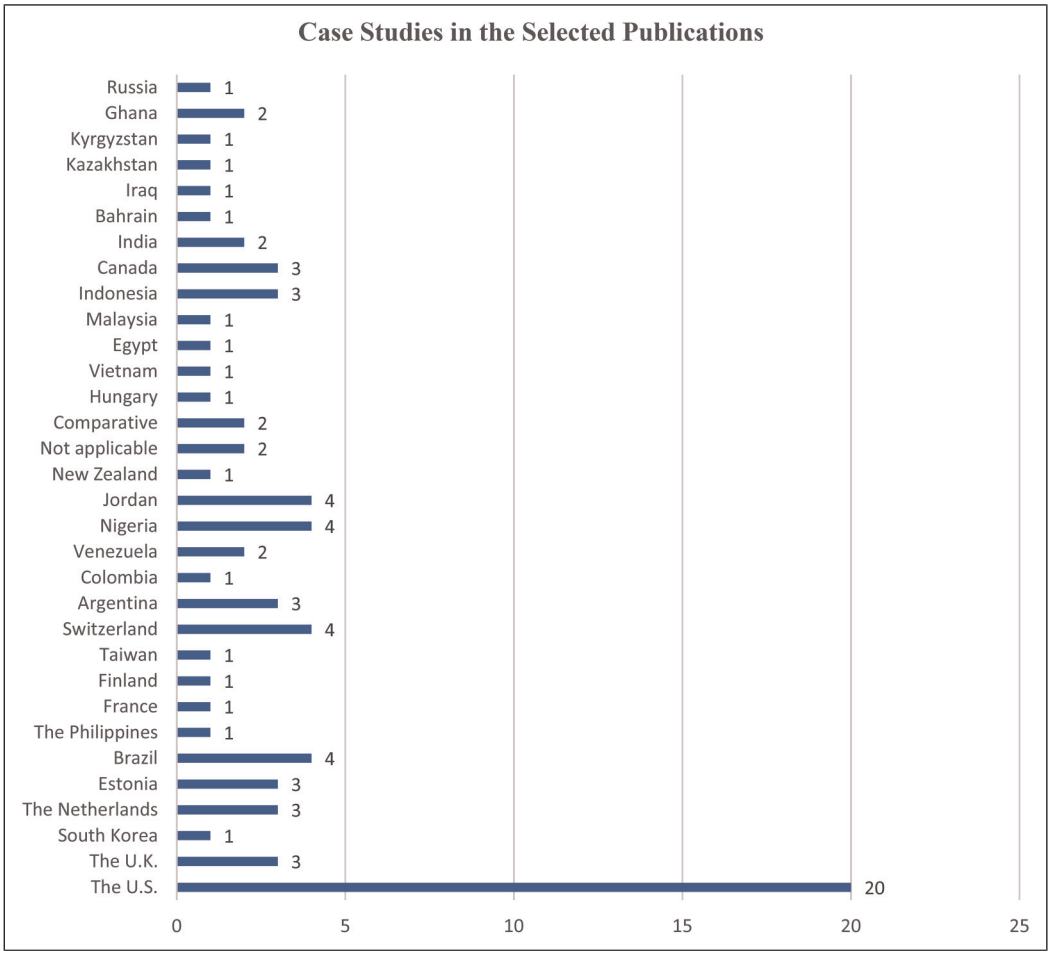

Figure 3. Case studies in the selected publications.

In total, 31 countries were researched by the selected authors. The case studies on the United States dominate the selected group, with 20 journal articles. The second most-researched countries are Jordan, Nigeria, Switzerland, and Brazil, with four articles for each country. The rest of the articles' case studies were selected within the range of one to three times (Figure 3). In addition to that, the research on e-voting adoption is dominated by a single case study with 71 journal articles (91%). The remaining publications are categorized as comparing two or three countries, comparative studies, and "not applicable"[4] (Figure 3).

4. Three articles compare two or three countries. Also, two articles compare more than three countries so that they are categorized as "comparative." When an article compares more than three countries, the selected case studies in this article are not counted along with others but separately as a part of the comparative category. Besides that, there are two articles categorized as "not applicable" because these articles are review articles.

Table 1. Countries categorized by their continents.

Continent	Number of countries	Countries
Asia	11	Kyrgyzstan, Iraq, Bahrain, India, Indonesia, Malaysia, Vietnam, Jordan, Taiwan, the Philippines, South Korea
Europe	8	Russia, Hungary, Switzerland, Finland, France, Estonia, the Netherlands, the United Kingdom
America	6	Canada, Venezuela, Colombia, Argentina, Brazil, the United States
Africa	3	Ghana, Egypt, Nigeria
Australia	1	New Zealand

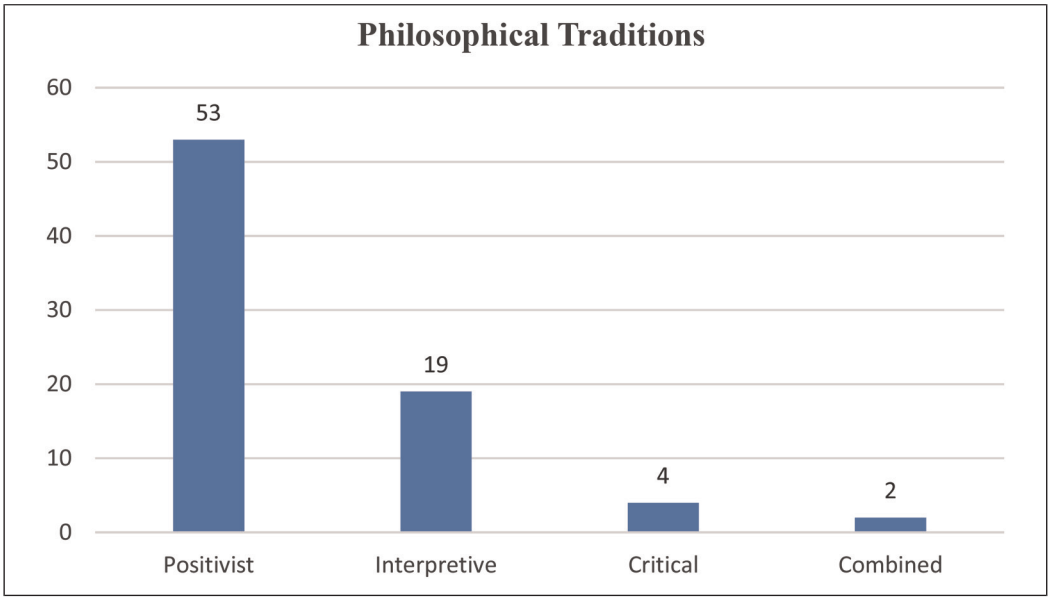

Figure 4. Philosophical traditions.

Interestingly, although the articles on e-voting adoption in the United States dominate the interests of the scholars, most of the selected cases are not from the countries in the American continent but from the continent of Asia. There are 11 countries from the group of the Asian continent. The second-largest number of selected case studies is from the countries in the European continent, with eight countries. The continent with the lowest number of selected countries as a case study is the Australian continent, with only one country: New Zealand (Table 1).

In terms of the philosophical traditions, the selected publication is dominated by the positivist paradigm,[5] with 53 articles (67%). The second-largest philosophical tradition is interpretive,

5. In this article, I follow the definition of three paradigms by Ryan (2018). See Ryan (2018) for a detailed explanation of these three paradigms.

Table 2. Various usages of e-voting adoption term in the selected publications.

E-voting adoption by election management body	E-voting adoption by individuals
"introduction of e-voting"	"intention to use e-voting"
"voting equipment choice"	"preference on remote e-voting"
"changing voting technology"	"the premises of e-voting"
"e-voting technology"	"voters' preferences for voting machines"
"voting technology"	"REVS participation intention"
"moving from the paper ballot to e-voting"	"voting technology"
"electoral modernization"	"type of voting methods used"
"data transmission of voting machines"	"moving from paper ballot to e-voting"
"changes in voting technologies"	"e-votes"
"election technologies"	"e-voting system"
"online voting platform"	"e-voting intent"
"vote electronique"	"internet voting adoption"
"remote-access voting"	"e-voting adoption success"
	"intention to use mobile voting"
	"IT-mediated election"
	"replacing voting technology"
	"online voting"
	"internet voting"
	"e-voting diffusion"
	"intent to use e-voting"
	"intention to use mobile voting"
	"campus e-voting"
	"electronic voting technologies"
	"i-voting"
	"e-voting machines"

with 19 articles (24%). Critical philosophical tradition is in third place for the number of paradigms employed by the authors. Among all articles, two articles combine more than one philosophical tradition (Figure 4).

The topic of e-voting adoption has developed within the last 15 years and the term has been used and interpreted diversely by many authors. In the group of studies that focus on e-voting adoption by the election management body, terms such as "introduction of e-voting," "voting equipment choice," "changing voting technology" are used. In total, there are 13 terms within this group. In the second group of publications, centering on e-voting adoption by individuals, there are 25 terms used by the authors, ranging from "intention to use e-voting" to "preference on remote e-voting" to "the premises of e-voting" (Table 2).

Eight types of research questions were included in the selected publications. The first type of question asks about the effect of e-voting adoption on other factors. In this type, e-voting adoption becomes an independent variable. The examples include those articles that study the impact of e-voting adoption on voter turnout (Roseman and Stephenson, 2005) and the articulation of preferences and opinions by citizens (Oostven and van de Besselaar, 2005). The second question type is related to the factors that affect e-voting adoption. While the first question type shows e-voting as an independent variable, this second type treats e-voting adoption as a dependent variable. Two examples of articles within this category are Schaupp and Carter (2005) and Lippert and Ojumu (2008).

The first two categories of questions are the "traditional ways"[6] of addressing e-voting adoption. The other six types of questions vary from them. The first question in this category is the effects of the characteristics of e-voting. This question is more specific than only questioning the effect of e-voting adoption. It is inferred here that all the different characteristics of e-voting adoption might affect each other. The article in this category is Yao and Murphy (2007). The second question type is about comparing e-voting and traditional voting methods. Prevost and Schaffner (2008) tried to resolve their study under this category. The third question type focuses on the perception of e-voting adoption. This type also targets more specific parts of e-voting adoption. An example of an article in this category is that by Carter and Campbell (2012). The fourth question type explores the challenges of adopting e-voting. One of the examples of publication in this category is that by Al-Khasawneh and Obeidallah (2014). The next question type is the query on individual preferences on e-voting adoption. This category is quite similar to the question on the perception of e-voting adoption because they both look at what individuals think about this topic. This category comprises the article by De Jong et al. (2008). The last category of questions is concerned with factors that affect e-voting adoption rejection; Kassen's (2020) study falls within this category.

Discussion

This review has shown that there was a domination of a single case study (especially the case of the United States) and the positivist paradigm in the literature on e-voting adoption. These biases reflect that there is a need to expand the study of e-voting adoption with the employment of comparative case studies and other country cases outside the United States and the usage of other paradigms (interpretive and critical theory). For example, following how Xenakis and Machintosh (2005) see the problem of e-voting adoption, it is plausible that scholars on e-voting adoption examine the lack of trust factor (either from the perspective of interpretive or critical theory) that could explain the decision of other countries (for example, Norway and the Netherlands) to abandon the practice of e-voting in their national elections. Another possible alternative is to address the question of to what extent the adoption of e-voting enhances political participation in other countries outside South Korea (for example, India or the Philippines). The questions could be: What are the factors that can explain the possibility of e-voting adoption enhancing political participation in the case of India or the Philippines? Could the findings in the case of South Korea be used to explain the case of India or the Philippines? A deeper and more critical analysis of to what extent e-voting adoption is influential in affecting voter turnout in many other countries might be more interesting than only examining whether or not e-voting adoption increases voter turnout as has been done by the positivists.

Despite the bias issue in the existing literature on e-voting adoption, there are at least two "good news" or advancements that this study found. First is the diversity in the employment of the e-voting adoption term. There are two possible categories of how the e-voting adoption term has been used: e-voting adoption by the election management body and e-voting adoption by individuals. In the first category, the term can be broad (for example, "electoral modernization" (Kimura, 2009)) or narrow ("online voting platform" (Schlaufer, 2020)). On the contrary, in the

6. Traditional ways mean that the researchers address the simple questions on e-voting adoption either as an independent variable or a dependent variable. The non-traditional ways include the questions that have evolved more than just simply about e-voting adoption, having more complex ideas such as perception and rejection of e-voting adoption.

Table 3. Articles categorized by research questions.

No.	Categories	Research questions	Journal articles
1	Traditional way	The effect of e-voting adoption	Houston et al. (2005); Oostven and van de Besselaar (2005); Roseman and Stephenson (2005); Choi (2006); Card and Moretti (2007); Dee (2007); Stein et al. (2008); Alters and Kooreman (2009); Avgerou et al. (2009); Alvarez et al. (2011); Katz et al. (2011); Martin (2011); Stewart III (2011); Vassil and Weber (2011); Powell et al. (2012); Alvarez et al. (2013); Fujiwara (2015); Nemeslaki et al. (2016); Zucco and Nicolau (2016); Germann and Serdult (2017); Goodman and Stokes (2018); Goodman et al. (2018); Rosacker and Rosacker (2020)
2	Traditional way	Factors that affect e-voting adoption	Garner and Spolaore (2005); Schaupp and Carter (2005); Lippert and Ojumu (2008); Chiang (2009); Choi and Kim (2012); Jaradat (2013); Salimonu et al. (2013); Ahmad et al. (2015); Alomari (2016); Dolatabadi (2016); Gibson et al. (2016); Van et al. (2016); Adeshina and Ojo (2017); Alvarez et al. (2018); Anagreh and Abu-Shanab (2017); Eraky (2017); Al-Khakani and Hassan (2018); Cauchan et al. (2018); Warkentin et al. (2018); Agbesi (2020); Chotim and Pramanti (2020); Loeber (2020); Mensah (2020); Omotayo and Adekunle (2020); Reiners (2020); Schlaufer (2020); Sharma (2020); Zhu et al. (2020)
3	Non-traditional way	The effects of the characteristics of e-voting	Xenakis and Machintosh (2005); Yao and Murphy (2007); Avgerou (2013)
4	Non-traditional way	The comparison between e-voting and traditional voting method	Prevost and Schaffner (2008)
5	Non-traditional way	Perception on e-voting adoption	Oostven and van de Besselaar (2009); Carter and Campbell (2012); Alvarez et al. (2013); Crothers (2015); Vassil et al. (2016); Mendez and Serdult (2017); Suki and Suki (2017); Ali and Mubarak (2018); Avgerou et al. (2019)
6	Non-traditional way	The challenges of adopting e-voting	Smith (2007); Charles (2009); Kimura (2009); Mendez (2010); Oostven (2010); Al-Khasawneh and Obeidallah (2014); Machin-Mastromattero (2016); Lubis and Lubis (2018); Essex and Goodman (2020); Risnanto et al. (2020); Sheranova (2020)
7	Non-traditional way	Individual preferences on e-voting adoption	De Jong et al. (2008); Alvarez et al. (2009)
8	Non-traditional way	Factors that affect e-voting adoption rejection	Kassen (2020)

Table 4. List of the selected literature.

No.	Year	Author(s)	Articles' title	Journal
1	2005	Xenakis and Machintosh	Trust analysis of the UK e-voting pilots	*Social Science Computer Review*
2	2005	Schaupp and Carter	E-voting: From apathy to adoption	*Journal of Enterprise Information Management*
3	2005	Garner and Spolaore	Why chads? Determinants of voting equipment use in the United States	*Public Choice*
4	2005	Roseman Jr. and Stephenson	The effect of voting technology on voter turnout: Do computers scare the elderly?	*Public Choice*
5	2005	Oostven and van de Besselaar	Trust, identity, and the effects of voting technologies on voting behavior	*Social Science Computer Review*
6	2005	Houston, Yao, Okoli and Watson	Will remote electronic voting systems increase participation?	*Electronic Government, an International Journal*
7	2006	Choi	Deliberative democracy, rational participation and e-voting in South Korea	*Asian Journal of Political Science*
8	2007	Smith	Securing e-voting as a legitimate option for e-governance	*Electronic Government, an International Journal*
9	2007	Dee	Technology and voter intent: Evidence from the California recall election	*The Review of Economics and Statistics*
10	2007	Card and Moretti	Does voting technology affect election outcomes? Touch-screen voting and the 2004 Presidential Election	*The Review of Economics and Statistics*
11	2007	Yao and Murphy	Remote electronic voting systems: An exploration of voters' perceptions and intention to use	*European Journal of Information Systems*
12	2008	De Jong, van Hoof, and Goosselt	Voters' perceptions of voting technology: Paper ballots versus voting machine with and without paper audit trail	*Social Science Computer Review*
13	2008	Stein, Vonnahme, Bryne and Wallach	Voting technology, election administration, and voter performance	*Election Law Journal: Rules, Politics, and Policy*
14	2008	Prevost and Schaffner	Digital divide or just another absentee ballot? Evaluating internet voting in the 2004 Michigan Democratic Primary	*American Politics Research*
15	2008	Lippert and Ojumu	Thinking outside of the ballot box: Examining public trust in e-voting technology	*Journal of Organizational and End User Computing*

(continued)

Table 4. (continued)

No.	Year	Author(s)	Articles' title	Journal
16	2009	Alters and Kooreman	More evidence of the effects of voting technology on election outcomes	*Public Choice*
17	2009	Alvarez, Hall and Trechsel	Internet voting in comparative perspective: The case of Estonia	*PS: Political Science and Politics*
18	2009	Avgerou, Ganzaroli, Poulymenakou and Reinhard	Interpreting the trustworthiness of government mediated by information and communication technology: Lessons from electronic voting in Brazil	*Information Technology for Development*
19	2009	Kimura	The information and communication technology and electoral modernization: Lessons from the Philippines	*Philippine Political Science Journal*
20	2009	Oostven and van de Besselaar	Users' experiences with e-voting: A comparative case study	*International Journal of Electronic Governance*
21	2009	Chiang	Trust and security in the e-voting systems	*Electronic Government, an International Journal*
22	2009	Charles	The electronic state: Estonia's new media revolution	*Journal of Contemporary European Research*
23	2010	Oostven	Outsourcing democracy: Losing control of e-voting in the Netherlands	*Policy and Internet*
24	2010	Mendez	Elections and the internet: On the difficulties of 'upgrading' elections in the digital era	*Representation*
25	2011	Alvarez, Katz and Pomares	The impact of new technologies on voter confidence in Latin America: Evidence from e-voting experiments in Argentina and Colombia	*Journal of Information Technology & Politics*
26	2011	Martin	Venezuelan presidential recall referendum (2004 PRR): A statistical analysis from the point of view of electronic voting data transmissions	*Statistical Science*
27	2011	Vassil and Weber	A bottleneck model of e-voting: Why technology fails to boost turnout	*New Media and Society*
28	2011	Katz, Alvarez, Calvo, Escolar and Pomares	Assessing the impact of alternative voting technologies on multi-party elections: Design features, heuristic processing and voter choice	*Political Behavior*
29	2011	Stewart III	Voting technologies	*Annual Review of Political Science*

(continued)

Table 4. (continued)

No.	Year	Author(s)	Articles' title	Journal
30	2012	Choi and Kim	Voter intention to use e-voting technologies: Security, technology acceptance, election type, and political ideology	*Journal of Information Technology & Politics*
31	2012	Powell, Williams, Bock, Doellman and Allen	E-voting intent: A comparison of young and elderly voters	*Government Information Quarterly*
32	2012	Carter and Campbell	Internet voting usefulness: An empirical analysis of trust, convenience and accessibility	*Journal of Organizational and End User Computing*
33	2013	Salimonu, Osman, Shittu and Jimoh	Adoption of e-voting system in Nigeria: A conceptual framework	*International Journal of Applied Information Systems (IJAIS)*
34	2013	Alvarez, Beckett and Stewart III	Voting technology, vote by mail, and residual votes in California, 1990–2010	*Political Research Quarterly*
35	2013	Jaradat	Applying the technology acceptance model to the introduction of mobile voting	*International Journal Mobile Learning and Organisation*
36	2013	Avgerou	Explaining trust in IT-mediated elections: A case study of e-voting in Brazil	*Journal of the Association for Information Systems*
37	2013	Alvarez, Levin, Pomares and Leiras	Voting made safe and easy: The impact of e-voting on citizen perceptions	*Political Science Research and Methods*
38	2014	Al-Khasawneh and Obeidallah	Challenges to the successful implementation of online voting for e-democracy in developing countries' initiatives: Jordan as a case study	*International Journal of Sociotechnology and Knowledge Development*
39	2015	Fujiwara	Voting technology, political responsiveness, and infant health: Evidence from Brazil	*Econometrica*
40	2015	Crothers	Using the internet in New Zealand elections and support for e-voting	*Political Science*
41	2015	Ahmad, Abdullah and Arshad	Participation and voting policy process in Nigeria: A qualitative study	*Mediterranean Journal of Social Sciences*
42	2016	Machin-Mastromatteo	The most 'perfect' voting system in the world	*Information Development*
43	2016	Alomari	E-voting adoption in a developing country	*Transforming Government: People, Process, and Policy*
44	2016	Vassil, Solvak, Vinkel, et al.	The diffusion of internet voting: Usage patterns of internet voting	*Government Information Quarterly*

(continued)

Table 4. (continued)

No.	Year	Author(s)	Articles' title	Journal
			in Estonia between 2005 and 2015	
45	2016	Gibson, Krimmer, Teague, and Pomares	A review of e-voting: The past, present, and future	*Annals of Telecommunications*
46	2016	Nemeslaki, Aranyossy and Sasvari	Could on-line voting boost desire to vote? Technology acceptance perceptions of young Hungarian citizens	*Government Information Quarterly*
47	2016	Dolatabadi	Towards a comprehensive conceptualisation of e-voting adoption: A theoretical perspective	*International Journal of Technology, Policy and Management*
48	2016	Van, Kim, Sa, Kim and Gim	The factors affecting user behavior on mobile voting in Vietnam	*International Journal of Multimedia and Ubiquitous Engineering*
49	2016	Zucco Jr. and Nicolau	Trading old errors for new errors? The impact of electronic voting technology on party label votes in Brazil	*Electoral Studies*
50	2017	Anagreh and Abu-Shanab	Voter's intention to use electronic voting systems	*International Journal of E-Business Research*
51	2017	Germann and Serdult	Internet voting and turnout: Evidence from Switzerland	*Electoral Studies*
52	2017	Eraky	E-voting implementation in Egypt	*Journal of Contemporary Eastern Asia*
53	2017	Suki and Suki	Decision-making and satisfaction in campus e-voting: Moderating effect of trust in the system	*Journal of Enterprise Information Management*
54	2017	Mendez and Serdult	What drives fidelity to internet voting? Evidence from the roll-out of internet voting in Switzerland	*Government Information Quarterly*
55	2017	Adeshina and Ojo	Factors for e-voting adoption: Analysis of general elections in Nigeria	*Government Information Quarterly*
56	2018	Alvarez, Levin, and Li	Fraud, convenience, and e-voting: How voting experience shapes opinions about voting technology	*Journal of Information, Technology, and Politics*
57	2018	Lubis and Lubis	Dealing with voters' privacy preferences and readiness in electronic voting	*Indonesian Journal of Electrical Engineering and Computer Science*
58	2018	Warkentin, Sharma, Gefen, Rose, and Pavlou	Social identity and trust in internet-based voting adoption	*Government Information Quarterly*
59	2018	Goodman and Stokes	Reducing the cost of voting: An	

(continued)

Table 4. (continued)

No.	Year	Author(s)	Articles' title	Journal
			evaluation of internet voting's effect on turnout	*British Journal of Political Science*
60	2018	Cauchan, Jaiswal and Kar	The acceptance of electronic voting machines in India: A UTAUT approach	*Electronic Government, an International Journal*
61	2018	Ali and Mubarak	E-voting: An investigation of factors that affect public trust in Kingdom of Bahrain	*International Journal of Electronic Government Research*
62	2018	Al-Khakani and Hassan	Suggest trust as a mediation to adopt electronic voting system in Iraq	*Journal of Theoretical and Applied Information Technology*
63	2018	Goodman, McGregor, Couture and Breux	Another digital divide? Evidence that elimination of paper voting could lead to digital disenfranchisement	*Policy & Internet*
64	2019	Avgerou, Masiero and Poulymenakou	Trusting e-voting amid experiences of electoral malpractice: The case of Indian elections	*Journal of Information Technology*
65	2020	Loeber	Use of technology in the election process: Who governs?	*Election Law Journal: Rules, Politics, and Policy*
66	2020	Zhu, Azizah and Hsiao	Examining multi-dimensional trust of technology in citizens' adoption of e-voting in developing countries	*Information Development*
67	2020	Kassen	Politicization of e-voting rejection: Reflections from Kazakhstan	*Transforming Government: People, Process, and Policy*
68	2020	Omotayo and Adekunle	Adoption and use of electronic voting system as an option towards credible elections in Nigeria	*International Journal of Development Issues*
69	2020	Risnanto, Rahim, Herman and Abdurrohman	E-voting readiness mapping for general election implementation	*Journal of Theoretical and Applied Information Technology*
70	2020	Essex and Goodman	Protecting electoral integrity in the digital age: Developing e-voting regulations in Canada	*Election Law Journal: Rules, Politics, and Policy*
71	2020	Chotim and Pramanti	E-voting systems to prevent conflicts caused by false results in elections in Indonesia	*International Journal of Innovation, Creativity and Change*
72	2020	Sheranova	Cheating the machine: E-voting practices in Kyrgyzstan's local elections	*European Review*
73	2020	Agbesi	Examining voters' intention to use internet voting system: A case of Ghana	*International Journal of Electronic Governance*
74	2020	Mensah	Impact of performance expectancy, effort expectancy, and citizen	*International Journal of*

(continued)

Table 4. (continued)

No.	Year	Author(s)	Articles' title	Journal
			trust on the adoption of electronic voting system in Ghana	*Electronic Government Research*
75	2020	Sharma	Can't change my political disaffection! The role of political disaffection, trust, and resistance to change in internet voting	*Digital Policy, Regulation, and Governance*
76	2020	Schlaufer	Why do nondemocratic regimes promote e-participation? The case of Moscow's active citizen online voting platform	*Governance*
77	2020	Reiners	Vote electronique in Switzerland: Comparison of relevant pilot projects	*Journal of Comparative Politics*
78	2020	Rosacker and Rosacker	Voting is a right: A decade of societal, technological, and experiential progress towards the goal of remote-access voting	*Transforming Government: People, Process, and Policy*

second category, the term can be quite broad (such as "IT-mediated elections" (Avgerou, 2013)) or specific ("intention to use e-voting" (Schaupp and Carter, 2005). Those two categories indicate that there are two contrasting perspectives of explaining e-voting adoption: institutional and individual. These categories have also enriched the study on e-voting adoption.

Another progress of the literature body on e-voting adoption is the usage of more specific research questions. Similar to how the term e-voting adoption has been used, there are also two categories of research questions: traditional and non-traditional ways. The traditional ways consist of studies that ask the question of the effect of e-voting adoption or factors that affect e-voting adoption. This first category dominates the study on e-voting adoption (with 48 out of 78 studies), and it seems that it aligns with the domination of the positivist paradigm. In contrast, although the number of the second category is smaller than the first category, the non-traditional ways have addressed specific questions, such as the effects of the characteristics of e-voting (Avgerou, 2013; Xenakis and Machintosh, 2005; Yao and Murphy, 2007). The details of the type of questions in this category can be seen in Table 3.

Furthermore, this article also has several other important findings that can be discussed further. First is the positive trend of published articles on e-voting adoption in 2020. This finding explicates that despite the number of countries adopting e-voting having decreased, scholars' interest in the topic has remained stable or even increased. Therefore, in 2021 or so, publications on e-voting adoption could increase. Second, the majority of the countries selected by the authors are in the Asian continent. The most plausible explanation for this finding is that the increasing interest of Asian countries in adopting e-voting has led to the advancement of scholars' interests on this continent. Third, the United States is a country that is selected by most scholars as their case study. Two plausible explanations are that scholars on e-voting adoption are from the United States or that the United States still has a huge potential issue that has not been addressed by scholars when it comes

to e-voting adoption. Specifically, since the election administration in the United States is not centralized (but federalized), it provides a lot of case studies that can be selected by scholars.

In addition, it is important to note the limitations of this study. The first limitation is that it does not include publications in the format of books or proceedings that probably also have important findings and contributions in the literature. Secondly, the number of selected articles is only 78. Although the number of selected works is higher than in Wisdom et al. (2013) (20 studies), it is still below that of other studies, such as Jungherr (2016) with his 127 studies on Twitter use in election campaigns.

Conclusion and recommendations

This article explored the need to review the progress of the research on e-voting adoption. By employing a semi-systematic review on 78 journal articles published from 2005 to 2020, it argued that despite the domination of a single case study, of research in the United States, and of the positivist paradigm, researchers have used the term "e-voting adoption" variously and the research questions on e-voting adoption have developed to be more specific.

Over the last 15 years, academic publications on e-voting adoption have vacillated. If this trend remains stable, the number of published articles on e-voting adoption may decline in the future after sharp growth in 2020. One of the ways to maintain the number of publications on this topic is to provide ideas and an agenda for future research. In relation to the selected case studies, unfortunately, the selected countries are not distributed well throughout the world. On one side, the United States has been an ideal country for a single case study. On the other side, comparative case studies have not been popular among scholars so far. Further, there is also domination in the selected philosophical traditions. The majority of scholars on e-voting adoption have shown a preference for the positivist paradigm. In addition, the term "e-voting adoption" has been used variously by researchers. Both studies that focus on the adoption by the election management body and those that center on the adoption by individuals have diverse ways of naming e-voting adoption terms. There has been progress in research on e-voting adoption when it comes to the research question addressed by scholars. Scholars have started to dig deeper by researching more specific questions than just studying the factors affecting e-voting adoption or the effects of e-voting adoption.

Based on the findings of this research, several recommendations can be provided. First, scholars who are interested in this topic could start to look at various different countries, especially those in the continents of Asia, Europe, Africa, and Australia. They could investigate the causes behind countries adopting e-voting or the reasons why some countries have abandoned these voting methods. Besides that, they could focus on the citizens of those countries, scrutinizing their perceptions on e-voting adoption or rejection. Second, scholars could pay more attention to comparative case studies. The employment of a comparative case study is usually followed by the usage of secondary datasets. Some possible sources of datasets for research on e-voting adoption are the International IDEA and the Varieties of Democracy (V-Dem). Comparative case studies might lead to a better conclusion because they have a larger population. Third, since the number of publications that employ interpretive and critical paradigms is still limited, this is another area of expansion for e-voting adoption studies. This suggestion might not work for some scholars who have had a preference for the positivist philosophical tradition for a long time. Yet, it might work as encouragement for researchers who prefer interpretive or critical paradigms and also

have an interest in the topic of e-voting adoption. Another possible way is to combine the paradigms, though this might need more work.

There are two main recommendations for the future research agenda. The first is related to the research topic. One area that could be explored is how political elites play a critical role in determining countries' decisions to adopt e-voting. There are several pieces of evidence from previous literature related to this suggestion. The first evidence comes from the case of Tsarist Russia, as explained by Cosgel et al. (2011). They argue that political elites might prefer not to reject new technologies if they do not harm their interests and even provide them with new incentives (Cosgel et al., 2011: 2). This study tells us that powerful political elites combined with their interests could accomplish the adoption of new technology.

The second evidence originates from the case of Sweden, as illuminated by Hinnerich et al. (2017). In their paper, they show that technology adoption can be denied by the landed elites (who are also political elites) since they are afraid of losing their political power (Hinnerich et al., 2017). The landed elites in Sweden "had an incentive to block industrialization and technological progress since they otherwise would be 'political losers'" (Hinnerich et al., 2017: 1).

The third evidence comes from the United Kingdom, as elaborated by Geels (2014). In this case, Geels found that political elites (allied with business) often dominate discussions in the policy-making process of low-carbon transitions in the United Kingdom, and even deny the policy proposal on that issue (Geels, 2014: 27), although the elites' denial decreases the advantages of "increasing renewables deployment" (Geels, 2014: 22). Relatively similar to the case of Sweden, this case shows that political elites could affect the process of adoption of any new technology.

The three pieces of evidence above show that political elites could play an essential role in deciding to adopt or not adopt new technology. Thus, in the case of e-voting adoption, researching the power of political elites might explain the real political process of the decision-making when it comes to e-voting adoption. This article specifically defines the power of political elites as the ability and resources that they have to influence the policy-making processes of a country. Political elites could be both formal (for example, members of the legislature, the president or prime minister, ministries) and informal (such as oligarchs and businesspeople). Although considering that informal political elites could also influence the policy-making processes, this article limits the suggestion to formal political elites since they are directly involved in the decision-making processes (law-making).

The second recommendation is to look at more individuals' perspectives rather than just the country's perspective on adopting e-voting in elections. Scholars could survey the perceptions of citizens of the countries in the Asian, European, African, or Australian continents.

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Supplemental material

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Notes

1. "E-voting" is an abbreviation of "electronic voting." In this article, e-voting is defined as the use of electronic devices to vote with a machine, a computer, or the internet.
2. In this article, e-voting adoption includes two scopes. First, e-voting adoption is the employment of e-voting as the method to cast a vote by the election management body in an election using one or more devices. Second, it is the intention of individuals to use e-voting in elections. The scope of elections can be national, local, rural, or even campus.
3. To ensure the transparency of the review process, the screenshots of the four search engines are included (see Appendix). See Supplementary File for the articles included and excluded from the selection process.
4. Three articles compare two or three countries. Also, two articles compare more than three countries so that they are categorized as "comparative." When an article compares more than three countries, the selected case studies in this article are not counted along with others but separately as a part of the comparative category. Besides that, there are two articles categorized as "not applicable" because these articles are review articles.
5. In this article, I follow the definition of three paradigms by Ryan (2018). See Ryan (2018) for a detailed explanation of these three paradigms.
6. Traditional ways mean that the researchers address the simple questions on e-voting adoption either as an independent variable or a dependent variable. The non-traditional ways include the questions that have evolved more than just simply about e-voting adoption, having more complex ideas such as perception and rejection of e-voting adoption.

References

Adeshina S and Ojo A (2017) Factors for e-voting adoption: Analysis of general elections in Nigeria. *Government Information Quarterly* 37(3): 1–12.

Agbesi S (2020) Examining voters' intention to use internet voting system: A case of Ghana. *International Journal of Electronic Governance* 12(1): 57–75.

Ahmad S, Abdullah SAJ and Arshad RB (2015) Participation and voting policy process in Nigeria: A qualitative study. *Mediterranean Journal of Social Sciences* 6(4): 362–274.

Al-Khakani SB and Hassan S (2018) Suggest trust as mediation to adopt electronic voting system in Iraq. *Journal of Theoretical and Applied Information Technology* 96(17): 5729–5739.

Al-Khasawneh A and Obeidallah R (2014) Challenges to the successful implementation of online voting for e-democracy in developing countries' initiatives: Jordan as a case study. *International Journal of Socio-Technology and Knowledge Development* 6(3): 45–59.

Ali H and Al Mubarak H (2018) e-Voting: An investigation of factors that affect public trust in Kingdom of Bahrain. *International Journal of Electronic Government Research* 14(2): 12–27.

Alomari MK (2016) E-voting adoption in a developing country. *Transforming Government: People, Process, and Policy* 10(4): 526–547.

Alters MA and Kooreman P (2009) More evidence of the effects of voting technology on election outcomes. *Public Choice* 139(1/2): 159–170.

Alvarez RM, Beckett D and Stewart C III (2013) Voting technology, vote-by-mail, and residual votes in California, 1990–2010. *Political Research Quarterly* 66(3): 658–670.

Alvarez RM, Hall T and Trechsel A (2009) Internet voting in comparative perspective: The case of Estonia. *PS: Political Science and Politics* 42(3): 497–505.

Alvarez RM, Katz G and Pomares J (2011) The impact of new technologies on voter confidence in Latin America: Evidence from e-voting experiments in Argentina and Colombia. *Journal of Information Technology & Politics* 8: 199–217.

Alvarez RM, Levin I and Li Y (2018) Fraud, convenience, and e-voting: How voting experience shapes opinions about voting technology. *Journal of Information, Technology and Politics* 15(2): 94–105.

Alvarez RM, Levin I, Pomares J, et al. (2013) Voting made safe and easy: The impact of e-voting on citizen perceptions. *Political Science Research and Methods* 1(1): 117–137.

Anagreh LF and Abu-Shanab EA (2017) Voter's intention to use electronic voting systems. *International Journal of E-Business Research* 13(3): 67–85.

Avgerou C (2013) Explaining trust in IT-mediated elections: A case study of e-voting in Brazil. *Journal of the Association for Information Systems* 14(8): 420–451.

Avgerou C, Ganzaroli A, Poulymenakou A, et al. (2009) Interpreting the trustworthiness of government mediated by information and communication technology: Lessons from electronic voting in Brazil. *Information Technology for Development* 15(2): 133–148.

Avgerou C, Masiero S and Poulymenakou A (2019) Trusting e-voting amid experiences of electoral malpractice: The case of Indian elections. *Journal of Information Technology* 34(3): 263–289.

Card D and Moretti E (2007) Does voting technology affect election outcomes? Touch-screen voting and the 2004 Presidential Election. *The Review of Economics and Statistics* 89(4): 660–673.

Carter L and Campbell R (2012) Internet voting usefulness: An empirical analysis of trust, convenience and accessibility. *Journal of Organizational and End User Computing* 24(3): 1–17.

Cauchan S, Jaiswal M and Kar AK (2018) The acceptance of electronic voting machines in India: A UTAUT approach. *Electronic Government, an International Journal* 14(3): 255–275.

Charles A (2009) The electronic state: Estonia's new media revolution. *Journal of Contemporary European Research* 5(1): 97–113.

Chiang L (2009) Trust and security in the e-voting system. *Electronic Government, an International Journal* 6(4): 343–360.

Choi J-W (2006) Deliberative democracy, rational participation and e-voting in South Korea. *Asian Journal of Political Science* 14(1): 64–81.

Choi SO and Kim BC (2012) Voter intention to use e-voting technologies: Security, technology acceptance, election type, and political ideology. *Journal of Information Technology & Politics* 9(2): 433–452.

Chotim EE and Pramanti A (2020) E-voting systems to prevent conflicts caused by false results in elections in Indonesia. *International Journal of Innovation, Creativity, and Change* 12(3): 508–517.

Cosgel M, Miceli T and Rubin J (2011) Political legitimacy and technology adoption. Working Papers 2011–2028, Department of Economics, University of Connecticut. https://ideas.repec.org/p/uct/uconnp/2011-28.html

Crothers C (2015) Using the internet in New Zealand elections and support for e-voting. *Political Science* 67(2): 125–142.

Darmawan I, Nurhandjati N and Kartini E (2014) *Memahami E-Voting: Berkaca Dari Pengalaman Jembrana dan Negara-Negara Lain*. Jakarta: Yayasan Pustaka Obor Indonesia.

Dee TS (2007) Technology and voter intent: Evidence from the California recall election. *The Review of Economics and Statistics* 89(4): 674–683.

De Jong M, van Hoof J and Gosselt J (2008) Voters' perceptions of voting technology: Paper ballots versus voting machine with and without paper audit trail. *Social Science Computer Review* 26(4): 399–410.

Dolatabadi HH (2016) Towards a comprehensive conceptualisation of e-voting adoption: A theoretical perspective. *International Journal of Technology Policy and Management* 16(2): 118–127.

Eraky A (2017) E-voting implementation in Egypt. *Journal of Contemporary Eastern Asia* 16(1): 48–68.

Essex A and Goodman N (2020) Protecting electoral integrity in the digital age: Developing e-voting regulations in Canada. *Election Law Journal: Rules, Politics, and Policy* 19(2): 162–179.

Fujiwara T (2015) Voting technology, political responsiveness, and infant health: Evidence from Brazil. *Econometrica* 83(2): 423–464.

Garner P and Spolaore E (2005) Why chads? Determinants of voting equipment use in the United States. *Public Choice* 123(3/4): 363–392.

Geels F (2014) Regime resistance against low-carbon transitions: Introducing politics and power into the multi-level perspective. *Theory, Culture, and Society* 31(5): 21–40.

Germann M and Serdült U (2017) Internet voting and turnout: Evidence from Switzerland. *Electoral Studies* 47: 1–12.

Gibson JP, Krimmer R, Teague V, et al. (2016) A review of e-voting: The past, present, and future. *Annals of Telecommunications* 71: 279–286.

Goodman N, McGregor M, Couture J, et al. (2018) Another digital divide? Evidence that elimination of paper voting could lead to digital disenfranchisement. *Policy & Internet* 10(2): 164–184.

Goodman N and Stokes L (2018) Reducing the cost of voting: An evaluation of internet voting's effect on turnout. *British Journal of Political Science* 50(3): 1155–1167. DOI: 10.1017/S0007123417000849.

Hinnerich H, Lindgreen E and Peterson-Lidblom P (2017) Political power, resistance to technological change and economic development: Evidence from the 19th century Sweden. *Research Papers in Economics* 2017: 5. Department of Economics, Stockholm University. 1–64. Available at: https://www.econstor.eu/handle/10419/183401.

Houston A, Yao Y, Okoli C, et al. (2005) Will remote electronic voting systems increase participation? *Electronic Government, an International Journal* 2(3): 353–368.

International IDEA (2019) Electronic election database. Available at: https://www.idea.int/data-tools/question-view/742 (accessed 29 May 2021).

Jaradat M-IR (2013) Applying the technology acceptance model to the introduction of mobile voting. *International Journal of Mobile Learning and Organisation* 7(1): 29–47.

Jungherr A (2016) Twitter use in election campaigns: A systematic literature review. *Journal of Information, Technology, and Politics* 13(1): 72–91.

Kassen M (2020) Politicization of e-voting rejection: Reflections from Kazakhstan. *Transforming Government: People, Process and Policy* 14(2): 305–330.

Katz G, Alvarez RM, Calvo E, et al. (2011) Assessing the impact of alternative voting technologies on multi-party elections: Design features, heuristic processing and voter choice. *Political Behavior* 33(2): 247–270.

Kimura M (2009) The information and communication technology and electoral modernization: Lessons from the Philippines. *Philippine Political Science Journal* 30(53): 59–88.

Lippert SK and Ojumu EB (2008) Thinking outside of the ballot box: Examining public trust in e-voting technology. *Journal of Organizational and End User Computing* 20(3): 57–80.

Loeber L (2020) Use of technology in the election process: Who governs? *Election Law Journal: Rules, Politics, and Policy* 19(2): 149–161.

Lubis M and Lubis AR (2018) Dealing with voters' privacy preferences and readiness in electronic voting. *Indonesian Journal of Electrical Engineering and Computer Science* 11(3): 994–1003.

Machin-Mastromatteo JD (2016) The most 'perfect' voting system in the world. *Information Development* 32(3): 751–755.

Martin I (2011) 2004 Venezuelan presidential recall referendum (2004 PRR): A statistical analysis from the point of view of electronic voting data transmissions. *Statistical Science* 26(4): 528–542.

Mendez F (2010) Elections and the internet: On the difficulties of 'upgrading' elections in the digital era. *Representation* 46(4): 459–469.

Mendez F and Serdult U (2017) What drives fidelity to internet voting? Evidence from the roll–out of internet voting in Switzerland. *Government Information Quarterly* 34(3): 511–523.

Mensah IK (2020) Impact of performance expectancy, effort expectancy, and citizen trust on the adoption of electronic voting system in Ghana. *International Journal of Electronic Government Research* 16(2): 19–32.

Musa MA and Aliyu FM (2013) Design of electronic voting systems for reducing election process. *International Journal of Recent Technology and Engineering (IJRTE)* 2(1): 183–186.

Nemeslaki A, Aranyossy M and Sasvari P (2016) Could on-line voting boost desire to vote? Technology acceptance perceptions of young Hungarian citizens. *Government Information Quarterly* 33(4): 705–714.

Omotayo FO and Adekunle OA (2020) Adoption and use of electronic voting system as an option towards credible elections in Nigeria. *International Journal of Development Issues* 20(1): 38–61.
Oostveen A (2010) Outsourcing democracy: Losing control of e-voting in the Netherlands. *Policy & Internet* 2(4): 201–220.
Oostveen A and van de Besselaar P (2005) Trust, identity, and the effects of voting technologies on voting behavior. *Social Science Computer Review* 23(3): 304–311.
Oostveen A and van de Besselaar P (2009) Users' experiences with e-voting: A comparative case study. *International Journal of Electronic Governance* 2(4): 357–377.
Pan H, Hou E and Ansari N (2012) *E-NOTE: An e-voting system that ensures voter confidentiality and voting accuracy. IEEE ICC 2012 – Communication and Information Systems Security Symposium, 825–829. Available at: https://ieeexplore.ieee.org/document/6364331.*
Powell A, Williams CK, Bock DB, et al. (2012) E-voting intent: A comparison of young and elderly voters. *Government Information Quarterly* 29(3): 361–372.
Prevost AK and Schaffner BF (2008) Digital divide or just another absentee ballot? Evaluating internet voting in the 2004 Michigan Democratic Primary. *American Politics Research* 36(4): 510–529.
Reiners M (2020) Vote electronique in Switzerland: Comparison of relevant pilot projects. *Journal of Comparative Politics* 13(1): 58–75.
Risnanto S, Rahim YBA, Herman NS, et al. (2020) E-voting readiness mapping for general election implementation. *Journal of Theoretical and Applied Information Technology* 98(20): 3280–3290.
Rosacker KM and Rosacker RE (2020) Voting is a right: A decade of societal, technological and experiential progress towards the goal of remote-access voting. *Transforming Government: People, Process, and Policy* 14(5): 701–712.
Roseman GH Jr and Stephenson EF (2005). The effect of voting technology on voter turnout: Do computers scare the elderly? *Public Choice* 123(1/2): 39–47.
Ryan G (2018) Introduction to positivism, interpretivism and critical theory. *Nurse Researcher*. 25(4): 41–49.
Salimonu RI, Osman WRBS, Shittu AJK, et al. (2013) Adoption of e-voting system in Nigeria: A conceptual framework. *International Journal of Applied Information Systems (IJAIS)* 5(5): 8–14.
Schaupp LC and Carter L (2005) E-voting: From apathy to adoption. *Journal of Enterprise Information Management* 18(5): 586–601.
Schlaufer C (2020) Why do nondemocratic regimes promote e-participation? The case of Moscow's active citizen online voting platform. *Governance* 34(3): 821–836.
Sharma S (2020) Can't change my political disaffection! The role of political disaffection, trust, and resistance to change in internet voting. *Digital Policy, Regulation and Governance* 22(2): 71–91.
Sheranova A (2020) Cheating the machine: E-voting practices in Kyrgyzstan's local elections. *European Review* 28(5): 793–809.
Smith A (2007) Securing e-voting as a legitimate option for e-governance. *Electronic Government, an International Journal* 4(3): 269–289.
Snyder H (2019) Literature review as a research methodology: An overview and guidelines. *Journal of Business Research* 104: 333–339.
Stein RM, Vonnahme G, Bryne M, et al. (2008) Voting technology, election administration, and voter performance. *Election Law Journal: Rules, Politics, and Policy* 7(2): 123–135.
Stewart C III (2011) Voting technologies. *Annu Rev Polit Sci* 14: 353–378.
Suki NM and Suki NM (2017) Decision-making and satisfaction in campus e-voting: Moderating effect of trust in the system. *Journal of Enterprise Information Management* 30(6): 944–963.
Van HT, Kim MB, Sa JH, et al. (2016) The factors affecting user behavior on mobile voting in Vietnam. *International Journal of Multimedia and Ubiquitous Engineering* 11(6): 311–318.
Vassil K, Solvak M, Vinkel P, et al. (2016) The diffusion of internet voting: Usage patterns of internet voting in Estonia between 2005 and 2015. *Government Information Quarterly* 33(3): 453–459.
Vassil K and Weber T (2011) A bottleneck model of e-voting: Why technology fails to boost turnout. *New Media & Society* 13(8): 1336–1354.

Warkentin M, Sharma S, Gefen D, et al. (2018) Social identity and trust in internet-based voting adoption. *Government Information Quarterly* 35(2): 195–209.

Wisdom JP, Chor KHB, Hoagwood KE, et al. (2014) Innovation adoption: A review of theories and constructs. *Administration and Policy in Mental Health* 41(July): 480–502.

Xenakis A and Machintosh A (2005) Trust analysis of the UK e-voting pilots. *Social Science Computer Review* 23(3): 312–325.

Yao Y and Murphy L (2007) Remote electronic voting systems: An exploration of voters' perceptions and intention to use. *European Journal of Information Systems* 16(2): 106–120.

Zhu Y-Q, Azizah AH and Hsiao B (2020) Examining multi-dimensional trust of technology in citizens' adoption of e-voting in developing countries. *Information Development* 37(2): 193–208.

Zucco C Jr and Nicolau JM (2016) Trading old errors for new errors? The impact of electronic voting technology on party label votes in Brazil. *Electoral Studies* 43: 10–20.