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E-Voting in Commercial Companies in Poland from the Perspective of Shareholders as an Example of Digital Democracy: Challenges and Opportunities

Abstract: This article addresses the issue of e-voting in commercial companies in Poland from the perspective of the company's shareholders. It presents this issue as an example of digital democracy and discusses the associated challenges and opportunities. The article is based on the dogmatic-legal and the comparative-legal methods. The main aim is to examine whether regulations regarding e-voting by shareholders on the resolutions of commercial companies in Poland have improved the conduct of shareholder voting or have established barriers that complicate this process. The second research issue is an attempt to answer the question of whether regulations introduced by the Polish legislature enable the use of modern technologies for conducting voting, including systems based on distributed ledger technology and virtual worlds. The research allowed for the formulation of the following research theses: firstly, the regulations contained in the Polish Commercial Companies Code allow for the widespread use of electronic voting methods by shareholders when resolutions are adopted. However, they are not available in all commercial companies, nor to the same extent. Secondly, voting using methods based on distributed ledger technology is also permissible. However, voting at a meeting cannot be conducted solely virtually. The conclusions include proposals for clarification of the legal provisions in this area, which will enable more effective use of e-voting in commercial companies in Poland.

Keywords: commercial companies, digital democracy, distributed ledger technology, e-voting, virtual worlds

Introduction

The legal regulations regarding e-voting by shareholders on the resolutions of commercial companies in Poland were recently amended in the Commercial Companies Code by the Act of 31 March 2020 Amending the Act on Special Solutions Related to the Prevention, Counteraction, and Combating of COVID-19, Other Infectious Diseases and the Resulting Crisis Situations, and Certain Other Acts.¹ These amendments were dictated by the need to enable company meetings and voting to be held electronically due to the COVID-19 pandemic. Unfortunately, the legislation has not treated all the provisions of the Commercial Companies Code uniformly. In some companies, the possibility of using e-voting during the adoption of resolutions by shareholders is the rule; in others it is an exception that must be provided for in the articles of association, and in others, such a possibility has not been foreseen at all. This raises a fundamental question about the advisability of differentiating commercial companies in this regard. It also requires an examination of whether the regulations regarding e-voting by shareholders on resolutions in commercial companies in Poland have improved the conduct of shareholder voting or have established barriers that have complicated the process.

In the context of e-voting, it is also reasonable to ask about the possibility of using modern technologies during e-voting, including systems based on distributed ledger technology and virtual worlds. The legislature did not explicitly provide for such a solution in the regulations, but on the other hand, it did not impose any restrictions in this regard. Therefore a fundamental question arises: do the regulations introduced by the Polish legislature not in practice hinder the use of the modern technologies mentioned above for conducting voting?

An analysis of the content of these national regulations, presented in detail below, allows for the formulation of two basic research hypotheses. Firstly, the regulations contained in the Polish Commercial Companies Code allow for the widespread use of e-voting methods by shareholders. However, they are not available in all commercial companies, nor to the same extent. Secondly, voting using methods based on distributed ledger technology is also permissible. However, holding a virtual meeting is not possible. Consideration should also be given to whether there is a need to clarify the legal provisions in this area, which would allow for more effective use of e-voting in commercial companies in Poland.

1 For information on the previously existing rules for the use of e-voting in commercial law companies in Poland, see Kappes, 2009; Krukowska-Korombel, 2010; Oplustil, 2008; Romanowski & Opalski, 2009; Żaba, 2020.

1. Models of e-voting in commercial companies in Poland

Legal regulations related to e-voting currently cover three types of capital companies, i.e. limited liability companies, simple joint-stock companies, and joint-stock companies. In a limited liability company, Article 234(1) of the Commercial Companies Code stipulates that participation in a shareholders' meeting may also be undertaken using electronic means of communication, unless the articles of association provide otherwise. This regulation should be assessed positively, as it establishes the possibility of conducting electronic shareholders' meetings as a rule. The provision also clarifies the scope of shareholders' rights related to participation in an electronic shareholders' meeting: participation in such a meeting includes, among other things, exercising the right to vote in person or through a proxy before or during the meeting. This solution should also be assessed positively. The literature rightly points out that enabling shareholders not only to participate in the shareholders' meeting but also to vote electronically allows them to effectively exercise their corporate rights (Lewandowski, 2020, p. 769). It should also be noted that detailed rules for participating in shareholders' meetings using electronic means of communication are defined in the by-laws; this principle is also positive. Specifying the tools for voting at shareholders' meetings in a legal provision or the articles of association could pose a barrier if new technologies emerge that the legislature was unable to anticipate at the time of drafting the regulations; in such a situation, new technologies would be excluded. It is significantly easier to amend by-laws than statutes or articles of association. Importantly, by-laws cannot specify requirements and restrictions that are not necessary to identify shareholders and ensure the security of electronic communications. This approach by the legislature should also be appreciated. The provision clearly limits the possibility of introducing any restrictions on the exercise of corporate rights to vote at a shareholders' meeting to a minimum. The company must be able to verify whether the person entitled to do so is actually participating and voting. In other respects, the company and its shareholders are free to determine the technical conditions for participation in shareholders' meetings. Furthermore, pursuant to Article 238 § 3 of the Commercial Companies Code, if participation in a shareholders' meeting takes place using electronic means of communication, the notification must also include information, among other things, on the manner of exercising voting rights. Information in this scope is indeed essential, as shareholders must be able to prepare for voting at the meeting, including from a technical perspective. Under Article 248 § 2 of the Commercial Companies Code, the minutes of the meeting must include, among other things, a list of the shareholders voting electronically; in such a situation, the signatures of the participants are not required. The above provision should be assessed as rational: since a shareholder participates in the meeting and votes electronically, they cannot be required to physically sign documents prepared during the meeting.

In the case of a simple joint-stock company, the legislation has guaranteed shareholders even broader opportunities to use e-voting during the adoption of resolutions. Pursuant to Article 300(80) of the Commercial Companies Code, shareholder resolutions are adopted at a general meeting, or outside a general meeting in writing or using electronic means of communication. The difference compared to a limited liability company is that in this company, the ability to adopt resolutions using electronic means of communication exists only within the framework of the shareholders' meeting. The literature clearly indicates that exercising voting rights in a limited liability company using electronic means of communication always implies the need to hold a shareholders' meeting (Żaba, 2020, p. 17). In a simple joint-stock company, shareholders also have this option outside the general meeting. However, it should be emphasized that shareholders may vote using electronic means of communication if these are specified in the company's articles of association or if all shareholders have expressed their consent to such voting in writing. The aforementioned stipulation therefore requires the authors of the company's articles of association to specify methods for voting on electronic resolutions at the stage of concluding the articles. An alternative to regulating this issue in the articles of association is the consent of all shareholders at the stage of adopting a specific resolution. The legislation does not mandate the use of additional measures to ensure the correct casting of a vote by an authorized person, such as a qualified electronic signature, trusted profile, or other security measures that will ensure the vote's validity.

Considering the aforementioned definition of 'electronic means of communication', which assigns primary status, through the phrase 'in particular', to email, it should be noted that the correct casting of a vote using this means may pose the greatest controversy. The absence of these additional safeguards may allow for greater latitude for an unauthorized person to cast a vote, which in turn may result in the adoption of a resolution that is flawed (Kawalec, 2021, p. 4). It is also worth noting that, pursuant to Article 300(100) § 4 of the Commercial Companies Code, resolutions adopted in writing pursuant to Article 300(80) are entered by the management board in the minutes book. Resolutions adopted using electronic means of communication are attached to the minutes book in the form of printouts of the resolutions, certified by the signature of a management board member. This simplification of procedures should be viewed positively. As resolutions adopted electronically cannot be signed with traditional signatures due to technical barriers, certification of the resolution's content by a management board member should be considered sufficient in this case.

The issue of participation and voting in the general meeting of a simple joint-stock company using electronic means of communication is also different. As Article 300(92) of the Commercial Companies Code provides, in the case of a simple joint-stock company, the articles of association may permit participation in the general meeting using electronic means of communication. Therefore the regulations do not automatically provide for such a possibility; the problem related to this specific

inconsistency in the legislation has already been highlighted in the literature (Szczepańska & Ryszkowski, 2025, pp. 44–46; Szumański, 2020, p. 5). Therefore the option to vote at the general meeting electronically must be established by the company's shareholders in the articles of association. If the articles of association provide for the possibility of holding an electronic general meeting, this right must also include the exercise of voting rights in person or by proxy before or during the meeting. In this respect, the solution provided by the legislation is analogous to a limited liability company. The doctrine emphasizes that, taking into account the rapid development of technology, the legislation has refrained from describing detailed technical conditions for participation in the general meeting using electronic means of communication, entrusting these issues to the companies themselves (Dumkiewicz, 2025, p. 1). Moreover, shareholder participation in the general meeting may only be subject to the requirements and restrictions necessary to identify shareholders and ensure the security of electronic communications. The articles of association cannot provide for additional restrictions that would constitute a barrier to shareholder participation and voting at the general meeting of a simple joint-stock company. The comments made in this regard with respect to a limited liability company also apply to a simple joint-stock company. Detailed rules regarding participation in the general meeting using electronic means of communication are set out in the general meeting regulations. Article 300(100) § 1 of the Commercial Companies Code further specifies that a list of shareholders voting using electronic means of communication shall be attached to the minutes of the general meeting. The comments made with respect to a limited liability company also apply to a simple joint-stock company in this issue.

The regulations regarding e-voting by shareholders on resolutions are most extensive in joint-stock companies. This is due, among other things, to the fact that joint-stock companies come in two forms: private and public.² Firstly, it should be noted that, pursuant to Article 406(5) of the Commercial Companies Code, participation in a general meeting may also take place using electronic means of communication, unless the statutes provide otherwise. Participation in an electronic general meeting includes, among other things, the ability to exercise voting rights in person or through a proxy before or during the meeting. As the literature rightly points out, this is the most comprehensive way to participate in a general meeting using electronic means of communication. It is also rightly noted that this creates the problem of identifying the person casting the vote (Pabis, 2016, p. 16); in this regard, the company should implement a voting technique that ensures security. The supervisory board is responsible for defining in separate regulations detailed rules for participating in a general meeting using electronic means of communication. The regulations may not specify require-

2 A public company is a company with at least one share admitted to trading on a regulated market or introduced to trading in an alternative trading system in the territory of the Republic of Poland, i.e. a company listed on the stock exchange.

ments or limitations that are not necessary to identify shareholders and ensure the security of electronic communication. It is rightly emphasized in the legal literature that the provisions of Article 406(5) of the Commercial Companies Code do not refer in any way to the location (place) of persons participating in a general meeting via electronic means of communication, including those casting their votes electronically. This means that they may be present in any location (town) in any country, and this will not violate the provisions of the Commercial Companies Code regarding the necessity of holding a general meeting in the territory of the Republic of Poland (Leśniak, 2020, pp. 23–24). Furthermore, pursuant to Article 421 § 2 of the Commercial Companies Code, a list of shareholders voting using electronic means of communication is attached to the minutes of the general meeting. The regulations concerning joint-stock companies, mentioned above, are therefore analogous to those provided for in limited liability companies. The comments made in the above-mentioned areas of electronic voting at shareholders' meetings of limited liability companies will therefore also apply to voting at general meetings of joint-stock companies.

However, the new obligation that the legislature has introduced for joint-stock companies is that if voting rights are exercised using electronic means of communication, the company must immediately send the shareholder an electronic confirmation of receipt of the vote (Article 406(5) § 5 of the Commercial Companies Code). Additionally, with respect to public joint-stock companies, the legislature has decided that the announcement of a general meeting of a public company should include, among other things, information on the method of exercising voting rights by using electronic means of communication (Article 402(2) of the Commercial Companies Code).

In the context of the regulations analysed above, the lack of regulation regarding the use of electronic communication means in adopting resolutions by partners in partnerships is striking. In this regard, the legislature has included basic regulations in the Commercial Companies Code, primarily with respect to general partnerships. Only relevant clarifications have also been included in the provisions governing professional partnerships, limited partnerships, and limited joint-stock partnerships. First of all, it is worth noting that, pursuant to Article 43 of the Commercial Companies Code, which pertains to a general partnership, in matters exceeding the scope of the partnership's ordinary activities, the consent of all partners is required, including those excluded from managing the partnership's affairs. The provision does not specify how and in what form the partners' consent should be expressed. Serious doubts have been raised as to whether a decision by partners in a matter exceeding the scope of ordinary activities should necessarily take the form of a resolution (Rodzyńkiewicz, 2013, p. 99). Furthermore, the literature indicates that since the legislation does not specify the rules for expressing consent to handle matters exceeding the scope of ordinary activities, it should be assumed that the partners' consent may be expressed in writing or in another clear and unambiguous manner (Borowy, 2024, p. 251). Therefore it should be assumed that voting via electronic means of communication is also permissible in

a general partnership, based on the principle of freedom of choice regarding the form of decision-making. However, under current law, it seems justified to recommend that partners of general partnerships should clarify the technical aspects of decision-making in their partnership agreement. This will prevent conflicts between partners over this matter during the partnership's commercial operation.

In the context of other partnerships, it should be noted that in the case of a professional partnership, the legislation has not provided for separate rules for partners' decision-making. Therefore, pursuant to Article 89 of the Commercial Companies Code, the rules for a general partnership apply. The comments above therefore remain relevant in the context of a professional partnership. In the case of a limited partnership, pursuant to Article 121 § 2 of the Commercial Companies Code, the consent of the limited partner is required for matters beyond the scope of the partnership's ordinary activities, unless the partnership agreement provides otherwise. This means that all the partners – both general and limited – participate in making the main decisions for the partnership. In this case, the legislation has not provided for detailed rules for partners' voting; therefore similar requirements can be formulated for a limited partnership as for a general partnership.

The final type of partnership is the limited joint-stock partnership. In the case of this company, the legislation has not provided specific rules for conducting voting when decisions are made by general partners and shareholders. At the same time, Article 126 § 1 established the principle that in matters not regulated by the general partners' regulations, the provisions of the general partnership shall apply, while the provisions of a joint-stock company shall apply to shareholders and their participation in the general meeting. In the case of a limited joint-stock partnership, the regulation of voting in decision-making is therefore complex. With respect to votes involving general partners, the legislation has not explicitly provided for the possibility of voting using electronic means of communication, so the comments made regarding the voting process on resolutions in a general partnership will be relevant. However, in the case of votes conducted at a general meeting involving shareholders, the regulations for a joint-stock company shall apply. Therefore, as already presented above, voting via electronic means of communication has been provided for by the legislation and is thus entirely possible. The example of a limited joint-stock partnership is an excellent summary of how inconsistent the legislation is in the case of e-voting rules in commercial companies in Poland.

2. Voting by shareholders of commercial companies on resolutions through the use of modern technologies

A positive aspect of the current shape of the regulations governing voting on resolutions in companies is the technological neutrality emphasized in the doctrine

(Szumański, 2020, p. 10). The regulations' lack of clarification regarding the technical aspects of voting allows for the use of various solutions, including modern technologies. It will also not constitute a limitation in the event of the appearance of new methods and techniques for conducting virtual voting, which the legislature could not have foreseen and taken into account before. Considering the above arguments, it should be stated that under Polish law, there are no obstacles to using systems based on distributed ledger technology to conduct votes on resolutions, particularly in commercial companies.

The literature has long suggested that distributed ledger technology could also be used in the voting process of shareholders in commercial companies (Bilski & Kiełbus, 2024, p. 77). An excellent example of blockchain technology in this regard is the e-voting application offered by the National Depository for Securities (KDPW) (KDPW, 2023). E-voting is the KDPW's application for remote participation and voting at company general meetings. According to information it has provided, the application is a modern, secure, and inexpensive tool that enables active participation in general meetings from anywhere and at any time, facilitates access to reliable information about general meetings, and provides consistent, transparent, and undeniable insight into the results of the meeting, including investors' voting patterns. It should also be emphasized that thanks to the use of blockchain technology, the organization and management of general meetings of shareholders can be transferred to a fully digital dimension while simultaneously meeting statutory requirements regarding the identification of shareholders and ensuring the security of electronic communication.

The main disadvantage of this tool is that the KDPW offers it only to companies whose shares are registered with them; therefore only joint-stock companies can use it. It is not available to other commercial companies, particularly limited liability companies and simple joint-stock companies, where it could find a practical application. Another inconvenience of the application is that it requires an additional fee; therefore joint-stock companies wishing to use modern blockchain technology for voting at general meetings must expect additional costs. In this context, it would be advisable to develop and provide a dedicated electronic voting tool for all commercial companies. The Ministry of Digital Affairs, in collaboration with the Ministry of Finance and Economy, could undertake this task. The creation of such a tool would allow Polish commercial companies to enter a new era of technological development, which could contribute to more efficient management in the future. This in turn could lead to improvement in the financial results of commercial companies in Poland.

The second significant challenge for the Polish legislature is the issue of the shareholders of commercial law companies conducting votes on resolutions in virtual meetings. In this context, it should be noted that while there are no obstacles to using distributed ledger technology in the e-voting process in commercial companies in Poland, the literature rightly points out that the provisions of the Commercial

Companies Code in its current shape exclude the possibility of holding and voting at a company's general meeting in cyberspace, i.e. without designating a physical location for the meeting (Szumański, 2020, p. 10). Each type of company has a provision requiring the meeting to be held in a real location, by definition at the company's registered office (Articles 234, 300(88), and 403 of the Commercial Companies Code). As rightly emphasized in the literature, the term 'place' used by the legislation in the above-mentioned provisions means 'a limited section of space in the geographical sense', but does not include the possibility of choosing a virtual space (a so-called place on the network) (Engeleit, 2005, pp. 232–236). However, one cannot agree with the view that the regulation regarding the place for a shareholders' meeting of a 'traditional' limited liability company and the place for a general meeting of a joint-stock company differs from the regulation contained in Article 240(1) § 1 and 2 of the Commercial Companies Code regarding the adoption of resolutions by shareholders in a so-called e-limited liability company. The latter provisions are a source of norms that do not require an unambiguous determination of the place (location) for a shareholders' meeting of the e-limited liability company (Leśniak, 2020, p. 23). It should be noted that Article 240(1) of the Commercial Companies Code applies to adopting resolutions electronically, but only outside of a shareholders' meeting. Therefore equating this situation with the possibility of holding a virtual shareholders' meeting in an e-limited liability company is not justified.

In this context, it should also be noted that the laws of other countries already provide for the possibility of shareholders of commercial companies adopting resolutions during virtual meetings. A prime example is the Austrian Virtual Meetings Act (VirtGesG) (Nationalrat Österreich, 2023; Parlament Österreich, 2023), which allows for virtual or hybrid shareholder meetings and general meetings for commercial companies. While virtual meetings in Austria were temporarily permitted during the COVID-19 pandemic, the VirtGesG creates a permanent framework for such meetings, allowing for exclusive virtual or hybrid participation. However, it should be noted that fully virtual general meetings are only permitted in those companies where such a possibility is provided for in the articles of association or statute. It should also be emphasized that the VirtGesG does not cover the meetings of internal corporate bodies, such as executive or supervisory boards, where a different legal situation applies. In terms of the basic assumptions for conducting virtual meetings, it should be noted that the law requires that the technology used for virtual meetings ensures participants can exercise their rights effectively, including the right to vote. This means, among other things, that participants must be provided with an acoustic and optical two-way connection in real time. The articles of association can specify whether the virtual meeting is to be held as a 'simple' or a 'moderated' general meeting. Whereas in the standard case of a simple virtual meeting there is a two-way connection, i.e. all participants can speak at any time, in a moderated virtual general meeting, the meeting is primarily broadcast, but with the possibility of written com-

munication at any time (e.g. by chat, email, or in a separate portal) and, at the request of a participant or if the chairperson of the meeting gives a participant the floor, also through oral contributions or questions. The software to be used and other technical requirements may be specified in the articles of association or (at the latest) determined and communicated by the chair at the time of the invitation. However, virtual participation must be possible easily and free of charge, without having to download any specific software. It is also important to point out that the provisions in the articles of association allowing for virtual and/or hybrid meetings must be limited to a maximum of five years. However, a resolution on the extension of the period of validity may be passed by way of a virtual or hybrid general meeting (Aichhorn-Wöss & Maras, 2024; Cerha Hempel, 2023; Heffermann & Lechner, 2023; Trondl, 2023).

Returning to the regulations of Polish law: holding company meetings in a different format, e.g. using platforms supporting virtual worlds or the metaverse, is currently not possible. It is worth considering whether conducting voting in this type of condition would be permissible in partnerships. As indicated above, no provision specifies the form of decision-making in partnerships, so the right to use virtual worlds for this purpose could be derived from the fundamental principle of private law that what is not prohibited is permitted. On the other hand, transferring real decision-making in current matters to virtual worlds without a clear legal basis could be considered far-reaching. Therefore, under the current legal framework, it should be assumed that voting on resolutions in commercial companies using virtual worlds is not possible. This does not change the fact that in a world where we are observing such dynamic technological progress, the legislature's reference to the concept presented above will soon pose another legislative challenge. Actions in this direction are already being taken at the European Union level.³

Conclusions

To summarize the models of e-voting in commercial companies in Poland: it should be noted that the lack of a clear indication of the possibility of conducting e-voting in partnerships is striking. Secondly, the legislation's inconsistency is striking: for limited liability companies and joint-stock companies, e-voting is a rule, while for simple joint-stock companies, this option is allowed only as an exception, which must be reflected in the articles of association. Conversely, in the case of simple joint-stock companies, the legislation also allows for the adoption of resolutions outside the general meeting through using electronic means of communication, while in limited liability

3 In this context, it is worth noting the European Commission's strategy on Web 4.0 and virtual worlds. The initiative aims to drive the next technological transformation and ensure an open, secure, trustworthy, fair, and inclusive digital environment for EU citizens, businesses, and public administrations (ec.europa.eu).

companies, this solution is limited solely to votes conducted during a shareholders' meeting. Thirdly, the legislation only obligates the company to send a confirmation of the vote to the voting shareholder in the case of joint-stock companies.

It therefore seems necessary to clarify the provisions of the Commercial Companies Code in the following areas. Firstly, to eliminate any doubts, the legislature should clarify the wording of Articles 43 and 121 § 2 of the Commercial Companies Code, clearly specifying that consent may also be expressed via electronic means of communication. At the same time, it should be noted that the detailed rules for shareholders' participation in voting via electronic means should be specified in the regulations adopted by the shareholders. Implementing this change will clarify the rules for electronic voting in all commercial companies; this will be achieved because Article 43 of the Commercial Companies Code will also resolve this issue for partners in a professional partnership as well as general partners in limited partnerships and limited joint-stock partnerships, to which it will apply accordingly.

Secondly, it is recommended that Article 300(92) of the Commercial Companies Code is amended and that the principle that participation in a general meeting may also be taken using electronic means of communication, unless the articles of association provide otherwise, is adopted. This postulate has already been formulated in the literature and deserves full support (Szczepańska & Ryszkowski, 2025, p. 49). Conversely, it seems reasonable to amend Article 227 of the Commercial Companies Code by adding a second sentence to § 2, reading 'Resolutions may also be adopted using electronic means of communication without holding a shareholders' meeting', and § 3, which would specify that shareholders may vote using electronic means of communication if these are indicated in the articles of association or if all shareholders have expressed written consent to such voting.

Thirdly, to ensure security and certainty of voting, it would be necessary to introduce into the regulations of limited liability companies and simple joint-stock companies an equivalent of Article 406(5) § 5 of the Commercial Companies Code, according to which, if voting rights are exercised using electronic means of communication, the company must immediately send the shareholder an electronic confirmation of receipt of the vote. The legislature could adopt these principles, for example, by adding Article 234(1) § 2(2) and Article 300(92) § 1(1) of the Commercial Companies Code, respectively.

Regarding the possibility of using modern technologies to vote on the resolutions of commercial companies in Poland, it should be concluded that under Polish law, there are no obstacles to using systems based on distributed ledger technology for this purpose, especially in commercial companies. However, in this context, it seems justified to create a common, uniform e-voting platform based on blockchain technology, accessible to all commercial companies. On the other hand, due to the need to hold meetings in a physical location, virtual worlds cannot be used to conduct electronic voting in companies. However, this possibility should not be under-

estimated, because with technological advances and the growing popularity of such platforms, the Polish legislature will soon face the challenge of regulating this issue. The first step in this direction should be the adoption of regulations similar to those provided for in Austrian law, which would enable the holding of shareholders' meetings and general meetings without a need to indicate the physical place where they are to be held. This stage, after adapting other legal provisions to the needs of conducting virtual meetings, including those concerning notary participation in meetings, is already achievable. Moving meetings to entirely virtual worlds is a long way off, but we should be thinking about it now.

The above considerations, both in relation to current legal provisions and the future challenges awaiting the Polish legislature and participants in commercial companies, demonstrate that these are excellent grounds for developing the idea of digital democracy.

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