

## UTILIZATION OF ARTIFICIAL INTELLIGENCE IN ALTERNATIVE DISPUTE RESOLUTION THROUGH THE ARBITRATION PROCESS

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**Abstract:** This research aims to explain the progress of AI in the legal realm and outline the application of AI in alternative dispute resolution, primarily through arbitration. To gain a deeper understanding of the perspectives, challenges, and potential of using AI in arbitration, the researcher chose a research method that involved two approaches: literature study and qualitative content analysis. This research shows that AI positively impacts the legal domain, as seen from its contribution to supporting law enforcement in various countries, such as document processing, risk evaluation, information search, decision making, case management, and fraud prevention. Additionally, AI has been adopted in the arbitration context in recent times. Its use in international arbitration includes relevant document identification tools, text creation, editing, translation, interpretation, and transcription tools. Even though we are experiencing an era of digital transformation where AI is becoming an essential part of human life, court and arbitration decisions and law enforcement processes still have dimensions that cannot be measured or resolved solely with quantitative approaches to automation and computing. Qualitative approaches, humanities aspects, moral justice, and ethical values are often unreachable by algorithms or cannot be described by computational analysis.

### INTRODUCTION

Advances in information technology, especially the internet, have influenced people's behavior in resolving disputes outside conventional court channels. Widespread use of the internet has expanded information accessibility and enabled people to seek legal solutions or alternative dispute resolution, such as through electronic arbitration.

In the current era of rapidly developing technology, the impact is positive and negative on human life. Rapid technological growth brings progress in many ways but can also present new challenges and problems that can affect human life in a complex way (Yudoprakoso, 2019). In this case, technology is vital in simplifying human tasks and activities. Suppose a job is too challenging to be done manually by humans. In that case, technology is here to make it easier for humans to complete tasks by providing tools, systems, or automation processes that can increase efficiency and comfort in completing complex or challenging tasks. (Expected 2021)

The positive impact of rapid technological development currently brings many benefits to human life, which have the ability to support complex human activities, such as blockchain technology, the Internet of Things (IoT), big data, and especially artificial intelligence (AI). These technologies significantly contribute to solving complex problems, increasing efficiency, and opening up new opportunities in various fields in previously difficult or even impossible ways. (2019 Heraldry).

Artificial intelligence (AI), where AI is a technology or system created by humans with the ability to imitate activities usually carried out by humans. AI can also have a frame of mind similar to humans in carrying out specific tasks or jobs. Using algorithms and computing, AI can make decisions, learn from experience, and perform tasks requiring human-like analysis or intelligence.

In its development, AI experienced 3 (three) levels of change or evolution. First, Artificial Narrow Intelligence (ANI) or Weak AI focuses on certain tasks and cannot handle various tasks. ANI is more limited in scope and needs human-like capabilities when understanding broader contexts. Second, artificial general intelligence (AGI) or strong AI has abilities similar to humans in carrying out various tasks and understanding broader contexts. AGI can think, learn, and solve various problems like humans do. Third, Artificial Super Intelligence (ASI) is a form of AI with intelligence far beyond human capabilities. ASI not only has a more remarkable ability to complete tasks but can also significantly improve and develop itself, surpassing human capacity in almost all aspects (Ashidqi, 2019).

The impact of AI is not limited to simply assisting in specific tasks or activities; the impact is the ability to change human lifestyles and habits completely and significantly (Supriyadi & Asih, 2020). The development of artificial intelligence has penetrated various sectors of human life, including the legal field. In China, since 2017, they have started implementing AI technology as a judge in resolving digital cases. However, the use of AI in the legal field is still limited and continues to grow. The use of AI in China's justice system in digital cases represents an effort to leverage technology to support court processes, data analysis, and decision-making in specific contexts. However, AI acting as a judge still needs to be improved in understanding the complexity of nuances, emotional context, or human elements in legal cases. (Sihombing and Adi Syaputra 2020).

The Netherlands is also a country that applies AI in the legal field to provide access to regulations and agreements that apply in that country. This allows the public to find information about the laws that apply in the Netherlands more easily (Verheij, 2020).

In Indonesia, an online legal platform called Legal Intelligence Assistant (LIA) uses AI technology. This platform aims to assist users in obtaining information related to the law. One example is using AI in contract design through electronic contracts in Indonesia (Sihombing & Adi Syaputra, 2020).

The existence of technological advances such as AI highlights the need for legal regulations related to these developments. The growth of AI technology, which is able to carry out tasks previously carried out by humans, raises the potential for legal problems. AI, as artificial intelligence associated with code or algorithms, performs specific actions without having human moral or ethical capabilities. This situation raises several legal issues related to decisions or actions taken by AI. Therefore, the importance of a legal regulatory framework that regulates use, responsibility, ethics, and transparency in developing and applying AI technology is a must. Adopting clear codes of conduct, security standards, and regulations is necessary to ensure that advances in AI do not conflict with the rights or values recognized in society and applicable legal norms (Lin, 2019).

In Indonesia, regulations regarding AI have yet to be explicitly regulated, which means that this will become a legal problem if AI takes actions contrary to the favorable laws in this country. AI can carry out actions and deeds, and in some cases, AI actions may violate the law, such as criminal acts that harm other parties. Several countries have begun to consider the legal position of AI by granting it the status of a legal subject with rights and obligations. However, in Indonesia, applicable positive law considers AI a legal object.

The problem formulation in this research focuses on three main aspects of artificial intelligence (AI) in the legal context. First, ask questions regarding the meaning of AI. Second, the research will explore the development of AI in the legal field by asking how AI has developed and is used in legal contexts. Third, this research questions the application of AI in dispute resolution in the digital era. This research aims to provide comprehensive information about how AI is developing in a legal context and how this technology is applied in resolving disputes in the digital era. This research focuses on explaining the development of AI in the legal field and describing how AI is

used in the dispute resolution process in the digital era.

Therefore, the title of this research, "Use of Artificial Intelligence in Alternative Dispute Resolution Through the Arbitration Process," summarizes the main focus of the research, which will discuss the application and development of AI in a legal context, especially in the process of resolving non-litigation disputes through arbitration.

## RESEARCH METHODS

The research method applied in this journal includes two approaches: literature study and qualitative content analysis. In this method, researchers search, analyze, and evaluate related literature, including Law Number 11 of 2008, concerning Information and Electronic Transactions (UU ITE). A literature study approach explores and integrates information from various sources such as books, national and international journals, research reports, and legal documents related to AI in arbitration.

Meanwhile, a qualitative content analysis approach is used to qualitatively analyze the collected data source texts such as interviews with legal experts or arbitration practitioners, arbitration decision documents related to AI, news articles, or panel discussions related to AI in arbitration.

## RESULTS AND DISCUSSION

### A. Understanding Artificial Intelligence

Technology development is increasingly rapid, especially with artificial intelligence or what we usually know as Artificial Intelligence (AI). Artificial intelligence is a branch of computer science that promises various benefits for meeting human needs in the future. The term "Intelligence" itself comes from the Latin "Intelligence," which means "I understand," which reflects the ability to understand and take action (Sihombing & Syahputra, 2020). A broader definition of intelligence includes logic, understanding, self-awareness, learning, planning, and problem-solving. Meanwhile, "Artificial" refers to something unreal, such as a simulation.

In today's digital era, using technology has become essential to help complete some tasks in daily life. This is in line with the definition of technology given by Arnold Pacey (2000) in his publication "The Culture of Technology" (Umni Kalsum, 2022).

To find out more about Artificial Intelligence (AI), the following is the definition of AI according to several experts:

1. According to Andreas Kaplan and Michael Haenlein,  
Interpreting artificial intelligence (AI) as a system capability that can learn and interpret data correctly. To achieve specific goals and tasks through flexible adaptation(Siahaan et al., 2020).
2. According to Poole and Mackworth,  
Defining artificial intelligence (AI) as a field that analyzes and combines actions that are carried out appropriately according to goals and conditions, flexible, open, and capable of making the right decisions beyond the limitations of AI's perception and computing, which are then executed intelligently(Rahmahafida & Sinag, 2022).
3. According to John McCarty,  
A Professor at the Massachusetts Institute of Technology defines AI as artificial intelligence, the main focus of knowledge, forming processes, human thinking frameworks, and designing machines to match human behavior. (Men's 2023).
4. According to Buchanan and Shorttliffe (1985)  
Interpreting Artificial Intelligence as a manipulation and problem-solving technique(Astuti et al., 2015).

Based on the definitions above, artificial intelligence (AI) is a field of science or a machine-making system that carries out specific tasks such as interpreting, analyzing, recognizing patterns, making decisions, studying the data provided, and also solving problems. Precisely like humans, achieving a goal with flexible adaptation is possible.

Today, artificial intelligence (AI) is being created for applications in research and the fields of business, art, and even law. In the legal field, AI was created to help solve problems, make decisions, solve problems, and so on. The claim that artificial intelligence (AI) is used specifically to solve cognitive problems typically associated with human intelligence, such as learning, problem-solving, and pattern recognition, is supported by the fact that AI is used in the legal field to analyze and solve legal problems.

AI in the field of Law today, Indonesia's position as a center for technological innovation must be strengthened with the help of legal practitioners, policymakers, and industry leaders even though it has to grapple with complications in the local intellectual property environment(Adiman et al., 2023)

To maintain accessibility to the justice system, which adheres to the principles of fast, simple, and low-cost justice, as well as increasing the efficiency and speed of resolving legal cases without having to meet in person during the COVID-19 pandemic, AI has been utilized by arbitrators and criminal courts electronically. Hence, it is more effective because it allows the legal process to run smoothly (Alimuddin et al., 2023). However, there are situations where the network is stable and unstable, making electronic settlements ineffective during the COVID-19 pandemic.

## **B. Development of Artificial Intelligence in the Legal Field**

As a legal country, Indonesia regulates its people's lives through applicable regulations. It is hoped that existing laws can resolve various problems. Technology currently plays a vital role in people's lives. Artificial Intelligence has become essential in several fields, including AI in the legal field. In the last few years, his contribution has been very rapid. It is important to remember that the role of human judges is complex and sensitive, allowing the entire algorithm to be viewed with skepticism. Therefore, a boundary is needed between technology and humans.

AI has had a positive impact on the legal sector in various countries with its various roles: First, in automating the legal document processing process; Second, in risk analysis, which helps advocates and lawyers in decision making; Third, in searching for legal information from various sources to strengthen arguments; Fourth, in decision making by providing predictions of case outcomes and strategic recommendations; Fifth, in case management by automating crucial tasks; Sixth, in preventing fraud by detecting potential fraud in legal cases. Therefore, using AI in law helps ease the work of resolving cases. The use of AI can save the legal industry time and money. Apart from that, the efficiency and quality of law enforcement services can also be improved.

Artificial intelligence aims to support various human activities in the legal field so that the work of professionals in this field can be carried out more efficiently in terms of time, energy, and costs. Artificial intelligence in the legal field is known as Legal Tech. One use of legal technology is to make it easier for contract writers to draft, review, and analyze contracts (smart contracts).

Legal tech can be classified into three types, each based on the type of service: First, technology for processing legal documents in digital forms such as cloud



storage and cyber security; Second, support process solution as a process support service to facilitate law firm management such as human resource management and development (HRD), business development, office management and finance; Third, substantive legal solutions, namely technology that can support or replace legal services in disputes to maintain a balance of substance controlled by the parties involved in the dispute.

*Artificial Intelligence* (AI) cannot be categorized as a legal subject. AI cannot be equated with people who have legal skills, people who have authority, and people who have rights and responsibilities. The fact that legal subjects, both natural and legal, can assume responsibility, have authority, and have a legally valid status is different from AI if examined as a legal subject. Companies need further research to determine whether AI can be categorized as a legal entity. While human legal subjects have legally binding rights and obligations, AI cannot be equated with humans in this context.

Currently, there are no specific laws or regulations regarding AI in Indonesia. However, AI can be considered an "electronic agent," a device from an electronic system created to act. This is regulated in Law Number 11 of 2008 concerning Information and Electronic Transactions ("UU ITE").

AI cannot replace the legal profession because:

1. AI is not a legal subject that can bear rights and obligations like judges, prosecutors, and lawyers, and it cannot be linked to legal authority and responsibility as a logical consequence of a legal profession.
2. AI as a technological system is not autonomous but requires the role of "humans" in its operation. If we refer to the ITE Law, we know that electronic agents are responsible for all legal consequences caused by AI, and e-agents do not have to have legal training. Therefore, Indonesian law does not recognize AI as an independent legal entity. (Arudanti, SW)
3. AI relies entirely on data stored in the database and is not intended to evaluate items outside the database. Sometimes, we cannot leave it to AI to judge whether a situation conforms to a sense of justice.

Theoretically, legal subjects that can make legal actions or legal subjects contained in Indonesian positive law are "humans (natuurlijke person)" and "legal entities (rechts person)". Legal entities are non-humans who have rights and obligations based on law. As legal subjects, legal entities can take legal action or

carry out legal actions. Artificial Intelligence is more appropriately equated to the legal subject of a legal entity and not to the legal subject of humans because artificial intelligence can be qualified as a bearer of rights and obligations that can carry out legal actions or legal actions, as in the example of artificial intelligence which has been explained in the background section.

The development of Artificial Intelligence has brought a new era in human life. To create legal certainty in AI development, government regulatory reform is needed. Artificial Intelligence that can file a lawsuit or sue must have apparent legal authority. The legal status of Artificial Intelligence can be applied to special laws regarding artificial intelligence as a legal subject, namely to legal entities specified in "Law Number 40 of 2007 concerning Limited Liability Companies" and "Limited Company Law Number 16 of 2001". Civil liability" specifically regulates foundations," "Law Number 17 of 2012 concerning Cooperatives", and so on.

### **C. Application of Artificial Intelligence that Replaces the Role of Human Arbitrators**

The formation, structure, authority, and functions of government institutions responsible for policy making and law enforcement regarding consumer protection form special courts, the latest of which is Alternative Dispute Resolution (ADR) and Online Dispute Resolution (ODR). There are many ADR mechanisms, the most common of which are mediation, conciliation, negotiation, and arbitration. Dispute resolution through mediation also has several stages that must be passed. Several stages must be carried out in mediation, namely: (1) screening; (2) the mediator explains the process and role of the mediator; (3) the mediator assists the parties in drafting the agreement. In negotiations, there is a weak side of the mediator in carrying out his role, namely: Organizing meetings; 2) Neutral discussion leader; 3) Maintaining or maintaining negotiation rules so that the negotiation process takes place in a civilized manner; 4) Controlling the emotions of the parties; 5) Encourage parties/negotiators who are less capable or reluctant to express their views. Meanwhile, the strong side of the mediator when negotiating is to do/do things including 1) Preparing and taking negotiation minutes; 2) Formulate a meeting point/agreement for the parties; helping parties to realize that disputes are not battles to be won, but resolved; 3) Develop and propose alternative solutions to problems; 4) Help the parties analyze alternative problem solutions(Sari Dewi et al., 2022)



In conciliation, the negotiation method uses assistance from a third party. The third party is the party who acts as a mediator and oversees the progress of the negotiations. In arbitration, it has been used in international arbitration processes for a significant time through Artificial Intelligence (AI). Before ChatGPT launches in November 2022, there is a trend to see the use of AI in International arbitration as part of the category of Legal Tech tools. Previously, there was no explicit agreement regarding the need for regulations or rules regarding the use of AI in arbitration. The discussion and literature surrounding AI in arbitration are more skewed towards increasing efficiency and futuristic concepts such as robot arbitrators rather than considering the implications or risks that may arise to the integrity of the arbitration process due to the use of AI.

Artificial Intelligence (AI) has significant benefits in increasing capacity and efficiency in the legal field, including international arbitration. Artificial Intelligence (AI) will have a powerful transformational impact, enabling significant changes in legal processes and arbitration practices. Artificial Intelligence (AI) applications in arbitration include identifying relevant documents, text creation and editing, and tools for translating, interpreting, and transcribing information (Adolf, 2002).

The implications of using Artificial Intelligence (AI) tools in arbitration depend significantly on the ability of the individual or company to use the tool in the trial context. The ability of individuals or companies to understand, apply, and optimize AI tools in the court process is the key to extracting maximum benefits from this technology. There are also differences in disclosure of the use of Artificial Intelligence (AI) tools in the arbitration context, depending on the situation faced by the party using the technology (Soemartono, 2006).

Likewise, there are different approaches that parties may take in permitting or rejecting the use of Artificial Intelligence (AI) tools by an arbitrator in the context of arbitration. Some parties may consider it reasonable for an arbitrator to use generative AI tools to compile a chronology or procedural history related to an arbitration award. However, the same party may refuse to grant permission to the arbitrator to use the same AI tools to prepare the primary reasons or arguments for the arbitration award.

Artificial Intelligence (AI) in arbitration can create significant procedural issues. For example, more machine translation tools can be needed to ensure the integrity of evidence and the trial process. Using generative AI tools by expert

witnesses or preparing statements can cause procedural problems. Transparency in predictive coding is vital because it involves critical parameters in legal procedures (Pinto, 2000).

The use of AI in arbitration brings efficiency and raises issues related to law enforcement and fairness. In the development of regulations related to technology in the justice system, the possibility of regulating or prohibiting the use of AI in the administration of justice may emerge. The use of AI by arbitration judges raises essential questions regarding its impact on integrity, fairness, and the rule of law. The presence of AI in arbitrator decision-making raises significant ethical and practical considerations.

Regulators such as bar associations and legal institutions in various countries are considering new guidelines for using Artificial Intelligence (AI). These guidelines apply to legal counsel, although the same rules do not bind opposing counsel. Therefore, AI-related rules from regulatory agencies will guide legal advisors in their practice despite differences in the codes of ethics adopted in arbitration (Pinto, 2000).

## CONCLUSIONS AND RECOMMENDATIONS

Artificial intelligence (AI) is a tool that can perform human tasks and is used in various fields such as science, business, creativity, and law. In the legal sector, AI is making a positive impact with its role in document processing, risk analysis, information retrieval, decision-making, case management, and fraud prevention. Legal regulation of AI can be implemented through special laws that treat it as a legal subject, like legal entities regulated in laws such as "Law Number 40 of 2007 concerning Limited Liability Companies", "Law Number 16 of 2001 concerning Foundations", and "Law Number 17 of 2012 concerning Cooperatives".

Artificial intelligence Artificial Intelligence (AI) has been used in International arbitration for some time now. The future use of AI in arbitration is extensive and covers many use cases. However, the use of AI impacts the justice system and the rule of law. AI has become an essential part of our lives in the digital transformation era; decisions in courts and arbitration still have complex meanings and cannot be fully calculated or resolved with quantitative and computational approaches. Qualitative aspects, humanistic values, conscience of justice, and moral values often cannot be included in algorithms. Therefore, evaluating the implications of using AI in arbitration is important while identifying risks that need to be further addressed.

## REFERENCES

- Aswari, A. (2018). Administrator's Dual Role as Mediator in Online Used Cell Phone Transaction Disputes. *Legal Policy Scientific Journal*, 12(3), 259–274. DOI:[0.30641/policy.2018.V12.259-274](https://doi.org/10.30641/policy.2018.V12.259-274)
- [Asmah, A., Azizah, A., Dewi, RS, & Chansrakaeo, R. \(2023\). Pancasila's Economic Existence in Business Development: The Efforts to Realize Justice in Business Law. IUS Journal of Law and Justice Studies, 11\(2\), 265–280. https://doi.org/10.29303/ius.v11i2.1224](#)
- Buana, AP, Aswari, A., Said, MF, & Arifin, MYR (2018). Responsible Parking Service Business to The Protection of Consumers Of The Parking Services in Makassar. *Substantive Justice International Journal of Law*, 1(1), 23–32. DOI:<http://dx.doi.org/10.33096/substantivejustice.v1i1.15>
- Suryana Anas, <http://makassar.tribunnews.com/2017/07/25/gelar-pengenalan-lingkungan-school-smkn-2-makassar-gandeng-lpmd-umi>, (accessed, February 28, 2019)
- Qamar, N., & Aswari, A. (2018). Healing or Hurting: Development of Highway Public Transportation Technology. *Journal of Legal Dynamics*, 18(3), 319–328. DOI:<http://dx.doi.org/10.20884/1.jdh.2018.18.3.2144>
- Adiman, Muhammad Fauzen, Retno Sari Dewi, and Ibrahimy University. 2023. "Analysis of Dispute Resolution Using Patent Litigation on the Development of Technological Innovation in Indonesia" 02 (12): 1191–1200.
- Alimuddin, Nur Hidayani, Riezka Eka Mayasari, and Retno Sari Dewi. 2023. "Effectiveness of Electronic Criminal Justice During the Covid-19 Pandemic." *Legal Transparency* 6(2): 159–71.
- Astuti, Sinta Indi, Septo Pawelas Arso, and Putri Asmita Wigati. 2015. "Artificial Intelligence for Beginners." *Analysis of Minimum Service Standards in Outpatient Installations at Semarang City Regional Hospital* 3: 103–11.
- Celebrated Silk Day. 2021. "The Urgency of Special Regulations and the Use of Artificial Intelligence in Realizing Personal Data Protection in Indonesia." *Journal of Juridical Insights* 5 (2): 177. <https://doi.org/10.25072/jwy.v5i2.460>.
- Herlambang, Mukhammad. 2019. "Application of the Finite State Machine Method in the Dreadman Game." *JATI (Information et al.)* 3 (2): 83–89. <https://doi.org/10.36040/jati.v3i2.870>.
- Son, I am Gede Raditya. 2023. "HISTORY OF ARTIFICIAL INTELLIGENCE (AI) AND FUNCTIONS IN DAILY LIFE." *Journal of Engineering Research*.
- Rahmahafida, N. I., & Whitney Brigitta Sinag. (2022). "Analysis of the Problems of Paintings Created by Artificial Intelligence According to Copyright Law." *Journal of Education and Counseling* 4 (6): 9688–96.
- Sari Dewi, Retno, Bambang S Slamet Eko, Erly Pangestuti, and Retno Sari Dewi. 2022.

"The 1st International Seminar August 2022 The Changing Role of Knowledge and Living Sustainability in ASEAN Community The Changing Role of Mediators in ASEAN Trade Disputes in Consumer Pr," no. August: 241–51.

Siahaan, Mangapul, Christopher Harsana Jasa, Kevin Anderson, Melissa Valentino Rosiana, Satria Lim, and Wahyu Yudianto. 2020. "Application of Artificial Intelligence (AI) to People with Visual Impairment." *Journal of Information Systems and Technology (JOINT)* 1(2): 186–93. <https://journal.uib.ac.id/index.php/joint/article/view/4322>.

Sihombing, Eka NAM, and Muhammad Yusrizal Adi Syaputra. 2020. "Implementation of the Use of Artificial Intelligence in Forming Regional Regulations." *Legal Policy Scientific Journal* 14 (3): 419. <https://doi.org/10.30641/politik.2020.v14.419-434>.

Umni Kalsum. (2022). "Introducing Artificial Intelligence to Teenagers." *Procedia Computer Science* 166: 310–14. <https://www.binadarma.ac.id>.

Verheij, B. (2020). "Artificial Intelligence as Law: Presidential Address to the Seventeenth International Conference on Artificial Intelligence and Law." *Artificial Intelligence and Law* 28 (2): 181–206. <https://doi.org/10.1007/s10506-020-09266-0>.

Intan, T., Revia, B., & Erwita, A. (2019). Peningkatan daya saing produsen minuman herbal melalui pembuatan konten kreatif media sosial berbasis pemasaran e-marketing. *Jurnal Komunikasi Profesional*, 3(2).

Mahedy, K. S., Parmawati, P., & Ernanda, K. (2016). Pelatihan pemanfaatan media online sebagai sarana pemasaran hasil produksi bagi asosiasi pengrajin industri kecil (Apik) Kabupaten Buleleng. In *Seminar Nasional Pengabdian Kepada Masyarakat* (Vol. 1).

Pradiani, T. (2017). Pengaruh sistem pemasaran digital marketing terhadap peningkatan volume penjualan hasil industri rumahan. *Jurnal Ilmiah Bisnis Dan Ekonomi Asia*, 11(2), 46-53.

Reddy, T. S. (2021). The impact of digital marketing on agricultural business in India. *NVEO-NATURAL VOLATILES & ESSENTIAL OILS Journal*| NVEO, pp. 426–437.

- Utami, D. P. (2020, October). Pengenalan digital marketing dalam pemasaran produk pertanian untuk petani milenial Desa Wonotulus Kecamatan Purworejo Kabupaten Purworejo. In *Prosiding Seminar Nasional Pertanian* (Vol. 1, No. 1, pp. 25-32).
- Yuantari, M. C., & Kurniadi, A. (2016). Pemanfaatan Teknologi Informasi Untuk Meningkatkan Pemasaran Hasil Pertanian Di Desa Curut Kecamatan Penawangan Kabupaten Grobogan Jawa Tengah. *Techno. Com*, 15(1), 43–47.