"The Internet has no territorial boundaries.
Not only is there perhaps 'no there there', the
'there' is everywhere where there is Internet access."[1]

I. Introduction

In modern times legal systems of many countries face challenges in adjusting their traditional institutions to the new reality of electronic commerce. One of the most promising technologies in this field is a system of automated communication in which electronic agents assist people in the trading process with no legal frameworks established in advance. This technology is much more advanced than the Electronic Data Interchange (EDI) where prospective human trading partners enter "interchange agreements" with each other prior to the commencement of a trading.

This paper will analyze the American and Polish approach to this matter and show how the two systems which originate from the same source, meaning, the UNCITRAL standards, treat the problems differently.

The first chapter presents electronic agents and their historical development. It is followed by a discussion of the legal status of intelligent agents and their contractual capacities. Finally, the third and fourth chapters analyze the American and Polish laws governing electronic contracts, including contract formation, safety procedures and avoidance doctrines. After this debate one may decide whether the current legislation is ready for transactions concluded by electronic agents.

[1] Digital Equipment Corporation v. Altavista Technology, Inc., 960 F. Supp. 456, (D. Mass.1997).

A. Historical development of electronic agents

The notion of an electronic agent was established in the United States, a country where the artificial intelligence technology movement commenced. Famous research centers, such as the Massachusetts Institute of Technology (MIT), Carnegie Mellon University (CMU), Stanford University and IBM have operated with this term since the mid-1950s. The earliest computer program operating as an electronic agent, called LogicTheorist, was developed at CMU and imitated the "human way of thinking."[2]

The original task of electronic agents as tools, was to discover and count the number of Web servers. This was an important task since the rapidly increasing content of the Internet made it impossible to gather and process information by manual browsing.[3]

Electronic agents of the first generation, such as LogicTheorist, were only able to perform relatively easy tasks, such as searching and providing relevant information for their users. Later, in the 1980s they also could be programmed within the Electronic Data Interchange (EDI) system to issue a standard offer and to both record and acknowledge acceptances from the trading partners.

The classical search engines that belong to the first generation of electronic agents are divided into three categories. The first group is information search engines that gather information on the web, classify it following criteria generally determined by their users and display a list of links to related websites. The second category comprises the

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[2] Emily M. Weitzenboeck, *Electronic Agents and the Formation of Contracts,* INTERNATIONAL JOURNAL OF LAW AND INFORMATION TECHNOLOGY, Vol.9 No.3, 204-234 (2001).

[3] H. G. Ruse, *Electronic Agents and the Legal Protection of Non-creative Databases,* INTERNATIONAL JOURNAL OF LAW AND INFORMATION TECHNOLOGY Vol.9 No.3, 295-326 (2001).

directories and portals that contain a database of links to websites that have subscribed to an agreement with the concerned service provider. The last type is the specialized search engines that are directed to very specific topics such as ticket selling or gathering of press articles.[4] The most common examples of search engines are: AltaVista, Google, Go, Lycos, Excite, Northern Light, FAST and Inktomi. In all those applications search engines do not act autonomously since the service provider controls the extent of the activities.

In today's world search engines that only respond to requests for information are no longer sufficient, therefore, a second generation of electronic agents is being developed. These sophisticated electronic agents are capable of performing more complex actions that include tasks, such as initiating, negotiating and formatting contracts. To meet the high expectations of their users they possess human characteristics such as intelligence, creativity and pro-activeness. What distinguishes these intelligent agents from other electronic agents is that they have autonomy, meaning that besides the built-in knowledge they gain their own experience. This indicates that they can operate without the direct intervention of human beings or other agents, and have some degree of control over their actions and internal state.[5] They are promising tools for electronic commerce and nowadays they are mostly used to assist buyers (BargainFinder, Kasbah[6], Marketspace) and sellers (AgentWare).[7] At the same time, however, the activities of

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[4] A. Cruquenaire, *Electronic Agents as Search Engines: Copyright related aspects,* INTERNATIONAL JOURNAL OF LAW AND INFORMATION TECHNOLOGY Vol.9 No.3, 327-343 (2001).

[5] Weitzenboeck, *supra* note 2.

[6] For the purposes of this paper it is good to mention that in Kasbah the users can indicate beforehand whether the agents should ask approval of the user before finalizing the deal, or whether the agents can merely send e-mail notification when agreement is reached.

[7] A.R. Lodder & M.B. Voulon, *Intelligent Agents and the Information Requirements of the Directives on Distance Selling and E-commerce*, INTERNATIONAL REVIEW OF LAW COMPUTERS & TECHNOLOGY, Vol. 16, No. 3, 277-287, 2002.

electronic agents raise legal questions of validity of contracts concluded with their help since there is no direct control of human users over independently acting electronic devices.

B. Definition of an electronic agent

The widely accessible Internet has connected people from most parts of the world and created one uniform market. So far, however, a single, universally acceptable definition of an electronic agent has not been introduced. In literature many terms for electronic agents are used interchangeably; agents are called assistants, digital butlers[8], intelligent software agents, intelligent bots, autonomous or mobile agents[9], spiders, crawlers or web robots.[10]

Electronic agents are used in so many forms and for so many purposes that it is difficult to create one general definition. That is why Russell and Norvig, well-known scientists in the field of artificial intelligence, defined electronic agents broadly as "anything that can be viewed as perceiving its environment through sensors and acting upon that environment through effectors."[11]

Although, a global definition of an electronic agent does not exist, some countries have adopted their own definitions. For example, in the United States state and federal legislatures adopted a definition drafted by the National Conference of Commissioners on Uniform State Laws (NCCUSL), which says that electronic agent means a computer

[8] HODDER & STROUGHTON , BEING DIGITAL 149 (1995).
[9] S. R. Cross, *Agency, Contract and Intelligent Software Agents*, INTERNATIONAL REVIEW OF LAW COMPUTERS & TECHNOLOGY, Vol. 17, No. 2, 175-189, July (2003).
[10] Russe, *supra* note 3.
[11] RUSSEL & NORVIG, quoted by Ruse, *supra* note 3.

program used independently to initiate an action or respond without review or action by an individual.[12] Poland, following the trend in the European Union, has not defined electronic agents within its legal system.[13]

C. Characteristics of electronic agents

Although there is no widely accepted definition of the phrase "electronic agent", certain characteristics of these agents can distinguish them from other computer programs. Scientists have enumerated these key elements as being: autonomy, social ability, reactivity and pro-activity. Autonomy means that the agent has the capacity to act without the intervention of its human or other user and thereby has some level of control over its activities and internal state. Social ability indicates that the agent has the ability to communicate with other agents and humans through a shared agent communication language. Reactivity implies that the agent is able to perceive an environment and respond in a timely fashion to changes that occur within it. The last characteristic, pro-activeness, means that agents are able to demonstrate goal-directed activity by taking initiative.[14]

Agents that possess the abovementioned characteristics are within a weak notion of agency.[15] There also is a strong notion of agency that requires an agent to have

[12] UETA § 2(6).
[13] Katarzyna Kryczka, *Ready to join the EU Information Society? Implementation of E-commerce Directive 2000/31/EC in the EU acceding countries – the example of Poland*, INTERNATIONAL JOURNAL OF LAW AND INFORMATION TECHNOLOGY, Vol. 12 No.1, 55-73 (2004).
[14] Cross, *supra* note 9, at 177.
[15] The distinction between weak and strong notions of agency was introduced by Wooldridge and Jennings in "Intelligent agents: Theory and Practice", available at http://www.elec.qmw.ac.uk/dai/pubs/KER95/.

additional features, such as knowledge, belief, intention, obligation, mobility,[16] veracity,[17] benevolence[18] and rationality[19].[20] In today's world most electronic devices employed by the Internet users do not possess the above-mentioned characteristics. They are treated as mere tools because they are not capable of creating any legally binding relationships. For example, a worldwide known search engine "Google" is an automatic device that may be used only to search for specified terms. "Google" cannot be employed for any other purposes because it lacks autonomy, meaning that all its work is controlled by the human user.

D. Classification of electronic agents

There are many different classifications of electronic agents presented in the literature and they are based on various factors, such as intelligence, mobility, interactivity, trustworthiness, etc.

Revelli divides electronic agents into several groups. The simplest are search information agents followed by watcher agents which track changes on the Internet as to specific information and areas of interest of the user. The last two are agents for e-commerce such as shopping agents, like Shopper.com and assistant agents, a type of

[16] It is an ability to move around in an electronic network.
[17] It is an assumption that an agent will not knowingly communicate false information.
[18] It is an assumption that agents do not have conflicting goals, and that every agent will therefore always try to do what is asked of it.
[19] It is an assumption that an agent will act in order to achieve its goals and not to prevent them.
[20] Cross, *supra* note 9, at 178.

desktop tool that organizes computer work such as filtering, deletion and response to received e-mails.[21]

Stuurman and Wijnands made a clear grouping of agents by arranging them into passive, active and transaction agents. According to the authors, passive agents relate to programs that function and interact within the user's own environment. Active agents, on the other hand, actively gather and process information. Finally, transaction agents perform transactions for or with a consumer, an example being an agent that orders a book for a user on the basis of a consumer's profile.[22]

In this paper close attention will be paid to the performance of transaction agents since only this category is able to conclude and perform legally binding contracts. Currently a great number of Internet retailers work with help of transaction agents, because their use speeds up transactions and decreases the cost of service. For instance, companies like "Expedia.com"or "Priceline.com" conclude contracts for sale of airplane tickets through electronic agents. Therefore, a customer who needs to purchase a plane ticket from Pittsburgh to Bologna must invite an electronic agent to make an offer by specifying the date and place of departure, as well as the place of destination. In response, the electronic agent usually makes several offers from which the customer may choose the one he favors. If the customer accepts the offer he likes a contract is concluded and almost simultaneously the confirmation of the agreement is sent to the customer's mailbox. On the other hand, there are also situations in which it is the individual who makes an offer and an electronic agent's response operates as the acceptance. For example, "Priceline.com" has an option in which it is the customer who specifies the date

[21] S. Gonzalo, *A Business Outlook regarding Electronic Agents*, INTERNATIONAL JOURNAL OF LAW AND INFORMATION TECHNOLOGY, Vol.9 No. 3, 189-203 (2001).
[22] STUURMAN & WIJNANDS, quoted by Cross, *supra* note 9, at 176.

and place of departure, destination and price of ticket he wishes to purchase. After sending his offer he waits for an electronic agent's response. If the electronic agent accepts the customer's offer a contract is formed, if the offer is rejected the customer may make another offer or ask for an offer from the electronic agent. There are also situations in which both parties are electronic agents acting on behalf of their users. In those cases electronic agents on a customers' side may use the built-in knowledge of their users' preferences and apply it during the negotiation process. One can imagine, a scenario in which an electronic agent "working" for a businessman buys a plane ticket for a specified seat, books a room in his favorite hotel and rents his ideal car. All those transactions seem to be simple, but in reality they may raise legal issues of contract formation, enforcement and liability for an electronic agent's actions. The consequences of an intelligent agent's behavior will also depend on its legal status and thus, three different legal solutions will be presented in order to decide which best fits the needs of the market and legal principles.

II. Electronic agents in the eyes of law

It is beyond question that electronic agents are revolutionary and a promising tool for electronic commerce. However, many legal issues in regard to their contractual abilities are still pending since electronic agents of the second generation have appeared in electronic commerce just a few years ago. The technology of electronic agents also brings new considerations in the area Internet security, trust, privacy and consumer protection.

A. Electronic agent as a mere communication tool

In order to resolve the issue of enforceability of contracts concluded by electronic agents some authors proposed considering intelligent agents as mere communication tools such as telephones or fax machines. In this approach anything emanating from the electronic agent is in fact to be construed as emanating from the legally capable party using the agent.[23] The rationale for this theory is that people often sign contracts without reading them and those contracts are as binding as those which are thoroughly analyzed. To support this theory Tom Allen suggested that lawmakers can adopt a presumption that a person who employs electronic agent and relies on it expresses his or her intent to be bound by the computer device's actions.[24]

Although the attribution rule solves the problem of enforceability this theory is not free from criticism. The biggest disadvantage of it is that it places a harsh burden on the user who has a limited control over the computer, which can initiate actions on its own.[25] The user is responsible for the conduct of the electronic agent regardless of his knowledge as to the concluded contracts and their terms.[26] On the other hand, one may say that this view gives a strong incentive to the user to ensure that the agent is properly operating and being adequately policed.

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[23] Cross, *supra* note 9, at 180.
[24] Tom Allen & Robin Widdison, *Can Computers Make Contracts?,* 9 HARV. J.L.& TECH. 23, (1996).
[25] This disadvantage was discussed by UNICITRAL when proposing the Convention on Electronic Contracting, but the committee finally decided that electronic agents should be considered mere instruments of communication- "The Data messages that are generated automatically by computers without human intervention should be regarded as "originating" from the legal entity on behalf of which the computer is operated."
[26] Weitzenboeck, *supra* note 2, at 214.

B. Electronic agent as an agent under the law of agency

A great deal of literature has also been dedicated to the governance of electronic agents by the law of agency. This topic has been discussed at length in the United States as well as in Europe since agency law has a potential to regulate the legal issues in automated transactions.

In the United States the most ardent supporter of the application of agency law to electronic agents is Fischer, who argues that the comparison seems obvious:

> when computers are given the capacity to communicate with each other based upon preprogrammed instructions, and when they possess the physical capacity to execute agreements […] without any human awareness […] beyond the original programming of the computer's instructions, these computers serve the same function as similarly instructed human agents of a party and thus should be treated under the law identically to those human agents.[27]

Fisher further argues that this approach is reasonable since the principles of agency law do not require an agent to have a contractual capacity[28] in order to be competent to act as an agent.[29] In order to avoid the requirement of acceptance of the agency mandate he proposes the adoption of legal fiction of consent.[30] The author also emphasizes that the idea can be easily adopted in the United States since its law does not

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[27] Fischer quoted by Jean-François Lerouge, *The Use of Electronic Agents Questioned Under Contractual Law. Suggested Solutions on a European and American Level,* 18 J. MARSHALL J. COMPUTER & INFO. L.403, (1999), also available at http://www.droit.fundp.ac.be/textes/lerouge2.pdf.
[28] This argument fails under the Polish law since Article 100 of Civil Code requires that an agent has at least limited contractual capacity. In order to uphold this theory a legal fiction of contractual capacity would have to be established.
[29] Cross, *supra* note 9, at 179.
[30] Weitzenboeck, *supra* note 2, at 216.

require any special formalities for the creation of the agency relationship.[31] According to the Restatement 2d of Agency Law § 26 in order to establish an agency relationship the parties may have express, written or verbal agreement that determines the authority, duties and liability of the agent.[32]

There are, however, other legal issues that application of the law of agency cannot solve. The biggest concern is that agency law only applies to legal persons and only legal persons can make contracts. In order to overcome this obstacle, another commentator, Kerr, suggests that electronic devices are included within the set of rules that form the external law of agency since the disputes will only involve the principal and the third party engaged in the agent transaction.[33] Kerr's view, however, was challenged by an argument that the third party frequently has the right to choose to take action against the principal or agent. For example, this issue is raised by the doctrine of undisclosed principal. It says that whenever the agent acts in his own name without disclosing to the third party that he is acting as an agent, he is liable to the third contacting party, and the later disclosure of the existence and identity of the principal does not exclude the liability of the agent. In that scenario the agent is jointly and severally liable with the principal for the resulting damages.[34]

Kerr's approach definitely has a flaw. It excludes issues from the internal agency relationship, meaning the one between the principal and the agent. As a result the principal would not have recourse against the agent in situations where the agent exceeds

[31] This argument also would fail under Polish law because Article 102 of Civil Code says that the agreement establishing agent-principal relationship must be in writing. Polish law sets up other formal obstacles, such as a requirement to return the agency document to the principal after the relationship expires.
[32] F. De Miglio et al., *Electronic Agents and the Law of Agency,* at http//www.cirfid.unibo.it/~agsw/lea02/pp/DemiglioOnidaRomanoSantoro.pdf.
[33] Lerouge, *supra* note 27, at 8.
[34] De Miglio, *supra* note 32.

its authority or when it engages another incompetent agent. This means that the principal has the rights and duties in respect to third parties associated with an electronic agent transaction, but no parallel rights in respect to internal relations.[35]

The theory of application of agency law to electronic agents has been criticized for its complicated structure. It fails to explain issues at many levels and calls for too many exceptions to the rules of agency.[36] According to scholars this theory fails because the law proposes simpler ways to reach the same result.[37]

C. Electronic agent as a legal person- *ePerson*

In the search for the best solutions scholars have also considered granting electronic agents legal personality. The justification for that proposal stems from a theory introduced by Lawrence Solum and is based on several factors. The first argument is that any entity, which has some characteristics in common with natural persons, such as self-consciousness, is morally entitled to legal protection.[38] This view, however, was criticized for its focus on a computer as an entity instead of on the protection of those who trade through the computer. The second reason for recognizing *ePersons* is that a sophisticated computer program may have social ability, meaning that people who interact electronically think that electronic agents are the source of communication, rather than their human users. It is therefore people's perception of computer programs that

[35] Lerouge, *supra* note 27, at 9.
[36] There are many other unresolved issues, such as the excess of authority, delegation of authority to another, unauthorized agents, ratification of agent's acts.
[37] De Miglio, *supra* note 32.
[38] Solum, *Legal Personhood for Artificial Intelligences*, 70 N.C.L.REV. 1231, (1992).

determines whether they are something more then just mere instruments.[39] The last argument for this solution is the legal and commercial convenience that comes from recognizing electronic agents as independent entities. The advocates of conferring legal personality to an electronic agent argue that this approach would solve the problem of electronic agents' capacity to express consent and bear liability because the legal fiction would not be necessary at that point.[40]

An initial and direct effect of attributing legal personality to electronic agents is to grant them legal rights and obligations. In consequence electronic agents, as any other legal person, would be able to have assets, to sue and be sued. They basically would have all economic rights, except personal rights, which are reserved only for natural persons.

It is argued in legal literature that it is still difficult to justify attributing legal personality to electronic agents on the basis of these arguments. The biggest concern is the difficulty of identifying the agent since it may not be clear whether it is the hardware or software.[41] In the world of companies and corporations as legal entities, a system of registers solves this problem by identifying all legal persons, their names and addresses, thus giving companies' standings for commercial purposes.

As for electronic agents, Karnow proposed a system called the "Turing Registry". The general idea is that the registry would issue certificates for anybody who plans to use

[39] It is possible that future generations will have a different attitude toward computers since on a daily basis they will be more dependent on electronic devices. Some scientists think that even at this level of development the status of computers may be confusing since people work and "socialize" with them. For example, such events as beating chess champion Kasparov made part of the society think that artificial intelligence is extremely advanced. Other computer games also have had a tremendous impact on perception of computers as everyday companions. The possibility of considering an electronic agent as a legal person was discussed in Official Comments to § 2(6) of UETA which say that if artificial intelligence developments offer autonomous agents the courts may construe the definition of electronic agent accordingly, in order to recognize such new capabilities. Finally, this future scenario of autonomous, instead of automated programs was also subject to discussion within UCITRAL. More information available at: www.uncitral.org/english/workinggroups/wg_ec/wp-104-add4-e.pdf.

[40] Allen, *supra* note 24, at 12.

[41] Weitzenboeck, *supra* note 2, at 213.

an electronic agent and would guarantee coverage for risks arising from its use. The measurement of premium would depend on the level of intelligence of an electronic agent. In other words, the more intelligent and autonomous the agent is, the greater the risk, and the higher the premium to be paid. According to its author, the "Turning Registry" would be mandatory for programmers and all those who plan to use autonomous electronic devices.[42] However, many scholars think that this system does not solve completely the problem with identification and moreover, leads to extreme cost which is hard to justify at the current level of electronic agents' development.[43]

It is obvious that the concept of an electronic person offers a crucial advantage over the other approaches since it allows for limiting the liability for the owner of the agent. In other words, the user would not be personally liable for an electronic agent's actions, but just up to the amount of a premium paid. All the financial responsibility of an electronic agent would be covered from the assets of the electronic agent itself acting as a legal person. The contracting party also draws some advantage from that. The party can check the soundness of the agent in the register and thus adjust his decision to conclude the contract.

III. Regulation of electronic agents in the United States

The issue of electronic agents and their ability to make electronic contracts has been recognized by American lawmaking bodies since the late 1990s. The legislative movement in the United States has been influenced by the work of the United Nations

[42] De Miglio, *supra* note 32.
[43] Weitzenboeck, *supra* note 2, at 213.

Commission on International Trade Law.[44] The developing technologies of automated computer systems and subsequent legislation and its interpretation on the international level made American scholars[45] revisit traditional common law theories of contract formation to allow contracts to be concluded without human intervention.[46]

So far, in the United States there are four primary acts that recognize and govern actions of intelligent agents. The first national effort at providing some uniform rules on electronic commerce was the Uniform Electronic Transactions Act promulgated in 1999.[47] UETA turned out to be a successful compilation of procedural law facilitating electronic contracts.[48] Another work of the NCCUSL, the Uniform Computer Information Act, did not get such wide support. Since 1999 it has been approved only in two states, Maryland and Virginia, because it includes too many controversial solutions. For example, the UCITA has adopted a layered contract approach, which was denied in some jurisdictions.[49] Due to its narrow legislative approval the UCITA will not be analyzed in a great detail even though it provides comprehensive substantive law on electronic

[44] On December 16 1996 the UNCITRAL adopted the Model Law on Electronic Commerce in order to further the progressive harmonization and unification of electronic commerce. More information and the text of the Model Law is available at: www.un.org/documents/ga/res/51/a51r162.htm.
[45] Raymond Nimmer, Fred H. Miller, William J. Pierce, Amelia H. Boss, Patricia Brumfield Fry and many other authors on electronic commerce were the members of Drafting Committee on UCITA and UETA, more is available at: www.nccusl.org.
[46] A report from the forty second session of the UN General Assembly in Vienna in November 2003 titled "Legal aspects of electronic commerce, Electronic contracting: background information" states that the existing uniform law conventions and acts, such as the United Nations Convention on Contracts for the International Sale of Goods and Model Law on Electronic Commerce, do not preclude the use of automated systems. Although none of these acts regulates electronic agents specifically, the Model Law in article 13(2)(b) sets out a rule that attributes data messages sent by an automated system to the originator, meaning the program user. More information is available at: www.uncitral.org/english/workinggroups/wg_ec/wp-104-add4-e.pdf.
[47] Summary completed by the Uniform Law Commissioners, available at: www.nccusl.org/Update/uniformact_summaries/uniformacts-s-ueta.asp.
[48] UETA has been adopted in all states except for New York and Illinois. UETA's current status is available at: www.nccusl.org/Update/uniformact_factsheets/uniformacts-fs-ueta.asp.
[49] Because of the controversy UCITA was amended in 2000 and 2002, but so far those actions have not changed states' reluctance to it. More information and the text of UCITA are available at: www.nccusl.org/Update/uniformact_factsheets/uniformacts-fs-ucita.asp

commerce. Closer attention will be paid to the revised version of the UCC Article 2 which also regulates electronic agents and their contractual capacities.[50] On the federal level electronic commerce is governed by the Electronic Signatures in Global and National Commerce Act[51] which is designed to ensure that an electronic contract is not "denied legal effect, validity, or enforceability solely because an electronic signature or electronic record was used in its formation."[52]

Before these acts are analyzed it must be explained that E-Sign, UCITA, UETA, and the revised UCC are consistent statutes which merely differ in their approach to contract formation and validity. Their application will depend on the form and the subject of contract, as well as on the issue raised in the dispute. Consequently, UCC Article 2 will govern sales of goods, meaning all things that are movable at the time of identification to a contract of sale.[53] UETA, on the other hand, will apply to the procedural matters of electronic records and electronic signatures relating to a transaction.[54] UCITA, where enacted, covers contracts in "computer information"

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[50] According to Gregory E. Maggs, revision of Article 2 was unnecessary because state legislatures and the federal government already have stepped in with alternative legislation. He argues that UETA and E-SIGN each contain provisions designed to remove any doubt that electronic agents may form contracts. Moreover, the UETA commentary asserts that the UETA merely confirms that machines may act as agents. Gregory E. Maggs, *The Waning Importance of Revisions to U.C.C. Article 2*, 78 NOTRE DAME L. REV. 595, (2003).
Also Linda Rusch analyzed amendments to UCC Article 2 and came to a conclusion that they might cause more uncertainty than uniformity in electronic commerce. Linda J. Rusch , *Is the Saga of the Uniform Commercial Code Article 2 Revisions Over? A Brief Look at What NCCUSL Finally Approved*, 6 DEL. L. REV. 41, (2003).
The revised version has been introduced in Kansas only and its text is available at www.nccusl.org/Update/uniformact_factsheets/uniformacts-fs-ucc22A03.asp.

[51] 15 U.S.C. §§ 7001 et seq.

[52] *Id.* § 7001(a)(2).

[53] UCC § 2-102 and § 2-103(1)(k).

[54] Official comment to UETA § 3 states that the Act applies to transactions which parties have agreed to conduct electronically and that the term transaction should be interpreted broadly so UETA has the widest possible application consistent with its purpose of removing barriers to electronic commerce.

meaning agreements to create, modify, transfer, or license computer information.[55] It will also govern hybrid contracts, if obtaining the computer information is the primary purpose of the deal.[56]

A. Definition of an electronic agent

UETA was the first act in the United States that defined an electronic agent and regulated its contractual capabilities in the world of the Internet. All the above mentioned acts followed the UETA approach and state that: "electronic agent means a computer program or an electronic or other automated means used independently to initiate an action or respond to electronic records or performances in whole or in part, without review or action by an individual."[57]

B. Electronic contracts

The formation of an electronic agreement is a complex process and it engages several stages. First, an electronic agent has to search for the parties, then negotiate the terms, draft the agreement, and finally execute it. The involvement of an intelligent agent in this

[55] It means that UCITA covers contracts to license or buy software, contracts to create a computer program, contracts for multimedia products, computer games, online access to databases, contracts to distribute information on the Internet, develop websites, and the like. UCITA does not apply to traditional books (only online books, magazines, newspapers), television sets, cars, furniture and the like, because those contracts are governed by Article 2 and 2A of the UCC.

[56] RAYMOND T. NIMMER, UNDERSTANDING ELECTRONIC CONTRACTING UCITA, E-SIGNATURE, FEDERAL, STATE AND FOREIGN REGULATIONS (2001).

[57] UETA § 2(6). The same definition was adopted in revised UCC § 2-103(1)(g). E-SIGN § 7006(3) adds "without review or action by an individual at the time of the action or response", but official comments to UCC's definition state that the two definitions are consistent. Finally, the UCITA § 102(a)(27) definition of "electronic agent" follows the UETA language, but at the same time clarifies that an electronic agent performs "on the person's behalf", meaning that all automated actions are attributed to a person using the program.

process raises many legal questions that affect the validity of a contract. This paper will analyze the American approach to the key issues in this matter, such as an electronic manifestation of intent, attribution of electronic agent's actions and avoidance doctrines. Finally some cases touching the problem of attribution will be presented.

1. Objective theory of assent

The general rule of American contract law says that a contract is concluded if there is mutual assent, an intention from both parties to be legally bound, and consideration.[58] In determining whether there is "meeting of minds" the American doctrine adopted an objective theory of assent and the standard of a reasonable person. It means that a party's mental assent is not necessary to make a contract; the real but unexpressed state of mind is irrelevant. It is, hence, enough that the other party had reason to believe that the first party had the intention to agree.[59] This objective theory allows electronic agents to be used in a contract conclusion process and to infer contractual intent from the programming and use of electronic devices.[60]

Interestingly, the UCITA, unlike any other statue, defines the contractual notion of a "manifestation of assent" in the context of electronic commerce. Section 112(b) stipulates that an electronic agent manifests assent on behalf of the person using it if, "after having

[58] I. Kafeza at al, *Legal Issues in Agents for Electronic Contracting*, at http://csdl.computer.org/comp/proceedings/hicss/2005/2268/05/22680134a.pdf.
[59] Lerouge, *supra* note 27, at 19.
[60] Patricia Brumfield Fry, *Introduction to the Uniform Electronic Transactions Act: Principles, Policies and Provisions*, 37 IDAHO L. REV. 237 (2001).

an opportunity to review"[61] a record or term, the electronic agent authenticates it or "engages in operations that indicate acceptance."[62] The consequence of this provision is significant because it clarifies that an electronic agent is capable of manifesting its user's assent and, thus, has the power to conclude contracts.[63] In result, if a party shows that a robot has engaged in specific conduct to access information and obtained or used this information, the party will prove that there was assent and consequently a binding contract.[64]

The current and revised UCC does not include a provision on manifestation of assent, but the amended version prevents a party from claiming a lack of contractual intent when electronic agents have interacted to form a contract without human intervention.[65] Section 2-212 specifically validates any action performed by an electronic agent by attributing such action to the parties.[66] Under the current version contracts concluded through electronic agents may also be valid and attributed to an electronic agent user since in matters not governed by the UCC the UETA will step in and validate an electronic contract.[67] The theory behind this approach is that an electronic record or signature is not

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[61] According to § 112(e)(2) a website provides an electronic agent with the opportunity to review a contract if it makes it available in a manner that a reasonably configured electronic agent would react to. Therefore, placing the contractual terms of a robot restriction agreement within the robot exclusion header would notify a reasonably configured robot of the website's policy. Jeffrey M. Rosenfeld, *Spiders and Crawlers and Bots, Oh My: The Economic Efficiency and Public Policy of Online Contracts that Restrict Data Collection*, 2002 STAN. TECH. L. REV. 3.

[62] UCITA § 112(b).

[63] Ian R. Kerr , *Spirits in the Material World: Intelligent Agents as Intermediaries in Electronic Commerce*, *22* DALHOUSIE L.J. 190, 231 (1999). The author further argues that this section should be rewritten to indicate clearly that the manifestation of a person's assent is sometimes made *through* an electronic agent, though never *by* an electronic agent.

[64] Rosenfeld, *supra* note 61.

[65] Juanda Lowder Daniel, *Electronic Contracting under the 2003 Revisions to Article 2 of the Uniform Commercial Code: Clarification or Chaos?,* 20 SANTA CLARA COMPUTER & HIGH TECH. L.J. 319 (2004).

[66] UCC § 2-212 says that an electronic record or electronic signature is attributable to a person if it was the act of the person or the person's electronic agent or the person is otherwise legally bound by the act.

[67] The UETA does not include attribution rule that mentions directly electronic agents, but it provides a general rule that attributes an electronic record to a party that uses electronic means of communication,

ascribed to a machine, but to the person operating or programming the machine just like the person would do it in a paper medium.[68]

2. Battle of the forms in automated transactions

Revised UCC, UCITA and UETA recognize contracts formed by the interaction of electronic agents acting without human intervention.[69] They also recognize contracts formed by the interaction of an electronic agent and an individual acting on his own behalf or the behalf of another person.[70] It is easy to imagine that at the negotiation stage parties will exchange their terms and a "battle of forms" is likely to occur. In this situation the revised UCC provides a "knock-out rule" which results in incorporating only those terms on which both parties agreed.[71] The UCC, however, makes an exception to the general rule and, under some conditions, protects a user of an electronic agent when it interacts with an individual. Section 2-204(4)(b) states that an individual interacting with an electronic agent will be deemed to accept an offer of the agent if the individual takes an action that he can refuse to take and that he has reason to know (1) will indicate acceptance to the electronic agent, and (2) cause the agent to perform or provide benefits that are the subject of the contract. The contract, so formed, will not include any terms or

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UETA § 14. Valerie Watnick, *The Electronic Formation of Contracts and the Common Law "Mailbox Rule",* 56 BAYLOR L. REV. 175 (2004).
A problem with attribution may arise in legislations that have not adopted the UETA (New York and Illinois). However, Register.com v. Verio, decided according to the New York law and discussed in detail later, shows that it may not be the issue and that general rules are sufficient.

[68] Official Comments 2 and 3 to the amended UCC 2-212.

[69] UCC § 2-204(4)(a), UETA § 14(1) and similar provision in UCITA § 206(a). This provision, along with § 2-207 has been criticized for eliminating parties' true intent since the non-matching terms will be knocked out and just the terms that appear in the record of both parties will govern.

[70] UCC § 2-204(4)(b), UETA § 14(2) and UCITA § 206(b).

[71] UCC § 2-207.

expressions made by the individual (i.e. counter-offer) if the individual has reason to know the electronic agent cannot react to such terms.[72]

C. Avoidance doctrines

In a world of electronic transactions some changes or errors may be introduced into an electronic record, either because of system or transmission problems, or intentional human alteration. As a consequence difficult questions of liability of service providers and the rights and obligations of the parties arise and can result in costly litigation. The Drafting Committee of the UETA noticed this problem and was concerned about the ease with which errors by individuals could be made, for example by hitting the "enter" key twice or mistyping a letter or number. Another concern was that, in transactions with automated agents, individuals would have less ability to correct errors than in transactions with other individuals since electronic communication is almost instantaneous.[73]

These concerns have been so pervasive that the UETA has two basic principles in Section 10 applicable to the errors in automated transactions.[74] The first permits parties to agree on a "security procedure" that detects changes or errors in electronic records and notifies the parties accordingly. For example, parties may agree to employ extra software that supervises whether the terms are somehow non-matching and automatically sends an e-mail to the negotiating parties in order to put them on notice of any errors or changes. A

[72] UCC § 2-211 is based on Section 206(c) of the UCITA.
[73] Amelia H. Boss, *The Uniform Electronic Transactions Act in a Global Environment,* 37 IDAHO L. REV. 275 (2001).
[74] UCITA § 213(d) also provides regulation on effect of change or error.

"security procedure" may also apply automatically, an example being a procedure of contract formation adopted by "Priceline.com." When a person wants to buy a round-trip plane ticket to Bologna and chooses a date of departure for April 17, 2005 and date of returning for April 15, 2005, Priceline will notify the customer that the date of returning is scheduled two day earlier than departure. If parties adopt such a procedure a nonconforming party loses the right to avoid the effect of the changed or erroneous electronic record.[75] Therefore, if the customer ignores the warning and purses the purchase he is not entitled to get away from this deal. It should be noted however, that an individual that does not qualify for this special provision is not automatically bound by an erroneous order because he may invoke other laws, such as the law of mistake, to try and undo the order.

In instances where an error prevention or error correction procedure has not been agreed to, the UETA § 10(2) entitles a party to avoid a transaction that involves an error. This right arises when an electronic agent has not allowed for the prevention or correction of an error, but is subject to several conditions. First, on learning that the other party believed a transaction had occurred, the individual must give prompt notice of the error and that he or she did not intend to be bound. In addition, the individual may not have used or received the benefit of the transaction. Finally, the individual must take reasonable steps to return any consideration received as a result of the transaction, including compliance with any reasonable instructions given by the other party for return or destruction of the item.[76] Analyzing the scenario of buying a plane ticket to Bologna

[75] THOMAS J. SMEDINGHOFF, *Creating enforceable electronic transactions*, in RAYMOND T. NIMMER, UNDERSTANDING ELECTRONIC CONTRACTING UCITA, E-SIGNATURE, FEDERAL, STATE AND FOREIGN REGULATIONS, 85 (2001).
[76] Fry, *supra* note 60, at 242.

the customer would be entitled to avoid contract if a "security procedure" was not available and he noticed the wrong dates but did not have an opportunity to correct the error before a contract was formed. Additionally, in order to avoid the deal he would have to follow all the above-mentioned instructions and return any consideration received.

The goal of these provisions is to encourage Internet retailers and others designing web commerce systems to provide purchasers with the opportunity to review and confirm their order before the order is placed, and in this way to avoid the high cost of possible litigation.[77] Such procedures are easily provided, for example, through the use of "confirmation screens" where the individual is asked to confirm the terms of the transaction. For instance, Priceline's electronic agent demands customers to confirm the terms of contract before it moves to the final step of charging the customer's credit card. By providing an opportunity for an individual to verify and confirm the information initially sent, the other party can eliminate the possibility of the individual defending on the grounds of inadvertent error since the electronic agent, through confirmation, allowed for correction of the error.[78]

The UCITA also contains similar rules of avoidance[79], but in addition clarifies that a court may grant appropriate relief if the operations resulted from fraud, electronic mistake, or the like.[80] Another difference is that it distinguishes merchants and consumers awarding those security procedures to consumers only.

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[77] Stephen T. Middlebrook & John Muller, *Thoughts on Bots: The Emerging Law of Electronic Agents*, 56 BUS.LAW. 341 (2000).
[78] Boss, *supra* note 73, at 281.
[79] UCITA § 214.
[80] UCITA § 206. This section has been criticized from using a term of „electronic mistake" that has been nowhere defined. Carlyle C. Ring, Jr., *Symposium on Approaching E-commerce through Uniform*

In electronic transactions claims of lack of capacity, undue influence and duress probably will not arise because, first of all, electronic agents, so far, do not have contractual capacity and, secondly, it is hard to imagine a situation in which a contracting party is physically compelled or threatened.[81] Official comments discuss defenses of fraud and mistake as possible claims, but at the same time caution courts not to approach such defenses with the same legal standards applicable to non-electronic transactions.[82]

A fraud claim is naturally hard to prove in the electronic world since it requires demonstration that an intentional or material misrepresentation induced a party to assent to a contract. A misrepresented party may encounter practical obstacles in showing intent to defraud if there is no evidence that at the time of contracting the other party misrepresented the truth or concealed material fact in order to induce another to act to his or her detriment. Another obstacle is the scholars' reluctance the rule that the actions, intent and knowledge of an electronic agent are attributed to a computer user. In their opinion this strict attribution rule is unjust and may impair development of electronic agents.[83] Therefore, the doctrine of fraud seems not to be a good claim unless a party proves that the deceptive conduct occurred at the programming stage.[84]

The doctrine of mistake also brings many questions that will need to be answered by courts. For example, it is uncertain whether an electronic agent can have "beliefs" and under what circumstances a party that employs an electronic agent will bear the risk of mistake. Scholars also assume that mistake will not be a good basis for relief since a

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Legislation: Understanding the Uniform Computer Information Transactions Act and the Uniform Electronic Transactions Act: Uniform Rules for Internet Information Transactions: An Overview of Proposed UCITA, 38 DUQ. L. REV. 319 (2000).

[81] Daniel, *supra* note 65, at 323.

[82] UCC § 2-204, cmt.6.

[83] Daniel, *supra* note 65, at 324.

[84] *Id.*

party holds a heavy burden of proof[85] and an attribution rule works against an electronic agent's user. Some authors suggest that in order to make this claim available for parties employing electronic agents the rules have to be modified since traditional contract law is unsympathetic to claims of mistake.[86]

Finally, a party may invoke the doctrine of unconscionability in order to invalidate the whole contract or particular terms, but this will also bring evidentiary difficulties. Furthermore, the Official Comments to the UCITA say that the unconscionability doctrine will apply only to a procedural breakdown in the automated contracting process and it is not clear why breakdowns in the process would lead to "unconscionable" transactions.[87]

D. Case law on electronic agents

The case law on electronic agents is scarce since electronic commerce is a new area of law and unfortunately many cases that potentially would solve important issues are settled. The litigation focuses on tort claims rather than contractual matters involving electronic agents and has not much value for the purposes of this analysis. From the contract law point of view, so far, the courts have heard only a few cases involving electronic agents and have focused on the issue of attribution. In order to show that similar situations may be treated differently on an international level, besides the American cases one German court decision will be presented.

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[85] For example in case of unilateral mistake a party must show that the mistake was material, it referred to basic assumption of fact and it results in unconscionability or that the other party knew it or caused it. Restatement (Second) of Contracts § 153.
[86] MANN & WINN, ELECTRONIC COMMERCE (2005).
[87] Kerr , *supra* note 63.

The first American case involving an automated system of communication was *Corinthian Pharmaceutical Systems, Inc. v. Lederle Laboratories*[88] where the court decided that the response of the seller's computer and issuance of a tracking number for a purchase order did not amount to an acceptance of the buyer's offer. The court reasoned that the telephone computer ordering system performed automated and ministerial acts that could not constitute an acceptance.[89] A commentary argued that the result could have been different if the seller employed a more sophisticated system that verified the identity of the orderer, checked the inventory level, allocated a portion of the inventory to fulfilling the order, and then issued the order tracking number. It still would be an automated system, but it might be in both parties' interests to consider it a legal acceptance.[90]

On the other hand, a German court deliberating on a similar case on attribution decided differently. The case involved a sale of goods erroneously offered by an automated system over the Internet for a price below the price intended by the seller. The electronic agent generated automatic replies from the seller saying that the customer's "order" would be immediately "carried out". The court stated that automated communications were attributable to the person on whose behalf the system has been programmed and in whose names the messages were sent. The critical point in the opinion that distinguishes this case from the Corinthian Pharmaceutical is that the court

[88] 724 F. Supp. 605 (S. D. Ind. 1989).
[89] *Id.*
[90] D. M. Cameron et al, *Electronic Contract Formation*, *at* www.jurisdiction.com/ecom3.htm.

recognized the messages sent by the automatic reply system as binding expressions of intention and a valid acceptance for the purposes of contract formation.[91]

Another case that touches the issue of the attribution rule is *Register.com, Inc. v. Verio, Inc.*[92] Register involved an action for breach of contract, trespass to chattels[93] and injunction filed by a registrar of Internet domain names attempting to bar defendant, a competitor and provider of Internet services, from using an electronic agent to access and collect contact information contained in the plaintiff's database and from using that database for mass marketing purposes.[94] Plaintiff argued that the defendant violated the terms of their agreement, which allowed public access to the plaintiff's consumers' contact information, but not for any mass-market purpose. Register.com further argued that the use of automated software to access and collect information from the database violated the terms of contract and harmed the plaintiff's computer system. Verio raised in defense that even if Register.com's terms of use were enforceable, Verio had not manifested any assent to those terms because it had never been asked to click on an "accept" icon and never received legally enforceable notice of the conditions Register intended to impose[95]. The court in response to this stated:

> Verio's argument might well be persuasive if its queries addressed to Register's computers had been sporadic and infrequent. If Verio had submitted only one query, or even if it had submitted only a few sporadic queries, that would give considerable force to its contention that it

[91] Report from the forty second session of the UN General Assembly in Vienna in November 2003 says that other German courts decided similar matter of electronic agent' error differently and that this discrepancy stems from conflicting views regarding the allocation of risks. More information available at: www.uncitral.org/english/workinggroups/wg_ec/wp-104-add4-e.pdf.
[92] 356 F.3d 393, 2004.
[93] More on trespass to chattels by computer software and liability of act of electronic agent read 107 A.L.R.5th 549, Marjorie A. Shields, J.D., Applicability of Common-law Trespass Actions to Electronic Communications.
Extensive analysis of enforceability of robot restriction contracts is presented in Rosenfeld, *supra* note 61.
[94] *Id.*
[95] *Id.*

> obtained the WHOIS[96] data without being conscious that Register intended to impose conditions, and without being deemed to have accepted Register's conditions. But Verio was daily submitting numerous queries, each of which resulted in its receiving notice of the terms Register exacted[97].

The court basically stated that Verio could not simply "ignore" the terms on the basis that it did not see them since Verio's search engine was employed to collect information from the database[98]. The court rejected defendant's contention that it did not form a contract with Register when its search robot collected information from the database. The court decided that Verio objectively demonstrated its assent to be bound by the Register's terms through its conduct, meaning subsequent inquires while aware of the proposed terms. The court, therefore, attributed the search robot's actions to Verio and held it liable for breach of contract.

IV. Electronic agents under Polish law

Electronic commerce in Poland, and generally in the European Union, has not reached as high a level as in the United States. European legislatures, however, recognized the increasing role of the Internet, as well as new means of communication,

[96] Definitions of WHOIS and many other technical devices are included in judge Parker's opinion attached as an Appendix since he died during the litigation of this case. WHOIS is a database which is a telephone book, like listing of various Internet addresses and their holder.
[97] *Id.*
[98] In general, the process worked as follows: each day Verio downloaded a list of all currently registered domain names of all registrars and then, using a computer program, isolated the domain names that had been registered in the last day and the names that had been removed. Only then was a search robot used to query the database to extract the name of the accredited registrar of each new name. That search robot then automatically made successive queries to harvest the relevant contact information. Once retrieved, the WHOIS data was deposited into an information database maintained by Verio and used by Verio's telemarketing staff.

and made certain changes in traditional contracting law to bridge the gap between contracts and technology.

The Polish law of electronic commerce underwent major transformation when the Civil Code was amended and the European Union Directive on Electronic Commerce[99] took effect.[100] The rules on electronic contracting were also influenced by the EU Directive on distance selling,[101] the UNCITRAL Model Law,[102] the Principles of European Contract Law[103] and the UNIDROIT Principles of International Commercial Contracts.[104]

A. The Electronic commerce Directive

The E-commerce Directive has, so far, been the most extensive legal act on electronic contracting even though, just like the E-Sign and UETA, it is largely procedural and does not establish any substantive rules of European law.[105]

Article 9(1) of the E-commerce Directive clarifies, however, that

> the Member States shall ensure that their legal system allows contracts to be concluded by electronic means [and] that the legal requirements applicable to the contractual process neither create obstacles for the use of electronic contracts nor result in such contracts being deprived of legal effectiveness and validity on account of their having been made by electronic means.[106]

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[99] EU Directive 2000/31/EC of the European Parliament and Council of 8 June 2000 on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market. O.J.L. 178, 17.07.2000.
[100] PAWEŁ PODRECKI, PRAWO INTERNETU, [INTERNET LAW] 2004.
[101] EU Directive 97/7 on the protection of consumers in respect of distance contracts.
[102] Available at www.uncitral.org/en-index.htm.
[103] Available at www.cbs.dk/departments/law/staff/ol/commision_on_ecl/index.html.
[104] Available at www.unidroit.org.
[105] Aristotle G. Mirzaian, Esq., *Electronic Commerce: This is Not Your Father's Oldsmobile*, 26 RUTGERS L. REC. 7, (2002).
[106] Article 9(1) of the E-commerce Directive.

The explanatory notes of the proposal of the E-commerce Directive mention the use of electronic agents and say that "the Member States will have to:[…] not prevent the use of certain electronic systems as intelligent electronic agents." However, the "electronic agent" regulation appeared in neither the recitals nor in the Articles of the Directive and the legislative history does not explain why drafters avoided this provision. [107]

Scholars have been debating whether a contract concluded by an electronic agent would fall within the scope of the above-cited Article 9(1) and Article 11 which governs electronic contract formation. A strict interpretation of Article 11 may be that it does not allow an automatic electronic response since the language used in the provisions refers to "a recipient" and "his consent", both of which suggest a human rather than an electronic agent.[108]

On the other hand, it could also be argued that there is no express exclusion in the Directive which precludes "a recipient" from being an electronic agent and the denial of contracts concluded by autonomous systems is in direct conflict with the central ethos[109] of this act.[110] This approach has been accepted by the majority, including Polish scholars, because it promotes the development of electronic commerce and complies with international standards.[111]

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[107] COM (1998) 586 final, p.25. Legislative history available at: www.europa.eu.int/comm/internal_market/en/ecommerce/index.htm and at: www.europa.eu.int.scadplus/leg/en/lvb/124202.htm.

[108] Jim Groom, *Are 'Agent' Exclusion Clauses a Legitimate Application of the EU Database Directive?*, at www.law.ed.ac.uk/ahrb/script-ed/docs/agents.doc.

[109] The preamble states that the purpose of the Directive is to stimulate economic growth, competitiveness and investment by removing the many legal obstacles to the internal market in online provision of electronic commerce services.

[110] Mirzaian, *supra* note 105.

[111] It has been mentioned in the beginning that both the CISG and Model Law on Electronic Commerce are interpreted in a way that allows the use of electronic agents.

B. Contracts concluded by electronic agents

It is obvious that legal recognition of electronic agents brings great opportunities for Polish businesses since such recognition may facilitate services and decrease the cost of transactions. There is, however, one more aspect of electronic agents that has great impact on the Polish legal system; they may influence the evolution of or even cause a revolution in the legal doctrines on manifestation of assent.

1. Subjective theory of assent

Until now Polish doctrine has supported a subjective theory of assent which distinguishes an act of will from its manifestation. Awareness of a person manifesting intent determines interpretation of his will and an understanding of a reasonable addressee of that statement is irrelevant.[112] Under the subjective theory it is not certain whether communication made through electronic agents is an expression of will at all since the act of a person's will is separated from its manifestation.[113] It seems that the subjective theory is unacceptable because it requires awareness of the author of a communication, which is impossible in pre-programmed systems.[114] A number of Polish scholars have been calling for objectification of interpretation of will since the 1970s, because it allows progress in commerce and promotes development of modern

[112] B. Pabin, *Elektroniczne oswiadczenie woli w zarysie*, e-Biuletyn 1/2004, available at: http://cbke.prawo.uni.wroc.pl/publikacje/ebiuletyn/biuletyn_1_2004/el_osw_woli1.htm.
[113] ANDRZEJ STOSIO, UMOWY ZAWIERANE PRZEZ INTERNET, [CONTRACTS CONCLUDED THROUGH THE INTERNET] 75 (2002).
[114] Filip Wejman, *Wprowadzenie do cywilistycznej problematyki ustawy o podpisie elektronicznym* [Introduction to civil issues of the Electronic Signature Act], PB 2002, no 2 at 41.

technologies. Thanks to modern trends in legal doctrine it looks that they may finally succeed in their struggle[115].

Poland is not the only country that encountered similar problems. In Germany judges debated on the same issue and finally an expression of will made automatically was accepted as an expression *in blanco* which is based on an objective theory of reliance (Rechtscheinhaftung). According to the theory of the *in blanco* manifestation, one person signs a blank form leaving the blanks for another person to fill out and all further communications are attributed to the person who originally signed the form.[116] The German argument has been adopted, with some exceptions, by Polish doctrine, because it solves a problem of manifestation of will and attribution of a message to a person who uses an electronic agent.[117]

2. Amendments to the Civil Code

Polish law does not define or mention electronic agents, but their recognition as mere communication tools[118] is justified in the Civil Code and the Electronic Signature Act. It is commonly agreed that the amended Article 60 of the Civil Code gives legal effect to contracts concluded by electronic agents. The new version of Article 60 says that the will of a person may be expressed by any behavior sufficient to show intent,

[115] The leading Polish scholars, Gwiazdomorski and Radwański are great supporters of objectification of theory of assent. They suggest that interpreting a will one shall consider all circumstances, customs and good will of both parties instead of just internal will and knowledge. WOJCIECH KOCOT, OŚWIADCZENIA WOLI SKŁADANE INDYWIDUALNYM ADRESATOM NA NOŚNIKACH ELEKTRONICZNYCH, [ELECTRONIC EXPRESSION OF WILL MADE TO INDIVIDUAL ADDRESSEES] 52 (2005).
[116] KOCOT, *supra* note 115, at 71.
[117] STOSIO, *supra* note 113.
[118] Theorists, however, do not exclude the possibility that messages of electronic agents will be attributed to themselves instead of to their users. *Id. at* 89.

including an expression of will by electronic means.[119] However, this amendment has been widely criticized as totally unnecessary.[120] According to the majority of scholars the old version of the Civil Code provision was broad enough to include an electronic expression of will. In their opinion it does not matter whether contracting parties use the Internet in a traditional way, such as a telephone, telex or telefax where a person directly expresses his will, or in an automated way through an electronic agent since it is assumed that the message generated and sent by a computer comes from a person that uses the computer.[121]

Some authors, on the other hand, point out that the *ratio legis* of Article 8 of the Electronic Signature Act and the amendment of Article 60 is a positive assurance that an electronic expression of will results in legal consequences and eliminates possible claims that a contract concluded electronically is invalid.[122]

Another amendment that changed traditional contracting rules was an adaptation of Article 61 § 2 which states: "Expression of will made in an electronic form is effective towards the other person at the moment it has been posted on the service provider and its text is available to that person." This provision is significant because it modified a deeply rooted receipt rule characteristic in many European legal systems.[123] It derogates from the

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[119] Article 60 of the Civil Code was amended by the Electronic Signature Act of 2001 and is based on Article 5 of the Model Law which says: "Information shall not be denied legal effect, validity or enforceability solely on the grounds that it is in the form of a data message."

[120] Transactions performed by electronic means have been recognized in several acts from 1997, for example in art.7a of the law on public transactions of financial instruments, art.7 of banking law, art. 26b of the Act on Investment Funds and art.51(5) of the Act on commodity exchange. Wojciech Kocot, *Elektroniczna forma oświadczenia woli* [Electronic form of expression of will], Przegląd Prawa Handlowego, March 2003.

[121] Dawid Kot, *Zawarcie umowy za pomocą elektronicznych środków porozumiewania się na odległość*, [Conclusion of contract by electronic means of communication on distance] 2002.

[122] Ewa Wyrozumska, *Elektroniczne oświadczenie woli w ustawie o podpisie elektronicznym i po nowelizacji kodeksu cywilnego*, [Electronic expression of will in the Electronic Signature Act and after the amendment of the Civil Code], Przegląd Prawa Handlowego, August 2003.

[123] KOCOT, *supra* note 115, at 21-29.

general rule that an expression of will takes legal effect when it reaches an addressee in a way he can know its content.[124] The requirement of receipt in electronic contracting is now met when a message is available on the server so the addressee can read it even though it has yet not been opened or processed. Consequently, a contract is concluded at the time the expression of will is made available for the other party.[125] This rule was confirmed by the Supreme Court of Poland, the Civil Division in December 2003.[126] The case before the court involved an order for a money transfer that was made electronically on the last day of the payment period. The plaintiff claimed that even though an electronic order was made on time the defendant was late with the payment because the money was transferred one day after the due date. The court disagreed with the plaintiff and concluded that the electronic transfer of money became effective not when a bank actually processed the transaction, but when the electronic order for the money transfer was received and the bank had the necessary information available to finish the transaction.[127]

Scholars consider this amendment a good step in the facilitation of electronic commerce. At the same time they criticize the legislators for not adopting special rules on electronic revocation of will since these traditional rules do not comply with the fast communication provided by the Internet and therefore can make a revocation simply impossible.[128]

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[124] Civil Code Art.61 § 1.
[125] KOCOT, *supra* note 115, at 110.
[126] Sad Najwyzszy, Izba Cywilna [Supreme Court, Civil Division] V CZ 127/03.
[127] Orzecznictwo Sadu Najwyzszego [Decisions of the Supreme Court] 2005, no 1, at 71-75.
[128] Article 61 § 1 *in fine* says that a revocation of an expression of will is effective if it reaches an addressee at the time of manifestation or before it. In electronic communication, which is almost as fast as a telephone, it is hard to meet this condition.

Another important provision on electronic contract formation is Article 66[1] § 1 which says that an offer made in an electronic form is binding upon the offeror if an offeree immediately confirms its receipt.[129] The confirmation requirement is an additional element conditioning valid contract formation and is based on Article 11.1 of the E-commerce Directive.[130] This requirement protects consumers who may assume that they are not bound by their offer until the other party confirmed that it received it.[131] The rule also protects offerees who get an assurance that the offer is binding upon the offeror. If an offeree wants to conclude a contract he must immediately confirm receipt of the offer, which does not amount to an acceptance. After having met this requirement the offeree may accept or reject the offer. This confirmation may be made in any manner (by any behavior) sufficient to show intent to confirm, but traditional mail may not be effective since it may not meet the requirement of "immediate response". In practice both confirmation and acceptance can be done at the same time so the communication is not delayed. Therefore, under the Polish law a customer wishing to purchase a plane ticket to Bologna would have to immediately respond to Priceline's offer in order to preserve his right to accept that offer. On the other hand, if the customer were the offeror he would be bound by his offer only if Priceline's electronic agent confirmed that it received the offer. It is clear that this way of contracting may delay some transactions, especially those which are made through the exchange of electronic mail since an offeree can often read his mail hours and even days after the message arrives at his mailbox.

[129] The Civil Code distinguishes procedures applicable to electronic and non-electronic contracting.
[130] The Drafting Committee of NCCUSL decided to delete the provision on acknowledgment of receipt from UETA, reaching the conclusion that the adoption of such a provision would be contrary to the fundamental principles of the UETA: to retain the flexibility necessary to allow for the development of new commercial practices and new technological implementations. Boss, *supra* note 70.
[131] Moreover, it is considered a better and generally less complicated method of protection of contracting parties since it does not require strict rules on saving data in order to decide when an expression of will was made.

Polish legislators, in response to criticism that a confirmation requirement endangered fast and effective trade, adopted *lex specialis* that eliminated the requirement in respect to B2B transactions where professionals are in a long-lasting business relationship[132].

3. Other formal requirements in a contract formation process

Under Polish law the majority of agreements can be concluded on the Internet, but there are many formal requirements that at this stage of technology render electronically concluded contracts invalid. For example, if a written form is required a contract has legal effect only if an advanced digital signature has been used and it is still not certain whether an electronic agent can be assigned one. There is also a group of contracts[133] that do not become valid if they are not registered with a public authority or a notary.[134]

Moreover, the Polish legislature adopted information requirements laid down both in the EU Directive 97/7 on distance selling and 2000 E-commerce Directive which are hard to meet.[135] According to the rules merchants are obliged to explain electronic contract formation process, in particular, they have to provide the technical means for identifying and correcting errors, the languages for concluding a contract, general terms and conditions. Merchants must also inform a customer of the legal effects of the confirmation that an offer has been received.[136] Furthermore, this information must be

[132] KOCOT, *supra* note 115, at 113.
[133] Polish law distinguishes contracts in simple written form, written form with an authenticated date or signature and a notarial deed.
[134] Kryczka, *supra* note 13.
[135] Lodder & Voulon , *supra* note 7.
[136] Civil Code Art. 61¹§ 2.

submitted in an unambiguous way and the consequence of failing to meet these standards would be a consumer's right to rescind the contract (e.g. on the basis of mistake) or to claim damages (e.g. on the basis of breach of pre-contractual duties).[137] These requirements clearly may delay a wide usage of electronic agents because most websites nowadays do not even meet these information requirements and the creators of websites do not wish to invest in technology for providing information understandable by agents.[138]

As to the battle of forms, Polish law applies the mirror image rule which means that a contract is not concluded if the terms of an offer differ from those of the acceptance. In cases where parties use prewritten forms they must be available for the other party before the conclusion of a contract, because a failure to comply with this requirement results in an invalid agreement.[139]

C. Avoidance doctrines

In automated transactions, just as in the U.S., traditional doctrines that can be a basis for avoidance are limited since claims such as duress, coerce, lack of awareness or lack of free will cannot be applied to electronic agents. Therefore, only mistake, fraud and modification of a message by a messenger[140] can be taken into account and applied *per analogiam*.

[137] Kryczka, *supra* note 13.
[138] Lodder & Voulon , *supra* note 7.
[139] Id 31.
[140] Under Polish law this defect equals to a mistake of a person who employs a messenger.

In order to invoke a mistake a party must prove three conditions: that the mistake was material so a reasonable person knowing the terms of a contract would not become a party, that it referred to the terms of a contract and finally that it was caused by the other contracting party.[141] Unfortunately, in practice these requirements are hard to meet and in most transactions modification of offers will be attributed to technical defects in communication rather than to persons using electronic agents.[142] In literature, however, it is often said that in automated transactions the risk of unintended manifestations of will should be higher than in regular contracting and a person using an electronic agent should bear the risk.[143] Scholars argue that rules on mistake must be modified, because their current wording does not allow them to be applied to automated transactions. In this situation the legislature may be justified in imposing a three-step procedure for contract formation since it gives the parties an opportunity to verify the terms of an agreement and prevent possible errors. According to Kocot, a famous scholar, the best solution would be to liberalize the rule by replacing a condition that the other party caused the mistake with a requirement that the other party had reason to know of or notice an error.[144]

V. Conclusion

Summing up, both the American and Polish legal systems find contracts concluded by electronic agents legally binding. These countries, however, have slightly

[141] Polish Civil Code Art. 84 § 1 and 86 § 1.
[142] Aleksander Kwaśniewski, *Elektroniczne oswiadczenie woli, [Electronic expression of will]* at www.centrast.pl/?i=17.
[143] So a party using an electronic agent will take a risk of any technical defects, viruses or spywares. KOCOT, *supra* note 115, at 121.
[144] *Id.* 147.

different approaches to this matter. American law ensures that there are no legal barriers to electronic contracts and promotes the use of intelligent agents by adopting liberal rules on contract formation. What is significant is that it provides procedures that allow parties to avoid the effects of erroneously concluded contracts, whereas the Polish legislature adopted a three-step contract formation process so errors do not occur at all. Polish law seems a little stiff in comparison to American regulations. In Poland, in theory, there are no legal obstacles to the use of electronic agents, but in practice their application is considerably limited by the European Union's regulations on consumer protection. The reality is that the technology of intelligent agents is too expensive for individuals while the companies that can afford it must conform to high procedural standards applicable to professionals. This of course increases the cost of electronic commerce and consequently discourages companies from investing in advanced technologies.

In the future, with further progress in artificial intelligence, electronic agents will, one hopes, be used on a larger scale. The most promising solution for development is to replace the status of electronic agents as mere communication tools with that of legal persons. The approach of electronic agents as *ePersons* would be beneficial for their users since right now the biggest concerns are the burdensome consequences of the attribution rule. The proposed treatment of intelligent agents as agents under agency law did not get a wide approval, but is still considered by many scholars as an option. At this point it is too early to say when electronic agents may be granted an independent legal status since this depends on the development of artificial intelligence as well as the attitude of legislators and courts toward this issue.