THE ROLE OF NEW INFORMATION TECHNOLOGIES IN ALTERNATIVE RESOLUTION OF DIVORCE DISPUTES

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Abstract

This paper is an introductory outline to the problems of application of intelligent information technology in the process of alternative resolution of family disputes. The three layers that are relevant for this research, namely, the legal layer, the layer concerning the theory and practice of dispute resolution and the layer of information technology are discussed. The illustrative material is taken from the Polish family law, with emphasis on the so-called parenting plans: the agreements pertaining to the allocation of the parental custody after the divorce is granted. The following two negotiation support systems are compared: the Family_Winner system developed by Emilia Bellucci and John Zeleznikow and, on the other hand, the Parent Plan Support System designed by the authors of this paper.

Keywords: Information technology, family law, negotiations, mediation

Introduction

The objective of this paper is to provide an interdisciplinary analysis concerning the use of Artificial Intelligence (AI) technologies in alternative resolution of divorce disputes by means of cooperative negotiation or mediation. The investigations are opened by the characterization of divorce procedure in Polish law, with particular emphasis on parenting plans concerning the exercise of parental authority, as well as the general clause of the well-being of the child which determines the content of the aforementioned plans. The outline of the legal context concerning divorce procedures gives basis for investigations concerning mediation as an alternative method of family disputes resolution. The focus is on advantages that are brought by application of mediation procedure and juxtaposition of theory and judicial and extra-judicial practice concerning this matter. The analysis presented defines the context for investigations concerning optimization of divorce procedures by means of application of negotiation-based or mediation-based model, using AI technologies, to facilitate the divorcing spouses to amicably settle disputes concerning exercise of their parental authority.

The paper intends to argue that AI-based technologies are useful in enhancement of alternative dispute resolution procedures that are applied in the context of family disputes. Although this problem has a rich literature in AI and law research, it is relatively less known in the field of social sciences. The paper's perspective is general. The investigations begin with a presentation of legal context of divorce procedures, Polish law being the illustrative material. The crucial general clause of the well-being of the child is discussed. Further, the emphasis is put on the advantages that stem from application of alternative dispute resolution techniques in the context of divorce cases. Finally, the important role of AI-based information technologies in resolution of these disputes is advocated.

The Legal Background

The basic institutions concerning divorce law and establishing the scope and forms of parental custody have been established in Polish law in the Family and Guardianship Law Code of February 25th, 1964[309]. According to valid law, a divorce may be demanded by either of the spouses in case of complete and permanent disintegration of their matrimonial life. The law provides for exceptions from the aforementioned rule. In particular, despite a fulfillment of the condition of matrimonial breakdown, divorce is not allowed if it infringes on the well-being of common minor children of the spouses[310]. The model situation taken into account in this paper, which is a basis for optimization of divorce procedure with the use of AI technologies, assumes that both positive conditions for granting of the divorce are satisfied and that no excluding circumstances are present. It is worth mentioning that the clause regarding the well-being of the child does not only determine the content of eventual resolution of parental authority division decisions, but it is an important negative condition concerning the very award of a divorce. Hence, this legal concept should be considered very significant.

The divorce judgment should contain resolution of elementary issues that are related to the functioning of the minor child and that are indicated by the statute. The code does not prescribe any detailed procedure of settling those issues, however. Taking the constitutional guarantee of raising children in accordance with beliefs of parents into account[311], the court may consider an agreement between the divorcing spouses, concerning parental custody over the child (parenting plan), provided that this plan does not infringe upon the well-being of the child. In case of no initiative from the parents as regards the parenting plan, or in case of assessment of this plan as unsatisfactory from the point of view of the well-being of the child, issues of parental custody shall be decided by the court on the basis of its assessment of the totality of circumstances of the case. It must be emphasized that there are not specific statutory provisions dealing with the parenting plans in the context of divorce procedure. These issues have not been developed in executive regulations, either, which must be assessed negatively from the point of view of the effectiveness and completeness of decisions concerning parental custody that are made in the divorce procedures. Simultaneously, the lack of concrete normative criteria related to the content of the parenting plans may be seen as a purposeful decision of the lawmaker, leading to respect of the parents' autonomy in making decisions concerning their children. In other legal systems, regulation of issues of statutory concretization of scope and content of parenting plans is not unified. Certain legal systems require that some primary issues concerning the functioning of the child be settled in a parenting plan[312], other legal systems assign a scope of discretion to the parents, provided that the interest of the minor is respected.

The basic legal criterion in divorce proceedings and in the process of delimiting the scope of parental custody is, according to Polish law, the well-being of the child. As a general clause, this term is not legally defined. According to the opinion of the Supreme Court of Poland[313,314], doctrinal understanding of the well-being of the child comprises the child's

309 The offical publication address: Dz.U. 1964, No 9, position 59.

310 The indicated negative condition shall not be applicable in case of adult children, minor children of one of the spouses and minor children that are as a matter of fact raised by the divorcing spouses. More on this subject in Ignaczewski (ed.) 2010, 43 ff.

311 The Constitution of the Republic of Poland. The official publication address: Dz.U. 1997, No 78, position 483.

312 Children's Act No. 38 of 2005.

313 The Supreme Court of Poland is the chief authority of the judiciary in Poland, that performs control over the activities of common and military courts. The judgments of the Supreme Court of Poland are not precedentially binding, yet they have significant practical authority because they are a source of important guidelines concerning interpretation of statutory law.

314 The signature of the referred judgment: V CKN 1747/00.

model situation, one which encompasses not only his or her present situation, but perspectives for the future as well. It ought to be emphasized that the judicial conception of the well-being of the child takes not only the provisions of domestic and international law into account, but the accepted moral doctrine that requires a high threshold of diligence in issues concerning the situation of the minor child in the context of divorce procedures.

Although the provisions of the code do not contain any binding interpretation of the category of the well-being of the child, they nevertheless indicate certain elements, that should be present in any parenting plan, or, in the case of a lack thereof, in the final judicial decision substituting the autonomous agreement of the spouses. First, such decision should determine the allocation of parental authority over a common minor child of the spouses. In particular, the following options are possible in this context according to Polish law: sustaining of parental authority, its delimitation, and the suspension or deprivation thereof (in relations to any of the spouses)[315]. The issue of parental authority is complemented with the problem of contact between parent and child. The code does not prescribe any options in this context, leaving it up to the parents to determine that which would be constructive as regards the well-being of the child. The third obligatory element is an agreement concerning the costs of maintenance and upbringing of the child. Moreover, if the spouses occupy the same residence, the judicial decision should determine the use of this place of residence. The remaining issues concerning the functioning of the minor child, including her or his education, contacts with third parties, and/or emergency issues, are not obligatory components of the judicial decision. Their development in the judgment is dependent on the readiness of the parents to consent to the potentially broad scope of issues in a comprehensive manner.

Consequently, as far as the divorce procedure of spouses that have a common minor child is concerned, Polish law prescribes a model in which only certain elements of relevant judicial decision are obligatory. The issues concerning the allocation of parental authority, the frequency and the form of contacts with the child, the economic issues related to maintenance of the child and the use of residential place have to be decided, which leads to optimization of interest of the child. The facultative character of the remaining issues related to functioning of the child after the divorce is awarded,, including very significant ones, show san intention of the lawmaker to leave the broad scope of decision to the parents. Simultaneously, the openness of the parents and their awareness of importance of the undertaken decisions is the condition of development of an acceptable parenting plan. However, as the divorce is typically accompanied by a situation of conflict, most often by a destructive one, the realization of the assumptions accepted by the legislator concerning the scope of agreement of the parents may be interfered with, leading to decisions that are suboptimal from the perspective of well-being of the child.

Divorce and Conflict Resolution

The complex character of the conflict between the divorcing spouses, pertaining not only to the questions of fact, but to relations, communication and values as well, greatly diminishes peaceful and constructive cooperation that lead to the settlement. Additionally, strong negative emotions, including the feeling of loneliness, disappointment, the experience of abandonment do not contribute to unbiased assessment of the disputed situation. Thus in the frame of divorce procedures that are taking place in time of the first phases of the so-called psychological divorce (the stage of denial, grief, or the stage of anger[316]) it is advisable to apply alternative methods of dispute resolution, including the form involving the presence

[315] This catalogue of types of performance of parental authority is enumerative. The Polish law does not prescribe for any other possibility, including alternate exercise of parental authority.

[316] Concerning the stages of the psychological layer of the divorce and on other layers of the divorce: the emotional, legal, parental, economic and social one, see Gójska and Huryn 2007, pp. 70-75.

of a third party neutral (the mediator) in order to make the mutually acceptable and beneficial settlement possible. This settlement should be concentrated on the well-being of the child. The application of these methods may endow the participants to the dispute with knowledge that is necessary for rational resolution (including psychological and pedagogical knowledge and the use of cooperative negotiations). The spouses should be made aware in the first place that in order to sustain the parental authority for both of them, the preparation of the parenting plan will be necessary. This plan has to pass the judicial verification involving assessment against the criterion of the well-being of the child, interpreted in the context of circumstances of the concrete case. The reasonable expectation concerning cooperation of the parents in realization of the plan is another factor which may foster its acceptance. Second, the parents should be informed that Polish law does not prescribe any normative template for the parenting plan. Therefore, without professional support, they will have to rely on their own creativity and will, the latter founded on strong and often negative emotions.

Taking the aforementioned legal constraints into account, the parents, intending to exercise their parental custody and contacts with children, are faced with the complicated, multifaceted and portentous task of agreeing upon mutually acceptable and beneficial content of the parenting plan. Apart from the main objective of the plan which is to sustain the parental authority of both of the parents, the plan performs the following more specific functions: a) facilitation of regulation of relations between the parents and the child after the divorce is awarded; precise description of rights and duties of the parents as regards this scope; b) defining of rights and securing of the well-being of the child (including the child's feelings and needs that grow with age); c) elimination or limitation of harmful behavior of the parents, including pulling the child into the conflict between the divorced parents; d) education of the parents with regard to pedagogical, psychological and social rules concerning proper relations with the child and e) making use of the parenting plan in order to avoid any future disputes before the court.

It should be emphasized, that the argumentative discourse of the parents aiming at determination and acceptance of a parenting plan has four main dimensions: communicational, informational, relational and decisional. The preferred negotiation strategy to lead to an agreement is a non-adversarial, cooperative, integrative approach to negotiations, characterized by the *win-win* solution, concerning mutual interests and needs of the parties, taking into account not only the potential result, but also the relations of the interested parties[317]. The first category for assessment of the parenting plan is first and foremost the well-being of the child, then taking the public interest into account. The interest of any of the parents should not be a primary factor[318].

Although in principle the parents are the only members of the discourse concerning the parenting plan, it is also possible that in case of need, the following persons may enter into the dispute: the child, mediators and other experts. The discourse of negotiations or mediation in the frame of which the content of the parenting plan is being developed should warrant that the parties are equal and free as regards the presentation of their statements, provided that their assertions are true and understandable.

At the beginning of a mediation procedure, the parties should be made aware of the essence, principles and advantages of mediation. The word "mediation" traces its roots back to Latin language (mediator – intermediary; mediare – to mediate between the parties; medius – placed in the middle, impartial). Mediation is a voluntary form of alternative dispute resolution, consisting in specialized, non-authoritative help from a mediator, who is impartial

[317] More on the distinction of the mode of negotiations: cooperative/problem – solving approach vs competitive/adversarial approach see Folberg et al. 2005, pp. 79-80.

[318] See the resolution of the Supreme Court of Poland of 12 July 2006, III CZP 48/92, and the judgment of the Supreme Court of Poland of 25 August 1981, III CRN 155/81.

and neutral with respect to the parties and their conflict, whose main tasks are: 1) undertaking activities aiming at a mutually acceptable agreement encompassing interests and needs of both of the parties (the win-win paradigm); 2) restoration of positive relations, communication and cooperation between the parties for the future. During the mediation process, the parties develop their self-awareness (introspection), improve their skills (in particular as regards listening, argumentation, understanding of the other party's situation), and can even experience a deep moral change (reconciliation, forgiveness, apologies, positive resolutions for the future)[319].

The Recommendation No R (98) 1 of the Committee of Ministers of the Council of Europe to member states on family mediation (hereafter: the Recommendation) and the following Explanatory Memorandum[320] argues for introduction of systemic regulations concerning resolution of family disputes, in particular of those stemming from separation or divorce, in order to:

promotion of solutions based on common agreements for the sake of limiting of conflicts between the family members,

protect the interests and well-being of the child, in particular by means of appropriate agreements concerning custody and contacts with children,

minimize the adverse consequences of of family breakdown and separation of the spouses,

promote maintenance of the relationship between members of the family, with emphasis on the relations between parents and children,

decrease the economic and social cost of separations and divorces, as regards both the family and the state[321].

According to the provisions of the Recommendation and the Explanatory Memorandum, mediation should be conducted in accordance with fixed standards that distinguish it from other forms of intervention and dispute resolution. Member States should implement proper mechanisms in order to make sure that the process of mediation is conducted in compialnce with these standards[322].

As regards the main advantages of civil mediation, which justify its broad application, the following should be listed: common search for optimal resolutions, muting of negative emotions, restoration of the feeling of agency and dignity, the possibility of reparation and rebuilding of the foundations of cooperation, lack of complicated procedures, restoration of friendly and kind communication, mutually beneficial and realistic cooperation. The family mediation may bring threefold benefits in practice: 1) increase of individual social competence of the parties (responsibility, improvement of communication and ability to resolve disputes); 2) reduction of costs and social consequences (with particualr regard to adverse consequences towards the children); 3) relative ease of application of the procedure to concerete situations of conflicts, which enables achievement of optimal solutions[323].

New Information Technologies in Family Disputes

Taking the abovementioned advantages of alternative methods of family disputes resolution into consideration, it may be claimed that they should be applied in a significant

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319 Zienkiewicz 2007, pp. 44-46. See also Bush and Folger 2005 and Rau at al., 2002, pp. 337-340. Adam Zienkiewicz, Studium mediacji. Od teorii ku praktyce, Wydawnictwo Difin, Warszawa 2007, s.44-46.

320 The Recommendation No R (98) 1 of the Committee of Ministers of the Council of Europe to member states on family mediation and the following Explanatory Memorandum, the Council of Europe, Strasbourg, 5 February 1998.

321 The point 5 of the Explanatory Memorandum.

322 The point III of the Recommendation No R (98) 1.

323 Gójska and Huryn 2007, p. 43.

percentage of these cases. It seems, however, that excessively low amounts of divorce cases are solved with application of cooperative negotiations or mediation. One of the important factors restricting the possible use of such methods in divorce cases is the high level of negative emotions that are connected with this domain of legal cases. The parties to divorce disputes are often reluctant with regard to prospects of direct meetings, and all the more adverse to conducting amicable discussion with the other party and to taking her perspective into account. Therefore it is justified to use new information technologies in order to facilitate the resolution of the dispute between the divorcing parents and in consequence to conclude a parenting plan that would take the well-being of the child into account in highest degree possible.

Information technologies may support the process of dispute resolution in various ways. First, they may provide the parties with communication tools that enable synchronous (teleconference, chat) and asynchronous (e-mail) communication at a distance. In consequence, the necessity of direct meetings is seriously reduced as are associated travel costs. Second, an important role in the process of dispute resolution may be played by legal knowledge bases, providing the parties with knowledge concerning the content of legal provisions and legal cases that are binding in relevant jurisdiction. This type of information may be important in the context of calculation of BATNA[324] – Best Alternative to the Negotiated Agreement. In consequence, the knowledge concerning the legal context may be a factor to take into account when one considers whether one wishes to continue or discontinue the amicable discussions. The new technologies may be used in a much more far-reaching manner. And so, third, computer programs referred to as Negotiation Decision Support Systems (NDSS) are used to generate suggestions concerning the decisions of particular parties in a given stage of the process of negotiations. Moreover, these programs are able to present important information of other type (for instance, concerning mutual concessions in the dispute). Fourth and finally, the computer program may propose a comprehensive solution of the dispute between the parties, allocating the disputed issues between the parties automatically.

The development of information technology-based legal decision support systems (in particular in the context of family law) involves resolving numerous significant problems concerning the adopted method of knowledge representation, the choice of content of knowledge base and inference rules that are used to draw conclusions from the input data. The problems related to these issues are too broad to discuss them here even in a concise manner[325]. Due to the high degree of complexity connected with reasoning with broader legal information, the implemented computer programs typically deal with a relatively narrow range of issues or even with just one type of legal cases. The next important challenge is taking the context of particular cases into account: legal rules that are derived from statutory text are typically too general to determine the decision in concrete cases. Proper representation and processing of contextual information is one of the most complicated issues troubling the developers of legal knowledge of information systems[326].

The research and practical-technological movement that is connected with the use of new information technologies (including web technologies) in alternative dispute resolution is referred to as Online Dispute Resolution (ODR). It should be added that the scope of ODR research comprises also the use of computer programs in the context of litigation, so the concept of ODR is substantially broader than the concept of ADR. [327] The development of

[324] Lodder and Zeleznikow 2010, p. 42.

[325] Oskamp 1992, Bench-Capon 2012 with regard to the development of methods of representation of legal knowledge.

[326] Berman and Hafner 1993 with regard to Case-Based Reasoning systems.

[327] Poblet et al. 2009. It should be added that decision support systems do not have to be necessarily implemented in the ODR tools (they can be used offline).

ODR systems dates from the 90s of the 20th century on[328], then, with the beginning of the next decade, the first systems of this sort were introduced to business practices[329]. One should expect increasing interest in this subject in the near future due to the initiative of the European Union legislative organs in this field[330]. In principle, there are no important legal obstacles to use of ODR tools in the process of supporting resolution of disputes of different kinds, with reservation of the cases that necessarily involve proceedings before the court and issuing of a court decision. If there are any obstacles concerning the application of these tools, they are rather related to the limited awareness of their existence, their relatively limited dissemination, and to the inherent limits (logical, conceptual and technical ones) of particular ODR systems.

Although it may seem at first sight that the use of computer programs in resolution of family disputes should be very limited, the research practice of the last twenty years justifies the contrary thesis. Due to the high degree of complexity of family disputes, they form an important and interesting challenge for researchers who develop the ODR tools. It should be emphasized that effective resolution of divorce disputes is an important social issue due to the fact that these conflicts are often particularly destructive. The developer of an ODR system in the field of family law typically has access to large databases of judicial decisions as well as to the empirical data related to family mediations. The divorce disputes are frequent and it is possible to indicate a set of their typical features, which enhances the analysis of the structures of such cases[331].

The author who is particularly influential in the field of development of ODR tools that are designed to support the resolution of family disputes (with emphasis on divorce cases) is John Zeleznikow, who, in collaboration with other researches (including his former students) developed such computer programs as Split-Up[332], Family_Winner[333] or Asset Divider[334]. From the point of view of this paper's objective, the Family_Winner program is particularly interesting, because it is a system designed to support the work of mediators[335]. Służ on wsparciu procesu polubownego rozwiązania sporów dotyczących różnych zagadnień wynikających z związku z postępowaniem rozwodowym, w tym kwestii dotyczących pieczy rodzicielskiej oraz kontaktów z dzieckiem.

First, it is worth emphasizing that the assumptions of Family_Winner were grounded in a rich amount of data; in particular, the results of interviews that were conducted with the authors with mediators. Due to this fact, the Family_Winner is one of the first computer programs supporting the process of negotiations, based on empirically grounded theories. Second, the Family_Winner does not only inform the parties to the negotiations about the progress of the process of dispute resolution, but also it provides suggestions concerning concrete proposals of resolution of the dispute in question.[336] Third, the Family_Winner enables both the parties to dispute and mediate precisely the issues at stake and to take into account the preferences of the parties concerning the division of disputed issues in the planned settlement.

328 Suquet et al. 2010.

329 Rule 2002.

330 Regulation (EU) No 524/2013 Of The European Parliament And Of The Council of 21 May 2013 on online dispute resolution for consumer disputes and amending Regulation (EC) No 2006/2004 and Directive 2009/22/EC (Regulation on consumer ODR).

331 The more serious challenge is posed by unique conflicts such as the Israeli-Palestinian conflict, see Zeleznikow 2011.

332 Zeleznikow et al. 1996.

333 Bellucci and Zeleznikow 2005.

334 Zeleznikow and Bellucci 2010.

335 Bellucci and Zeleznikow 2005.

336 As a consequence, the Family_Winner should be classified as a Negotiation Decision Support System and not as a Negotiation Support System.

The procedure of operation of the Family_Winner is as follows. The users of the system define the particular disputed issues at they assign number values to them, thereby indicating their preferences. On the basis of this input data the system generates so-called Trade-Off Maps: the information concerning possibly acceptable decisions leading to allocation of a certain issue to a given party. The system is based on the compensation principle: if a given issue, highly valued by the party A is assigned to the party B, then this concession should be compensated for by a change of valuation of particular issues that are remaining for allocation. Eventually, the system generates a proposal of allocation of all defined issues to the parties to the dispute. It is worth mentioning that the Family_Winner provides for a possibility of decomposition of general disputes issues into more specific sub-issues, which facilitates the process of mutual concessions and trade-offs.

In summing up the above considerations, the Family_Winner is an example of a computer program that performs several important functions in connection with resolution of divorce disputes. It enables the parties to explicate the disputed issues and to divide these issues into more specific sub-issues. It also motivates the parties to define their preferences as regards the allocation of particular disputed issues and it enables the parties to check whether a given division does not lead to infringement of interest of any party. However, it should be noted that the notion of fairness encompassed in the Family_Winner system is based on the idea of mutual advantage of the parties. Therefore, this system is in principle not able to represent the criteria that are external to the interest of the parents (such as the criterion of the well-being of the child).

An example of a system that performs similar functions to the Family_Winner, and which was designed by the authors of this paper, is called the Parent Plan Support System (the PPSS). It may be used in connection with cooperating negotiations between the divorcing parents. The scope of the PPSS is limited, however, to the problem of development of the parenting plan, and in consequence it concerns the issues of parental custody and contacts between the parents and the children after the divorce (Araszkiewicz, Łopatkiewicz and Zienkiewicz 2013a, 2013b). There are important differences between the Family_Winner and the PPSS as regards the structure of these systems[337].

First, the PPSS possesses a predefined base of options of a parenting plan that may be chosen by the parents and then deliberated by them. On the one hand it is a limitation of the capacities of the program (because of work fully effectively only in connection with the options that are already stored in the database and not in connection with the options introduced by the users of the system). On the other hand, this technique of construction of the database systematizes the process of negotiating assurances that the developed parenting plan will be complete and comprehensive. Second, the PPSS makes broad use of the Case-Based (CBR) reasoning structures such as dimensions and factors (Ashley 1990). It should be noted in this content that the very general and indeterminate concept of the well-being of the child is the subject of many decisions of the Polish Supreme Court. The PPSS contains a database of judgment of this court, and by means of application of proper CBR structures it is able to give suggestions to the users as regards the compatibility of their choices with interpretation of the concept of the well-being of the child adopted by the Polish Supreme Court. Third, the PPSS assigns lesser weight to the preferences of the negotiating parents, because its subject is only to support the process of development of the parenting plan, and not, for instance, the resolution of issues concerning the division of property.

The examples discussed above show that the development of information technology tools aiming to support cooperative negotiations or mediations in divorce cases leads to interesting and fertile results. In particular, both the implemented and projected systems are

[337] The PPSS, unlike the Family_Winner, has not been implemented yet to an executable computer program.

able to represent the process of negotiations, bargaining and mutual concessions made by the divorcing parents as well as assess the agreement between the parties concerning the mode of conduct of the parents after the divorce is granted. The research on the decision support systems for dispute resolution is a very vivid and quickly changing field nowadays, and it should be emphasized that the role of CBR reasoning structures (even very complicated ones) is acknowledged in the literature of the subject (see Andrade et al., 2013).

Conclusion

The aim of this paper was to introduce the Reader to the problems related to the development of intelligent, information-technology based support systems for alternative resolution of family disputes. The contributions shows different layers of research on this subject, including the legal layer, the layer connected with the theory and practice of dispute resolution and, finally, the computational layer concerning the knowledge representation structures used in the database of the developed system. It was argued that these layers are strictly interconnected: the shape of the legal regulation (where the Polish family law served as illustrative material, with emphasis on the disputes concerning development of the parenting plan and, in connection with this, with the allocation of parental custody and the contacts between parents and children after the divorce is granted) determines both the form and the content of knowledge representation structures that are used in the system. The legal norms are also relevant to determine the possibilities of application of alternative dispute resolution techniques (such as cooperative negotiations or mediation) to certain types of disputes. The adopted theory of dispute resolution (together with the empirical material that provides foundations for the knowledge base) determines the functions of the developed systems. In this contribution we have discussed examples of systems that adopt different approaches to the adopted criteria of assessment of the result of the negotiations. The Family_Winner, grounded in the framework of game theory, focuses on the mutual benefit of the negotiating parties, taking their preferences' ordering into account. On the other hand, the PPSS makes use of an objective criterion (that is, the well-being of the child) which is represented by a database of judgments decided by the courts as well as by the set of CBR structures. These two approaches by no means exhaust the richness of approaches to the subject that are present in the literature. However, they are model examples illustrating the diversity of techniques employed in development of the systems in question, justifying a claim that in the future the use of ODR tools and negotiation support systems may become a standard in alternative dispute resolution of family cases.

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