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**Theses**

*for the doctoral dissertation titled*

*General Terms and Conditions in the Online Space:  
Challenges of Standardised, Electronic and Automated Contracting  
in Hungary's Law*

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## I. SUBJECT, GOAL, AND RESEARCH TASK

### 1. Subject and goal of the research

In our age, even simple sales contracts are increasingly automated and transferred to a cross-border digital space<sup>1</sup>. This is not only because of the EU's Services Directive and the principle of freedom of establishment, but also because of the expansion of the internet and the complex effects of globalisation. My dissertation is aimed at examining the application of *general terms and conditions (GTC)* that are *available online* but have been drawn up by conventional writing, typically with the "classic" (human) involvement of lawyers. These conditions are, however, applied in the *online communication space*. I outline the challenges raised by online GTC versions and their development trends, highlighting the possibility of automated contract generation and acceptance.

I present the results of my own research, conducted in the autumn of 2017 using a questionnaire with a closed set of questions, in order to prove the *possibility of automation* even in the law of obligations.<sup>2</sup> I describe the significance and characteristics of GTC in consumer contracts, together with their economic advantages and their disadvantages to consumers. I intend to demonstrate that, due to technological development, the proliferation of online contracting in general and online GTC in particular is a justified process that will have a lasting impact on cross-border private law systems.

I shall mention but not go into the details of (programmed) smart contracts, which constitute a novel area.

Two key issues related to the conclusion of contracts concluded online based on GTC involve *the time when the related legal declarations take effect*, and the *comprehensibility of those declarations*. In the era of e-mail, chat programs and mobile applications, the time when the addressee reads a message is far from obvious. Legislators often try to follow the adoption of new technologies in contracting practices, but it will never be possible for law (and other disciplines) to rapidly react to the exponential technological development witnessed globally. In such transition periods (when law lags behind technological changes), it is up to judges to adopt new *legal interpretations* of the right consumer protection practices, replacing the outdated rules originally created for classic cases and methods, even if the legal norms relevant to the case at hand have not yet been updated. Such indicative practices also involve responsibility regarding regulatory models that are not precedent-based, such as Hungary's legal practices.

*A multitude of competing interests* are involved in the proliferation of almost all online digital solutions. These include the protection of individuals' privacy, a search engine operator's business interest, the profit interest of a party applying online GTC, or internet users' interest in receiving information. All these interests simultaneously push the envelope when it comes to the effect of digitalisation on law. In my view, the organic development of conventional legal institutions and digital legal solutions is characterised by the search for a balance between these interests. Online contracting and automated, formalised GTC solutions could be fully automated (or even machine-generated) in the not too distant future due to factors such as automated document compilation, constant connectedness, electronic markets, e-learning, online help, legal outsourcing, closed legal communities, workflows, and project management techniques that destroy legal knowledge. If, due to technological progress or the development

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<sup>1</sup> Directive 2006/123/EC, and Section 3 of the implementing Act LXXVI of 2009 on the rules of commencing and continuing service activities

<sup>2</sup> 356 survey responses are summarised in the dissertation

of automatic systems, notions such as addressee and modifiability, or even receipt, delivery or deliverability must be reinterpreted, then the electronic contracting solutions referred to in the current regulations will have to be redefined, possibly along with issues of what constitutes writing, or when juridical acts take effect.

The dissertation is intended to highlight (from the perspective of Eörsi's notion of adaptation to a new era, rather than from the perspective of consumer protection) the need for a different approach to the online general terms and conditions generally applied in e-commerce in the classic law of obligations, within the area of electronic contracting versions.<sup>3</sup>

## 2. Research task and hypotheses

Electronic contracting as a *sui generis* legal institution was introduced in Hungary's Civil Code as a result of reforms in 2013. Decision-making, reading comprehension and writing skills, as well as digital and technological skills related to exchanging documents online will have an impact on private law and the law of contracts, both when an intermediary makes a declaration on someone else's behalf, and when a person acts on his/her own behalf, possibly with a personality bestowed upon him/her. This issue needs to be addressed because several large commercial players have meanwhile launched initiatives for the open, secure and socially responsible development of artificial intelligence.<sup>4</sup> In possession of Big Data, an informational asymmetry has presumably arisen between data holders and persons who have no data. This issue definitely needs to be regulated, and the transparency of automatic decisions made by machines based on Big Data will be one of the most pressing issues in the near future.<sup>5</sup> The Act on Electronic Trading and the goals defined in the National Infocommunication Strategy may, over the long term, transform the "classic" forms of commerce and contracting. Pre-programmed and unbreachable smart contracts without living parties are already emerging. Smart contracts, together with the relevant programming and performance technologies, are now taught at universities (albeit not in Hungary).

In view of these phenomena, the dissertation is aimed at examining the future effects of the cross-border *benefits and challenges of automation and the internet* (brought about by digitalisation, globalisation and technological development) on certain issues and principles of the classic law of obligations (and especially on legal institutions concerning the parties' communication, such as calls for offers, the offers themselves, contracts, or principles supporting communication such as the principle of interpretation, the principle of contractual freedom, or clarity), as well as on general terms and conditions (hereinafter: GTC) in Hungary's law. Furthermore, the dissertation is aimed at forging a *modern definition of contacting via online GTC*, describing the special features of such conditions within the general principles of electronic contracting, and explaining why it is justified to discuss this area separately. (Contracting via GTC is defined in the current Civil Code, but without an express reference to specific online considerations.)

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<sup>3</sup> EÖRSI, GYULA: *Összehasonlító polgári jog*, Akadémia Kiadó, Budapest, 1975, p. 394. Eörsi states in his book on comparative civil law that law develops via active adaptation. This process is basically steady, but certain social and economic eras bring stronger legal conflicts between old and new. This is what Eörsi calls adaptation to a new era, as opposed to the active, everyday adaptation which is mostly unnoticeable.

<sup>4</sup> Section 4.1 of the opinion of the European Economic and Social Committee titled "The consequences of artificial intelligence on the (digital) single market, production, consumption, employment and society" (own-initiative opinion) (2017/C 288/01) (hereinafter: EESC Opinion)

<sup>5</sup> ZÓDI, Zsolt: *Jog és jogtudomány a Big Data korában*, Állam és Jogtudomány, volume LVIII, edition 2017/1, p. 95

I also examine whether modern technology allows for *automated contract formulation and conclusion*, and if so, what legislative challenges this may present in Hungary's law. Historical regulations as well as descriptions of social and technological development are also included. It is not my intention to carry out a comparative temporal analysis but rather to review past trends in order to predict and estimate future developments in Hungary's private law.

The growing significance of electronic communication is expressed in the current Civil Code, where the specifics of electronic contracting are taken into consideration in some areas<sup>6</sup>, even though contracting regulations are generally technologically neutral. Nevertheless, automated GTC or smart contracts are not yet referred to. It is now worth examining the potential directions of contracting in the virtual space as e-commerce proliferates and technological automation and robotics (artificial intelligence) progress. Legal systems have practically no impact on these developments but must adapt to the problems that they cause in real life.

Understanding GTC requires the review of regulatory history and the identification of certain aspects that may gain importance in the future. I describe the emergence of GTC and examine a number of modern technological solutions that cause no problem in the law of obligations yet, but could give rise to issues in the future. Law as a science is proven to have become *multi-disciplinary* since the 18<sup>th</sup> century, so knowledge in the areas of engineering, social sciences, economic history, economics, psychology and marketing is indispensable to identifying and understanding the legal ramifications related to the subject of this dissertation.<sup>7</sup>

The emphasis is on the e-commercial aspects of contracting via GTC, but other considerations are also discussed, along with a number of questions underlying all institutions of the law of obligations. Some of these questions are, to a certain extent, of ethical nature. They include the risks of online deliverability, the issue of clarity (which constitutes a special challenge in the online space), marketing and psychological pressure in the virtual space (which obviously affects contracting consumers), ethical dilemmas related to clarity, and the question of fairness in contracts.

As the length of the dissertation is limited, I do not focus on consumer protection considerations but rather on Eörsi's notion of adaptation to a new era, as well as on the technological development (and especially disruptive technologies) related to those future challenges, dilemmas and problems concerning the law of obligations that are inherent in the online general terms and conditions widely used in online commerce. In order to shed light on these issues, I focus on the regulatory processes and changes in commercial law and the law of obligations, as well as on the underlying (maybe programmable) economic processes in the current legal regulations. The section on regulatory history is centred on the new private law regulations introduced after 2013 because it is very relevant to the topic of the dissertation that electronic contracting and, within the rules for GTC, the "battle of standard contracts" are explicitly referred to in the new Civil Code.

Besides raising certain correlations, I do not go into the details of theories of compensation, liability and invalidity within the law of contracts, even though these topics are interesting and worthy of several analyses. But the focus on digital and online law clearly requires the examination of consumer and data protection aspects in general, and particularly the tendencies of the law of consumer contracts regarding online GTCs. It is also necessary to discuss the characteristics of electronic communication and smart contracts in the 21<sup>st</sup> century, because the dual categories of verbal and written agreements so far used in classic legal systems seem to be disrupted by the emergence of *electronic communication and so-called*

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<sup>6</sup> Act V of 2013 on the Civil Code (Civil Code)

<sup>7</sup> SZMODIS JENŐ: *A jog és gazdaság néhány összefüggéséről*, Polgári Szemle, 2012 (volume 8) edition 1-2, p. 2.

*e-verbality* in digitalisation. E-verbality is characterised by features of conventional verbality rather than the traditional, static characteristics of written documents. Consequently, it is advisable to reconsider the matter of verbality and writing in law. A smart contract does not necessarily have a written version in the conventional legal sense; still, everybody who connects to the system will know what legal transactions are effected automatically, i.e. the actual contents of a contract and the parties' contractual intent will be known. The examination and regulation of smart contracts currently represent a legislative hiatus because, to use Eörsi's logic, unnoticeable active adaptation could not have started yet in the development of this aspect of the law of obligations (as far as smart contracts are approached from the perspective of the law of obligations).

I examine two hypotheses in my dissertation.

**Hypothesis 1:** I assume that there is a valid reason for the proliferation of GTCs, and that online commercial techniques and technologies (email marketing and online e-commerce) are becoming faster and increasingly automated, i.e. standard, written contracts in the form of "click-in" GTC will be offered by more and more active websites, including SMEs' sites. *Contracting via online GTC differs from a paper-based written process, so such content puts increasing pressure on consumers about to make decisions (e.g. when accepting online offers).* Thus the classic freedom of contracting is further limited in the online space, so the consumer and data protection regulations that have already appeared in the law of obligations will gain significance in the area of contracting via online GTC.

**Hypothesis 2:** *I examine the extent to which the online conclusion of standard contracts can become an automatic operation in the future, possibly without human intervention.* In case this is technologically feasible and emerges as a commercial need by businesses, further legal regulations will have to be drafted to manage the risks of contract execution or non-performance (as well as issues of legal capacity in connection with juridical acts generated by automated algorithms).

General terms and conditions have emerged for several reasons. Economic and technological development as well as mass production have created the business need to minimise the legal costs added to product prices. Furthermore, mass sales necessitate the rapid conclusion and performance of contracts, so that both manufacturers and traders in the sales chain may realise their economic profits as soon as possible. Bridging geographical distances is now a crucial trade function; and due to international trade across geographical boundaries, risk mitigation reflexes by global corporations have resulted in the adoption of "lex shopping" and expensive but fast arbitration, both of which are primarily aimed at selecting the best law and dispute settlement procedure for trade.

In our modern age, the above issues are complemented by the appearance and spread of the internet, as well as by the proliferation of digitalised sales and service activities. It is truly challenging for legislation (which regulates the conventional contracting techniques used before the emergence of the internet) to manage the legal risks of online contracting, and provide protection from the infringement of consumers' interests due to the "rapid" general terms and conditions applied in online sales. In today's e-commerce, the sales chain leading to consumers can be shortened with a webshop. The technological neutrality and democracy of the internet regardless of geographical borders raises numerous legal questions, and it is dubious whether the general terms and conditions that are wide-spread in commerce can be applied online. Electronic and online contracting has been introduced not only between businesses and consumers; and programmable smart contracts have started to emerge.<sup>8</sup>

Fast online administration usually requires systemic solutions, *system-building strategies*, as well as repeating actions and reactions that can be automated. Hence the adoption of *standard contracts*

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<sup>8</sup> The notion of consumers is interpreted broadly in the dissertation, i.e. it is not limited to private persons.

not only by large electronic telecommunications providers and major webshops, but also by Hungarian small businesses that use the internet.<sup>9</sup>

This means that contracts are concluded online, without personal presence and signing, or personal bargaining and bidding. In fact, a contract may now be performed in the virtual space in some service areas (e.g. online consultancy through Skype<sup>10</sup>).

The computerisation of legal work still harbours huge potential. “Untapped potential is primarily offered by the processing of natural languages and the application of artificial intelligence technologies. In addition to these unused possibilities, the intelligent management of legal substances may harbour major unidentified user needs.”<sup>11</sup>

The sector of legal services has changed more in the past 20 years than in the previous century, and the next five years will bring further significant changes in the lives of legal service providers.<sup>12</sup> These changes will affect business models, clients’ expectations, the usage of social platforms and digital technologies, as well as the need for instant availability. Communication and the exchange of information are speeding up thanks to digitalisation, and so is the contracting process. Consequently, the need for fast administration has been the primary change in clients’ expectations in the past 10 years: all legal work is now needed in real time, with clear charges. This will reshape the operation of law offices and corporate legal departments. Simple standard documents may be filled out by machines, but the need for legal interpretation will not disappear yet. It is important to consider the trends of legal services in my dissertation because contracting is part of those services. Consultancy about drafting and applying GTC is a task for lawyers, even if, in the absence of a statutory obligation, GTC do not need to be counter-signed by a lawyer in several regulation areas.

The issue indicated in the title is timely because of the emergence of several new technological and legal phenomena due to the spread of digitalisation and the internet. Some legal technologies may have destructive effects on conventional law offices, and thus may affect the methodology of contracting.<sup>13</sup> This theory holds that legal services have evolved from uniqueness (greatly customised) to standardisation (repeating legal solutions) to systematisation (e.g. electronic work processes), followed by the phase of packaged services, and finally mass products (electronic or online legal product packages).<sup>14</sup> It is due to this logic that the research chapter goes back to the period before the Civil Code reforms of 1977<sup>15</sup> when general terms and conditions were first mentioned in Hungary’s codes of private law. The

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<sup>9</sup> It should be noted that the general terms and conditions of electronic telecommunication providers must be approved by the competent authorities, but the GTC of small businesses (typically drafted by lawyers or the company itself) are solely governed by the dispositive Civil Code (with the addition of a few cogent rules for the protection of consumers), as well as other private law norms and emerging judicial practices for e-commerce and concluding contracts with consumers. I.e. no approval by any authority is required.

<sup>10</sup> A desktop application installed on a computer, which uses a microphone and a built-in camera for online phone or voice calls as well as simultaneous chatting and messaging between two or more persons who are physically far from each other. (The function is similar to the telephone’s, but with the addition of users’ images.)

<sup>11</sup> KILIÁN IMRE: *Semantically based legal knowledge management technologies*, PhD dissertation (2013)

<sup>12</sup> Study by the Ark Group and Managing Partners: 2020 Vision: The Future of Legal Services, 2nd Edition, editor: Laura Slater 2015, p. VII. Details: [https://www.ark-group.com/sites/default/files/product-key-contents/2020-Vision\\_2015\\_Prelims-w-cover\\_0.pdf](https://www.ark-group.com/sites/default/files/product-key-contents/2020-Vision_2015_Prelims-w-cover_0.pdf) (downloaded on 30 May 2019)

<sup>13</sup> RICHARD SUSSKIND: *The End of Lawyers?* – Wolters Kluvert Kft. Budapest, 2012. The author emphasises that future lawyers will need to think differently, that legally unqualified persons may be involved in the work, and that lawyers’ work should be interpreted as a service.

<sup>14</sup> SUSSKIND presents a document compilation system offered by the Eversheds Law Office which clients can use to compile their own work contracts from packaged elements, as a sort of “do-it-yourself” legal service. The output is checked by legal staff.

<sup>15</sup> Act IV of 1959 (old Civil Code)

development of the legal history of contract functions and written juridical acts in Hungary, which is simple to depict graphically, also progresses from unique, customised solutions (verbality followed by written evidencing agreements) towards standardised, online products. *Online contracting via GTC constitutes automation in itself* as it involves the repeating, electronic conclusion of contracts of standard content.

Thus the logic of technological development cannot be ignored because it is recognisable in the development of institutions of the law of obligations as well.

According to futurists, humans may be united with artificial intelligence when singularity is achieved, and robots or automatic machines may appear on both contracting sides, without one party knowing the other contracting party or the intermediary.<sup>16</sup> The so-called consumer contract law is gaining importance in the European Union, and once completed, the EU's emerging sales codes will be optionally used besides national laws. But *lex shopping* is still widely applied in globalisation, possibly to keep consumers in a disadvantageous position. Connected technologies are adopted and spreading faster than ever, and the largest digital and social media corporations are busy developing artificial intelligence.<sup>17</sup> Some chatbots can be used to make appointments with company managers, and can exchange email messages without the partner noticing the machine at the other end of the line. This raises several questions in the examination of juridical acts and contracting circumstances, and not only in lawsuits. The need has arisen to add electronic persons to natural and legal persons in EU legislation, in order to promote the development of robotization.<sup>18</sup> Individuals are more and more defenceless from the challenges of the information age. In the era of the information society, efforts should be stepped up to use technology for humanity, while mitigating the attendant risks. As confirmed by the European Parliament, the current trends pointing towards the development of intelligent, autonomous machines (that can learn and make decisions) will not only bring economic advantages. Also, the tendency of automation requires that the persons developing and selling artificial intelligence applications should *incorporate security and ethical aspects* in their work from the very beginning, acknowledging that they must be ready to assume legal liability for the quality of the technology they create.<sup>19</sup>

Meanwhile, in the classic law of obligations, a contract is still considered to be a chain of juridical acts. Accepting and "signing" GTC by a click on the internet is not deemed equivalent with a conventional contract; an email message is not considered strong evidence in court, and the application of smart contracts is not regulated. My dissertation is aimed at highlighting these controversies and related further challenges from the perspective of private law.

The main topic of the dissertation (*concluding online contracts via general terms and conditions*) approaches institutions of the law of obligations (giving and accepting quotations, i.e. making

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<sup>16</sup> RAYMOND KURZWEIL, American inventor and writer, a pioneer of optical character recognition, text-speech synthesis, speech recognition, and musical instruments with an electronic keyboard. He has authored several books on health, artificial intelligence, transhumanism and technological singularity, such as *The Singularity Is Near*, Penguin Group, 2006. (In Hungarian: *A szingularitás küszöbén*, Ad Astra Kiadó, 2013)

<sup>17</sup> In the fifth edition of their annual reports, Ericsson ConsumerLab listed 10 of the latest consumer trends of the year 2016 and the subsequent period. The report points out that connected technologies are adopted and spreading faster than ever. The latest 10 consumer trends in 2016: 1) Connectedness rewrites our lives. 2) Streaming is now a lifestyle among the youth. 3) Artificial Intelligence ousts screens. 4) The virtual becomes real. 5) Sensory homes. 6) Efficient commuting. 7) Chatting with urgency. 8) In-body sensors. 9) Hackers everywhere. 10) Self-proclaimed journalists. <http://www.tozsdeforum.hu/extra/tech-tudomany/ilyen-lesz-a-jovonk-a-technologia-vilagaban-61960.html> (downloaded on 30 May 2019)

<sup>18</sup> Report (dated 27 January 2017) with recommendations to the Commission on civil law regulations for robotics (2015/2103(INL)), <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+REPORT+A8-2017-0005+0+DOC+XML+V0/HU> (downloaded on 30 May 2019) (Hereinafter: EP Report)

<sup>19</sup> Sections G and N of the Introduction to the EP Report



contractual declarations; and contracting) from the perspective of the defencelessness of individual consumers, which primarily arises from strong psychological marketing pressure aimed at fast sales, and from the insufficient information that consumers possess. These legal institutions used to be based on personal interaction. According to the EP Report, artificial intelligence may even surpass human intellectual capacity over the long term. This possibility is reviewed in the dissertation in connection with the possible automation of GTC, which is foretold by the emerging world of smart contracts, which in turn projects a programmed economy. The advancement and proliferation of upcoming automatic, algorithm-based decision-making will clearly affect both the choices of private persons (as business partners or internet users) and the final decisions of public administration, justice and other authorities related to consumers, business transactions and regulations.<sup>20</sup>

The dissertation presents why and under what circumstances general terms and conditions as well as online contracting have gained ground, and describes their characteristics. The purposes of applying online GTC and the issue of contractual freedom raise several dilemmas. I present the technical features of online information exchange and the resulting question regarding the time when contractual declarations take effect. Problems related to procedures and legal authority are also highlighted in the discussion of the offline routines and online proliferation of GTC. The development of EU legislation is demonstrated by e-commerce regulations; I review the Brussels treaty that settles the questions on legal authority from the perspective of contracts concluded online.<sup>21</sup>

Besides the review of legal and regulatory history, I expressly refer to statistical analyses of current trends in the National Infocommunications Strategy<sup>22</sup> as part of my analysis of legal institutions. This may lead to projections regarding the government's development directions until 2020, as well as the speed at which the digital skills and competences of private persons and businesses (as consumers and sellers) are expected to evolve. These factors will affect the online commercial communication leading to future contracts.

## II. RESEARCH METHODS; STRUCTURE AND TOPICS OF THE DISSERTATION

### 1. Research methods

The subject matter is processed primarily by reviewing the relevant Hungarian literature on private law, and by describing the domestic and EU-level legislative development resulting from the appearance of GTC. Thus my methodology is not based on the usual references to and comparisons with the extensive Anglo-Saxon and other monographic literature on general terms and conditions, but rather on the analysis of legal developments in the EU, which always constitute a synthesis of the member states' legal solutions and the options to adapt a member state's legal culture for the purpose of joint European regulation. Nevertheless, whenever applicable, I refer to current foreign technical literature and judicial decisions, as well as to relevant studies by other authors (e.g. Swiss law, BGB) concerning certain topics. The application of any other methodology would have resulted in exceeding the expected length of the dissertation.

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<sup>20</sup> Sections R and Q of the Introduction to the EP Report

<sup>21</sup> So-called Brussels Convention I: Council Regulation (EC) No. 44/2001 of 22 December 2000 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters (EUR-Lex - 133054)

<sup>22</sup> National Infocommunications Strategy on the Government's main objectives concerning the infocommunications sector for the period 2014-2020

The primary technical literature is important when it comes to the basic definitions of institutions of the law of obligations, whether we talk about studies, monographs or other publications on current or past law. As electronic GTC constitute the central topic of my dissertation, and issues of the electronic-isation of written documents are also examined in detail, I also describe the legal history of the formation of written documents in the law of obligations.

Furthermore, I quote and analyse proposed EU regulations where the legislation process is not concluded yet. These regulations are in the initiation phase; still, it is necessary to describe the recently started legal analysis related to the proliferation of artificial intelligence (e.g. concerning the question of as yet unformed electronic personalities).

In addition to the analysis of legal literature and legislative processes, it is necessary to present certain issues in the areas of economics, economic law, marketing and psychology, because ever-faster contracting via online GTC is basically driven and developed by economic rationale and online marketing. As the central theme of my dissertation is the presentation of progress from conventional *offline contracting towards online and automated (electronic) methods*, it is necessary to refer not only to legal dogmatism and literature but also to relevant primary literature related to technological development, automation and commercial communication in external fields, such as economics, technology, or linguistics. Nevertheless, these references will not shift the emphasis from the legal aspects of my dissertation. One of my express objectives is to place electronic contracting as a legal institution *into an interdisciplinary context*. This makes my dissertation diverse, so I do not aim to delve deep or into these partial areas, or examine them monographically. (The advantage of this approach is that the novel directions outlined in the dissertation can later serve as the basis for more thorough legal examination.)

The dissertation refers to relevant domestic and international judicial practices. These are not presented under a separate heading but within the topical chapters, built into the analysis of focal points.

References to secondary legal literature are justified when discussing topics that cannot be analysed in detail due to the limited length of the dissertation, or where such detailed analysis is not necessary. In these cases, I refer to summary works of basic research that I agree with. In addition, the following modern research tool has been applied:

*Questionnaire-based online survey* conducted in social media (e.g. Facebook) among consumers who conclude contracts over the internet. The number of responses suitable for assessment was 356; the results provided useful information on consumers' inattentiveness during e-contracting, and may serve as the basis for regulatory proposals to legislators. The questions were mostly focused on the respondents' habits regarding contracting and online declarations, on the elements of trust that they consider important during online activities, and the aspects that internet users fail to consider when planning their actions. Furthermore, I wanted to estimate the extent to which users accept future digital techniques, and how those techniques (such as communication with chatbots) would influence their decision-making habits. The responses to the questionnaire were processed via statistical analysis. The targeted sample included people who readily and confidently used the internet and social media on a daily basis. So these people's (micro-) confidence level is higher than average. Their indifference or decreased trust concerning the hypothesis (acceptance or rejection of the practice of contracting via GTC or even robots) may provide a guideline for the strength of future legal regulation, or for the need to avoid excess regulation in the examined technological situations.

## 2. Structural units and topics of the dissertation

The dissertation consists of seven chapters marked with Roman numbers. The topics start with an overall introduction to general contracting conditions, followed by the specific features of the online space, to finally arrive at special challenges of the future:

- I. Purpose and research methodology
- II. Goal of the application of general terms and conditions; characteristics of a standardised legal relationship
- III. Emergence and development of general terms and conditions in Hungary's legal regulations
- IV. General terms and conditions in the online space
- V. Characteristics of online information exchange; effective dates of virtual juridical acts
- VI. Further challenges of electronic and potentially automated contracting
- VII. Summary and conclusions

Within each chapter, the research subject is detailed in sections of continuous Arabic numbering. These are divided into further subsections (e.g. 4.2.2 Challenges of potentially automated contracting in the law of obligations) where the author deemed it necessary to include several subtopics or more extensive analysis. Between the introductory chapter (description, purpose and methodology of the research) and the concluding summary, the topic is analysed in the following logical sequence, while the central issue described by the title of the dissertation is detailed after the general presentation of the legal institution (Chapter II) and Hungary's legal regulations (Chapter III):

### CHAPTER II:

- 2.1 Goal and characteristics of general terms and conditions
- 2.2 Contractual balance: freedom to conclude or not to conclude a contract
- 2.3 Requirement of specific contractual negotiations
- 2.4 Usual, unusual and basic conditions as the contents of the contract
- 2.5 Norm effect, inertia and adaptation in online general terms and conditions
- 2.6 Legal consumers' habit of not reading GTC
- 2.7 Cooperation and notification obligation
- 2.8 Battle of standard contracts

### CHAPTER III:

- 3.1 Solutions in the law of obligations before the regulation of GTC in the Civil Code (i.e. before 1977)
- 3.2 Emergence of general terms and conditions in the Civil Code (1978 – 1997)
- 3.3 Adoption of the consumer protection regulations in Directive 93/19/EEC (1997)
- 3.4 Emergence of so-called consumer contracts in the Civil Code (2002 – 2013)

3.5 Civil Code reforms of 2013: e-contracts and the battle of standard contracts

3.6 General terms and conditions in the development of the EU's unified contracting law

The central topic of the dissertation described by the title (*General Terms and Conditions in the Online Space: Challenges of Standardised, Electronic and Automated Contracting in Hungary's Law*) is discussed in Chapter IV.

In that chapter, I present the main aspects of legal economy, automation options, global impacts, new communication habits of the iGeneration, and potential legal hurdles. A separate section is dedicated to the assessment of the author's own research conducted in 2017 using a questionnaire with a closed set of questions (4.6 Online legal consumers' habits regarding general terms and conditions (questionnaire-based research results)):

## CHAPTER IV

4.1 Automating and cost-reducing sales techniques; lazy and conscious shoppers

4.2 Can contracting be automated?

4.3 Impacts: (legal) globalisation, *lex shopping*, and the effect of generations Y and Alpha on contracting

4.4 Contracting challenges in a digital Hungary

4.5 Requirements for online contracting: virtual trust, interactive websites, identification

4.6 Online legal consumers' habits regarding general terms and conditions (questionnaire-based research results)

4.7 Contracts that may or may not be concluded online

4.8 Basic rules for online (electronic) contracting

4.9 Correlation between the freedom of services and technological development in e-contracting

4.10 Legal hurdles to online commercial transactions concluded via GTC

4.11 Function of the law of consumers' contracts in electronic contracting

The introduction, the description of legal institutions, the summarised regulatory history, and the review of the central topic are followed by analyses that project future challenges and examine classic legal doctrines from an interdisciplinary perspective. These lead to the characteristics of the online space and the internet, issues of online misinformation and electronic complaint management, short references to contracting and technological solutions that have progressed from uniqueness towards automatism, as well as to future challenges (including communication issues) in contract law based on conventional written documents.

Chapters V and VI are somewhat removed from the classic doctrines of private law and the law of obligations, which is clearly necessitated by the technological innovations presented in the dissertation. The summary and conclusions are preceded by the description of upcoming destructive legal technologies and their probable effects on the law of consumer contracts, as follows:

## CHAPTER V

- 5.1 Technical features of online information exchange; the Big Data phenomenon in law
- 5.2 The classic contracting process: the „offer and acceptance” model
- 5.3 Call for offers, making and accepting an offer in the judicial practice and online
- 5.4 The time when an electronic juridical act takes effect
- 5.5 Interpretation of general and virtual juridical acts
- 5.6 Common characteristics of virtual written contracts and verbal contracts
- 5.7 Managing online misinformation
- 5.8 Electronic complaint management; online dispute resolution

## CHAPTER VI

- 6.1 Robots that can surf the net and...
- 6.2 Emergence of robotics and automation in civil law
- 6.3 The legal personality of robots, and the resulting possibilities in the law of obligations
- 6.4 Requirement and significance of clarity in legal documents available online
- 6.5 Effects of destructive legal technologies and technological innovation on legal consumption
- 6.6 Effects of online and machine communication on the law of consumer contracts

## III. SUMMARY AND APPLICABILITY OF THE SCIENTIFIC RESULTS OF THE DISSERTATION

### 1. Summary of the scientific results of the dissertation

*The theoretical relevance of the research* is based on the global mushrooming of the internet since the 1990s. Both the European Union and the government of Hungary have worked out digital and information communication strategies indicating that the current tendencies are unlikely to change. The processing of hypotheses and research results will allow for outlining how automated online contracts are concluded, defining the potential central issues in the examination of the parties' contractual declarations, and identifying those areas in judicial practices where evidencing or interpretation difficulties may have to be resolved.

The dissertation provides proposals concerning the existing regulatory solutions as well. It describes the special features of and reasons for contracting via GTC, which may help lawyers not usually involved in electronic commerce find their way in this special area of the law of obligations. The classic rules and practices based on personal interaction and written documents may not always be relevant to this emerging area. I also list current basic issues related to electronic contracting, such as electronic documents, the identification established in legal dogmas, or questions of identifiability or provability.

*In my first hypothesis, I assume that online commercial techniques will speed up and become increasingly automated, i.e. more and more active websites will offer standard written contracts to be concluded via general terms and conditions.* I present how automation is supported by commercial needs, technological development, as well as the resulting long-term (infocommunication and training) strategies of the EU and the government of Hungary. All that leads to the conclusion that this trend is also apparent in the electronic contracting that follows e-commerce sales in Hungary's law.

*I assume that contracting via online GTC differs from the paper-based written process, and is consequently exerting increasing pressure on decision-making by consumers.* I present the special features that are present in the online space but not in offline written transactions, which render consumers' decisions in the online space more difficult: the increasing difficulty of understanding written electronic text as processes speed up, and the potential challenge posed by the progress of digitalisation and robotization compared to conventional written documentation that allows for slower interpreting and understanding.

*I assume that the conventional freedom of contracting will continue to decrease in the online space. The consumer and data protection regulations which have emerged in the law of obligations will become more stringent in the area of online contracting via GTCs.* I predict that the challenges of legal capacity and personality caused by robotization, as well as legal consumers' new habits resulting from the continued proliferation of GTCs in e-commerce (such as the usage of e-documents, the failure to read or understand online contracts, or consumers' openness to further online automation) will need to be continuously examined by legislators. Big Data and more intensive online marketing point towards the upcoming regulation of the law of obligations for increasing cogency of online electronic legal transactions. Meanwhile, governments consider the elimination of digital illiteracy as a priority in their social and national programs.

*In my second hypothesis, I examine the extent to which the online conclusion of standard contracts can become an automatic operation that will ultimately need no human intervention.* The presentation of the regulatory history of the law of obligations, and references to legal literature demonstrating the progress from uniqueness to automation and standardisation indicate the direction of progress from past to present to a potential future. This, along with consumers' openness to automation, projects the need to erect legal limitations to undesirable phenomena that go against the general interest of the public (such as weaker enforcement of the law in the case of automated online transactions).

*If that is technologically possible and becomes a commercial need by those who apply GTC, then I assume that further legal regulations will have to be drafted to manage the risks inherent in the execution or non-performance of contracts (and the issues of legal capacity caused by juridical acts through automatic algorithms).* Several current trends affecting legal services are briefly referred to in the dissertation. Even without relevant technical knowledge, it is apparent that the automatic generation of legal texts depends on the development of digital, automatic language recognition and text interpretation technologies. This possibility also deserves monitoring by legislators. Decreasing human control over automatisms already presents a challenge to technologically neutral legal regulations. This issue may define the automatisms possible in the law of obligations.

As argued in the dissertation, I consider both hypotheses valid; they may be worthy of further and more thorough analysis, which is prohibited by the limited length of my dissertation.

## 2. Applicability of the scientific results of the dissertation

*The practical relevance of the dissertation* is the presentation of how general terms and conditions and online legal declarations constitute existing practices on websites and in the digital space. These are the current online forms of the standard contracts that emerged in the 19<sup>th</sup> century for the sale of cheaper goods of serial production. In the age of accelerated technological development, robotics and artificial intelligence may lead to future automation and the emergence of new (possibly electronic) “persons”. This necessitates the reconsideration of solely human-oriented rules in classic legal systems, even in the flexible law of obligations which is characterised by dispositive parties. When discussing the clarity of online contracts, I outline new linguistic phenomena that may affect the understanding, interpretation and online applicability of contracts in the digital space; these have not yet been analysed in detail in the literature of the law of obligations. Still, they may be significant in the judgement of the enforcement of legal regulations as a general public interest in the virtual space.

Even though there are no new international practices concerning the personality of machines or the potential new contracting technologies yet, several specific questions can already be formulated that are necessary for the future development of legal systems in response to modern technologies. This development should be very practically oriented, at the level of actual (and potentially automated) contracting.

The issue of online contracting is examined in my dissertation from the perspective of quasi automatic sales and marketing, because most but not all online contracts are concluded in e-commerce. The IT programming side of existing “smart contracts” is not covered in the dissertation, even if it involves the realisation of GTC. Several decisions outside the judicial practices presented in my dissertation are relevant to general terms and conditions; I did not intend to cover GTC-related judicial practices that arose in the lawsuits about foreign currency loans, because those procedures were focused on issues of fairness and validity, which are outside the scope of my dissertation.

As explained in the dissertation, several new aspects related to supervision, interpretation and legal consequences will arise just because a contract is transferred to the online space. It is time to consider the future challenges of online contracting via standard contract forms at the end of an automated sales chain, as well as the potential development directions caused by disruptive legal technologies, in the context of juridical acts that can be automated. These issues should still be evaluated in a technologically neutral manner, not only focusing on liability for damage. Similarly to the emergence of the right to forget or the need to combat online misinformation, there will come a moment in automated contracting concerning the relationship between *human rights, technological development and public interest* when the cost optimisation effect of technological innovation or commercial automatisms cannot infringe the interests of the contracting individuals, even in view of the significant innovation effect. Such limitations will be imposed by legal regulations, but aspects other than consumer protection may also be taken into consideration.

Online GTC as legal texts have different characteristics than paper-based documents, including an increasing norm effect, clarity challenges arising from e-verbality, inertia that may lead to online misinformation in the digital space, and the possibility of examination with algorithms. For these reasons, it is justified to formulate the specific definition and terminology of contracting via online GTC within the broader area of electronic contracting:

*Contracting via online GTC means the conclusion of what is typically but not exclusively a consumer contract concluded by remote parties electronically, outside conventional business premises,*

*based on general terms and conditions that are published in the online space and/or are accepted explicitly (by “click-in” on an active website) or implicitly, through implied conduct, or in a form involving encryption and programming, when the underlying product is ordered. Contracting via online terms and conditions is a cost-effective and automated form of agreement based on fast decisions, the understanding of which is affected by e-verbality.*

The joint impacts of the following circumstances should be considered in the future when examining contracting via online GTC from the perspective of the law of obligations:

1. general considerations related to the law of obligations and special contracting issues;
2. factors related to contracts concluded outside business premises between remote parties;
3. specific issues of contracting and performance between consumers and businesses, as well as aspects and impacts related to the private law of consumers;
4. correlations between electronic contracts, the information society, and online technologies;
5. necessity and effects of standardisation and automation in contracting as well as text recognition and writing;
6. changes in internet-based / online publication opportunities; legal effects of declarations published online;
7. need for data management and protection regulations;
8. causes, effects and decisions from the perspective of marketing psychology aimed at online sales;
9. aspects of clarity and interpretation in online communication, i.e. changed habits in online communication and language usage (e-verbality);
10. legal economic aspects of electronic legal transactions.

Consequently, private lawyers who currently work with contracts in Hungary will need interdisciplinary skills in addition to the knowledge of classic private law and the law of obligations. These include the following:

- *knowledge of automated sales technologies (online marketing);*
- *technical knowledge related to the operation of the internet and the information society (servers, networks, online banking, bitcoin etc.);*
- *ethical knowledge of the relationship between humans and machines;*
- *psychological knowledge related to decision-making mechanisms in shopping;*
- *knowledge of electronic communication and linguistics (technical language), such as electronic literacy;*
- *considerations of legal economy.*

As it is highlighted in my dissertation, *general terms and conditions as pre-standardised processes and content constitute an automatic contracting solution in themselves*, as they allow for the routine and reflexive application of contracts by sellers and service providers. The mechanism of contracting via GTC can be further automated and may in fact be followed by the programmable, parallel creation of legal regulations in order to lend legal support to processes that can be automated. In case the notions of addressee, modifiability, receipt, delivery or deliverability need to be reinterpreted as technology and automated systems develop, the current electronic contracting solutions referred to in the current regulations will need to be reformulated, including issues of online GTC or even the time when juridical acts take effect.

As explained in my dissertation, we are, according to Eörsi’s theory of active adaptation, currently adapting to a new era when technological development raises the need to rethink several legal



institutions. When modern technologies develop continuously, as in the era of web-based GTC in private law, judicial legal development plays an important role, and the lessons learned from that process may serve as a useful foundation for the pre-legislative process of the transformation of classic legal institutions of the law of obligations. Legal certainty is inconceivable without high-quality legal work (by attorneys, judges etc.).<sup>23</sup> But for high-quality work, a lawyer of the 21<sup>st</sup> century needs interdisciplinary competences well beyond strictly legal knowledge. The complex examination of digital markets has become an interdisciplinary area of research that is not only aimed at legal knowledge.<sup>24</sup>

The wide-spread requirement of clarity or, in other words, accessible communication is crucial because an unclear or ambiguous contractual provision may lead to the legal consequence of invalidity in the world of GTC. A course focused on the clarity of legal notifications could in fact be added to the training of lawyers so that they learn how to describe legal consequences in a manner that is understandable to consumers who are, from a legal perspective, laymen. This could significantly reduce the number of legal disputes and promote voluntary legal compliance.

The dissertation arrives at the following main conclusions and correlations:

According to Eörsi's theory of active adaptation, we are currently in a phase of adaptation to a new era. The logic of technological development cannot be ignored because it is discernible in the development of institutions of the law of obligations as well. Online GTC as legal texts exhibit different characteristics than their paper-based peers (an increasing norm effect, clarity challenges arising from e-verbality, inertia that may lead to online misinformation in the digital space, and the possibility of examination with algorithms). Hence the significance of so-called accessible communication in online contracting and voluntary legal compliance. (For that reason, a course focused on linguistic clarity could be added to the training of lawyers.) Decreasing the costs of contracting remains an important business consideration to economic players. Contracting, and specifically the mechanism of electronic contracting via GTC, can be further automated. Consequently, when electronic contracting via online GTC is examined from the perspective of the law of obligations, it is advisable to consider several interdisciplinary factors (related to linguistics, ethics, automation, online marketing etc.) in addition to legal issues of consumer protection or liability for damage.

#### IV. RELEVANT PUBLICATIONS BY THE AUTHOR

The following is a list of the author's publications relevant to the main theme and the sub-topics of the dissertation, i.e. especially to *issues of contracting via general contractual terms, the dual norm effect, the requirement of clarity, as well as the significance of clear legal terminology and accessible legal communication*. These publications are found in the National Scientific Bibliography.<sup>25</sup>

1/ Németh, Gabriella: Az (automatizálható) online általános szerződési feltételek jogfogyasztói hatásai, In: Gellén, Klára (ed) *Gazdasági tendenciák és jogi kihívások a 21. században*, Szeged, Magyarország: Iurisperitus Kiadó, (2019) pp. 163-173., 11 p.

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<sup>23</sup> SÁRKÖZY: *A jog szerepe a gazdaságban*, Magyar Tudomány, 2011/5, p. 539

<sup>24</sup> BELÉNYESI PÁL: *Digitális és technológiai piacok közgazdasági kérdései*, In: *Technológia és Jog, Új globális technológiák jogi kihívásai*, Tóth András (ed), Károli Gáspár Református Egyetem ÁJK, Budapest, 2016, p. 8

<sup>25</sup> <https://m2.mtmt.hu/gui2/?type=authors&mode=browse&sel=10059609> (downloaded on 11 September 2019)

2/ Németh, Gabriella: A közérthetőség etikájának jelentősége a jogalkotásban és a sablonizált szerződési feltételek, In: Szoták, Szilvia (ed), Az állami fordítószolgálat 150 éve, Budapest, Magyarország: Országos Fordító és Fordításhitelesítő Iroda Zrt. (OFFI), (2019) pp. 127-136, 10 p.

3/ Németh, Gabriella: A jogi terminológia mint modern diszciplína jelentősége a közérthető jogi dokumentációban és a jogi kommunikációban, Hungarológiai Közlemények (Újvidék) 20:1 (2019) pp. 59-69, 11 p.

4/ Németh, Gabriella: Az online általános szerződési feltételek normahatásának dilemmái, Jog, Állam, Politika: Jog- és politikatudományi Folyóirat, (2018) 10:4 pp. 137-146., 10 p.

5/ Németh, Gabriella: Az általános szerződési feltételek alkalmazásának tapasztalatai az online térben, Gazdaság és Jog 26:3(2018) pp. 11-16., 6 p.

6/ Németh, Gabriella: Közszolgálat és magánjog találkozása az állami fordítóiroda online általános szerződési feltételeiben, In: Horváth, Ildikó (ed) TransELTE 2018. Budapest, ELTE Eötvös Kiadó, (2019) pp. 93-102., 10 p.

7/ Németh, Gabriella: Potential advantages of accessible legal communication in the online space – underway, to be published in “Economic Tendencies and Legal Challenges in the 21<sup>st</sup> century, Volume 2” by the Institute of Business Law of the University of Szeged