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Appendix 3

SUMMARY OF PROFESSIONAL ACCOMPLISHMENTS

for the purposes of habilitation (post-doctoral) procedure, including a description of scholarly works and achievements as well as of the scholarly achievement within the meaning of Article 16(2) of the Act of 14 March 2003 on academic degrees and academic title and academic degrees and title in art (i.e. Journal of Laws of 2017 item 1789, as amended)

1. **Full name: Agnieszka Teresa Gryszczyńska**

2. **Diplomas and academic degrees – including their name, the place and year of their achievement and the title of the doctoral dissertation.**

I completed uniform Master's degree studies in Law at the Faculty of Law and Administration of Cardinal Stefan Wyszyński University in Warsaw in May 2005 with very good results. Following the Faculty Council Resolution 47/2005/2006, I was awarded a diploma with honours. In addition, I was granted the Dean's award for the highest marks. My thesis, titled "Podpis elektroniczny w prawie polskim i włoskim na tle dyrektywy 1999/93/WE" ["E-signature in the Polish and Italian Law in the Context of Directive 1999/93/EC"] was written under the supervision of Professor Grażyna Szpor. The thesis presented the results of a comparative legal study on the regulation of electronic signatures in Poland and in Italy that I had carried out in the course of my academic stay at the University of Cassino in Italy (Università degli Studi di Cassino e del Lazio Meridionale) on an Erasmus exchange programme (2004–2005). The study was partly published in the chapter "Oświadczenie woli opatrzone podpisem elektronicznym w Polsce oraz we Włoszech" ["Declaration of Will Provided with an E-signature in Poland and in Italy"] in the monograph *Prawo umów elektronicznych* [*Law on E-contracts*], edited by J. Gołaczyński, Zakamycze, Kraków 2006, pp. 41–67, and in the chapter "Application of Electronic Signatures in Transferring the Information about Space" in the monograph *Geographic Information Systems in Research and Practice II*nd *Part*, edited by D. Kereković, Zagreb, 2005, pp.138–142.

Moreover, I completed Bachelor's degree studies in Administration, likewise with very good results, in the same year. Following the Faculty Council Resolution 47/2005/2006, I was awarded a diploma with honours. In addition, I was granted the Dean's award for the highest marks. My Bachelor thesis titled "Zastosowanie instrumentów elektronicznych w prawie zamówień publicznych" ["The Application of Electronic Instruments in Public Procurement Law"] was written under the supervision of Prof. Grażyna Szpor.

While studying at the Faculty of Law and Administration of Cardinal Stefan Wyszyński University, I attended classes held as part of a research and teaching project of the Institute of Political Science "Studium Generale Europa", which I completed with a diploma in 2005.

On account of my scholarly interest in the legal aspects of informatisation, I took up studies in IT and econometrics at the University of Ecology and Management in Warsaw in the years 2003–2007. I graduated with very good results and was awarded the professional degree of engineer. I wrote my engineer's thesis titled "Informatyzacja ksiąg wieczystych w Polsce" ["Informatisation of Land and Mortgage Registers in Poland"] under the supervision of Dr. Leszek Karski. Parts of the engineer's thesis concerning the legal aspects of informatisation were published as chapters in the monographs: "Informatyzacja ksiąg wieczystych" ["Informatisation of Land and Mortgage Registers"] [in:] *Prawne problemy informatyzacji administracji* [*Legal Problems of the Informatisation of Administration*], edited by G. Szpor, Municipium S.A., Warszawa 2008, pp. 81–88, and "Migracja ksiąg wieczystych" ["Migration of Land and Mortgage Registers"] [in:] *Elektroniczne aspekty wymiaru sprawiedliwości* [*Electronic Aspects of the Judiciary*], edited by G. Tylec and J. Misztal-Konecka, Oficyna Wydawnicza Branta, Bydgoszcz and Lublin 2009, pp. 43–54.

I earned the degree of Doctor of Laws on 12 April 2011 pursuant to the Resolution of the Council of the Faculty of Law and Administration of Cardinal Stefan Wyszyński University in Warsaw, having submitted doctoral dissertation titled "Informatyzacja ksiąg wieczystych jako rejestru publicznego" ["The Informatisation of Land and Mortgage Registers as a Public Register"]. The thesis advisor was Prof. Grażyna Szpor and the reviewers were Prof. Małgorzata Jaśkowska and Prof. Zygmunt Niewiadomski.

Moreover, I completed legal training to become a prosecutor in the years 2005–2008 and passed the relevant exam.

From 19.2.2019, I am a member of the Council of Digital Affairs.

3. Information on Employment in Research Institutions and on Performed Functions

I was employed as Assistant at the Department of Informatics Law at the Faculty of Law and Administration of Cardinal Stefan Wyszyński University in Warsaw from 1 January 2005 until 30 September 2011. In this capacity, I held classes and discussion seminars for students of programmes in Law, Administration and International Relations.

I have been employed as Assistant Professor at the Department of Informatics Law at the Faculty of Law and Administration of Cardinal Stefan Wyszyński University in Warsaw since 2011. As Assistant Professor, I have taught courses for students of programmes in Law, Administration, International Relations and Man in Cyberspace in the form of lectures, monographic lectures, discussion seminars, classes and seminars.

Pursuant to Decision of the Dean of the Faculty of Law and Administration of Cardinal Stefan Wyszyński University no. 36/2005 of 30 September 2005, I was appointed Dean's Plenipotentiary for Fundraising for the Faculty of Law and Administration.

Furthermore, I became instructor in the post-graduate programme "Protection of Personal Data and Confidential Information" at the Faculty of Law and Administration of Cardinal Stefan Wyszyński University in Warsaw in 2006 as well as in the post-graduate programme "Personal Data Protection in the Church" in 2018. I have taught courses in the post-graduate programme on recognising, preventing and fighting cybercrime against banks and their clients at the Police Academy in Szczytno since 2017. Apart from that, I held lectures in 2019 in the post-graduate programme "Personal Data Protection" at the Faculty of Law, Administration and Economics of the University of Wrocław as well as the post-graduate programme "Personal Data Protection" at Kozminski University in Warsaw. I held lectures in the post-graduate programme "Information Security Management" at Warsaw School of Economics in 2017.

Furthermore, I have been lecturer at the National School of the Judiciary and Prosecution Service since 2017, where I hold courses on cybercrime for judges and prosecutors. I gave lectures in the projects "Training in Commercial and Civil Law for Key Staff in the Judiciary" and "Preventing and Fighting Cybercrime".

I combine my scholarly development and teaching with work for the public prosecutor's office, which has focused on fighting cybercrime since 2016. I became coordinator of cybercrime-related proceedings in the 1st Commercial Crime Division of the Provincial Prosecutor's Office in Warsaw on 12 July 2018 and was head of the 3rd Department (for fighting cybercrime) in the 2nd Investigation Division and then in the 2nd Commercial Crime Division of the Regional Prosecutor's Office in Warsaw in the period from 23 September 2016 to 10 July 2018.

4. Indication of the achievement pursuant to Article 16(2) of the Act of 14 March 2003 on academic degrees and academic title and academic degrees and title in art (i.e. Journal of Laws of 2017 item 1789, as amended)

4.1. Scholarly Achievement

I indicate as the scholarly achievement in the discipline of law that meets the criteria listed in Article 16(1) and Article 16(2)(1) of the Act of 14 March 2003 on academic degrees and academic title and academic degrees and title in art (Journal of Laws of 2017 item 1789, as amended) the cycle of thematically related publications "The Openness and Security of Public Registers". The cycle encompasses 14 publications in the form of chapters in reviewed monographs and covers approximately 570 pages of manuscript. The works that make up the cycle were published between 2013 and 2018. A considerable majority of these chapters were written in the years 2013–2016 in the course of an R&D state security and defence project "A Model of Regulations on Openness and Its Limitations in a Democratic Rule of Law", DOBR/0075/R/ID2/2013/03, co-financed by the National Centre for Research and Development, in which I coordinated task 1.03 – "Analysis of the Polish Regulations on Limitation of Openness and Related Acts of European and International Law".

The cycle consists of the following publications:

1. A. Gryszczyńska, **"Pojęcie i jawność rejestrów publicznych – uwagi wprowadzające"** ["The Concept and Openness of Public Registers – Introductory Remarks"], in: *Rejestry publiczne. Jawność i interoperacyjność* [*Public Registers. Access and Interoperability*], edited by A. Gryszczyńska, C.H. Beck, Warszawa 2016, pp. 3–39, ISBN: 9788325586843
2. A. Gryszczyńska, "**Podstawy prawne ograniczeń jawności w Polsce**" ["The Legal Foundations of Openness Limitations in Poland"], in: *Jawność i jej ograniczenia* [*Openness and Its Limitations*], edited by G. Szpor, Vol. VI *Struktura tajemnic* [*The Structure of Secrecies*], edited by A. Gryszczyńska, C.H. Beck, Warszawa 2016 (2nd edition), pp. 1–49, ISBN: 978-83-255-8818-2
3. A. Gryszczyńska, "**Struktura regulacji tajemnic ustawowo chronionych**" ["The Structure of Regulations on Secrecies Subject to Statutory Protection"], in: *Jawność i jej ograniczenia* [*Openness and Its Limitations*], edited by G. Szpor, Vol. VI *Struktura tajemnic* [*The Structure of Secrecies*], edited by A. Gryszczyńska, C.H. Beck, Warszawa 2016 (2nd edition), pp. 273–327, ISBN: 978-83-255-8818-2

4. A. Gryszczyńska, "**Jawność formalna ksiąg wieczystych w Polsce**" ["The Formal Openness of Land and Mortgage Registers in Poland"], in: *Rejestry publiczne. Jawność i interoperacyjność* [*Public Registers. Access and Interoperability*], edited by A. Gryszczyńska, C.H. Beck, Warszawa 2016, pp. 255–310, ISBN: 9788325586843
5. A. Gryszczyńska, "**Jawność formalna rejestru zastawów**" ["The Formal Openness of the Register of Pledges"], in: *Rejestry publiczne. Jawność i interoperacyjność* [*Public Registers. Access and Interoperability*], edited by A. Gryszczyńska, C.H. Beck, Warszawa 2016, pp. 335-350, ISBN: 9788325586843
6. A. Gryszczyńska, "**Jawność formalna ewidencji partii politycznych**" ["The Formal Openness of the Register of Political Parties"], in: *Rejestry publiczne. Jawność i interoperacyjność* [*Public Registers. Access and Interoperability*], edited by A. Gryszczyńska, C.H. Beck, Warszawa 2016, pp. 367-382, ISBN: 9788325586843
7. G. Szpor, M. Durzyńska, A. Gryszczyńska, I. Kamińska, K. Mączewski, and W. Radzio, *Ustawa z 17 maja 1989 r. – Prawo geodezyjne i kartograficzne. Komentarz* [*Act of 17 May 1989 – Surveying and Cartographic Law. A Commentary*], Warszawa 2013 – commentaries to specific provisions which analyse **the legal basis of recording spatial data in a real property cadastre, the functions of the register, the scope of recorded data and the extent of publicity**, i.e.: Article 20 (commentary sections 1–4, 6, 7, 8, 9, 10), Article 21 (commentary sections 2, 3, 5, 6, 7, 8, 9), Article 23, Article 24, Article 25 (commentary sections 1, 2, 4), Article 40a, Article 48 (pages: 170–179, 186–197, 198–199, 200–210, 215–249, 260, 262–263, 436–439, 518–526), ISBN: 978-83-278-006-0
8. A. Gryszczyńska, "**Legal Limitations of Public Access to Spatial Data in Poland**", in: *Access to Spatial Data and Its Limitations. Legal Aspects*, edited by G. Szpor and A. Gryszczyńska, Croatian Information Technology Society, GIS Forum, Naukowe Centrum Prawno-Informatyczne, Zagreb 2015, pp. 50–67, ISBN 978-953-6129-52-2 (Nacionalna knjižnica, Zagreb, Croatia)
9. A. Gryszczyńska, "**Cybersecurity of Public Registers in Poland: Selected Legal Issues**", in: *Geographic Information Systems Conference and Exhibition "GIS Odyssey 2016"*, edited by A. Bieda, J. Bydłosz and A. Kowalczyk, Zagreb 2016, pp. 105–113, ISBN 978-953-6129-55-3, Nacionalna knjižnica, Zagreb, Croatia.
10. A. Gryszczyńska, "**Nowe zagrożenia bezpieczeństwa rejestrów publicznych**" ["New Threats to the Security of Public Registers"], in: *Internet. Strategie bezpieczeństwa* [*The*

Internet. Security Strategies], edited by Grażyna Szpor and Agnieszka Gryszczyńska; C.H. Beck; Warszawa 2017; pp. 293–309; ISBN: 978-83-255-9700-9

11. A. Gryszczyńska, "**Postulaty zmian w zakresie jawności i bezpieczeństwa rejestrów publicznych**" ["Propositions of Changes with Regard to the Openness and Security of Public Registers"], in: *Jawność i jej ograniczenia* [*Openness and Its Limitations*], edited by G. Szpor. Vol. XII *A Model of Regulation*, edited by T. Bąkowski; C.H. Beck; Warszawa 2016; pp. 181–198; ISBN: 978-83-255-9452-7.

4.2. Description of the Scholarly Objective

The choice of the subject of the cycle reflects my scholarly interests. I have studied the impact of informatisation on the performance of public tasks for over a dozen years now. My interests focus on the legal, organisational and technical issues in keeping public registers and providing access to the data they contain. I became active in this field even prior to earning the doctoral degree, albeit at that time I focused mostly on the process of informatisation of court registers and geographic information systems (A. Gryszczyńska, "Dostęp do danych osobowych z rejestrów sądowych" ["Access to Personal Data in Court Registers"] [in:] *Ochrona danych osobowych. Skuteczność regulacji* [*Personal Data Protection. The Effectiveness of Regulation*], edited by G. Szpor, Municipium S.A., Warszawa 2009, pp. 145–164, A. Gryszczyńska, "Access to Information on Legal Status of Real Estates in Poland" [in:] *Time, GIS & Future*, edited by D. Kerekowić, GIS Forum, Zagreb 2009, pp. 251–257, A. Gryszczyńska, "Migracja ksiąg wieczystych" ["The Migration of Land and Mortgage Registers"], [in:] *Elektroniczne aspekty wymiaru sprawiedliwości* [*Electronic Aspects of the Judiciary*], edited by G. Tylec and J. Misztal-Konecka, Oficyna Wydawnicza Branta, Bydgoszcz & Lublin 2009, pp. 43–54, A. Gryszczyńska, "Informatyzacja ksiąg wieczystych" ["Informatisation of Land and Mortgage Registers"] [in:] *Prawne problemy informatyzacji administracji* [*Legal Problems of the Informatisation of Administration*], edited by G. Szpor, Municipium S.A., Warszawa 2008, pp. 81–88, A. Gryszczyńska, "Geoinformation in Real Estate and Mortgage Register" [in:] *Geoinformation Challenges*, edited by M. Gajos and M. Styblińska, Wydawnictwo Uniwersytetu Śląskiego, Sosonowiec 2008, pp. 71–78, A. Gryszczyńska and B. Konieczna, "The Migration of Data from Paper Real Estate and Mortgage Registers to Electronic Ones", [in:] *Richness and Diversity of GIS*, edited by D. Kereković, GIS Forum, Zagreb 2007, pp. 166–174, A. Gryszczyńska and B. Konieczna, "New Land Register System in Poland", [in:] *GIS Applications and Development*, edited by D. Kereković, GIS Forum, Zagreb 2006, pp. 142–148, A. Gryszczyńska, "Application of Electronic Signatures in

Transferring the Information about Space", [in:] *Geographic Information Systems in Research and Practice II*nd *Part*, Zagreb, 2005, pp. 138–142.).

Moreover, the studies concerning the publicity and security of public registers follow from the considerations I made in my doctoral dissertation, in which I verified the general thesis that informatisation renders it necessary to reorient the register's functions, which are perceived in administration sociology as specific goal-oriented activities required by the law and observed in reality. That is when I adopted the principle that the purposes of land and mortgage registers – understood as interests which are achieved and protected by a legal institution established for that purpose – remain constant, while informatisation considerably alters the operations required by the law for the purpose of achieving the aims, that is tasks related to keeping land and mortgage registers. I took up these issues also after earning the degree of Doctor of Laws (A. Gryszczyńska, *Nowa Księga Wieczysta. Informatyzacja rejestru publicznego* [*The New Land and Mortgage Register. Informatisation of a Public Register*], 423 pages, LexisNexis, Warszawa 2011, A. Gryszczyńska, "Elektroniczny dostęp do Nowej Księgi Wieczystej i Krajowego Rejestru Sądowego" ["Electronic Access to the New Land and Mortgage Register and the National Court Register"] [in:] *Internet. Prawno-informatyczne problemy sieci, portali i e-usług* [*The Internet. The Legal and IT-related Issues of Networks, Web Portals and E-services*], edited by G. Szpor and W. R. Wiewiórowski, C.H. Beck, Warszawa 2012, pp. 289–303).

The institution of public registers is both a relevant albeit not entirely researched legal question and a technical and organisational problem. The jurisprudence is dominated by works on specific public registers. Comprehensive studies on the institution of public registers, on the other hand, are exceptions.[1] Moreover, studies on public registers and on their informatisation require an interdisciplinary approach. Although the subject of public registers and their informatisation covers issues of substantive law, procedural law and the political regime, it does remain chiefly an area of public law. Registers and records have been deemed one of the fundamental institutions of substantive administrative law. Issues related to entries in public registers in administrative norms were analysed by Jacek Jagielski, who proved that the area of entries in public registers is a new and non-typical research subject. Having noted the legislature's tendency to rapidly create ever new registers, he determined new research areas in

[1] T. Stawecki, *Rejestry publiczne. Funkcje instytucji* [*Public Registers. The Functions of the Institution*], Warszawa 2005; J. Oleński, *Infrastruktura informacyjna państwa w globalnej gospodarce* [*The State's Information Infrastructure in a Global Economy*], Warszawa 2006.

the field of substantive administrative law, that is the purposes and the methods of organisation and functioning of registers as well as the issue of whether the emergence of registers and other official records does not entail a new sphere of the public authority's intrusion on the individual's rights. This indicates that the issue of public registers, not only as an institution of substantive administrative law, can be an area of broad and in-depth studies.[2]

Taking into consideration the significance of the issues of publicity and security of public registers in studies on openness and its limitations carried out as part of the project "A Model of Regulations on Openness and Its Limitations in a Democratic Rule of Law", the legal norms on the access to data in selected public registers were analysed. Yet studies on this institution are hindered by the multitude of registers, legal acts pursuant to which they are maintained, their functions, the collected data and the rules of accessing them as well as the varying degrees of their informatisation. The regulations on providing access to information in several hundred public registers[3] not only are fragmented and inconsistent, but also remain in unclear relations with provisions on access to public information, re-use of public sector information and personal data protection. As remarked by Grażyna Szpor, findings in this respect can to some extent develop knowledge on public registers and at the same time become the starting point for reconsidering the effects of informative entries.[4]

The objective of the cycle "The Openness and Security of Public Registers" is to analyse the informatisation-driven changes in the rules and extent of providing access to data from selected public registers, taking into account the purpose of the register, its functions as well as the assets and interests subject to protection.

I verify the thesis that the redefinition of the traditionally perceived formal publicity of the register, which is demanded in connection with informatisation and electronic access to registered data, ought to take into account the new possibilities to aggregate and analyse data that have emerged as a consequence of the technological development in the second decade of

[2] J. Jagielski, "Wpisy do rejestrów, ewidencji i innych urzędowych wykazów" ["Entries in Registers, Records and Other Official Lists"], in: *Prawo administracyjne materialne. System Prawa Administracyjnego* [*Substantive Administrative Law. The System of Administrative Law*], vol. 7, edited by R. Hauser, Z. Niewiadomski and A. Wróbel, Warszawa 2017, pp. 481–503.

[3] J. Dygaszewicz points out that the knowledge base kept by the Central Statistical Office currently offers detailed descriptions of 587 registers, J. Dygaszewicz, "Problemy i perspektywy związane z funkcjonowaniem rejestrów publicznych" ["Problems and Perspectives Related to the Functioning of Public Registers"] in: *Rejestry publiczne. Jawność i interoperacyjność* [*Public Registers. Access and Interoperability*], edited by A. Gryszczyńska, Warszawa 2016, p. 109.

[4] G. Szpor, "Jurydyzacja jawności i jej ograniczeń w XXI wieku" ["The Juridisation of Openness and Its Limitations in the 21st Century"], in: *Jawność i jej ograniczenia* [Openness and Its Limitations], edited by G. Szpor, Vol. I, G. Szpor, *Idee i pojęcia* [*Ideas and Concepts*], Warszawa 2016, p. 193.

the 21st century and which increase the threats to human rights and freedoms and to public interest. A revision of the hypothesis on the overregulation of restrictions of publicity and the inconsistencies in the relevant provisions can become the basis for demands *de lege ferenda* aiming at providing cybersecurity.

The cycle opens with a chapter from the monograph *Rejestry publiczne. Jawność i interoperacyjność* [*Public Registers. Access and Interoperability*] of which I am editor, which emphasises two matters related to keeping public registers: the access to data recorded in the register (formal publicity) and the interoperability of public registers. The choice of the issues and the research material was determined by the need to take into account current problems in keeping registers that stem from the digitalisation of information resources and the use of electronic means of communication. The first chapter – "**Pojęcie i jawność rejestrów publicznych – uwagi wprowadzające**" ["The Concept and the Openness of Public Registers – Introductory Remarks"] analyses the institution of the public register based on its legal definition introduced into the Polish legal system by the Act on the informatisation of entities performing public tasks and on definitions found in the doctrine (in particular those developed by Tomasz Stawecki and Józef Oleński). These definitions are juxtaposed with the definitions of the official register and of the public administration information system provided in the Act of 29 June 1995 on official statistics. The resulting terminological findings are of major significance for ascertaining the scope of obligations of the registering authority pursuant to the provisions on informatisation, statistics or public information, especially since the terminological chaos causes difficulties in classifying a specific record as a public register.[5]

Based on the analysed definitions of the public register, I considered the relation between the 'publicity' of the resources and their 'openness to the public'. Further remarks are devoted to the functions of the registers, including the informative function, which is a key aspect from the perspective of studies on the publicity of registers.

[5] G. Szpor, *Problemy informatyzacji rejestrów sądowych* [*The Problems of Informatisation of Court Registers*], pp. 33 et seq.

The very concept of publicity is variously defined in the jurisprudence depending on the objective of the relevant study – as an idea,[6] a value,[7] a principle,[8] a proposition, a description of actions or a state of facts.[9] It was the subject of in-depth studies in the course of the project "A Model of Regulations on Openness and Its Limitations in a Democratic Rule of Law".[10]

[6] A. Piskorz-Ryń, "Ocena dopuszczalnych ograniczeń jawności ze względu na wymagania konstytucyjne" ["Assessment of the Acceptable Restrictions of Publicity from the Perspective of Constitutional Requirements"], in: G. Szpor (ed.), *Jawność i jej ograniczenia* [*Openness and Its Limitations*], vol. III, Z. Kmieciak (ed.), *Skuteczność regulacji* [*The Effectiveness of Regulation*], p. 43.

[7] T. Stawecki, Jawność [*Publicity*], p. 221; A. Dylus, "Aksjologiczne podstawy jawności i jej ograniczenia. Perspektywa etyki politycznej" ["The Axiological Foundations of Openness and Its Limitations. The Perspective of Political Ethics"], in: G. Szpor (ed.), *Jawność i jej ograniczenia* [*Openness and Its Limitations*], vol. III, Z. Kmieciak (ed.), *Skuteczność regulacji* [*The Effectiveness of Regulation*], p. 16; T. Górzyńska, *Prawo do informacji* [*The Right to Information*], pp. 27–28; J. Zimmermann, *Prawo administracyjne* [*Administrative Law*], pp. 124–125.

[8] J. Karczewski, T. Stawecki, "Jawność i prywatność – ważenie zasad prawnych" ["Publicity and Privacy – The Balancing of Legal Principles"], in: A. Mednis (ed.), *Prywatność a jawność* [*Privacy vs. Publicity*], pp. 127 et seq.; J. Zajadło, "Zasada jawności a filozoficzne pojęcie prawdy" ["The Principle of Publicity and the Philosophical Concept of Truth"], in: Z. Cieślak (ed.), *Jawność i jej ograniczenia* [Openness and Its Limitations], p. 53.

[9] Z. Cieślak, "Podstawy aksjologiczne jawności i ograniczeń jawności – synteza" ["The Axiological Foundations of Openness and Its Limitations – a Synthesis"], in: Z. Cieślak (ed.), *Jawność i jej ograniczenia* [Openness and Its Limitations], pp. 131–132.

[10] G. Szpor, "Jurydyzacja jawności i jej ograniczeń w XXI wieku" ["The Juridisation of Openness and Its Limitations in the 21st Century"], in: G. Szpor (ed.), *Jawność i jej ograniczenia* [Openness and Its Limitations] vol. I, G. Szpor, *Idee i pojęcia* [*Ideas and Concepts*], Warszawa 2016, pp. 1–79, G. Szpor, "Znaczenie terminologii w badaniach jawności i jej ograniczeń" ["The Role of Terminology in Studies on Openness and Its Limitations"], in: G. Szpor (ed.), *Jawność i jej ograniczenia* [Openness and Its Limitations], vol. I, G. Szpor, *Idee i pojęcia* [*Ideas and Concepts*], Warszawa 2016, pp. 81–165,Z. Cieślak, "Podstawy aksjologiczne jawności i ograniczeń jawności – synteza" ["The Axiological Foundations of Openness and Its Limitations – a Synthesis"], in: Z. Cieślak (ed.), *Jawność i jej ograniczenia* [Openness and Its Limitations], pp. 131–132, A. Dylus, "Aksjologiczne podstawy jawności i jej ograniczenia. Perspektywa etyki politycznej" ["The Axiological Foundations of Openness and Its Limitations. The Perspective of Political Ethics"], in: G. Szpor (ed.), *Jawność i jej ograniczenia* [Openness and Its Limitations], vol. III, Z. Kmieciak (ed.), *The Effectiveness of Regulation*. p. 16, A. Gryszczyńska, "Podstawy prawne ograniczeń jawności w Polsce" ["*The Legal Basis for Restrictions of Publicity in Poland*"], in: G. Szpor (ed.), *Jawność i jej ograniczenia* [Openness and Its Limitations], vol. VI, A. Gryszczyńska (ed.), *Struktura tajemnic* [*The Structure of Secrecies*], Warszawa 2014, pp. 3–6, A. Piskorz-Ryń, "Ocena dopuszczalnych ograniczeń jawności ze względu na wymagania konstytucyjne" ["The Assessment of Acceptable Restrictions of Publicity with Regard to Constitutional Requirements"], in: G. Szpor (ed.), *Jawność i jej ograniczenia* [Openness and Its Limitations], vol. III, Z. Kmieciak (ed.), *Skuteczność regulacji* [*The Effectiveness of Regulation*], p. 43, A. Piskorz-Ryń, "Jawność i ograniczenia jawności publicznych zasobów informacyjnych" ["Publicity and the Restrictions of Publicity of Public Information Resources"], in: G. Szpor (ed.), *Jawność i jej ograniczenia* [*Openness and Its Limitations*], vol. V, A. Piskorz-Ryń (ed.), *Dostęp i wykorzystanie* [*Access and Use*], pp. 5–16, T. Jaroszyński, "Analiza pojmowania i działania zasady jawności oraz jej ograniczeń z perspektywy prawa włoskiego" ["Analysis of the Perception and Operation of the Principle of *Openness and Its Limitations* in Italian Law"], in: G. Szpor (ed.), *Jawność i jej ograniczenia* [*Openness and Its Limitations*], vol. XI, C. Mik (ed.), *Standardy europejskie* [*European Standards*], pp. 213–214,[10]K. Doktór-Bindas, "Analiza pojmowania i działania zasady jawności oraz jej ograniczeń z perspektywy prawa włoskiego" ["Analysis of the Perception and Operation of the Principle of *Openness and Its Limitations* in Italian Law"], in: G. Szpor (ed.), *Jawność i jej ograniczenia* [*Openness and Its Limitations*], vol. XI, C. Mik (ed.), *Standardy europejskie* [*European Standards*], pp. 179–183, T. Chauvin, "Analiza pojmowania i działania zasady jawności oraz jej ograniczeń z perspektywy prawa francuskiego" ["Analysis of the Perception and Operation of the Principle of *Openness and Its Limitations* in French Law"], in: G. Szpor (ed.), *Jawność i jej ograniczenia* [*Openness and Its Limitations*], vol. XI, C. Mik (ed.), *Standardy europejskie* [*European Standards*], pp. 134–135.

Therefore, the considerations made in this chapter focus on the formal publicity of registers and on the legal foundations of providing access to records.

Considerations on the publicity of public registers are closely linked to studies on the restrictions of publicity described in the chapter "**The Legal Foundations of Limitations of Openness in Poland",** which appeared in Volume VI *The Structure of Secrecies* of the cycle of monographs titled *Openness and Its Limitations*, edited by Grażyna Szpor. The monograph describes studies carried out in the course of task 1.03 "Analysis of the Polish Regulations on Restrictions of Publicity and Related Acts of European and International Law" completed under my coordination as part of the project "A Model of Regulations on Openness and Its Limitations in a Democratic Rule of Law". The project's objective was to make a comprehensive review of the legal regulations concerning the implementation of the principle of *openness and its limitations* and to verify the hypothesis on the overregulation in the area of restrictions of publicity and the inconsistency of the relevant provisions. The study covered legal acts which establish legally protected secrecies and introduce other restrictions of access to information. Since actual publicity may be affected also by organisational or technical factors that determine the manner in which data are made available (waiting time, place of access, costs, adopted search criteria), we studied also – on the example of court registers, which are characterised by very broad formal publicity – how the organisation and the degree of informatisation of a particular data base impacts the availability of records. We confirmed that the technology used to keep the register has a major influence on the informative function.

The manner of regulating restrictions of publicity which meet the substantive and formal criteria of establishing secrecies was analysed in the chapter "**Struktura regulacji tajemnic ustawowo chronionych**" ["The Structure of Regulations on Secrecies Subject to Statutory Protection"] published in volume VI *Struktura tajemnic* [*The Structure of Secrecies*], of which I was the editor. Since secrecies which restrict the freedom of information and the right of access to public information may be established exclusively when it is founded in the list of interests protected by constitution law, I analysed the interests and values listed in Article 31(3) and in Article 61(3) of the Polish Constitution. Seeing that the list of axiological options in the Constitution is further specified in normative acts of a lower level, I further sought a reference to values in the case of which certain information is subject to protection under statutes which establish a secrecy. I analysed the concept of secrecy, the manners in which the obligation to maintain secrecy is introduced, the manner of regulation of the material scope of secrets, entities who are obliged to keep a secret and their duties, entities protected by secrecy and their rights as well as the period of secrecy. Furthermore, I studied the manifestations of the formal element.

Having completed the axiological considerations on openness and its limitations, which took into account various scopes and manners in which formal publicity was manifested, I analysed the solutions adopted in selected public registers. In particular, I considered whether the normative expression 'the register is open to the public' entails everyone's right of access to all the collected data, the right to retrieve data in the set based on various criteria, the basis for publishing records on the Internet or the right to re-use records. In my study, I took into consideration the changes caused by informatisation – with regard to both technical and organisational changes in keeping the registers and legal changes that accompany informatisation, which expand the group of entities who are entitled to obtain copies of the records or which introduce new services with regard to making information available and retrieving it.

The results of my research on the formal publicity of selected public registers were published in the chapters "**Jawność formalna ksiąg wieczystych w Polsce**" ["The Formal Openness of Land and Mortgage Registers in Poland"], "**Jawność formalna rejestru zastawów**" ["The Formal Openness of the Register of Pledges"] and "**Jawność formalna ewidencji partii politycznych**" ["The Formal Openness of the Register of Political Parties"] of the monograph *Rejestry publiczne. Jawność i interoperacyjność* [*Public Registers. Access and Interoperability*]. The perspective was expanded by the studies carried out by the authors of the remaining chapters of the monograph, which made it possible to draw some general conclusions. In addition, I included some findings on the publicity of the register of land and buildings in the **commentary to the Act of 17 May 1989 – surveying and cartographic law** I co-authored and in the chapter "**Legal Limitations of Public Access to Spatial Data in Poland**" in the monograph *Access to Spatial Data and Its Limitations. Legal Aspects*, which I co-edited.

The protection of public registers from cyberattacks has become the subject of scholarly discourse and activities of public entities only recently. The new processing technology which affects the actual formal publicity of registers, the availability of the data online and the emergence of new possibilities to explore and use data (including methods related to Big Data, which enable us to apply diverse methods and strategies for 'fishing for data' in the 'ocean of data') have the effect that public information resources become interesting to crime groups and foreign intelligence services.

The chapter "**Cybersecurity of Public Registers in Poland: Selected Legal Issues [Cyberbezpieczeństwo rejestrów publicznych w Polsce: wybrane uwarunkowania prawne]**", which appeared in the monograph *Geographic Information Systems Conference and*

Exhibition. GIS Odyssey 2016, edited by Agnieszka Bieda, Jarosław Bydłosz and Anna Kowalczyk, analyses selected issues of providing cybersecurity to registers in Poland in the context of the electronic availability of records, the lack of interoperability or the statutory indication of entities responsible for the communication and information system which maintains the register and ensures the security of the records. New threats related to i.a. unauthorised acquisition and use of records by criminals and attacks which threaten data integrity or availability are the subject of the chapter "**Nowe zagrożenia bezpieczeństwa rejestrów publicznych**" ["New Threats to the Security of Public Registers"], which appeared in the monograph *Internet. Strategie bezpieczeństwa* [*The Internet. Security Strategies*] that I co-edited. In that chapter, I focused on the threats related to changes in the rules of making records available to both entities who perform public tasks and private entities as well as on the consequences of insufficient supervision over electronic access to registers and of adequate sanctions. These consideration may be the starting point for developing legal and organisational solutions that would increase the security of the registers.

I concluded the studies on the principles of electronic access to data and the threats related to the use of communication and information systems for maintaining public registers in the chapter "**Postulaty zmian w zakresie jawności i bezpieczeństwa rejestrów publicznych**" ["Propositions of Changes with Regard to the Openness and Security of Public Registers"], which appeared in volume XII *A Model of Regulation,* edited by Tomasz Bąkowski. I listed here the chief propositions concerning the formal publicity and the security of public registers. They can become the starting point for legislative works aiming to systematically regulate the rules of access to public registers, to define public tasks related to the maintenance of public registers and to create legal and organisational solutions that will increase the security of registers.

The above objectives can be achieved with the aid of selected research methods. Studies on the regulation of publicity and security of public registers were carried out predominantly with the use of doctrinal methodology. The comparative method was employed in studies on the structure of secrecies and protection of public information resources. The historical method was necessary to demonstrate how the regulation of publicity evolved over time. It helped me find out what changes had been made in the legal regulation of the registers' formal publicity in connection with the new technologies of keeping the records. Moreover, specific conclusions could not have been made without drawing from the rich achievements of the doctrine and case law.

4.3. Description of the Results and Propositions of Changes

Considerations on the key elements of the definition of the public register lead to the conclusion that a record needs to meet three criteria in order to be acknowledged as a public register: 1) the record is kept on the basis of statutory provisions; 2) the entity that keeps the record is a public entity; 3) the record serves the performance of public tasks. A broader notion than that of the public register is the official register defined in the Act on official statistics, because the institution of the official register comprises also resources which are not kept by a public entity, do not have to be kept for the purpose of performing a public task and may be maintained pursuant to regulations. In addition, it follows evidently from the analysis of normative definitions that publicity was not meant to become one of the structural elements of the concepts of the public register and the official register. According to the definition, the notion of the public register comprises also those resources which cannot be accessed without restrictions, as long as the set is kept by a public entity pursuant to statutory provisions and serves the performance of public tasks. An analysis of the definition of the register indicates furthermore that sets which can be accessed exclusively by public entities (internal information resources) can be deemed public registers, as well, as long as they meet the above criteria. Thus, the 'public character' of the register should be currently construed with reference to the purpose for which it was established – that is the performance of public tasks – and to the subject that keeps the register – a public entity ("Pojęcie i jawność rejestrów publicznych – uwagi wprowadzające" ["The Concept and Openness of Public Registers – Introductory Remarks"], p. 9-17, "Jawność formalna ksiąg wieczystych w Polsce" ["The Formal Openness of Land and Mortgage Registers in Poland"], p. 293-307) .

My further remarks specify what types of restrictions of the publicity of public registers exist and what factors determine the publicity of public registers. I began studies on the restrictions of publicity by analysing the general requirements for the admissibility of restricting publicity set forth in the Constitution, which provides for the criteria of assessing the admissibility of restrictions of rights and freedoms – the principle of the exclusivity of statutes, the principle of proportionality and the duty to respect the essence of rights and freedoms. Access to information can be restricted exclusively if it is necessary for the purpose of carrying into effect values enshrined in the Constitution ("Podstawy prawne ograniczeń jawności w Polsce" ["The Legal Foundations of Openness Limitations in Poland"], p. 1-49).

My studies have shown that restrictions of publicity in the form of secrecies are introduced in the legislation in various manners: by explicitly indicating the existence of a

secrecy and providing its juridical name, by more or less expressly specifying the substantive and formal conditions for secrecy, and finally by introducing regulations in which the nature of the restriction of publicity raises doubts. Therefore, I began my studies on the structure of secrecies by analysing the methods of introducing the obligation of secrecy. This criterion ought to render it likewise possible to decode the substantive and formal requirements of secrecies and to form a desired model of regulation.

The analysis of legal acts concerning secrecies subject to statutory protection proves the fragmentation and inconsistency of legislation. Only some of the provisions which refer to the obligation of secrecy make it possible to reconstruct the substantive and formal conditions for the existence of a secrecy under statutory protection. In addition, the studies confirmed the thesis that the regulations on secrecy are excessive and inconsistent. Overregulation is linked in particular to inconsistent terminology, introduction of new secrecies for the purpose of protecting the same values as well as introduction of separate protection of specific secrecies, which is not always grounded in the objective of the regulation. The above factors may render it difficult to ascertain the scope and rules of applying certain provisions. It seems reasonable to unify the terminology and to simplify the system of secrecy protection by introducing common provisions that would uniformly regulate specific groups of secrecies. Rationality in introducing secrecies could naturally result in specifying the principles of constructing relevant provisions (the minimum elements) and in particular in indicating the interests which the secrecies are supposed to protect, which usually need to be identified on the basis of not only statutes that introduce the relevant secrecy but also codes of conduct. In order to guarantee a possibly broad access to public information while at the same time retaining flexibility and taking into account the need to protect certain interests, it would be beneficial to introduce a list of protected interests in the Act on access to public information as well as harm tests and tests of balancing of interests, which would help the relevant authority to decide whether to grant access to protected information if the public interest in the disclosure of the information overrides the protected interests. Moreover, in order to ensure more comprehensive protection of identified secrecies, common principles of secrecy protection should be considered, which would cover among others marking documents which contain secrets, processing protected information in IT systems (including the technical and organisational conditions that should be met by the equipment and IT systems used for processing secrets), specifying requirements with regard to the security of processing secrets or to documentation that describes the method of processing secrets as well as the technical and organisational measures that ensure secrecy

protection proportional to the identified threats (“Struktura regulacji tajemnic ustawowo chronionych” [“The Structure of Regulations on Secrecies Subject to Statutory Protection”], p. 273-327).

Having in mind the criteria of distinguishing legally protected secrecies, I indicated not only secrecies, but also restrictions of publicity, which are broader concepts than secrecies. Apart from that, the conceptual scope of secrecy is narrower than that of the concept of restriction of publicity, and the existence of legal restrictions of publicity does not necessarily entail the introduction of a legally protected secrecy. Restrictions of publicity that are no secrecies can be of legal or non-legal (factual restrictions) nature. Such restrictions include among others restrictions of access to court files pursuant to procedural provisions, special subjective or objective conditions for granting access to information (e.g. proving a legal or factual interest) and restrictions on account of technical or organisational difficulties. In addition, restrictions of publicity may arise from the adopted method of granting access to information or from the extent of anonymisation. Another factor which essentially affects the implementation of the principle of publicity is the method of maintaining the relevant record, which determines: the forms of access to data (access, download of copies), detailed rules of providing access to data (only in the office of the competent authority or online at any time and in any place) and methods of retrieving specific information from the set (queries based on multiple criteria), which is why the informatisation of sets that lifts organisational barriers increases publicity. Since the publication of information resources online is accompanied by a shifting of boundaries between publicity and protection of other conflicting interests (especially privacy), this phenomenon is not always perceived as something positive (“Podstawy prawne ograniczeń jawności w Polsce” [“The Legal Foundations of Openness Limitations in Poland”], p. 46-49).

Research has confirmed the thesis that the publicity of public registers may be subject to limitations of formal (related to the restriction of access to specific data) and factual (related to the method of keeping the register) nature. The restrictions may pertain to the recorded data, the access to the registered data and the right to request copies or other documents that reflect the content of the register. The restrictions are constructed in various ways depending on the register, its purpose and the character or scope of the recorded data. Usually, the group of entities entitled to access the register is narrowed down in that the access is granted only to specific entities or to specific entities and persons which can prove their legal interest that explains their need to access the register. Moreover, restrictions of access can be objective in

nature and concern only certain categories of data. Excluding the publicity of some information may be motivated by the desire to protect classified information (register of patents) or other secrecies subject to statutory protection (register of donors of reproductive cells and embryos) or to protect the privacy of entities whom the records concern (e.g. access to subjective data in the register of land and buildings). If the statute specifies what entities may access specific data in the register and on what conditions, it means that the register's formal publicity is limited. Controversies may arise when the provisions on a public register do not specify who has the right to access the content of the records and on what conditions. If express grounds for access are lacking, access can be based on general provisions, e.g. on the rights of the party to administrative proceedings (in the case of administrative registers) or in civil proceedings (in the case of court registers), on Article 217 of the Code of Administrative Procedure, which provides for the issuance of official certificates, or on the Act on access to public information. Furthermore, it is indicated that if the provisions of the statute which introduces a register include no specific regulations, it can be assumed that everyone has the unlimited right of access to recorded data (presumption of publicity of recorded data). It seems, however, that this theory goes too far. The broad definition of the public register in the Act on informatisation, which contains no references to the criterion of publicity, suggests rather that public registers which constitute the administration's internal resources and which principally are not characterised by formal publicity can exist, as well. The general provisions on access to public registers kept by public entities or other entities that are not public yet perform public tasks are contained in the Act on informatisation ("Podstawy prawne ograniczeń jawności w Polsce" ["The Legal Foundations of Openness Limitations in Poland"], p. 28-32, "Jawność formalna ksiąg wieczystych w Polsce" ["The Formal Openness of Land and Mortgage Registers in Poland"], p. 264-310, "Jawność formalna rejestru zastawów" ["The Formal Openness of the Register of Pledges"], p. 341-350, "Jawność formalna ewidencji partii politycznych" ["The Formal Openness of the Register of Political Parties"], p. 377-382, art. 24 in: "Surveying and Cartographic Law. A Commentary", p. 224-226, "Legal Limitations of Public Access to Spatial Data in Poland", p. 50-67)

Assuming that recorded data are public information and seeing that no special regulation on access to data exists in the relevant statute, it ought to be considered whether they cannot be accessed pursuant to the Act on access to public information, including the restrictions it stipulates. Here, however, we ought to emphasise the disparity between the purposes of the regulations which concern the formal publicity of registers (which may differ

for individual registers and cover i.a. providing security of exchange or protection of persons who act according to the principle of credibility of the content of the register) and the purposes of regulations on access to public information (ensuring transparency of the actions performed by the state) and the purposes of re-use of public sector information (use of the commercial value of public sector information and creating on that basis innovative products and services with added value) (art. 24 in: "Surveying and Cartographic Law. A Commentary", p. 237-249 "Legal Limitations of Public Access to Spatial Data in Poland", p. 50-67).

The informatisation of the resources is also paired with modifications of the competences of the authorities which traditionally keep the records. Moreover, the duties concerning making new entries (which e.g. lie with the courts in the case of the land and mortgage register) are separated from the maintenance and protection of data bases (e.g. the central data base of land and mortgage registers – a national collection of land and mortgage registers – is maintained by the Minister of Justice. Furthermore, the Minister of Justice is the entity which pursuant to Article 364 of the Act on land and mortgage registers and on mortgage grants, denies or withdraws consent to the repeated, temporarily unlimited retrieval of information from land and mortgage registers via the central data base of land and mortgage registers). The new possibilities to use computerised data bases encourage the extension of the purpose of the registers, the group of entities which are granted access or the introduction of new services based on the records ("Jawność formalna ewidencji partii politycznych" ["The Formal Openness of the Register of Political Parties"], p. 265-289, "Jawność formalna rejestru zastawów" ["The Formal Openness of the Register of Pledges"], p. 341-345).

The changes which accompany informatisation are not always axiologically founded and often not preceded by a reliable impact assessment. Such steps can diminish the trust in the state and cause the citizens to treat public registers as another tool of surveillance. That is why I carried out a critical analysis with regard to some of the registers. The lack of a broader reflection on the optimal extent of the formal publicity of registers or the conflict between formal publicity and the rights of data subjects has the effect that the traditionally construed 'formal publicity of the register', which means that specific data in the register are rendered available to all or to entitled entities, is identified with 'openness', 'open access' or 'searchability'. Due to the scope of the recorded data and the modern technological possibilities – including in particular the possibility to combine data sets from various sources – it becomes necessary to find a compromise between the register's publicity and the protection of the rights of the data subjects. The removal of technical and organisational access barriers and the new

possibilities to aggregate and analyse data, their collection for the purpose of re-use and the application of Big Data methods – with all the above stemming from informatisation – encourage us to look for an optimal model of granting access to data that will ensure that the purposes of the register are met and minimise the threats to both the privacy of data subjects and public security ("Jawność formalna ksiąg wieczystych w Polsce" ["The Formal Openness of Land and Mortgage Registers in Poland"], p. 265-289, 299-310, "Legal Limitations of Public Access to Spatial Data in Poland", p. 50-67, "Cybersecurity of Public Registers in Poland: Selected Legal Issues" p. 105-113, "Postulaty zmian w zakresie jawności i bezpieczeństwa rejestrów publicznych" ["Propositions of Changes with Regard to the Openness and Security of Public Registers"], p. 183-197).

Based on the studies devoted to the regulation of the publicity of recorded data, I have compiled the following list of general propositions:

First, it is expedient to unify the scope of subjective data that are recorded and made available or protected, because one of the negative consequences of the fragmentation of provisions and the emergence of a considerable number of registers with various scopes of data and availability are logical inconsistencies visible in the system. Balancing the interests and values protected by the individual registers on the one hand and the protection of privacy and public security on the other hand (including in particular personal data) suggests that of the scope of data made available via public registers online to non-individual recipients should be restricted ("Jawność formalna ksiąg wieczystych w Polsce" ["The Formal Openness of Land and Mortgage Registers in Poland"], p. 307-310, art. 24 "Surveying and Cartographic Law. A Commentary", p. 224-249)

Second, depending on the register and its purpose, I propose to introduce accountability (i.e. mechanisms which will render it possible to ascertain who viewed or downloaded what data), gradation of access (that is defining the scopes of access to data available to everyone online and the scope of data that can be accessed only by specific entities) or other restrictions – including in particular narrowing the group of entities which are entitled to view and download copies and introducing organisational (in particular mechanisms that involve identification, authentication or authorisation) or financial barriers (the need to pay a fee for copies, extracts or certificates or for access to the register).

In order to implement the principle of accountability, I would in particular suggest to grant online access to records to identified persons only. Authentication can be achieved e.g.

through the trusted profile mechanism at the ePUAP platform, electronic signatures or authentication via a bank account. Thus, access to data available online will not be reduced. Instead, only a technical barrier will emerge – namely the necessary authentication.

A further restriction can involve limiting online access to information on the content of entries and submitted documents in the form of copies, certificates and other documents issued by electronic means of communication or alternatively introducing a gradation of online access to the register and specifying what data should be available to everyone online and what should be accessible to specific entities only. This model entails necessary authorisation mechanisms, that is confirmations whether the specific subject is entitled to access the requested record. This idea requires explaining what information would be available to everyone online, what entities would have access to full record content and how to verify their authorisation. When online access is limited, everyone should be able to see only selected information from the register, which would render it possible to make a preliminary check of the legal status subject to disclosure. Personal identification numbers PESEL should possibly not be included among the data published online ("Jawność formalna ksiąg wieczystych w Polsce" ["The Formal Openness of Land and Mortgage Registers in Poland"], p. 299-305, "Cybersecurity of Public Registers in Poland: Selected Legal Issues", p. 105-110).

Thirdly, research indicates also the need to impose on entities who keep public registers a statutory obligation to assess the impact of informatisation on the protection of the public and individual interest (including the privacy of natural persons) and to ensure the security of processing prior to the informatisation of the register. Moreover, entities that keep public registers in information and communication systems should be obliged to analyse the impact of publishing recorded data via IT systems on the protection of the public and individual interest (including the privacy of natural persons) prior to deciding to render data available in the tele-transmission mode. Prior to publishing data from a public register in separate networks or in a public network, entities that keep public registers should be obliged to develop principles of supervision of access and of managing the rights, including compiling a model list of access roles, access conditions including the gradability of access authorisation and authentication mechanisms and to analyse whether gradable access to data including information on what data should be available to which group of users is grounded ("Pojęcie i jawność rejestrów publicznych – uwagi wprowadzające" ["The Concept and Openness of Public Registers – Introductory Remarks"], p. 29-36, "Cybersecurity of Public Registers in Poland: Selected Legal Issues", p. 105-110).

Next, it is also necessary to specify the boundaries and rules of admissibility of re-use of data contained in public registers in the resources acts that regulate how all the individual registers are kept, following a prior analysis of the impact of the re-use of data for the sake of the public and private interest as well as the risk related to personal data protection. For that purpose, it may be suggested to restrict the right to re-use public sector information on the basis of a 'harm test' and a test of balancing of interests. A relevant general provision could be introduced into the Act on informatisation or in the Act on the re-use of public sector information. Moreover, the possibility to transfer recorded data including personal data for re-use without their previous anonymisation should be limited. If anonymised data are made available, the risk of re-identification ought to be verified. The no-prejudice clause in Article 1(2) of the Act on access to public information should return to its wording from before the amendment of 08/11/2013 (Journal of Laws of 2013, item 1474) in that the passage "provided that they do not limit the obligation to provide public information to the central repository of public information referred to in Article 9b(1), hereinafter referred to as the 'central repository'" is removed and the wording "the provisions of the Act do not prejudice the provisions of other acts which stipulate different rules and modes of access to public information" is restored, while Article 1(3) of the Act on access to public information is repealed (("Pojęcie i jawność rejestrów publicznych – uwagi wprowadzające" ["The Concept and Openness of Public Registers – Introductory Remarks"], p. 29-36, "Jawność formalna ksiąg wieczystych w Polsce" ["The Formal Openness of Land and Mortgage Registers in Poland"], p. 305-307, art. 24 in: "Surveying and Cartographic Law. A Commentary", p. 224-249, "Cybersecurity of Public Registers in Poland: Selected Legal Issues", p. 105-110).

Fifthly, another crucial problem is granting access to public registers to specific groups of entities (including especially via tele-transmission of data) without providing the authority who keeps the register with fitting competences to verify whether those entities fulfil their obligation under the provisions of law and the decision in which they were granted access and with the right to restrict or deny access to data if a specific entity does not meet the access conditions. That is why I have put forward the proposition to strengthen the instruments of administrative law and to provide the registering authorities or the entities who are obliged to secure recorded data with the competence to supervise the entities who apply for access to data or who have been granted such access. Such entities should be entitled in particular to test the equipment or IT systems that are supposed to provide communication between the entitled entities and the register, the technical and organisational safeguards relevant for personal data

processing and the method and purpose of processing collected data. It will improve the supervision over the resources, discipline the entities who have been granted access to the register and ensure a higher degree of security ("Postulaty zmian w zakresie jawności i bezpieczeństwa rejestrów publicznych" ["Propositions of Changes with Regard to the Openness and Security of Public Registers"], p. 299-300.

Finally, it is necessary to emphasise the issues of cybersecurity of public registers. Incidents of cybersecurity breaches interfere with the provision of basic services to the state and its citizens. It is pointed out in the doctrine that the growing number of incidents results from disregarding security and data protection matters when designing information and communication systems for the purpose of keeping registers. Therefore, the change in the method of keeping the registers should be paired with a change in the approach to data security. According to the studies described above, it is appropriate to describe and specify public tasks with regard to public registers and to assign their performance to specific entities. Determining the responsible entities and their obligations with regard to preparing data models and their implementation in the IT systems, preparing, updating and developing the IT systems in which the registers are kept and the rules and scope of rendering data available and securing data from loss, alteration and unauthorised access is expected to help protect public registers from cyberattacks. The cybersecurity of the resources can be boosted above all if the information resources are defined from the perspective of their classification as the state's critical infrastructure. Having specified the subjective and the objective scope of application, each information resource should be classified as vital, significant or supplementary. Then, the model of creating and maintaining the state's information resources should be selected for each individual set. Current information on proceedings concerning unauthorised access to data from land and mortgage registers or registers of land and buildings or unauthorised use and exchange of marketing data bases indicate that the threats are real and should be counteracted with the use of instruments provided by administrative, civil and criminal law. The relevant sanctions should be effective and proportional and act as a deterrent ("Jawność formalna ksiąg wieczystych w Polsce" ["The Formal Openness of Land and Mortgage Registers in Poland"], p. 307-310, "Cybersecurity of Public Registers in Poland: Selected Legal Issues", p. 105-110, "Nowe zagrożenia bezpieczeństwa rejestrów publicznych" ["New Threats to the Security of Public Registers"], p. 293-309).

5. Description of the Remaining Scholarly Achievements

My research interests cover the juridisation of information issues and include the impact of informatisation of data sets on the performance of public tasks. Essentially, they fall within the scope of administrative law. Information issues and the informatisation of entities who perform public tasks, however, are of interdisciplinary nature and feature problems that emerge at the meeting points of disciplines.

The dominant method in my studies is the doctrinal methodology. I focus on analysing legal institutions that are of significance from the theoretical and the practical point of view. I have published interdisciplinary works as well as works that involve empirical studies.

Several research areas can be discerned in my studies to date:

The first area are studies on the formal openness of public registers, in particular on the impact of informatisation on the legal and factual restrictions of access to the resources and the functions of the registers.

I commenced research in this field even prior to earning the doctoral degree. I focused at that time on the legal and organisational issues of informatisation and exchange of data between real property registers. Having obtained the doctoral degree, I continued interdisciplinary research on the impact of informatisation on the register's functions. The results were published in the monograph ***Nowa Księga Wieczysta. Informatyzacja rejestru publicznego*** [*The New Land and Mortgage Register. Informatisation of a Public Register*], LexisNexis, Warszawa 2011, in which I focused on the public legal aspects of the modernisation of land and mortgage registers. I indicated that informatisation cannot be perceived merely as a change in the method of keeping the register, because it affects the regulation of activities required by the law with regard to achieving the objectives of the register as well as the actual activities aiming at achieving those objectives. Thus, a change in the provisions and actual activities affects the function of the register and the rights of the entities that make use of this institution. Studies on the online access to the Electronic Land and Mortgage Register and to the National Court Register were described in the chapter "**Elektroniczny dostęp do Nowej Księgi Wieczystej i Krajowego Rejestru Sądowego**" ["Electronic Access to the New Land and Mortgage Register and the National Court Register"] in the book *Internet. Prawno-informatyczne problemy sieci, portali i e-usług* [*The Internet. The Legal and IT-related Issues of Networks, Web Portals and E-services*] edited by G. Szpor and W. R. Wiewiórowski, C.H. Beck, Warszawa 2012, pp. 289–303. Partial results were published in the chapter "**Wpływ informatyzacji na formalną jawność rejestrów sądowych**" ["The

Impact of Informatisation on the Formal Publicity of Court Registers"], which appeared in the monograph *Ewolucja prawa polskiego pod wpływem technologii informatycznych. Elektroniczne aspekty wymiaru sprawiedliwości* [*Evolution of the Polish Law under the Influence of Information Technology. The Electronic Aspects of the Judiciary*], edited by G. Tylec and J. Misztal-Konecka, Wydawnictwo KUL, Lublin 2012, pp. 129–148. I proposed in these works in particular to distinguish a new conceptual category alongside ordinary and extended formal publicity, namely the publication of data online. This new category of the extent of publicity of a register would reflect the considerable extension of the scope of publicity related to the availability of data online. The text "**Finansowanie rejestrów sądowych**" ["The Funding of Court Registers"], which appeared in the monograph *Internet. Bazy danych i big data w sferze publicznej* [*The Internet. Data Bases and Big Data in the Public Sphere*], edited by G. Szpor, C.H. Beck, Warszawa 2014, pp. 191–208, presents an analysis of how the fiscal function affects the performance of other functions. The study rendered it possible to demonstrate that an unduly extensive fiscal function can in fact strengthen the selective function and weaken the recording function. This phenomenon, in turn, is undesirable in the case of registers which are supposed to be common. Then, it is advisable to introduce such fees which will not really hinder disclosing the recorded information.

Task 1.03 of the project "A Model of Regulations on Openness and Its Limitations in a Democratic Rule of Law", which I coordinated and for which I prepared the methodology, involved analysing the provisions that restrict publicity but do not concern secrecies subject to statutory protection with regard to public registers. Based on the criteria I determined, an in-depth analysis of the legal provisions was carried out in order to find ways to optimise the use of interoperability of electronic public registers. The studies commenced in the course of task 1.03 were continued and completed in the course of task 1.08 titled "Verification of the Regulations on Publicity and Restrictions of Publicity of Public Information Resources. Rational Use of the Interoperability of Electronic Public Registers and Other Data Sets, Information on the Law and Access to Documents", in which I acted as a team member. The results of the studies carried out by a team of 18 authors were published in a monograph I edited of approximately 770 pages of manuscript, titled *Rejestry publiczne. Jawność i operacyjność* [*Public Registers. Publicity and Operability*]. The key findings resulting from the completion of tasks 1.03 and 1.08 were summarised in a chapter I co-authored with P. Drobek and A. Piskorz-Ryń titled "Postulaty dotyczące jawności rejestrów publicznych i jej ograniczeń" ["Propositions Concerning the Publicity of Public Registers and Its Restrictions"], which

appeared in the book *Rejestry publiczne. Jawność i interoperacyjność* [*Public Registers. Access and Interoperability*], edited by A. Gryszczyńska, C.H. Beck, Warszawa 2016, pp. 645–649.

I presented the results of studies in this area during international and Polish conferences. In particular, I attended: 1) an expert panel in the session "Funkcja informacyjna ksiąg wieczystych" ["The Informative Function of Land and Mortgage Registers"] and presented the paper "Wpływ informatyzacji na udostępnianie danych z ksiąg wieczystych" ["The Impact of Informatisation on the Availability of Data in Land and Mortgage Registers"] at the international conference "Funkcje Ksiąg Wieczystych w Ujęciu Prawno-Porównawczym" ["The Functions of Land and Mortgage Registers from the Comparative Legal Perspective"], which was held on 23 April 2014 at Jan Dlugosz University in Częstochowa as part of a project of the National Science Centre in Cracow, 2) international conference "Jawność rejestrów publicznych a regulacja dostępu do danych z ksiąg wieczystych i katastru nieruchomości" ["The Publicity of Public Registers and the Regulation of Access to Data in Land and Mortgage Registers and the Real Property Cadastre"], which was held on 22 May 2014 at Cardinal Stefan Wyszyński University as part of the project "A Model of Regulations on Openness and Its Limitations in a Democratic Rule of Law" and co-financed by the National Centre for Research and Development, where I presented the paper "Jawność, interoperacyjność i koszty dostępu do rejestrów publicznych" ["Publicity, Interoperability and Costs of Access to Public Registers"], 3) conference "Ochrona publicznych baz danych" ["Protection of Public Data Bases"], which was held on 5–6 November 2013 at Cardinal Stefan Wyszyński University as part of the project "A Model of Regulations on Openness and Its Limitations in a Democratic Rule of Law" and co-financed by the National Centre for Research and Development, where I presented the paper "Finansowanie rejestrów sądowych" ["The Funding of Court Registers"], 4) conference "Modelowanie dostępu do informacji" ["Modelling of Access to Information"], which was held in Hel on 4–14 August 2015 as part of the project "A Model of Regulations on Openness and Its Limitations in a Democratic Rule of Law" and co-financed by the National Centre for Research and Development, where I presented the paper "Komponenty jawności na przykładzie dostępu do rejestrów publicznych" ["The Components of Publicity on the Example of Access to Public Registers"].

Furthermore, I carried out research and library surveys in that area in the course of my LLP Erasmus stay at the University of Bari Aldo Moro (L'Università degli Studi di Bari Aldo Moro) in 2013. During that stay, I also held lectures in Italian under the title "L'accesso ai registri elettronici pubblici in Polonia sull'esempio dei registri dell'immobilità e delle aziende"

["Access to Electronic Public Registers in Poland on the Example of Registers of Real Property and of Businesses"]. In addition, I presented research findings on the principles of access to public registers at practical trainings for public prosecutors in 2017 and 2019.

The second research area covers the issues of openness and its limitations, and in particular the regulation of secrecies subject to legal protection. Firstly, the studies in this area focused on access to public information (A. Gryszczyńska, "**Centralne repozytorium informacji publicznej**" ["Central Repository of Public Information"], *Kwartalnik Prawa Publicznego* No. 3/2012, pp. 125–137) and were strongly linked to the first area of my research described above, namely the impact of informatisation on the formal publicity of public registers. As I began to coordinate the task 1.03 "Analysis of the Polish Regulations on Restrictions of Publicity and Related Acts of European and International Law" in 2013, my studies in this field focused on the legal regulation of secrecies. The objective of task 1.03 was to carry out a comprehensive review of the legal provisions pertaining to the implementation of the principle of access and interoperability in order to verify the hypothesis on the overregulation of restrictions of publicity and the inconsistency of the relevant provisions. The studies followed a methodology of my design. The team who completed the task comprised 44 members, who carried out analyses amounting to approximately 1700 pages in total. They were subsequently published in my monograph titled *Struktura tajemnic* [*The Structure of Secrecies*], which constituted volume VI of the cycle Openness and Its Limitations edited by Grażyna Szpor (1st edition – 2014, 2nd extended edition – 2016), and in the cycle *Leksykon tajemnic* (*The Lexicon of Secrecies*), which was published in 50 consecutive issues of *Monitor Prawniczy* (beginning with no. 23/2013). Following the adopted methodology, the authors of the individual works analysed: the legal bases of secrecies, the manner of introducing the protection of specific information, the interests that are subject to protection, the material and the substantive scope of application of secrecies, the protective period, the entitled entities, the criteria and principles of access to secret information, the regulation of the principles of processing secret information, sanctions for unauthorised disclosure of information as well as relations with other secrecies. The detailed works dedicated to the individual secrecies include my publications, as well: "**Tajemnica rzeczoznawcy majątkowego**" ["Valuer–Client Privilege"], *Monitor Prawniczy* 2015/22, pp. 1229–1232, "**Tajemnica detektywa i przedsiębiorcy wykonującego działalność gospodarczą w zakresie usług detektywistycznych**" ["Detective and Detective Business–Client Privilege"], *Monitor Prawniczy* 2015/23, pp. 1277–1281, "**Tajemnica korespondencji**" ["Secrecy of Correspondence"], *Monitor Prawniczy* 2015/24, pp. 1335–

1342, "**Tajemnica prokuratorska**" ["Public Prosecutor's Privilege"], *Monitor Prawniczy* 2014/10, pp. 545–552.

Moreover, I co-edited the book ***Leksykon tajemnic*** [*The Lexicon of Secrecies*] (edited by G. Szpor and A. Gryszczyńska, C.H. Beck, Warszawa 2016), which presents the results of studies on the legal regulation of secrecies. The 162 entries describe legally protected secrecies indicated by legal theorists and practitioners and study the formal and substantive criteria of their identification. In addition, I authored eleven of the entries (banking secrecy, detective–client privilege, secrecy of information and data related to providing trust services, secrecy of correspondence, secrecy of supervision over cooperative savings and credit unions, public prosecutor's privilege, business secrecy, detective business–client privilege, valuer–client privilege, professional privilege of members of the bodies of and employed in the Bank Guarantee Fund and professional privilege of cooperative savings and credit unions) as well as co-authored the Introduction and 46 further entries.

I am the co-author of the updated review of the legal grounds of the secrecy obligation (A. Gryszczyńska, K. Mordaszewski, P. Potejko and C. Rybak, "**Klasyfikacja podstaw prawnych obowiązku zachowania tajemnicy**" ["The Classification of Legal Principles Underlying the Secrecy Obligation"], in: *Jawność i jej ograniczenia* [Openness and Its Limitations], edited by G. Szpor, Volume VI *Struktura tajemnic* [*The Structure of Secrecies*], edited by A. Gryszczyńska, C.H. Beck, Warszawa 2016 (2nd edition), pp. 329–455) and the co-editor of a monograph dedicated to the legal aspects of spatial data openness and its limitations, which was published in English (G. Szpor, A. Gryszczyńska (eds.), ***Access to Spatial Data and Its Limitations. Legal Aspects***, Zagreb 2015, ISBN 978-953-6129-52-2). This monograph analyses the complex issue of the legal principles underlying the restrictions of access to spatial data in international and European law and in the law of selected countries. The studies concerned basic and general legal acts that restricted access to specific information as well as selected special provisions. Moreover, it was analysed whether the implementation of the INSPIRE directive helped reorganise the provisions which regulate access to spatial data and impose restrictions or particular conditions that have to be met in order to gain access to that information.

I presented the results of the research in this area at national conferences. In particular, I attended: 1) conference under the honorary patronage of the Speaker of the Sejm "Perspektywy zmian regulacji jawności i jej ograniczeń" ["Perspectives of Changes in the Regulations of Openness and Its Limitations"], 20/10/2014, Warsaw, Sejm, where I presented

the paper “Struktura tajemnic” [“The Structure of Secrecies”], 2) II Kongres Elektryki Polskiej [“2nd Congress of Polish Electrical Engineering”], 1–2/12/2014, Warsaw, where I held the presentation “Ochrona tajemnic w społeczeństwie informacyjnym” [“Protection of Secrets in the Information Society”], 3) 7th conference “Bezpieczeństwo w Internecie: Internet Rzeczy. Bezpieczeństwo Smart City” [“Security Online: the Internet of Things. Smart City Security”] ,Warsaw, 14–15/05/2015, where I held the presentation “Prawna regulacja tajemnic” [“Legal Regulation of Secrecies”], 4) conference “Tajemnica pracodawcy w podmiotach publicznych a dostęp do informacji publicznej” [“Employer’s Privilege in Public Entities vs Access to Public Information”], 7–9/10/2013, where I held the presentation “Katalog tajemnic chronionych w urzędach” [“The List of Protected Secrecies in Public Bodies”]. Moreover, I presented the findings on secrecies subject to legal protection in the course of a practical training for the officers of the Internal Security Agency in 2014.

The third research area pertains to the legal aspects of cybersecurity and counteracting cybercrime. It is this area on which I have particularly focused since 2016 and where I have combined research with empirical experience I have gained as a public prosecutor when carrying out major proceedings concerning cybercrime.

Originally, due to the interest in public registers, my studies on cybersecurity focused on the security of registers and records and were partly presented in the monograph *Rejestry publiczne. Jawność i interoperacyjność* [*Public Registers. Access and Interoperability*].

In 2017, I co-edited the monograph ***Internet. Strategie bezpieczeństwa*** [*The Internet. Security Strategies*], edited by Grażyna Szpor and Agnieszka Gryszczyńska, C.H. Beck, Warszawa 2017, which analysed new threats posed by cybercrime and cyberterrorism as well as measures which aim to provide security in the cyberspace, including in particular legislation and normalisation, defining public tasks related to the provision of cybersecurity as well as determining entities that are responsible for cybersecurity and their competences.

I participated in works on an expert opinion on draft law concerning a national cybersecurity system in 2017. Furthermore, I co-edited and co-authored the first and so far only commentary to the act on the national cybersecurity system (G. Szpor, A. Gryszczyńska and K. Czaplicki (eds.), ***Ustawa o krajowym systemie cyberbezpieczeństwa. Komentarz*** [*Act on the National Cybersecurity System. A Commentary*], Wolters Kluwer, Warszawa 2019 – I wrote commentaries to articles 17–20 and 45–50).

The emergence of new threats related to the creation and distribution of ransomware and – according to Europol – the greatest global attack to date with the use of WannaCry ransomware in May 2017 encouraged me to not only carry out a technical analysis of the incidents with the use of encoding software, but also indicate the foundations of their penalisation in criminal law and the activities that have to be undertaken in the course of the proceedings in order to find out the perpetrators. Since it is necessary to take multi-layered measures and engage in international cooperation between enforcement agencies and the judiciary, CERT/CSIRT teams or private entities that deal with cybersecurity in order to effectively fight cybercrime, I presented possible forms of cooperation, including conclusions from CyberPOL Exercises 2017 #1, which I had attended. The relevant findings were described in the chapter "**Prowadzenie postępowań karnych w sprawach z zakresu dystrybucji ransomware**" ["Criminal Proceedings in Matters Concerning the Distribution of Ransomware"] in the monograph *Przestępczość Teleinformatyczna 2018* [*2018 IT Crime*], edited by J. Kosiński, Gdynia 2019, pp.193–218, ISSN 1898-3189 (in press).

Furthermore, I presented the results of my studies on the legal aspects of cybersecurity and on counteracting cybercrime at several dozen national and international conferences, the major being: 21st Annual IBA Transnational Crime Conference, 16–18/05/ 2018, Sheraton Grand Krakow, Krakow, Poland, where I attended the panel "Cybercrime – Challenges for the Criminal Law Practitioners in 2018"; "Authentication and Admissibility of Electronic Evidence", 8–9/062017, London; 22nd International Conference SECURE 2018, 23–24/10/2018, Warsaw, 20th International Conference "Techniczne Aspekty Przestępczości Teleinformatycznej" ["Technical Aspects of IT Crime"], 12–14/06/2017, Police Academy in Szczytno; International Theoretical and Practical Conference "Internetowe naruszenia własności intelektualnej" ["Online Infringements of Intellectual Property"], 28–29/09/2016, Police Academy in Szczytno; 21st International Conference "Techniczne Aspekty Przestępczości Teleinformatycznej" ["Technical Aspects of IT Crime"], 29–30/05/2018, Police Academy in Szczytno; 4th Conference "Przestępczość Teleinformatyczna" ["IT Crime"], 9–11/09/2018, Polish Naval Academy, Gdynia; conference Security Case Study 2018, 13–14/09/2018; conference Tel Sec 17–18/10/2018 Serock; conference ADVANCED THREAT SUMMIT 2018; conference What the h@ck, 1/12/2018, 9th conference "Bezpieczeństwo w Internecie" ["Security Online"]; 8th conference "Bezpieczeństwo w Internecie. Strategia Cyberbezpieczeństwa dla Polski. Aspekty instytucjonalne i prawne" ["Security Online. A Cybersecurity Strategy for Poland. Institutional and Legal Aspects"], 12th Forum for IT Security

and Audit, Semafor 2019, Wojny Informacyjne [Information Wars], 14–15/03/2019, PGE Narodowy National Stadium, Warsaw.

I made propositions of amendments to regulations concerning the criminal liability for crimes against the security of information and crimes of identity theft as well as to deal with the underdeveloped principles of exchanging data between entities that handle incidents in numerous conference presentations.

I participated in international trainings in this field organised by ERA and EJTN. I carried out library surveys during EJTN trainings held in Lisbon (Portugal) on 2–6/07/2018 and in Omsen (Slovakia) on 18–20/10/2017. Furthermore, I held several dozen trainings for public prosecutors and judges (for the National School of the Judiciary and Prosecution Service, State Prosecutor's Office, Provincial Prosecutor's Office in Warsaw and Regional Prosecutor's Office in Warsaw), attorneys, legal advisers, police officers and officers of the Central Anti-Corruption Bureau. I am also the author of a methodology of counteracting cybercrime for judges and of an extensive e-training for prosecutors.

The fourth research area are the legal aspects of information protection, in particular protection of personal data. Here, I have analysed the criminal liability for infringing the right to public information, criminal liability for breaching the secrecy obligation and criminal liability for personal data breaches. I am the author of the following chapters in monographs: "Odpowiedzialność karna za naruszenie prawa do informacji publicznej a prawnokarne konsekwencje naruszenia obowiązku zachowania tajemnicy" ["Criminal Liability for Infringing the Right to Public Information vs. Consequences of Breaching the Obligation of Secrecy under Criminal Law"], in: *Jawność i jej ograniczenia* [Openness and Its Limitations], edited by G. Szpor, Volume IV *Znaczenie orzecznictwa* [*The Significance of Case Law*], edited by M. Jaśkowska, C.H. Beck, Warszawa 2014, pp. 305–322, and "Karnoprawna ochrona danych przestrzennych wobec nowych zagrożeń związanych z rozwojem cyberprzestępczości" ["Protection of Spatial Data under Criminal Law and New Threats Related to the Development of Cybercrime"], in: *Internet. Informacja przestrzenna* [*The Internet. Spatial Information*], edited by Grażyna Szpor and K. Czaplicki, C.H. Beck, Warszawa 2018, pp. 151–171, ISBN 978-83-815-8157-8. I demonstrated in those works that both the principles of access to public information and the legal regulation of secrecies subject to statutory protection lack transparency, which has a major impact on criminal law. Persons who are obliged to provide access to public information often face a dilemma, as they are aware of the criminal sanctions for providing access to secret information or for providing access to protected personal data.

This is why Article 23 of the Act on access to public information, albeit not 'dead', as some authors suggest, is fairly ineffective. Moreover, taking into account the problematic interpretation of the fundamental concepts of the Act, which consequently causes errors as to the elements of the offence under Article 23, its practical significance is negligible. In addition, I expressed the view that a discussion on the strictness of criminal sanctions is needed in the light of the growing threats caused by the development of cybercrime – particularly sanctions for gaining unauthorised access to information as a result of breaching or bypassing safeguards. I proposed to introduce in Article 267 of the Criminal Code an aggravated type of offence connected with stricter criminal liability for gaining unauthorised access to personal data by bypassing or breaching safeguards.

The analysis of the subjective and the objective scope of the Act on the protection of personal data processed for the purpose of preventing and counteracting crime convinced me to express my critical opinion on the transposition of Directive 2016/680. The restrictions of the subjective and the objective scope profoundly limit the field of application of the act, and the exemptions and numerous provisions which modify the principles and conditions of personal data protection in special acts result in considerable fragmentation and inconsistency. If we agree that Directive 2016/680 was in fact not transposed on account of the subjective and objective exemptions in the Act on the protection of personal data processed for the purpose of preventing and counteracting crime, we ought to consider whether such personal data does not continue to be protected under the Act of 29/08/1997 on personal data protection, seeing that the condition specified in Article 175 of that act, mentioned also in Article 107 of the Act on the protection of personal data processed for the purpose of preventing and counteracting crime, has not been met ("**Ustawa o ochronie danych osobowych przetwarzanych w związku z zapobieganiem i zwalczaniem przestępczości – zakres przedmiotowy i podmiotowy**" ["Act on the Protection of Personal Data Processed for the Purpose of Preventing and Counteracting Crime – the Subjective and the Objective Scope"] [in:] *Internet. Przetwarzanie danych* [*The Internet. Data Processing*], edited by G. Szpor and K. Czaplicki, C.H. Beck, Warszawa 2019).

In addition, I analysed the principles of transferring personal data and pointed out doubts concerning in particular determining the scope of the data transferred (including metadata, cookies, technical or statistical data or content processed by the user on a given website), the formats in which they should be transferred, protection of intellectual property rights and business secrets or data security in the event when the right to data portability is exercised ("**Prawo do przenoszenia danych osobowych**" ["Right to Data Portability"] [in:] *Realizacja*

praw osób których dane są przetwarzane [*The Exercise of Rights of Data Subjects*], edited by B. Fischer and M. Sakowska-Baryła, Wrocław 2017, pp. 263–288).

Furthermore, I am the author of popular science works published in the quarterly magazine *ABI Expert* ("Czy potrzebna jest karnoprawna ochrona danych osobowych?" ["Do We Need Personal Data Protection under Criminal Law?"], *ABI Expert 2/2018*, "Czy ochrona danych wymaga odpowiedzialności karnej?" ["Does Personal Data Protection Require Criminal Liability?"], *ABI Expert* 1/2018, p. 9, "Zgoda na przetwarzanie danych osobowych w sektorze publicznym w świetle regulacji ogólnego rozporządzenia o ochronie danych" ["Consent to Personal Data Processing in the Public Sector in the Light of the General Data Protection Regulation"], *ABI Expert* 2/2017).

The results of studies on the legal aspects of information protection, in particular with regard to personal data, were presented at numerous national conferences, among others: II Dzień ochrony danych osobowych w Społecznej Akademii Nauk.Ogólnopolska konferencja naukowa poświęcona RODO i reformie ochrony danych osobowych [2nd Day of Personal Data Protection at the University of Social Sciences. Polish Conference on the GDPR and the Reform of Personal Data Protection], Łódź, 26/02/2018, University of Social Sciences, II Forum ABI EXPERT [2nd ABI Expert Forum], 12–14/03/2018, 10th conference Bezpieczeństwo w Internecie "Przetwarzanie danych osobowych" [Security Online "Personal Data Processing"], Forum Administratorów Bezpieczeństwa Informacji [Forum of Information Security Administrators], 3–4/04/2017, conference "Ochrona danych osobowych w kontekście zmian prawa" ["Personal Data Protection in the Context of Legislative Changes"], 22/05/2017, University of Gdańsk, 26 Forum Informatyki w Administracji [26th Forum of IT in Administration], 13–14/04/2016, Warsaw – Miedzeszyn.

The fifth research area concerns the legal issues of electronic public services. In this field, my studies focus on the legal problems with identifying persons who use public e-services. I analysed the development of e-services in Poland ("Stan budowy elektronicznej administracji w Polsce na tle pozostałych krajów Unii Europejskiej" ["The Degree of Development of E-Administration in Poland and in the Remaining EU Member States"], in: *Wizja europejskiego społeczeństwa informacyjnego i jej realizacja w prawie polskim* [*Vision of a European Information Society and Its Implementation in the Polish Law*], edited by G. Tylec and J. Misztal-Konecka, Wydawnictwo KUL, Lublin 2012, pp. 95–115). Furthermore, I continued research on the use of electronic signatures that was commenced in 2015 ("Weryfikacja

tożsamości osób korzystających z elektronicznych usług publicznych" ["Verification of the Identity of Persons Who Use Public E-Services"] [in:] *Internet. Ochrona wolności, własności i bezpieczeństwa* [*The Internet. The Protection of Liberty, Property and Security*], edited by G. Szpor, C.H. Beck, Warszawa 2011, pp. 236–245, and A. Gryszczyńska and K. Czaplicki, "Methods of Identity Verification of Users of Electronic Public Services Illustrated with an Access to Geoinformation", [in:] D. Kerekovic (ed.) *The Future with GIS*, GIS Forum, Zagreb 2011, pp. 205–210).

The detailed list of works for the purpose of the habilitation procedure, including in particular the list of conference papers, participation in research projects and information on teaching achievements, academic cooperation and popularisation of science, is included in Attachments 4 and 5.