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APPENDIX A. SUMMARY

A model for legal informatics; the application of computer science to law

The present day world is marked by rapid and extensive automation. Automation has had its repercussions in a number of professions, and the legal profession is not exempt. Lawyers have come into contact with automation through questions of a legal nature associated with the process of automation, for example computer contracts, privacy and computer crime. They are also faced with a more extensive use of computers within the legal profession itself, for example text processing and documentation work. Informatics is also of particular importance to those engaged in academic research. "Legal informatics" is the study of the application of computers in the theory and practice of law.

The aims of this study may be summarized as follows:

1. To give an account of some of the techniques and methods associated with informatics.
2. To review the possible applications of computers and to give an outline of the use of models in the theory and practice of law.
3. The presentation of a number of speculations concerning the possible consequences of applying the techniques and methods of informatics to law.

The first section of this study consists of the presentation of various distinctions and definitions, including an examination of such terms as "legal", "science", "informatics", "information" and "data". The following section is devoted to an introduction into models (based on the work of Lave and March).

Attention is then focused on measurement, levels of measurement (types of scale), the importance of measurement to empirical science and the concepts of validity and reliability. In addition, a number of examples are given to illustrate the problems of measurement in the fields of legal and behavioural science such as those arising from the measurement of the "seriousness of an offence", the "legitimation of power" and "aspects of social stratification".

Further topics for examination are the so-called "empirical cycles", various sorts of scientific research, the use of models and, in association with this, the importance of statistics. Sections are also devoted to general systems theory and the relationship between the concepts of "system" and "model".

A number of observations are made concerning the importance of linguistics, logic and mathematics to legal informatics. In addition to these observations, the distinction between syntax, semantics and pragmatics of expressions is discussed as is the distinction between alethic and deontic (respectively from the Greek "aletheia", truth, and "dein", to ought to) expressions and questions.

Once these subjects have been handled, computers come up for discussion. After a brief history of technology and computer generations in particular, a number of characteristics and facilities of computers are set out. This is followed by a discussion on the software which may be relevant to law on the basis of the grouping:

1. accent on data processing
2. accent on storing data
3. accent on input and output of data
4. accent on transference of data
5. combinations of the above including some possible future developments.

A substantial section of the study is devoted to summaries of four projects carried out at Erasmus University which apply the theoretical considerations postulated earlier on in the book. The research conducted in these projects was concerned with pragmatic, semantic and syntactic aspects of legal language and the relations between them. It is the task of legal science to perform empirical research here and the first three projects which will be described below are a step in this direction. In this sort of research, computers are in many cases a helpful or even a necessary tool.

The first project concentrated on syntax. The texts analysed were those of Dutch laws. The aim of the project was to ascertain whether the word usage of the codebook of Criminal Law and that of Criminal Procedure was different to other written Dutch.

The second project was concerned with semantics in which the texts analysed were articles from two Dutch criminal law journals ("Tijdschrift voor Strafrecht" and "Delikt en Delinkwent"). By means of contents analysis, the aim was to measure which subjects in both journals during a fixed period received attention and to what extent.

The third project was primarily concerned with pragmatics based on judges' verdicts (originating from the High Court of the Netherlands and the Central Court of Appeal in Administrative Procedures). The aim was to investigate which factors played a role in those verdicts used in the study and to try to interpolate these decisions on the basis of the factors of each case. Among the factors were the names of the judges participating in the decisions. (This project, unlike the other three, is not complete at the moment of publication of this book and the description of the research in this study is, therefore, of an intermediate nature.)

The fourth project was to ascertain whether it was possible to make certain legal decisions (in this case sentencing decisions) with the help of a computer. The result of this project was a system for computer-aided decision making. The activities which led to this result can be classed as belonging to what Simon terms "the science of the artificial".

Finally, attention is paid to certain social aspects of automation which will be influential in determining the importance of the knowledge of informatics to lawyers. In addition, some scientific prospects of legal informatics are considered. The following conclusions were drawn.

1. As a result of the quick growth in automation in our world, lawyers will be confronted with computers in the practice of their traditional functions. Some knowledge of general informatics is, therefore, indispensable.
2. Computers will be used more and more as an aid in the work of practicing lawyers. The development of possible applications belongs to the province of legal informatics.
3. The study of jurimetrics (see below) will also involve contact with computers. Computers are an important aid in the carrying out of scientific work and this use of computers also belongs to the province of legal informatics.
4. Apart from those questions as to the desirability of using computers which could arise under category 1. (e.g. privacy problems and "computer crime"), questions as to the desirability of computer applications in the theory and the practice of law also arise. In order to answer those questions, knowledge of legal informatics is vital. Constrictions are imposed by a lack of empirical knowledge in the legal field and a lack of agreement as to certain value judgements. (The sort of questions meant here is generally indicated by the term "technology assessment".)
5. Legal texts (i.e. laws, verdicts, legal literature) are technical products, artifacts. The drafting of legal texts which have a particular pre-determined desired effect is an art. This art can be ascribed to the more ge-

neral area of "the art of designing" i.e. the "science of the artificial". In this art informatics will play an important role.

In the development of the largely new branch of empirical science, jurimetrics, the following considerations are of importance.

1. Jurimetrics is concerned with the syntactic, semantic and pragmatic aspects of demands and authorizations issuing from state organizations.
2. Systems theory, or model building, is an important aid in the carrying out of empirical science.
3. Over the last couple of hundred years demands have been put forward by scientific methodologists for the construction of conceptual and formal models of concrete systems (parts of the world of experience). These demands have meant that statements which are made within the framework of a discussion aimed at the acquisition of empirical knowledge must be falsifiable except in so far as the content of the concepts used is fixed by conventions. The concepts involved are empirical concepts (formed according to certain procedures based on observation), or concepts of which the content is fixed by conventions.
4. The observation of the above demands has resulted in the existence of strong and well-established relationships between the concrete systems studied and the conceptual and formal models thereof. In (the syntax of) the formal model, the conceptual model is expressed in an unambiguous manner and, vice versa, some interpretations of the model (a semantic aspect) are known. The conceptual model is built on the basis of empirical data and, vice versa, the result of some tests of the conceptual model (a pragmatic aspect of the formal model) are also known.
5. Such clear and well-established relationships also normally exist between (the syntax) of a computer program, some semantic aspects of it (e.g. the conceptual model designed by the programmer or the translation by a computer into machine language) and some pragmatic aspects (e.g. the way in which the program is executed by a computer).
6. There is little known about the properties of and the relationships between syntax, semantics and pragmatics of legal texts. It is the task of jurimetrics to increase that knowledge. Model building and informatics are important aids in that work.

APPENDIX B. LITERATUUR

Ackoff, R.L.

- Systems, organizations, and interdisciplinary research
1960, in: *General systems yearbook*, vol 5, Society for general systems research, blz. 1
(zie ook: Emery, 1972, blz. 330)

Ackoff, R.L./ Emery, F.E.

- On purposeful systems
1972, London

Adams, S.

- Evaluative research in corrections: a practical guide
1975, Washington D.C.

Adviesgroep Rathenau

- Maatschappelijke gevolgen van de micro-electronica
1980, 's Gravenhage

Albarda, J.D.

- Structures and relations in information
1974, Groningen

Allen, L.

- Language, law and logic: plain legal drafting for the electronic age
1980, in: Niblett, 1980, blz. 75 e.v.

Archibald, G.C./ Lipsey, R.G.

- An introduction to a mathematical treatment of economics
1976, London

Ars Aequi-Studiegroep Jurimetrie

- Jurimetrie
1969, in: *Ars Aequi*, jaargang 18 (1969), no. 11, blz. 446

Attneave, F.

- Applications of information theory to psychology
1959, New York

Bar-Hillel, Y.

- Is information retrieval approaching a crisis?
1963, in: Bar-Hillel, Y (ed.); Language and information, London, blz. 365 t/m 372
- Language and information
1964, Jerusalem

Barth, E.M.

- De logica van de lidwoorden in de traditionele filosofie
1971, Leiden

Bauer-Bernet, H.

- A propos de thésaurus juridiques
1980, in: Pre-proceedings of the international study congress on logica, informatica, diritto, Florence, 1981

Beishon, J./ Peters, G.

- Systems behaviour
1972, London

Bellord, N.

- Tax planning by computer
1980, in: Niblett, 1980, blz. 173 e.v.

Bemelmans, T.M.A.

- Bestuurlijke infomatiesystemen en automatisering
1981, Leiden

Bendix, L.

- Zur psychologie der Urteilstaetigkeit des Berufsrichters
1968 (1e druk 1932), Neuwied/ Bertlijn

Bendix, R./ Lipset, S.M. (eds.)

- Class, status and power. Social stratification in comparative perspective
1966, New York

Bertalanffy, L. von

- The history and status of general systems theory
1972, in: Klir, G.J. (ed.); Trends in general systems theory, New York, blz. 21

Bertels, K./ Nauta, D.

- Inleiding tot het modelbegrip
1974, Amsterdam

Bigelow, R.P. (ed.)

- Computers and the law
1971, (American Bar Association, 2nd pr.)

Bing, J./ Harvold, T.

- Legal decisions and information systems
1977, Oslo

Bing, J./ Selmer, K.S. (eds.)

- A Decade of Computers and Law
1980, Oslo

Bloom, B.S. (ed.)

- Taxonomy of educational objectives: The classification of educational goals. Handbook
I. Cognitive domain
1956, New York

Boden, M.A.

- The social implications of intelligent machines
1981, in: Forrester, 1981

Bos, A.M.

- Over methoden van begripsvorming in het recht
1967, Deventer

Bottomley, A.K.

- Decisions in the penal process
1973, London

Boulding, K.E.

- The organizational revolution
1953, New York

Bosman, A.

- Een metatheorie over het gedrag van organisaties
1977, Leiden

Boxerman, L.A.

- Juvenile justice information systems: A national model
1977, Reno - Nevada

Brandt-Corstius, H.

- Algebraïsche taalkunde
1974, Utrecht
- Weer een nieuw vak?
1974, Rotterdam
- Computer-taalkunde
1978, Muiderberg

Brillouin, L.

- Science and information theory
1962, New York

Broekstra, G./ Knipscheer, J.S.

- Systemen en toekomstverkenning
1977, Leiden

Campbell, D.T.

- Factors relevant to the validity of experiments in social settings
1957, in: Psychological bulletin, vol. 54, no. 4

Capaldi, N.

- The art of deception
1971, New York

Carnap, R.

- Introduction to semantics and formalization of logic
1975, Cambridge

Castles, F.G./ Murray, D.J./ Potter, D.C. (eds.)

- Decisions, organizations and society
1971, Aylesbury

Chomsky, N.

- Aspects of the theory of syntax
1965, Cambridge Mass.

Churchmann, C. West

- De systeem-benadering
1975, Alphen aan den Rijn/ Brussel

Clinard, M.B./ Quinney, R.

- Criminal behavior systems: a typology
1967, New York

Coombs, C.H./ Dawes, R.M./ Tversky, A.

- Mathematical psychology
1970, Englewood Cliffs - New Jersey

Crombag, H.F.M./ Wijkerslooth, J.L. de/ Cohen, M.J.

- Een theorie over rechterlijke beslissingen
1977, Groningen

Dessaer, C.I.

- Foundations of theory-formation in criminology
1971, The Hague/ Paris
- Systeem-criminologie of humane criminologie
1977, in: Delikt en delinkwent, nr. 5, blz. 249

Dijksterhuis, E.J.

- De mechanisering van het wereldbeeld
1950, Amsterdam

Dik, S.C./ Kooij, J.G.

- Beginselen van de algemene taalwetenschap
1975, Utrecht/ Antwerpen

Dunne, J.M. van

- Riskante rechtsvinding
1974, Deventer

Elcock, E.W./ Michie, D.

- Machine intelligence 8
1977, Chichester - England

Elias, N.

- Was ist Soziologie?
1970, Muenchen

Emery, F.E. (ed.)

- Systems thinking
1972, Bungay

Emmerik, J.L.

- Behandeling als straf, of straf als behandeling?
1983, in: Justitiele Verkenningen, 1983, no. 4, blz. 5 e.v.

Ende, H.W. van den

- Beschrijvende statistiek
1971, Amsterdam/ Brussel

Enschede, Ch.J.

- Motivering en motief
1959, Zwolle

Evans, C.

- The mighty micro
1980, Londen

Feigl, H./ Sellars, W. (eds.)

- Readings in philosophical analysis
1949, New York

Forrester, J.W.

- Principles of systems
1976, Cambridge - U.S.A.

Forrester, T. (ed.)

- The microelectronics revolution
1980, Oxford

Frank, J.

- Law and the modern mind
1963 (1e druk 1930), New York

Franken, H

- Vervolgingsbeleid
1973, Arnhem
- Maat en regel
1975, Arnhem
- Geautomatiseerde rechtsdokumentatie
1981, in: Symposiumspecial "Vrij beroep en automatisering"

Freed, R.

- Computers and law, a reference book
1976, Boston

Frijda, N.H.

- Kunnen mensen denken?
1965, Amsterdam

Gadourek, I

- Sociologische onderzoekstechnieken
1967, Arnhem

Gall, J.

- Systemantics
1979, Glasgow

Geurts, J.P.M.

- Het ervaringsgegeven in de natuurwetenschappen
1971, Utrecht

Goldman, S.

- Behavioral approaches to judicial decision-making: Towards a theory of judicial voting behavior
1971, uit: Jurimetrics journal, March 1971, blz. 142

Goldman, S./ Jahnige, Th.P.

- The federal judicial system
1968, Hinsdale, Ill.

Goudsblom, J.

- Collegedictaat sociologie d1, 1969-1970
1970, Amsterdam
- Balans van de sociologie
1974, Utrecht/ Antwerpen

Graaf, F. de (ed.)

- Computer en recht, Gebundelde bewerkingen van 12 voordrachten, gehouden in het kader van de cursus Computer en Recht herfst 1971 te Utrecht
1972, Deventer

Graaf, F. de/ Kempen, C.H. van/ Palstra, J.Th.M./ Schaake, F.E.

- Juridische informatica
1973, in: N.J.B., nr 42, blz. 1341

Grinten, P.M.E.M. van/ Lenoir, J.M.H.

- Statistische procesbeheersing
1973, Utrecht/ Antwerpen

Groosman, L.E./ Overkleeft, D. (ed.)

- Data base of data beast? Bedreigen of waarborgen computers onze privacy?
1973, Deventer

Groot, A.D. de

- Vijven en zessen
1967, Groningen
- Methodologie
1970, 's Gravenhage
- Selektie voor en in het hoger onderwijs.
1972, Amsterdam, R.I.T.P, Universiteit van Amsterdam

Groot, A.D. de/ Naerssen, R.F. van

- Studietoetsen
1969, Den Haag

Gutter, C

- Niet weten wat men niet weet
1972, Rotterdam

Haersolte, R.A.V. van

- Begripsvorming in of over het recht
1968, in: R. M. Themis, 1986, blz. 255
- Personificatie van sociale systemen
1979, Deventer

Haft, F.

- Inleiding tot de juridische informatica
1977, Antwerpen/ Amsterdam

Hanken, A.F.G./ Reuver, H.A.

- Inleiding tot de systeemleer
1976, Leiden (2e dr.)

Hart, H.L.A.

- The concept of law
1961, Oxford

Hart, P.E.

- Progress on a computer based consultant
1975, Fourth Int. Joint Conf. on Artificial Intelligence, blz. 831

Hazewinkel, A.

- Selectie van studenten
1971, in: Intermediair d.d. 29 okt. 1971

Heertje, A.

- Economie, wetenschap en kunst
1964, Leiden
- De kern van de economie. Dl. 1
1970, Leiden
- Eenvoudige economische modellen
1971, Leiden

Hempel, C.G.

- Fundamentals of concept formation in empirical science
1969, Chicago/ London

Hennipman, P.

- De taak van de mededingingspolitiek
1966, Haarlem

Herdan, G.

- The advanced theory of language as choice and chance
1966, Berlin/ Heidelberg/ New York

Herik, J. van den

- De kansloze nederlaag van Karpov
1983, in: Intermediair, jrg. 19, nr. 25, blz. 11

Heyting, A.

- Intuitionism
1956, Amsterdam

Hice, G.F./ Turner, W.S./ Cashwell, L.F.

- System development methodology
1974, Amsterdam/ Oxford/ New York

Hoekema, A.J.

- Rechtsnormen en sociale feiten. Theorie en empirie rond de kleine havendiefstallen
1973, Rotterdam

Hofstadter, D.R.

- Goedel, Escher, Bach: an eternal golden braid
1979, New York

Hogarth, J.

- Sentencing as a human process
1971, Toronto/ Buffalo

Holsti, O.R.

- Content analysis for the social sciences and the humanities
1969, Addison-Wesley

Hugenholtz, P.B.

- Auteursrecht en information retrieval
1982, Deventer

Hulsman, L.H.C./ e.a.

- Syllabus materiele straffoemeting, strafrecht sem. VII
1978, Rotterdam

Hunt, E.B.

- Artificial intelligence
1975, New York/ San Francisco/ London

Janswoude, J.J./ Mulder, R.V. de

- Enkele opmerkingen over de bruikbaarheid van CBS-gegevens voor criminologisch onderzoek
1980, in: Tijdschrift voor criminologie, jrg. 22, blz. 264

Kendall, M.G./ Stuart, A.

- The advanced theory of statistics
1969 (vol. 1, 3rd. ed.), 1973 (vol. 2, 3rd ed.), London

Keown, R.

- Mathematical models for legal prediction
1980, in: Computer Law Journal, 1980, blz. 829

Klir, G.J.

- An approach to general systems theory
1969, New York

Klir, G.J. (ed.)

- Trends in general systems theory
1972, New York
- Applied general systems research; recent developments and trends
1978, New York/ London

Kramér, N.J.T.A./ Smit, J. de

- Systeemdenken
1979, Leiden/ Antwerpen

Kuder, G.F./ Richardson, M.W.

- The theory of the estimation of test reliability
1937, in: Psychometrika, 2, blz. 151-160

Kuhn, A.

- Unified social science
1975, Homewood

Kuhn, T.S.

- The structure of scientific revolutions
1970, Chicago/ London

Lave, C.A./ March, J.G.

- An introduction to models in the social sciences
1975, New York

Lawlor, R.

- Personal stare decisis
1967, in: S. Cal. Law Rev. vol. 73, blz. 41

Leeuw, A.C.J. de

- Systeemleer en organisatiekunde
1974, Leiden

Levinson

- Role, personality, and social structure
1970, in: Sociological theory; A book of readings, 3rd ed. (ed. by Coser, L.A. en Rosenberg, B.), blz. 297

Lindemann, H.K.M.

- Basiskennis informatica 2
1974, Alphen aan den Rijn/ Brussel

Lippitt, G.L.

- Visualizing change
1973, Fairfax - Virginia

Loevinger, L.

- Jurimetrics, the next step forward
1949, in: Minn. Law Rev., april 1949, blz. 455

Lyons, J.

- Introduction to theoretical linguistics
1968, Cambridge

Madge, J.

- The tools of social science
1957, Londen

Mannheim, H.

- Comparative criminology
1970, Londen (3e dr. dl. 1 en 2)

Mazur

- The littlest science
1968, in: The American Sociologist, aug. 1968, blz. 195

Meuwese, W.

- Onderwijsresearch
1973, Utrecht (3e druk)

Muilwijk, J.

- Hoe nuttig is de statistiek?
1978, in: Intermediair, d.d. 11 aug. blz. 21

Mulder, R.V. de/ Gubby, H.

- Legal decision making by computer: an experiment in sentencing
1983, in: Computer Law Journal, summer 1983
- Sentencing by computer: a step forward?
1984, in: Law/technology, vol. 17, nr. 1, blz. 13

Mulder, R.V. de/ Oskamp, A.

- Het woordgebruik van het Wetboek van Strafrecht en het Wetboek van Strafvordering
1979, Rotterdam

Mulder, R.V. de/ Oskamp, A./ Heyden, W. van der/ Gubby, H.M.

- Sentencing by computer: an experiment
1982, Oslo (Complex no. 8/82)

Nagel, W.H.

- Het voorspellen van crimineel gedrag
1965, 's Gravenhage

Nagel, S.

- The legal process from a behavioral perspective
1969, Homewood, Ill.

National Council of Juvenile Court Judges

- Computer applications in the juvenile justice system
1974, Reno - Nevada
- Computer applications in the juvenile justice system, second edition
1975, Reno - Nevada
- Juvenile justice information systems: A national assessment
1976, Reno - Nevada

Nauta, D. jr.

- Logika tussen wetenschap en wijsbegeerte
1979, Rotterdam

Niblett, B. (ed.)

- Computer science and law
1980, Cambridge

Noordzij, G.P.

- Systeem en beleid
1977, Meppel

Nuchelmans, G.

- Overzicht van de analytische wijsbegeerte
1978, Utrecht/ Antwerpen, (vierde druk)

Oliphant, H.

- Facts, opinions, and value judgements
1932, in: Texas Law Review, vol. 127, nr. 10

Parker, D.B.

- Crime by computer
1976, New York
- Fighting computer crime
1983, New York

Phillips, L.D.

- Bayesian statistics for social scientists
1973, London

Popper, K.R.

- The logic of scientific discovery
1965, New York
- Conjectures and refutations
1969, London

PROMIS

- Promis, system overview
1975, Washington D.C.

Quine, W.V.

- Philosophy of logic
1970, Englewood Cliffs, N.J.

Reichardt, J.

- Robots
1979, Bussum

Reichenbach, H.

- Elements of symbolic logic
1966, New York /Londen

Reisinger, L.

- Die automatisierte Messung juristischer Begriffe
1973, Berlin

Remmen, F.

- Inleiding tot de informatica voor het HBO
1980, Leiden/ Antwerpen

Rescher, N.

- The logic of commands
1966, London/ New York
- Introduction to logic
1969, New York

Rombach, J.

- Opmerkingen over rechtswetenschap en logica
1963, Deventer/ Antwerpen

Rudner, R.S.

- Philosophy of social science
1966, Englewood Cliffs - N.J.

Salzman, L.P.

- A simulation approach to caseload management in the provincial courts
1974, Toronto

Schaff, A. /Friederichs, G.

- Micro-electronics and society
1981, Oxford

Schubert, G.

- Judicial policy-making
1965, Glenview Illinois

Schuit, S.R./ Schaake, F.E.

- Juridische documentatie via de computer
1972, in: Advokatenblad, nr. 4, blz. 181

Sellin, T./ Wolfgang, M.E.

- The measurement of delinquency
1964, New York

Selmer, K.S. (ed.)

- Swansea debriefing, workshop on computer science and law
1980, Oslo, Papers on computers and law, no. 46

Shannon, C.E./ Weaver, W.

- The mathematical theory of communication
1949, Urbana

Simon, H.A.

- The sciences of the artificial
1969, Cambridge - U.S.A.

- Psychologie en systeemtheorie
1976, Utrecht/ Antwerpen (Spectrum; vertaling van Simon 1969)

Smith, D.D.

- Juvenile justice system simulation
1975, in: National Council of Juvenile Court Judges, 1975, blz. 108

Soeteman, A./ Brouwer, P.W.

- Logica en recht
1982, Zwolle

Sprowl, J.

- Automated assembly of legal documents
1980, uit Niblett, 1980, blz. 195

Staatscommissie bescherming persoonlijke levenssfeer in verband met persoonsregistraties

- Privacy en persoonsregistratie
1976, 's Gravenhage

Stamper, R.

- Legol: modelling legal rules by computer
1980, in: Niblett, 1980, blz. 45

Stefanski, M.M.

- (V)aardig programmeren
1981, Groningen

Steinmueller (ed.)

- ADV und Recht, Einfuehrung in die Rechtsinformatik und das Recht der Informationsverarbeitung
1976, Berlin

Stevens, S.S.

- Mathematics, measurement, and psychophysics
1951, in: Handbook of experimental psychology, Stevens, S.S. (ed.), New York/ London

Stichting Teleac

- Wiskundige modellen
1981, Utrecht

Suppes, P.

- Introduction to logic
1957, New York

Sybex

- Microprocessor lexicon
1978, Berkeley/ Paris

Tapper, C.

- Computers and the law
1973, London

Taylor, D.W.

- Decision making and problem solving
1970, in: Handbook of organization, March, J.C. (ed.), Chicago, blz. 48 e.v.

Tolsma, H./ Kappetijn, F./ Hermans, H.

- De micro de maat genomen
1979, Amsterdam

Toorn, M.C. van den

- Nederlandse taalkunde
1977, Utrecht/ Antwerpen

Torgerson, W.S.

- Theory and methods of scaling
1960, New York

Ulmer, S.

- Mathematical models for predicting judicial behavior
1967, in: Bernd, J.L./ Jones, A. (eds.), Mathematical application in political science, III,
Charlottesville, blz. 67 e.v.

Valk, J.M.M. de

- De evolutie van het wetsbegrip in de sociologie
1970, Assen

Vandenberghe, G.

- Informatica en recht; een overzicht
1981, in: Informatie, 1981 blz. 642

- Bescherming van computersoftware
1984, Deventer/ Antwerpen

Vercrujse, E.V.W.

- Het ontwerpen van een sociologisch onderzoek
1970, Assen

Verhoeff, J.

- De elektronische revolutie en zijn gevolgen
1978, in: Beta, nr. 18, d.d. 5 sept., blz. 7
- De chip: einde of begin van het informatietijdperk?
1979, in: Intermediair, jrg. 15, nr. 24, blz. 5
- Naar een 'Wet op de Amusementsplicht'?
1979, in: Randstad Data, 9e jaargang, nr. 3
- Is de chip in de hand te houden?
1980, in: Spectrum Jaarboek 1980, blz. 247
- Maatschappelijke aspecten van de informatica in school en samenleving
1982, Bijdrage aan het symposium "Informatica in het onderwijs

Verkuil e.a.

- Transformationele taalkunde
1974, Utrecht/Antwerpen

Viewdata and Videotext

- Viewdata and videotext, 1980-1981: A worldwide report
1980, New York

Vlasman, G.W.

- Juridische informatie in de USA
1980, in: De Juridische Bibliothecaris, nr. 1, blz. 10

Vries, J. de

- Nederlands etymologisch woordenboek
1971, Leiden

Wadsworth, N.

- Understanding microcomputers and small computer systems
1977, Milford

Webb, J./ Campbell, D.T./ Schwartz, R.D./ Sechrest, L.

- Unobtrusive measures. Nonreactive research in the social sciences
1970, Chicago

Weber, M.

- Wirtschaft und Gesellschaft
1964, Koeln

Weinberger, O.

- Rechtslogik
1970, Wien/ New York

Weizenbaum, J.

- Computer power and human reason
1976, San Francisco
- Once more, the computer revolution
1980, in: Forrester, 1980. blz. 550-570

Werkgroep Frequentie-onderzoek van het Nederlands

- Woordfrequenties in geschreven en gesproken Nederlands
1975, Utrecht

Wieacker, F.

- Privatrechtsgeschiede der Neuzeit
1967, Goettingen

Wiener, N.

- Cybernetics
1948, New York (Wiley)

Wijvekate, M.L.

- Verklarende statistiek
1979, Utrecht/ Antwerpen

Wild, A.H. de/ Eilders, B. (eds.)

- Jurist en computer
1983, Deventer

Winograd, T

- Understanding natural language
1972, New York

Zaks, R.

- Your first computer. A guide to business and personal computing
1980, Berkeley

Zeeuw, G. de

- Modeldenken in de psychologie
1974, Amsterdam

Zwanenburg, M.A.

- Strafrecht en systeemtheorie
1974, Nijmegen
- Prediction in criminology
1977, Nijmegen
- Basisrechten vs. Recht in BASIC?
1984, in: Delikt en Delinkwent, 14 (1984), afl. 1, blz. 50