

# SKB Research Library - Articles

Sven van der Meer

# Table of Contents

1800 .....	1
1950 .....	1
1960 .....	1
1970 .....	2
1980 .....	3
1990 .....	5
2000 .....	6
2010 .....	8

# 1800

**Gottlieb Frege:** *On Sense and Reference*, 1892

- Author: Gottlieb Frege
- Published as *On Sense and Reference*, later as *On Sense and Meaning*, German original: *Über Sinn und Bedeutung*
- Reasons to read: philosophical definition for a name
- Publisher: Seeley & Co. of London
- Links: [Wikipedia: en](#), [Wikipedia: de](#), [Goodreads](#), [PDF:en & de](#)    skb: [yaml src](#)

# 1950

**Noam Chomsky:** *Three Models for the Description of Language*, 1956

- Author: Noam Chomsky
- Reasons to read: simple structural model for the English language, a natural language grammar
- Published: IRE Transactions on Information Theory (Volume: 2 , Issue: 3 , September 1956)
- Links: [DOI](#), [PDF](#)    skb: [yaml src](#)

**Noam Chomsky:** *On certain formal Properties of Grammars*, 1959

- Author: Noam Chomsky
- Reasons to read: the Chomsky hierarchy as a containment hierarchy of classes of formal grammars
- Published: Information and Control, Volume 2, Issue 2, June 1959, Pages 137-167
- Links: [DOI](#), [PDF](#), [Chomsky Hierarchy](#)    skb: [yaml src](#)

# 1960

**Edsger W. Dijkstra:** *The Structure of the “THE” Multiprogramming System*, 1968

- Author: Edsger W. Dijkstra
- Reasons to read: introduces concept of layers
- Published: Communications of the ACM CACM, Volume 11 Issue 5, May 1968, Pages 341-346
- Links: [DOI](#), [PDF](#), [Text](#)    skb: [yaml src](#)

# 1970

**Donald Davies:** *The Control of Congestion in Packet-Switching Networks*, 1972

- Author: Donald Davies
- Reasons to read: parallel work to (Baran 64), packet-switched networks
- Published: IEEE Transactions on Communications (Volume: 20, Issue: 3, Jun 1972)
- Links: [DOI](#)    skb: [yaml src](#)

**Edsger W. Dijkstra:** *Hierarchical ordering of sequential Processes*, 1971

- Author: Edsger W. Dijkstra
- Reasons to read: a more formal discussion on layers
- Published: Acta Informatica, June 1971, Volume 1, Issue 2, pp 115–138
- Links: [DOI](#), [PDF](#)    skb: [yaml src](#)

**John G. Fletcher et al.:** *Mechanisms for a reliable timer-based Protocol*, 1978

- Authors: John G. Fletcher, Richard W. Watson
- Reasons to read: original work on timer mechanisms for Delta-T (3 timers required without synchronized clocks)
- Published: Volume 2, Issues 4–5, September–October 1978, Pages 271-290
  - Note: date in the DOI seems to be wrong in title
- Links: [DOI](#), [PDF](#)    skb: [yaml src](#)

**P. Brinch Hansen:** *The nucleus of a multiprogramming system*, 1970

- Author: P. Brinch Hansen
- Reasons to read: first principle of separation of strategy from process
- Published: Communications of the ACM CACM, Volume 13 Issue 4, April 1970, Pages 238-241
- Links: [DOI](#), [PDF](#)    skb: [yaml src](#)

**William B. Rouse:** *A Model-Based Approach to Policy Analysis in Library Networks*, 1979

- Author: William B. Rouse
- Reasons to read: policy to control sharing resources, rules for the *control* of how to share resources (and rule analysis)
- Published: IEEE Transactions on Systems, Man, and Cybernetics (Volume: 9, Issue: 9, Sept. 1979)
- Links: [DOI](#)    skb: [yaml src](#)

---

**Richard W. Watson:** *An Architecture for Support of Network Operating System Services*, 1976

- Author: Richard W. Watson
- Reasons to read: tbd
- Published: Computer Networks (1976), Volume 4, Issue 1, February 1980, Pages 33-49
- Links: [DOI](#)    skb: [yaml src](#)

---

**W. Wulf et al.:** *HYDRA: the Kernel of a Multiprocessor Operating System*, 1974

- Authors: W. Wulf, E. Cohen, W. Corwin, A. Jones, R. Levin, C. Pierson, F. Pollack
- Reasons to read: first principle of separation of mechanism and policy, policy is artifact of *control* for mechanisms, separates kernel level decision making from user level decision declaration
- Published: Communications of the ACM CACM, Volume 17 Issue 6, June 1974
- Links: [DOI](#), [PDF](#)    skb: [yaml src](#)

## 1980

**James F. Allen:** *Maintaining Knowledge about temporal Intervals*, 1983

- Author: James F. Allen
- Reasons to read: Allen Intervals for temporal calculations (temporal algebra)
- Published: Communications of the ACM CACM, Volume 26 Issue 11, Nov. 1983, Pages 832-843
- Links: [DOI](#), [PDF](#)    skb: [yaml src](#)

---

**James F. Allen:** *Towards a General Theory of Action and Time*, 1984

- Author: James F. Allen
- Reasons to read: AI theory for action and time, including "no action"
- Published: Artificial Intelligence, Volume 23, Issue 2, July 1984, Pages 123-154
- Links: [DOI](#), [PDF](#)    skb: [yaml src](#)

---

**Charles W. Bachman et al.:** *Toward a more complete Reference Model of Computer-based Information Systems*, 1982

- Authors: Charles W. Bachman, Ronald G. Ross
  - Reasons to read: original contribution of what became then the OSI Reference Model / 7 Layer Model
  - Published: Computers and Standards, Volume 1, Issue 1, January 1982, Pages 35-48
  - Links: [DOI](#)    skb: [yaml src](#)
-

---

**Charles W. Bachman** et al.: *Toward a more Complete Reference Model of Computer-based Information Systems*, 1982

- Authors: Charles W. Bachman, Ronald G. Ross
- Reasons to read: original contribution of what became then the OSI Reference Model / 7 Layer Model
- Published: Computer Networks, Volume 6, Issue 5, November 1982, Pages 331-343
- Links: [DOI](#)    skb: [yaml](#) [src](#)

---

**Umeshwar Dayal** et al.: *The HiPAC project: combining active databases and timing constraints*, 1988

- Authors: Umeshwar Dayal, Barbara Blaustein, Alejandro Buchmann, Sharma Chakravarthy, Meichun Hsu, R. Ledin, Dennis R. McCarthy, Arnon Rosenthal, A. Sarin, M. J. Carey, Miron Livny, R. Jauhari
- Reasons to read: origin of Event Condition Action (ECA) rules
  - Defines ECA rules – Event, Condition, Action
    - Event triggers rule, i.e. condition evaluation
    - Condition is set of queries
    - Action is executed when rule is triggered and condition is satisfied
  - Processing rules is strongly related to database transactions
  - Two couplings are defined: E-C and C-A
  - Event types: database operation, temporal, external notification
  - Funded by DARPA
- Published: ACM SIGMOD Record - Special Issue on Real-Time Database Systems, Volume 17 Issue 1, March, 1988, Pages 51 - 70
- Links: [DOI](#), [ResearchGate](#)    skb: [yaml](#) [src](#)

---

**Geneviève Jomier**: *A Mathematical Model for the Comparison of Static and Dynamic Memory Allocation in a Paged System*, 1981

- Author: Geneviève Jomier
  - Reasons to read: separate static and dynamic policies for memory allocation, static: memory allocated at scheduling time, dynamic: memory evolves with process
  - Published: IEEE Transactions on Software Engineering (Volume: SE-7, Issue: 4, July 1981)
  - Links: [DOI](#)    skb: [yaml](#) [src](#)
-

---

**Farouk Kamoun:** *A Drop and Throttle Flow Control Policy for Computer Networks*, 1981

- Author: Farouk Kamoun
- Reasons to read: rules to detect and later prevent network congestion
- Published: IEEE Transactions on Communications (Volume: 29, Issue: 4, Apr 1981)
- Links: [DOI](#)    skb: [yaml src](#)

**Richard W. Watson:** *Timer-based Mechanisms in reliable Transport Protocol Connection Management*, 1981

- Author: Richard W. Watson
- Reasons to read: only 3 timers are needed, in the protocol, no local clocks and no clock synchronization required
- Original break-through happened in 1978, first paper "Mechanisms for a reliable timer-based protocol"
- Also published as IEN193
- Published: Computer Networks (1976), Volume 5, Issue 1, February 1981, Pages 47-56
- Links: [DOI](#), [PDF: IEN193](#)    skb: [yaml src](#)

## 1990

**Jonathan Moffett et al.:** *Specifying Discretionary Access Control Policy for Distributed Systems*, 1990

- Authors: Jonathan Moffett, Morris J. Sloman, Kevin Twidle
- Reasons to read: defines policy as a paradigm for network management
- Published: Computer Communications, Volume 13, Issue 9, November 1990, Pages 571-580
- Links: [DOI](#), [PDF](#)    skb: [yaml src](#)

**Morris J. Sloman:** *Policy driven Management for Distributed Systems*, 1994

- Author: Morris J. Sloman
- Reasons to read: defines policy as a paradigm for network management
- Published: Journal of Network and Systems Management (JNSM), December 1994, Volume 2, Issue 4, pp 333–360
- Links: [DOI](#), [PDF](#)    skb: [yaml src](#)

# 2000

**Stefan Arbanowski** et al.: *I-centric Communications*, 2001

- Authors: Stefan Arbanowski, Sven van der Meer, Stephan Steglich, Radu Popescu-Zeletin
- Published: Informatik Forschung und Entwicklung (IFE), November 2001, Volume 16, Issue 4, pp 225–232
- Links: [DOI](#)    skb: [yaml src](#)

**Stefan Arbanowski** et al.: *The Human Communication Space: Towards I-centric Communications*, 2001

- Authors: Stefan Arbanowski, Sven van der Meer, Stephan Steglich, Radu Popescu-Zeletin
- Published: Personal and Ubiquitous Computing (PUC), February 2001, Volume 5, Issue 1, pp 34–37
- Links: [DOI](#), [ResearchGate](#)    skb: [yaml src](#)

**Raouf Boutaba** et al.: *Policy-based Management: A Historical Perspective*, 2007

- Authors: Raouf Boutaba, Issam Aib
- Reasons to read: history and evolution of policy in management, recursive models, good source for references on policy
- Published: Journal of Network and Systems Management, December 2007, Volume 15, Issue 4, pp 447–480
- Links: [DOI](#), [PDF](#)    skb: [yaml src](#)

**Steven Davy** et al.: *The Policy Continuum – Policy Authoring and Conflict Analysis*, 2008

- Authors: Steven Davy, Brendan Jennings, John C. Strassner
- Reasons to read: a continuum for policies, multiple policy models
- Published: Computer Communications, Volume 31, Issue 13, 15 August 2008, Pages 2981-2995
- Links: [DOI](#), [PDF](#)    skb: [yaml src](#)

**Brendan Jennings** et al.: *Towards Autonomic Management of Communications Networks*, 2007

- Authors: Brendan Jennings, Sven van der Meer, Sasitharan Balasubramaniam, Dmitri Botvich, Mícheál Ó Foghlú, Willie Donnelly, John C. Strassner
- Published: IEEE Communications Magazine (Volume: 45, Issue: 10, October 2007)
- Links: [DOI](#)    skb: [yaml src](#)



---

**Declan O’Sullivan** et al.: *The Use of Context-Aware Policies and Ontologies to Facilitate Business-Aware Network Management*, 2009

- Authors: Declan O’Sullivan, John C. Strassner, Sven van der Meer
- Published: Journal of Network and Systems Management (JNSM), September 2009, Volume 17, Issue 3, pp 231–233
- Links: [DOI](#), [ResearchGate](#)    skb: [yaml src](#)

---

**Gary N. Stone** et al.: *Network Policy Languages: A Survey and a New Approach*, 2001

- Authors: Gary N. Stone, Bert Lundy, Geoffrey G. Xie
- Reasons to read: survey of policy languages, and an approach for them
- Published: IEEE Network (Volume: 15, Issue: 1, Jan/Feb 2001)
- Links: [DOI](#), [PDF](#)    skb: [yaml src](#)

---

**John C. Strassner** et al.: *The Design of a New Policy Model to Support Ontology-Driven Reasoning for Autonomic Networking*, 2009

- Authors: John C. Strassner, José Neuman de Souza, Sven van der Meer, Steven Davy, Keara Barrett, Dave Raymer, Srini Samudrala
- Published: Journal of Network and Systems Management (JNSM), June 2009, Volume 17, Issue 1–2, pp 5–32
- Links: [DOI](#), [ResearchGate](#)    skb: [yaml src](#)

---

**John C. Strassner** et al.: *The Use of Context-Aware Policies and Ontologies to Facilitate Business-Aware Network Management*, 2009

- Authors: John C. Strassner, Sven van der Meer, Declan O’Sullivan, Simon Dobson
- Published: Journal of Network and Systems Management (JNSM), September 2009, Volume 17, Issue 3, pp 255–284
- Links: [DOI](#), [ResearchGate](#)    skb: [yaml src](#)

---

**Sven van der Meer**: *Research - a personal perspective*, 2004

- Author: Sven van der Meer
  - Published: Research Matters, Issue I, Number I, WIT, Waterford, Ireland, 2004
  - Links: [Research Matters](#)    skb: [yaml src](#)
-

---

**Mariemma I. Yagüe:** *Survey on XML-Based Policy Languages for Open Environments*, 2006

- Author: Mariemma I. Yagüe
- Reasons to read: early work on policy in network management
- Published: Journal of Information Assurance and Security 1 (2006) 11-20
- Links: [CiteSeer](#), [ResearchGate](#), [PDF](#)    skb: [yaml src](#)

## 2010

**Rob Brennan** et al.: *Multidomain IT Architectures for Next-Generation Communications Service Providers*, 2010

- Authors: Rob Brennan, Kevin Chekov Feeney, John Keeney, Declan O’Sullivan, Joel J. Fleck II, Simon Foley, Sven van der Meer
- Reasons to read: inter-domain relationships and policy translation
- Published: IEEE Communications Magazine (Volume: 48, Issue: 8, August 2010)
- Links: [DOI](#), [ResearchGate](#), [PDF: TCD](#)    skb: [yaml src](#)

**John Day:** *The Clamor Outside as INWG Debated: Economic War Comes to Networking*, 2016

- Author: John Day
- Reasons to read: INWG history
- Publisher: IEEE Annals of the History of Computing (Volume: 38, Issue: 3, July-Sept. 2016)
- Links: [DOI](#), [PDF](#)    skb: [yaml src](#)

**Weili Han** et al.: *A Survey on Policy Languages in Network and Security Management*, 2012

- Authors: Weili Han, Chang Lei
- Reasons to read: survey of policy languages, here for security
- Published: Computer Networks, Volume 56, Issue 1, 12 January 2012, Pages 477-489
- Links: [DOI](#), [PDF](#)    skb: [yaml src](#)

**Alex McKenzie:** *INWG and the Conception of the Internet: An Eyewitness Account*, 2011

- Author: Alex McKenzie
- Reasons to read: INWG history
- Publisher: IEEE Annals of the History of Computing (Volume: 33, Issue: 1, Jan. 2011)
- Links: [DOI](#), [Online](#), [PDF](#)    skb: [yaml src](#)

---

**Sebastian Robitzsch** et al.: *Magnet: Real-Time Trace Stream Analytics Framework for 5G Operations Support Systems*, 2017

- Authors: Sebastian Robitzsch, Faisal Zaman, Sven van der Meer, John Keeney, Gabriel-Miro Muntean
- Published: IEEE Network (Volume: 31, Issue: 5, 2017)
- Links: [DOI](#), [ResearchGate](#)    skb: [yaml src](#)

---

**Andrew L. Russell**: *OSI: The Internet That Wasn't*, 2013

- Author: Andrew L. Russell
- Reasons to read: OSI standardization history
- Publisher: IEEE Spectrum (Volume: 50, Issue: 8, August 2013)
- Links: [DOI](#), [Online](#)    skb: [yaml src](#)

---

**Andrew L. Russell** et al.: *In the Shadow of the ARPANET and Internet: Louis Pouzin and the Cyclades Network in the 1970s*, 2014

- Authors: Andrew L. Russell, Valérie Schafer
- Reasons to read: Pouzin and CYCLADES in the historic context of ARPANET and Internet
- Publisher: Technology and Culture, Johns Hopkins University Press, Volume 55, Number 4, October 2014
- Links: [DOI](#), [PDF](#)    skb: [yaml src](#)

---

**Martín Jamie Serrano** et al.: *Federated Reference Model Architecture: An Autonomic Approach for Service Management*, 2010

- Authors: Martín Jamie Serrano, Sven van der Meer, Viliam Holub, John Murphy, John C. Strassner
- Published: Systemics and Informatics World Network, Vol. 11, August 2010, pp. 137-150
- Links: [SIWN](#)    skb: [yaml src](#)

---

**Sven van der Meer** et al.: *SDN Architectural Limitations: Towards a Full Software Network Vision*, 2016

- Authors: Sven van der Meer, Eduard Grasa
  - Published: IEEE Softwarization, May 2016
  - Links: [Article](#)    skb: [yaml src](#)
-

---

**Faisal Zaman** et al.: *A Recommender System Architecture for Predictive Telecom Network Management*, 2015

- Authors: Faisal Zaman, Gabriel Hogan, Sven van der Meer, John Keeney, Sebastian Robitzsch, Gabriel-Miro Muntean
- Published: IEEE Communications Magazine (Volume: 53, Issue: 1, January 2015)
- Links: [DOI](#), [ResearchGate](#)    skb: [yaml src](#)