Research Notes - Introduction to Network Architecture

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Table of Contents

Provide a list of papers, articles, books and the like important to understand network architecture:

- items in the list should be fundamental to network architecture, not RINA (with the exception of the RINA heading).
- provide primary references only, no secondary references if possible
- provide links to get the item in public domain, if possible (papers should have a link, books might have a link)
- at least more more link to a description (e.g. Wikipedia, Goodreads, etc.) is preferable
- links should be labeled, since this document in intended as an online document
- each item should have at least one co-author or contributor who has read it, no point in using "potentially" interesting items
- each item should start with Author(s), Title, Year
- alwas use full author names, i.e. not abbreviated first names

Cybernetics

W. Ross Ashby: *An Introduction to Cybernetics*, 1956

- Author: W. Ross Ashby
- Reasons to read: cybernetics into, Law of Requisite Variety
- Publisher: John Wiley & Sons
- Links: Goodreads, pdf: original typeset, pdf: new typeset, discussion on requisite variety, WikiQoutes skb: yaml src

Norbert Wiener: *Cybernetic OR Control and Communication in the Animal and the Machine*, 1965

- Author: Norbert Wiener
- Reasons to read: the standard work on cybernetics (with definition) and control
- Publisher: MIT Press, Cambridge, Massachusetts
- Links: Wikipedia, Goodreads, PDF: original typeset skb: yaml src

Humberto R. Maturana: *Biology of Cognition*, 1970

- Author: Humberto R. Maturana
- Reasons to read: tbd
- Published: Biological Computer Laboratory Research Report BCL 9.0. Urbana IL: University of Illinois, 1970
- Links: PDF, Online skb: yaml src

Humberto R. Maturana et al.: *The Tree of Knowledge*, 1987

- Authors: Humberto R. Maturana, Francisco J. Valera
- Reasons to read: tbd
- Publisher: Shambhala, Boston & London
- Links: Goodreads, PDF skb: yaml src

Hugh Dubberly et al.: *How Cybernetics connects Computing, Counterculture, and Design*, 2015

- Authors: Hugh Dubberly, Paul Pangaro
- Reasons to read: historyc context for cybernetics, interactive graph with links and link annotations
- Publisher: Hippie Modernism: The Struggle for Utopia, Exhibit Catalog, October 2015
- Links: Paper: html with pdf links, Interactive Graph, Article Text skb: yaml src

Patterns

Christopher Alexander: *A Pattern Language*, 1977

- Author: Christopher Alexander
- Reasons to read: (most) influential book on patterns, laid foundation for software patterns
- Publisher: Oxford University Press
- Links: Wikipedia, Goodreads skb: yaml src

Christopher Alexander: *The Timeless Way of Building*, 1979

- Author: Christopher Alexander
- Reasons to read: "how to think about X", a new theory of architecture (and design in general) that relies on the understanding and configuration of design patterns
- Is actually the introduction to *A Pattern Language* by the same author, though published later
- Publisher: Oxford University Press
- Links: Wikipedia, Goodreads skb: yaml src

John Day: *Patterns in Network Architecture: A Return to Fundamentals*, 2007

- Author: John Day
- Reasons to read: fundamental patterns for network architecure, historic context, annectodal context
- Publisher: Pearson Edition
- Links: Goodreads skb: yaml src

Jason McC. Smith: *Elemental Design Patterns*, 2012

- Author: Jason McC. Smith
- Reasons to read: scientific approach to software pattern (not OO-software-patterns), comprehensive graphical language
- Publisher: Addison-Wesley Professional
- Links: Goodreads, PDF: technical report, PDF: paper, PPTX skb: yaml src

Philosophy and Science

Isaac Newton: *Regulae Philosophandi* or *Philosophiæ Naturalis Principia Mathematica*, 1687

- Author: Isaac Newton
- Reasons to read: scientific principles only work within a given set of bounds, nature is essentially simple, similar effects must be assigned to the same cause
- Links: Wikipedia, Project Gutenberg: Latin, English by Ian Bruce: online skb: yaml src

Gottfried Leibniz: *Monadology* or *Lehrsätze über die Monadologie*, 1714

- Author: Gottfried Leibniz
- Published: 1714 (French), 1720 (German)
- Reasons to read: the first (that we know of) and grandest attempt to conceive of the world as as a system, in particular as a system of "reflections" in which the state of every element recursively mirrors the state of the whole
- Links: Wikipedia, Goodreads, English: by Robert Latta, German: Gutenberg Projekt skb: yaml src

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

Gottlieb Frege: *Grundgesetze der Arithmetik or Basic Laws of Arithmetic*, 1893

- Author: Gottlieb Frege
- Reasons to read: the world limited by dimensions, also a social critic
- Publisher: Seeley & Co. of London, 1893 (Volume I), 1903 (Volume II)
- Links: Goodreads: en, Goodreads: de, PDF: de skb: yaml src

Bertrant Russel: *Introduction to Mathematical Philosophy*, 1919

- Author: Bertrant Russel
- Reasons to read: introduction to mathematics and the more fundamental "Principia Mathematica"
- Publisher: George Allen & Unwin, Ltd, London
- Links: Wikipedia, Goodreads, PDF: old typeset, Online at UMass skb: yaml src

Ludwig Wittgenstein: *Tractatus Logico-Philosophicus*, 1922

- Author: Ludwig Wittgenstein
- Published: 1921 (German, *Logisch-Philosophische Abhandlung*), 1922 (English)
- Reasons to read: picture theory, logical atomism, distinction between saying and showing, Wittgentstein's ladder, proposition 7
- Publisher: Kegan Paul, Trench, Trubner & CO
- Links: Wikipedia, Goodreads, eBooks at Gutenberg Project, eBooks at UMass skb: yaml src

Joseph Needham: *Science and Civilisation in China*, 1954

- Author: Joseph Needham
- Reasons to read: the West was only one to make the leap from artisan to science
- Publisher: Cambridge University Press
- Links: Wikipedia skb: yaml src

Karl Popper: *The Logic of Scientific Discovery*, 1959

- Author: Karl Popper
- Published: 1934 (German, *Logik der Forschung*), 1959 (English)
- Publisher: Hutchinson & Co
- Reasons to read: "The first step is to state a hypothesis. To state a hypothesis, one must start with a theory to be invalidated", shows: you can never prove a theory correct; you can only invalidate it
- Links: Wikipedia, Goodreads, Online: English, PDF: English skb: yaml src

Robert MacArthur: *Geographical Ecology: Patterns in the Distribution of Species*, 1972

- Author: Robert MacArthur
- Reasons to read: island of biogeography, "A field cannot consider itself a science until it can progress beyond natural history"
- Publisher: Vintage
- Links: Goodreads skb: yaml src

Imre Lakatos: *Proofs and Refutations*, 1976

- Author: Imre Lakatos
- Reasons to read: the way of thinking, “listen to the problem”
- Publisher: Cambridge University Press
- Links: Wikipedia, Goodreads skb: yaml src

Samuel C. Florman: *The Existential Pleasures of Engineering*, 1976

- Author: Samuel C. Florman
- Reasons to read: to understand engineering, how engineers think and feel about their profession
- Links: Goodreads skb: yaml src

Gerald Edelman: *Bright Air Brilliant Fire*, 1992

- Author: Gerald Edelman
- Reasons to read: theory of Neural Darwinism feeds into Maturana quite nicely, the application of Edelman in Sacks’ Seeing Voices
- Publisher: Basic Books
- Links: Goodreads skb: yaml src

Stuart Kaufmann: *The Origins of Order*, 1993

- Author: Stuart Kaufmann * Reasons to read: works out the math and science in detail and shows that life is virtually inevitable, scientific version of "At home in the universe"
- Publisher: Oxford University Press, USA
- Links: Goodreads skb: yaml src

Dale Miller: *A Proposal for Modules in λProlog*, 1993

- Author: Dale Miller
- Reasons to read: introduces the turing machine syndrome
- Related: Alberto Momigliano and Mario Ornaghi, Proof-Theoretic and Higher-Order Extensions of Logic Programming, LNCS 6125, 2010
  - Links: springer
  - Quote: "This outcome [...] has been named 'recreating the Turing Machine' syndrome [Miller]: starting from a computationally clean and semantically motivated language, one tends to add external mechanisms in order to make it suitable for programming-in-the-large. This inevitably tends to clutter the formal definition of the language (if any), making trusting the language itself and thus reasoning about it problematic."
- Published: International Workshop on Extensions of Logic Programming, ELP 1993: Extensions of Logic Programming, pp 206-221
- Links: DOI, ELP93, PDF: elp, Draft text skb: yaml src

Stuart Kaufmann: *At Home in the Universe*, 1996

- Author: Stuart Kaufmann
- Reasons to read: works out the math and science in detail and shows that life is virtually inevitable, Scientific American (popular science magazine) version of "The origins of order"
- Publisher: Oxford University Press, USA
- Links: Goodreads skb: yaml src

Oliver Sacks: *The Man Who Mistook His Wife for a Hat*, 1998

- Author: Oliver Sacks
- Reasons to read: aberrations of the human mind, contribute to Maturana’s view
- Publisher: Touchstone
- Links: Goodreads skb: yaml src

Oliver Sacks: *Seeing Voices*, 2000

- Author: Oliver Sacks
- Reasons to read: aberrations of the human mind, contribute to Maturana's view
- Publisher: Vintage
- Links: Goodreads skb: yaml src

Lee Smolin: *The Trouble with Physics*, 2006

- Author: Lee Smolin
- Reasons to read: "groupthink" anti pattern, role of controversy and disagreement in the progress of science, professionalization has lead to selecting for "master craftsmen" to the almost complete exclusion of "seers."
- Publisher: Reed Business Information
- Links: Wikipedia, online skb: yaml src

Stephen Jay Gould: *The Richness of Life: The Essential Stephen Jay Gould*, 2006

- Author: Stephen Jay Gould
- Reasons to read: wrote a monthly article for Natural History on evolution, the collections of his articles are a good primer in how stochastic processes work in the large
- Publisher: Vintage
- Links: Goodreads skb: yaml src

David Deutsch: *The Beginning of Infinity*, 2011

- Author: David Deutsch
- Reasons to read: error is the normal state of our knowledge, good and bad philosophy
- Publisher: Viking
- Links: Wikipedia, Goodreads skb: yaml src

Architecture Principles (invariants)

Baseline

Ludwig Fleck: *Gensis and Development of a Scientific Fact*, 1935

- Author: Ludwig Fleck
- Published: 1935 (German, *Entstehung und Entwicklung einer wissenschaftlichen Tatsache*), 1979 (English)
- Reasons to read: philosophy of science, social process of science
- Links: Wikipedia, Goodreads skb: yaml src

Thomas Kuhn: *Structure of Scientific Revolutions*, 1962

- Author: Thomas Kuhn
- Reasons to read: philosophy of science
- Publisher: University of Chicago Press
- Links: Wikipedia, Goodreads skb: yaml src

Layers (1968)

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

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

- Author: Edsger W. Dijkstra
- Reasons to read: a more formal discussio on layers
- Published: Acta Informatica, June 1971, Volume 1, Issue 2, pp 115–138
- 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 contribtution 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 contribtution 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

Separating Mechanism and Policy (1970)

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

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

R. Levin et al.: *Policy/Mechanism Separation in Hydra*, 1975

- Authors: R. Levin, E. Cohen, W. Corwin, F. Pollack, W. Wulf
- 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: SOSP '75 Proceedings of the fifth ACM Symposium on Operating Systems Principles, pages 132-140
- Also: ACM SIGOPS Operating Systems Review 9(5):132-140 · November 1975
- Links: DOI, ResearchGate, PDF skb: yaml src

Networking is IPC (1972)

Robert M. Metcalf: *Strategies for Operating Systems in Computer Networks*, 1972

- Author: Robert M. Metcalf
- Reasons to read: states that networking is Inter Process Communication (IPC)
- Published: ACM '72 Proceedings of the ACM annual conference - Volume 1, Pages 278-281
- See also slide/page 8 here (for computer networks)
- Links: DOI, PDF: online skb: yaml src

Theory of Reliable Transport (1976)

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

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 synchronizd 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

Richard W. Watson et al.: *An Architecture for Support of Network Operating System Services*, 1979

- Authors: Richard W. Watson, John G. Fletcher
- Published: Conference: 4. Berkeley workshop on distributed data management and computer networks, Berkeley, CA, USA, 28 Aug 1979
- Links: OSTI, Online skb: yaml src

Richard W. Watson: *Timer-based Mechanisms in reliable Transport Protocol Connection Management: a Comparison of the TCP and Delta-t Protocol Approaches*, 1980

- Author: Richard W. Watson
- Reasons to read: only 3 timers are needed, in the protocol, no local clocks and no clock synchronization required
- Published: Conference: Trends and applications symposium, Gaithersburg, MD, USA, 29 May 1980
- Links: OSTI 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

Richard W. Watson: *Delta-T Protocol Specification*, 1981

- Author: Richard W. Watson
- Reasons to read: only 3 timers are needed, in the protocol, no local clocks and no clock synchronization required
- Published: Lawrence Livermore National Lab., CA (USA), UCID-19293
- Links: OSTI, PDF skb: yaml src

Richard W. Watson: *Delta-t Transport Protocol: Features and Experience*, 1989

- Author: Richard W. Watson
- Reasons to read: Delta-T experience report
- Published: 1989 Proceedings. 14th Conference on Local Computer Networks (LCN)
- Links: DOI, OSTI, PDF skb: yaml src

Naming and Addressing (1978)

John Shoch: *Inter-Network Naming, Addressing, and Routing*, 1978

- Author: John Shoch
- Reasons to read: names, addresses, routing
- Published: Compcon Fall 78 (17th : 1978 : Washington, D.C.), September 5-8, Washington DC, pp. 72-79
- Also published as IETF IEN 19
- Also published in: Also in Thurber, K. (ed.), Tutorial: Distributed Processor Communication Architecture, IEEE Publ. #EHO 152-9, 1979, pp. 280-287
- Links: IEN19: txt skb: yaml src

Jerome H. Saltzer: *Naming and Binding of Objects*, 1978

- Author: Jerome H. Saltzer
- Reasons to read: defines name, defines name binding
- Published: chapter 3 In: Bayer R., Graham R.M., Seegmüller G. (eds) Operating Systems. Lecture Notes in Computer Science, vol 60. Springer, Berlin, Heidelberg
- Preprint from 1977, so some reference date it to 1977
- See also slide/page 8 here (for computer networks)
- Links: DOI, PDF (scanned), online skb: yaml src

Jerome H. Saltzer: *On the Naming and Binding of Network Destinations*, 1982

- Author: Jerome H. Saltzer
- Reasons to read: further thoughts in name and name binding
- Published: FIP TC 6 International In-Depth Symposium on Local Networks, LCN, P. Ravasio (Eds.), pp 311-317, 1982
- Also published as IETF RFC 1498 (1983)
- Preprint from 1977, so some reference date it to 1977
- Links: runoff manuscript, PDF: slides, LNN draft, DOI: RFC1498 skb: yaml src

History

It is usually not easy to understand scientific breakthroughs without their historic context. This context is also important to understand not only when, but also how (and often why) ideas developed in a certain way.

General ICT History

James L. Pelkey: *Entrepreneurial Capitalism and Innovation: A History of Computer Communications, 1968-1988*, 2007

- Author: James L. Pelkey
- Reasons to read: many links to historic background, including people and important topics
- Publisher: online hypertext book, printed version expected in 2019
- Links: Online skb: yaml src

Communication Networks, Internet

Alex McKenzie: *Collection of Computer Networking Development Records*, 1972

- Author: Alex McKenzie
- written between 1972-1979
- see Charles Babbage Institute (CBI) collections
- Links: CBI (with identifier 123), McKenzie Collection skb: yaml src

Richard Bennett: *Designed for Change: End-to-End Arguments, Internet Innovation, and the Net Neutrality Debate*, 2009

- Author: Richard Bennett
- Reasons to read: technical history of the Internet (including CYCLADES), reference for 1986 Internet crash, discussions on current Internet affairs (including RINA)
- Publisher: Information Technology & Innovation Foundation, ITIF, Washington DC
- Links: ITIF, PDF: talk 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

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: *Open Standards and the Digital Age: History, Ideology, and Networks*, 2014

- Author: Andrew L. Russell
- Reasons to read: history of networks and network standards
- Publisher: Cambridge University Press
- Links: Goodread, Google Books 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

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

Packet-switched Networks and CATENET

CATENET - concatenated networks, probably from Latin *catena* (chain) - the first description of a packet-switched network architecture with an actual deployed network (CYCLADES). Documents are listed in historic order.

- Links: CATENET transition Free/Libre Catenet | also see catenet.org

Paul Baran: *On Distributed Communications: I. Introduction to a Distributed Communications Network*, 1964

- Author: Paul Baran
- Reasons to read: radical new approach to telecommunications, basis for packet-switched networks, including hot-potato routing of data blocks, parallel work to (Daies 72)
- Published: Rand Corporation, Memorandum RM-3420-PR, August 1964
- Links: PDF skb: yaml src

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

Louis Pouzin: *Interconnection of Packet Switched Networks*, 1973

- Author: Louis Pouzin
- Reasons to read: first description of a CATENET, including gateway, as packet-switched network
- Published: October 1973, INWG #42, also as SCH 513.1
- Links: IUWG page, PDF skb: yaml src

Louis Pouzin: *A proposal for Interconnecting of Packet Switching Networks*, 1974

- Author: Louis Pouzin
- Reasons to read: next description of a CATENET, including gateway, as packet-switched network
- Published: March 1973, INWG #60, also as SCH 527
- Also published in: EuroCOMP 1974, The Auerbach Annual 1975
- Links: PDF: IIASA 1975 Discussion skb: yaml src

Vint Cerf: *The CATENET Model for Internetworking*, 1978

- Author: Vint Cerf
- Reasons to read: IETF/IEN version of CATENET
- Published: IETF IEN (Internet Experiment Note Index) #48, July 1978
- IETF RFC 2775 states on page 4 "[...] the catenet concept (a network of networks) was first described by Cerf in 1978 [IEN 48] following an earlier suggestion by Pouzin in 1974 [CATENET] [...]"
  - see RFC 2775,
- Links: TXT, PDF skb: yaml src

Virtual Circuit (VC) and Datagram (DG)

Technological and political dimensions of circuit switching and introduction to datagrams

Louis Pouzin: *Virtual circuits vs. datagrams: technical and political problems*, 1976

- Author: Louis Pouzin
- Reasons to read: Technological and political dimensions of circuit switching and introduction to datagrams
- Published: AFIPS '76 Proceedings of the National Computer Conference and Exposition, June 7-10, 1976, pages 483-494
- See also slide/page 8 here (for computer networks)
- Links: DOI, PDF: computer.org skb: yaml src

Literature

Johan Wolfgang von Goethe: *Der Zauberlehrling* (*The Sorcerer's Apprentice*)_, 1797

- Author: Johan Wolfgang von Goethe
- Reasons to read: metaphor using "Die ich rief, die Geister werd ich nun nicht los." ("The spirits that I called", or "Spirits I have conjured, no longer pay me heed.")
- Published: Friedrich Schiller's Musen-Almanach, 1798
- Links: Wikipedia: English, Wikipedia: Deutsch with text, Fantasia Cartoon, a translation skb: yaml src

Washington Irving: *Rip Van Winkle*, 1819

- Author: Washington Irving
- Reasons to read: metaphor for long sleep and consequences
- Part of "The Sketch Book of Geoffrey Crayon, Gent"
- Publisher: Cornelius S. Van Winkle (book)
- Links: Wikipedia, Wikisource: full text skb: yaml src

Edwin A. Abbott: *Flatland: A Romance of Many Dimensions*, 1884

- Author: Edwin A. Abbott
- Reasons to read: the world limited by dimensions, also a social critic
- Publisher: Seeley & Co. of London
- Links: Wikipedia, Goodreads, LaTeX by Ivesvdf, Internet Archive, Gutenberg, a movie, The Film: youtube skb: yaml src

Theodor Seuss Geisel: *The Sneetches and Other Stories*, 1953

- Author: Theodor Seuss Geisel
- also known as Dr. Seuss
- Publisher: Redbook (magazines), Random House (book)
- Reasons to read: Ms McCave "too many Daves" as metaphor for too many things with the same name
- Links: Wikipedia, Goodreads, Wikipedia: Too Many Dave's, Poem, Animation: youtube skb: yaml src

Marie Neurath: *How Machines Work*, 1954

- Author: Marie Neurath
- Reasons to read: the most simple, yet expressive, introduction on machines :)
- Publisher: Max Parrsih, London
- Links: gallery with 3 pages, all pages skb: yaml src

Movies (Films)

Rosencrantz and Guildenstern are Dead, 1991

- Film by Tom Stoppard, based on the play by Tom Stoppard from 1966
- Reasons to watch:
  - scientific principles only work within a given set of bounds and Newtonian principles, e.g. in Gravity Tennis Court scene and Newtonian Physics scene
  - the problem with reductio ad absurdum is knowing when to stop, see also discussion on WikiQoute
- Links: Wikipedia, TMDb, IMDB, Full movie skb: yaml src

Animal House, 1978

- Reasons to watch: the metaphor "turning the Faber Marching Band down that dead end alley", see this clip Youtube
- Links: Wikipedia, TMDb, IMDB skb: yaml src

Monty Python and the Holy Grail, 1975

- Reasons to watch: deductive reasoning, experimental physics, for instance in this scene youtube
- Links: Wikipedia, TMDb, IMDB skb: yaml src

Quotes

We have Met the Enemy and He is Us!, Walt Kelly, *Pogo*, 1970

- Links Wikipedia,

The electric light did not come from the continuous improvement of candles, Oren_Harari

- Links: attributed to Oren Harari, twitter

You can fix it now on the drafting board with an eraser, or you can fix it later with a sledgehammer, probably Frank Lloyd Wright

- Links: Twitter, quote-investigator

It is the theory that determines the data, Albert Einstein

- Without theory, you don't know what questions to ask, and you don't know what data is relevant or how to measure it.

A Problem well-stated is a Problem half-solved, Charles Kettering

- Links: Quotes.net

Something is rotten in Denmark, William Shakespeare (Hamlett)

- Links shakespeare-online