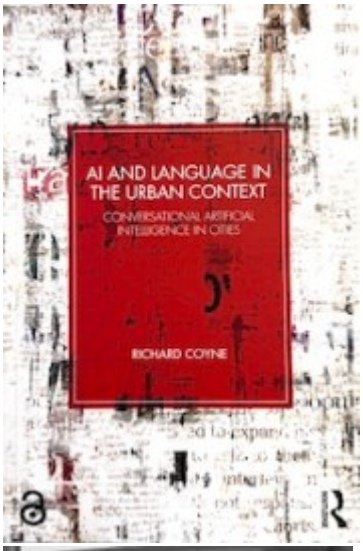
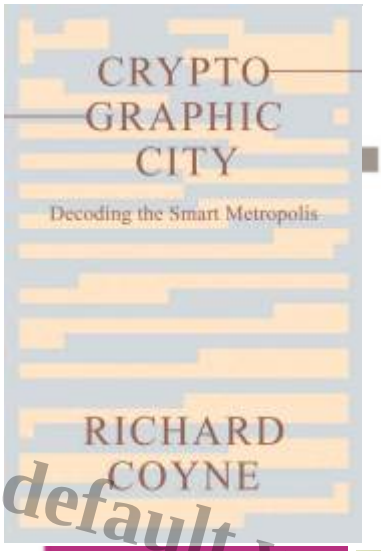
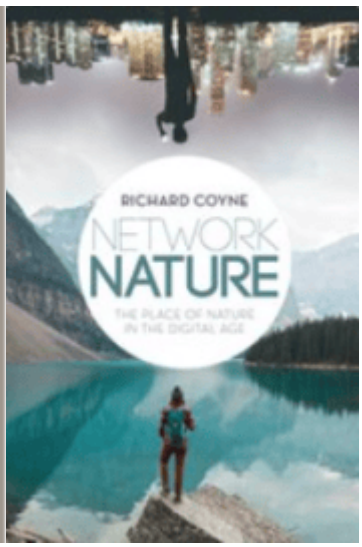
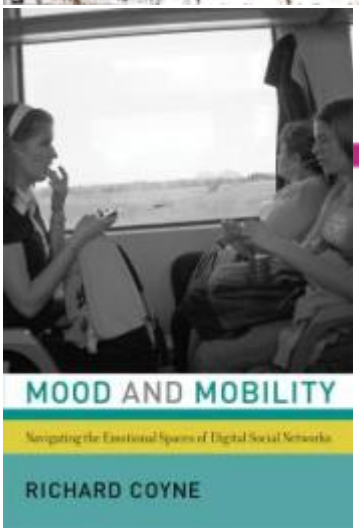
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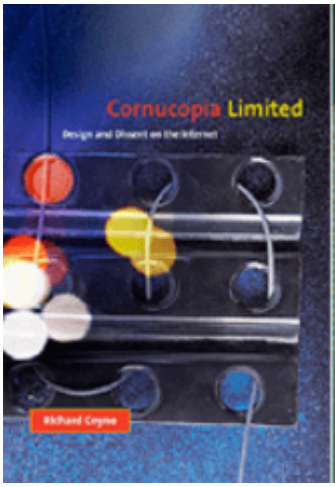


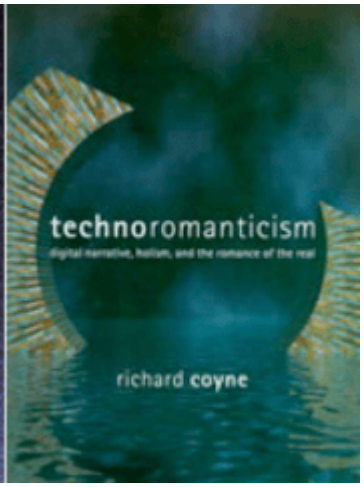




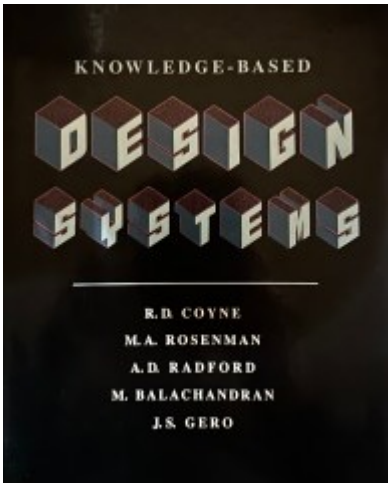












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AI and Language in the Urban Context

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Conversational Artificial Intelligence in Cities
Routledge 2025. Open Access edition (Anyone can download it for free.)

In a world influenced increasingly by artificial intelligence (AI), the city emerges as a dynamic hub of digital conversations. *AI and Language in the Urban Context* offers a novel exploration of how AI, particularly large language models (LLMs), is transforming urban environments. Moving beyond the typical technological narratives, this book draws on the authorâ??s unique expertise in design, semiotics and hermeneutics to present a critical cultural perspective on AIâ??s role in the city.

Focusing on the intersection of urban theory and AI, the book reveals how conversational AI is reshaping social interactions, decision-making processes, and media in urban spaces. By merging practical knowledge of AI algorithms with an understanding of urban practices, the author highlights the opportunities and challenges AI presents for modern cities.

This book is essential for anyone interested in the future of urban living. It provides a deep dive into the technical, social and cultural implications of AI in cities, offering practical examples and philosophical insights. Readers will gain a comprehensive understanding of how AI is influencing the design, governance and dynamics of urban life in the digital age.

The Open Access version of this book, available at www.taylorfrancis.com, has been made available under a Creative Commons [Attribution-Non Commercial-No Derivatives (CC-BY-NC-ND) 4.0 license.

Review

â??*AI and Language in the Urban Context* is a bold and interdisciplinary book that reimagines cities as linguistic ecosystems deeply intertwined with conversational AI. Its critical reflections, philosophical depth, and cultural sensitivity distinguish it from mainstream â??smart cityâ?• narratives. Its theoretical contribution is undeniable: it challenges us to rethink AI not only as a technical infrastructure but as a semiotic actor in the drama of urban life. For readers across disciplines, Coyneâ??s book is a valuable

provocationâ??inviting us to see the city as a conversational entity where meaning, narrative, and technology continually coproduce the urban future.â?•â??*AI and Society*

CONTENTS

Introduction: From computer-aided design to conversational AI
1. Language as urban technology
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7. Context windows
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Cryptographic City

Decoding the Smart Metropolis

MIT Press, 2023. Open Access edition (Anyone can download it for free.)

Cryptographyâ??s essential role in the functioning of the city, viewed against the backdrop of modern digital life.

Cryptography is not new to the city; in fact, it is essential to its functioning. For as long as cities have existed, communications have circulated, often in full sight, but with their messages hidden. In Cryptographic City, Richard Coyne explains how cryptography runs deep within the structure of the city. He shows the extent to which cities are built on secrets, their foundations now reinforced by digital encryption and cryptocurrency platforms. He also uses cryptography as a lens through which to inspect smart cities and what they deliver. Coyne sets his investigation into the cryptographic city against the backdrop of the technologies, claims, and challenges of the smart city.

Cryptography provides the means by which communications within and between citizens and devices are kept secure. Coyne shows how all of the smart city innovationsâ??from smart toasters to public transportation networksâ??are enabled by secure financial transactions, data flows, media streaming, and communications made possible by encryption. Without encryption, he says, communications between people and digital devices would be exposed for anyone to see, hack, and misdirect. He explains the relevant technicalities of cryptography and describes the practical difference it makes to frame cities as cryptographic. Interwoven throughout the book are autobiographical anecdotes, insights from Coyneâ??s teaching practice, and historical reports, making it accessible to the general reader.

Endorsements

> â??Coyne exposes the how the affordances of the cryptographic city reproduce urban power and shape modern life. An essential read!â?•
> Rob Kitchin, Professor, Maynooth University; author of Code/Space: Software and Everyday Life

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> â??Coyneâ??s fascinating exploration of cryptography uncovers its hidden role in the city from a cultural perspective, offering a timely reflection on how code shapes not just the digital, but also the material and built world.â?•
> Katharine Willis, Professor of Smart Cities and Communities, University of Plymouth; co-editor of The Routledge Companion to Smart Cities

> â??Coyne takes us on a modern day flaneurâ??s walk through the city viewed through the lens of cryptography, seamlessly melding the architectural and the algorithmic to shine light into their secretive shadows.â?•
> Alan Penn, Professor of Architectural and Urban Computing, The Bartlett School of Architecture, University College London

Amazon author site

Peirce for Architects

Routledge 2019

Ideas gain legitimacy as they are put to some practical use. A study of Charles Sanders Peirce (1839-1914) supports this pragmatism as a way of thinking about truth and meaning. Architecture has a strong pragmatic strand, not least as we think of building users, architecture as a practice, the practical demands of building, and utility.

Peirce was a logician, and so many of his ideas are couched in terms of formal propositions and their limitations. His work appeals therefore to many architects grappling with the digital age, and references

to his work cropped up in the Design Methods Movement that developed and grew from the 1950s.

Peirceâ??s commitment to logic led him to investigate the basic elements of logical statements, notably the element of the sign. His best-known contribution to design revolves around his intricate theory of semiotics, the science of signs. The study of semiotics divided around the 1980s between advocates of Peirceâ??s semiotics, and the broader, more politically charged field of structuralism. The latter has held sway in architectural discourse since the 1980s. Why this happened and what we gain by reviving a Peircean semiotics is the task of this book.

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2. Signs: The tree and the weathervane; Peirceâ??s theory of signs; Icons in architecture
3. Sign-Vehicles: Icon; Index; Symbol; Ten classes of signs; First, Second, Third; Breaking the rules; The number three
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Network Nature

The Place of Nature in the Digital Age
Bloomsbury Academic, 2018

Google books (with excerpts)

> â??An outstanding tour de force of the meaning, impact and applications of all things digital in the natural world. Covering aspects of philosophy, biology, geography, social science, cultural theory and the arts it is an accessible and thought-provoking read for anyone interested in place, digital technologies and nature.â?•
> Andrew Hudson-Smith, Professor of Digital Urban Systems, University College London.

How do people avoid the stresses of the digital age? Urban dwellers must now turn to nature to recover, restore and rebalance after the stresses brought on by relentless digital connectivity. It is easy to task nature as the cure, with technology as the ailment.

In *Network Nature*, Richard Coyne challenges the definitions of both the natural and the artificial that support this time-worn narrative of natureâ??s benefits. In the process, he attacks the counter-claim that nature must succumb to the sovereignty of digital data. Covering a spectrum of issues and

concepts, from big data and biohacking to animality, numinous spaces and the post-digital, he draws on the rich field of semiotics as applied to natural systems and human communication, to enhance our understanding of place, landscape and architecture in a digital world.

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Mood and Mobility

Navigating the Emotional Spaces of Digital Social Networks
By *Richard Coyne*

- mitpress.mit.edu/books/mood-and-mobility
- Amazon site (US includes Look Inside feature), Amazon site (UK)
- Google books (with excerpts)

We are active with our mobile devices; we play games, watch films, listen to music, check social media, and tap screens and keyboards while we are on the move. In Mood and Mobility, Richard Coyne argues that not only do we communicate, process information, and entertain ourselves through devices and social media; we also receive, modify, intensify, and transmit moods.

Designers, practitioners, educators, researchers, and users should pay more attention to the moods created around our smartphones, tablets, and laptops.

Drawing on research from a range of disciplines, including experimental psychology, phenomenology, cultural theory, and architecture, Coyne shows that users of social media are not simply passive receivers of moods; they are complicit in making moods. Devoting each chapter to a particular moodâ??from curiosity and pleasure to anxiety and melancholyâ??Coyne shows that devices and

technologies do affect peopleâ??s moods, although not always directly.

He shows that mood effects are transitional; different moods suit different occasions, and derive character from emotional shifts. Furthermore, moods are active; we enlist all the resources of human sociability to create moods.

And finally, the discourse about mood is deeply reflexive; in a kind of meta-moodiness, we talk about our moods and have feelings about them. Mood, in Coyneâ??s distinctive telling, provides a new way to look at the ever-changing world of ubiquitous digital technologies.

Endorsements

> â??Weâ??re going through a radical cultural transformation. But how can we hope to take its measure? With admirable circumspection and a fine sense of order, Richard Coyne has surveyed the technological culture, and he teaches us to see it through the lens of mood, that remarkable attunement humans have to the world entire.â?•
> â??Albert Borgmann, author of *Real American Ethics*
>
> â??A highly original work, Richard Coyneâ??s Mood and Mobility is a major contribution to the contemporary discussion of digital technology and its social implications. Addressing a topic that has been largely neglected up until now, Coyne explores key aspects of our contemporary experience of digital media as it relates to emotional space in a way that is both accessible and relevant across a wide range of disciplinary perspectives.â?•
> â??Jeff Malpas, Distinguished Professor, University of Tasmania, Australia

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Independent reviews

- Mendelson, Edward. 2016. In the depths of the digital age. *New York Review of Books* June 23, 2016.
- Brus, Anne. 2017. In the Digital Mood, *HUMAN IT*, 13.3: 49â??53. Link.

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Acknowledgements

Introduction. The mood of the digital age; Mood and mobility; Motivations for this study; Mood design; Plan of the book; Beyond mood control; Incidental insights; Method of investigation

1. **What is a mood?** Talking about emotion; Bodies and emotions; Media and emotion; Emotional capital; Emotional design; Affect; Talking about mood; Mood and music; Mood and voice; Mood and atmosphere; Summary; Coda: Why music reaches the parts that buildings canâ??t; Musical mechanisms; Faking it
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4. **Piqued by pleasure.** Ambient entertainment; What is entertainment?; Pleasure indices; Limits of mood monitoring; Negative pleasure; Pleasure and resistance; Grotesque realism; Caricature and hyperreality; Sadistic pleasures; Summary; Coda: Risks of the pleasure business; Keeping out of the limelight
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10. **Fogged by ignorance.** False memories; Vivid imagination; Mental agility; A history of ignorance; Things that think; Keeping silent; Lack of evidence; Fanatical fundamentalism; History as ignorance; Historical scepticism; The history of now; Digital histories; Ignorance online; Summary; Coda 1: Nature versus networks; Recuperation; Digital recuperation?; Coda 2: Accentuate the negative; Confirmation bias; Against mood; Contrary evidence
11. **Aroused by machines.** Mood machines; Device ecologies; Mood and function; Product placement; Products that replicate; Gain and pain; Mood monitoring; Mood transportation; Seduction machines; Mixed emotions; Subcultures; Life instinct; Things and objects; Real things; Typology of machine failure; Disruptive technologies; Summary; Coda: The brain in the city
12. **Epilogue.** From head to world; Threads

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Errata: p.163 â??The approximation of the visible light spectrum to a doubling of *amplitude* from the short to the long wave end of the spectrum does resemble the doubling of sound *amplitude* to create the musical octave.â• For â??amplitudeâ?• correct to â??wavelength.â?•

Derrida for Architects

Richard Coyne

This book looks afresh at the implications of Jacques Derridaâ??s thinking for architecture. In some ways Derrida was recruited to legitimate and lend support to a particular mode of architectural experimentation in the 1980s and 90s known as Deconstruction. He was undoubtedly complicit in this adaptation of his own thinking, and his dialogue with architects and with architecture is part of the Derridean legacy. This book serves as a review of Derridaâ??s interaction with architecture, but advances a more nuanced consideration of the implications of his thinking, paying particular attention to the way architecture is taught and practiced.

This concise introduction is ideal for students and practitioners of architecture, providing an important overview of how Derridaâ??s thinking fits into the constellation of influences that affect architecture.

What reviewers say
â??Derrida for Architects is no crypto-logical monument in memoriam. The book is not built upon dark labyrinthine passages echoing with arcane text. It is a rather light and airy work and one of several intentionally small, accessible books in the Routledge series *Thinkers for Architects* which condense the thought of philosophers ranging from Martin Heidegger to Luce Irigaray. This brief and unpretentious volume succeeds very well in introducing rather than farewelling Derrida to architects. â?¦ has no unexpected twists and turns. Without discursive dead-ends, ghostly apparitions, impenetrable walls of text or secret passages to confound readers there is nothing really scary about this work. â?¦ Derrida for Architects is to be celebrated for maintaining that most important and productive relationship between Derrida and architecture.â?• Williams , Stewart. 2012. Book Review: Derrida for architects, by Richard Coyne. *Planning Perspectives*, (27) 1, 147-149.
Amazon reviews
Coyne, Richard. 2011. *Derrida for Architects*. Abingdon: Routledge.

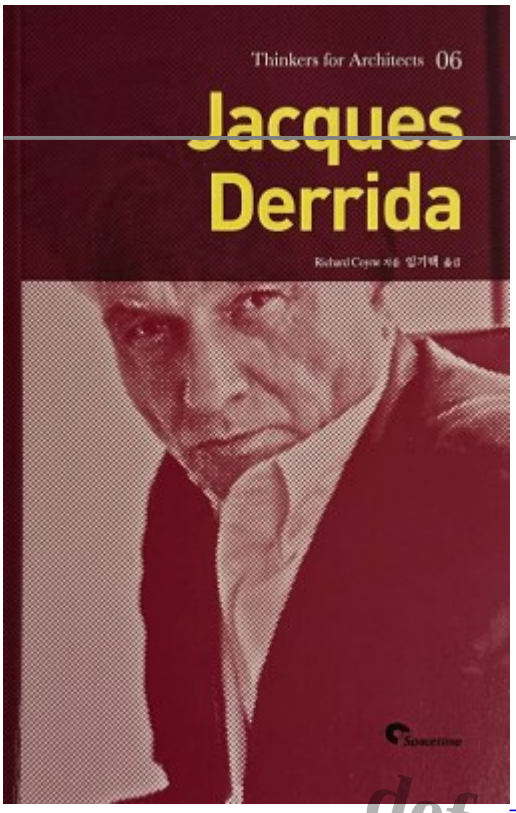
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    - The last fortress of metaphysics
    - Derrida and WikiLeaks
    - Index
- Chinese translation
  Coyne, Richard. 2018. *Derrida for Architects* å»ºç?å¸?è§£è¯»å¾·é??è¾¾(*Chinese edition*). Ganjiakou, Haidian District, Beijing: China Architecture and Building Press å?ºç??ç¤:ä¸-å?½å»ºç?å·¥ä¸?
- Japanese translation
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- Korean translation ê±´ì¶?ê³¼ ì² í?? ì?•ë•? ë•°ë¦¬ë?¤: Jacques Derrida (Thinkers for Architects)





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The Tuning of Place

Sociable Spaces and Pervasive Digital Media
MIT Press

Richard Coyne

How do pervasive digital devicesâ??smartphones, iPods, GPS navigations systems, and cameras, among othersâ??influence the way we use spaces? In The Tuning of Place, Richard Coyne argues that these ubiquitous devices and the networks that support them become the means of making incremental adjustments within spacesâ??of tuning place. Pervasive media help us formulate a sense of place, writes Coyne, through their capacity to introduce small changes, in the same way that tuning a musical instrument invokes the subtle process of recalibration. Places are inhabited spaces, populated by people, their concerns, memories, stories, conversations, encounters, and artifacts. The tuning of placeâ??whereby people use their devices in their interactions with one anotherâ??is also a tuning of social relations.

The range of ubiquity is vastâ??from the familiar phones and hand-held devices through RFID tags, smart badges, dynamic signage, microprocessors in cars and kitchen appliances, wearable computing, and prosthetics, to devices still in development. Rather than catalog achievements and predictions, Coyne offers a theoretical framework for discussing pervasive media that can inform developers, designers, and users as they contemplate interventions into the environment. Processes of tuning can lead to consideration of themes highly relevant to pervasive computing: intervention, calibration, wedges, habits, rhythm, tags, taps, tactics, thresholds, aggregation, noise, and interference.

Richard Coyne is Professor and Chair of Architectural Computing at the University of Edinburgh. He is the author of Designing Information Technology in the Postmodern Age: From Method to Metaphor (1995), Technoromanticism: Digital Narrative, Holism, and the Romance of the Real (2001), and Cornucopia Limited: Design and Dissent on the Internet (2005), all published by the MIT Press.

What reviewers say
â??This excellent book crosses the boundaries between pervasive media, design, architecture and many other fields â?? so Vitruvius, equal temperament, clocks, and Henri Lefebvre all make their appearance in a fascinating argument sustained over 240 pages.â?• S. B. Davis, online review of Kindle Edition.

â??Each chapter explores one tuning technique almost as a note unto itself, yet with recall and premonition of variations that are sounded out elsewhere. Frequently readable as a collection of standalone essays, *The Tuning of Place* presents an admirable symphony of ideas.â?• Wood, Andrew F. 2011. *Journal of Communication*, (61) 1, E13-E15.

â??*The Tuning of Place* is impressively well documented, drawing on numerous disciplines rarely connected with digital media, including music, architecture, urbanism, psychology, ecology, and philosophy. Coyne synthesized a wide range of philosophical, technical, design, and humanistic considerations to summarize scientific and cultural knowledge of the subtleties of the sense of place in the digital era. â?¦ The style of writing is therefore deliberately accessible, yet very precise and elegant. Coyne expresses his ideas through a series of refreshing metaphors stemming from various disciplinary fields. The endnotes, written in a more academic style, are aimed at researchers who may want to further explore the foundations for this ecological approach to digital technologies. The strength of this book lies in the wealth, broadness, and originality of documentation, ranging from phi- losophy and architecture to ecology and information science. Coyneâ??s book provides a valuable interdisciplinary resource for anyone interested in the influence of digital media on social interaction.â?• Guastavino, Catherine. 2011. *Journal of the American Society for Information Science and Technology*, (62) 4, 805.

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Coyne, Richard. 2010. *The Tuning of Place: Sociable Spaces and Pervasive Digital Media*. Cambridge, MA: MIT Press

Interpretation in Architecture

Design as a Way of Thinking

Adrian Snodgrass and Richard Coyne
Routledge

Snodgrass, Adrian, and Richard Coyne. 2006*. Interpretation in Architecture: Design as a Way of Thinking*. London: Routledge.

Interpretation is everywhere in architecture. It is the basis of architectural creation. The introduction of the computer into the design studio revived expectations of a more scientific approach to architectural design. In many respects the contemporary studio climate is similar to that in which eighteenth and nineteenth century humanists defended interpretation as the mode of reasoning in the humanities and social sciences against method and an overt scientific rationalism. This collection of essays, by Adrian Snodgrass and Richard Coyne, captures the reflective experience of teachers in the architectural

design studio in order to demonstrate that interpretation still remains the core of architectural production and hence of architectural understanding.

Focusing on three interpretive themes â?? play, edification and otherness â?? the anthology draws together strands of thought informed by the diverse reflections of hermeneutical scholarship, the applications of digital media and studio teaching and practice. The book provides an exciting synthesis of the findings of two scholars from disparate areas of architectural research, united by a common concern with cultural production.

Adrian Snodgrass is an internationally renowned authority in Buddhist Studies, Buddhist art and Asian architecture. He also researches in the area of hermeneutical philosophy and its application to knowledge production and cross-cultural understanding. He is an editor of Architectural Theory Review and his books on Buddhism and architectural symbolism have become classics in the field. **Richard Coyne** researches and teaches in digital media, computer-aided design in architecture, the philosophy of information technology, and design theory. He inaugurated an innovative cross-disciplinary MSc in Design and Digital Media. He is author of three books with MIT Press on the implications of computers for design. He is an architect and was recently Head of the University of Edinburghâ??s Department of Architecture.

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Cornucopia Limited

Design and Dissent on the Internet

Coyne, Richard
MIT Press

Coyne, Richard. 2005. *Cornucopia Limited: Design and Dissent on the Internet*, Cambridge Mass.: MIT Press.

The Internet provides a remarkable demonstration of the persistence of the gift in contemporary commerce. Net enthusiasts seem prepared to donate much to the common good. This generous spirit ought to strike resonances with the culture of design, which generally promotes a creative ethos of generosity, conspicuous display, and exuberance. But the cornucopia of the gift economy is offset by net cultureâ??s recent leanings towards consumerism. This book challenges the supposed gift society of the Internet, and supplants the gift by a more compelling metaphor, enjoyed in certain quarters of contemporary design, that of theft, rule breaking, and transgression. The relationship between design thinking and the network economy is characterized by the reckless spirit of the trickster, the crosser of boundaries, and the malingerer in the hybrid and uncertain condition of the threshold. The book thus presents a designerâ??s view of the network economy, drawing on insights from design theorists, economists, philosophers and cultural theorists. It provides valuable insights for theorists of human-computer interaction, architects, designers, and those interested in registering the source and direction of the impulse to create, innovate, and design.

The book examines five metaphors: household, machine, game, gift and threshold. Economic theory is grounded in the household. The romantics and Marx claimed that labor is dominated by the rampant machinery of capitalism. The computer game represents a potent exemplar of new media economics.

The gift is presented as precursor to commercial exchange. Coyne subjects each metaphor to scrutiny in terms of how it deals with the threshold, in other words as it is dissected by the cynic or manipulated by the trickster, and other liminal dwellers in the network economy.

â??Whatâ??s shaping the culture of the Internet? This turns out to be a surprisingly tricky question, one that Richard Coyne explores with verve and erudition.â??
â??Albert Borgmann, author of Holding On to Reality

Reviews

First Monday â?? Nigel Gibson
Macek, Steve. 2006. Divergent critical approaches to new media. New Media and Society, (8) 6, 1031â??1038.

Technoromanticism

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Digital Narrative, Holism and the Romance of the Real

Coyne, Richard
MIT Press

Coyne, R.D. (1999). *Technoromanticism: Digital Narrative, Holism and the Romance of the Real*, Cambridge, Massachusetts: MIT Press.

This book explores the spectrum of romantic narrative that pervades the digital age, from McLuhanâ??s utopian vision of social reintegration by electronic communication to claims that cyberspace creates new realities.

Technoromanticism pits itself against a hard-headed rationalism, but its most potent antagonists are contemporary pragmatism, phenomenology, hermeneutics, surrealism, and deconstructionâ??all of which subvert the romantic legacy and provoke new narratives of computing. Thus the book also serves as an introduction to the application of contemporary theory to information technology, raising issues of representation, space, time, interpretation, identity, and the real. As such, it is a companion to Coyneâ??s Designing Information Technology in the Postmodern Age: From Method to Metaphor (MIT Press, 1995).

â??This book provides the most comprehensive philosophical and cultural context for understanding information technologies that I have ever seen.â??
â?? N. Katherine Hayles, University of California, Los Angeles

â??This is an excellent and most welcome study of the discourse about computer communications, their narrativity as Coyne says, with particular attention to the classic theme of unity and fragmentation.â??
â?? Mark Poster, Professor of History and of Information and Computer Science, University of California at Irvine

Designing Information Technology in the Postmodern Age

From Method to Metaphor

Coyne, R. D.
MIT Press Amazon

Coyne, R.D. (1995). *Designing Information Technology in the Postmodern Age: From Method to Metaphor*, MIT Press, Cambridge, Massachusetts

This book is written for the researcher, designer, practitioner, commentator and educator working in the area of information technology â?? those concerned with the technical, social and philosophical aspects of computers and electronic communications. The book demonstrates the strong relationship between postmodern thinking and all aspects of information technology.

In the book I explain the influence of the tradition of philosophical pragmatism on the designers of information technology, and how this is set in opposition to the culture of rationalism. I show the impact of critical theory on how we understand information technology and how this is being supplanted in some quarters by hermeneutical understandings. I also demonstrate the challenge of deconstruction to the rhetoric about information technology, particularly what it says about Marshall McLuhanâ??s concepts of the global village. The book shows how the barriers between technical studies and philosophy are dissolving in the light of postmodern thinking. The book is practical, focussing substantially on the praxis of technology.

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In the book I call upon a vast range of postmodern writing, including Martin Heideggerâ??s ideas about technology and Being, and the debates that have stemmed from this work, including work by Gadamer, Adorno, Marcuse, Benjamin, Derrida, Habermas, Bernstein, Rorty, Caputo, Fish, Foucault and Lyotard, to name but a few. I make extensive use of contemporary work in the philosophy of technology, and also call upon work within information technology fields such as artificial intelligence, design theory and methods, formal theory, communications theory, computer-aided design, media studies, and studies by sociologists on the impact of information technology. The book also incorporates the studies of metaphor by Black, I.A. Richards, Ricoeur, Lackoff, Johnson and others. The study of metaphor proves valuable in understanding, assessing and designing information technology.

The book presents a coherent argument leading the reader through from rationalistic understandings of information technology with their dependence upon theory and intentionality to a praxis orientation that focuses on hermeneutics and metaphor. The arguments of the book are explained with examples of information technology from first-hand studies of computer-aided design, multimedia, electronic communications, artificial intelligence and virtual reality, and from studies of practitioners who use the technologies.

408 pages MIT Press

What the reviewers say

Richard Coyne has written what will likely become the standard overview of contemporary philosophyâ??s bearing on computer systems research and development. â?¦ Throughout his book, Coyne draws not only from architectural design and computer sciences, but also from several traditions

of philosophy and critical theory, linguistics, sociology, and systems theory to survey a subject located at the intersection of all these fields. â?¦ Much of this book is in fact an effort to dispel the belief that wonkish logical reasoning is the underlying principle of information technology praxis. American Book Review

In his new book, Richard Coyne compares the relationship of the various modern schools of philosophy to developments in information technology. A daunting task, one might think, yet Coyne gives the reader an introduction to the major areas of philosophical thought and information systems that puts many textbooks to shame. Architects Journal

.. challenges the philosophical assumptions on which cyberspace has been built with a quick but bracing tour through the fields of logical positivism, pragmatism, phenomenology, hermeneutics and deconstruction. The best stuff here is on Heideggerâ??s The Question Concerning Technology. I-D Magazine

The book is an impressively intricate and insightful journey past normally unconnected ideas from philosophy and technology. Unlike many â??quick readâ?? books on IT, this book impels the reader to slow down and ponder highlights for possible rereading. â?¦ the writing style is consistently impressive eloquent, and refreshing. â?¦ Overall, I recommend this book highly. ACM Computing Reviews

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â?¦ Coyneâ??s book is a fascinating attempt to discuss IT from beyond the discourse of technological rationality. His insights into the discourse of the utopianists are particularly illuminating, and the deconstruction of technological determinism is elegant and convincing. Environment and Planning B: Planning and Design

â?¦ this book represents an excellent reading for theory seminars on information technology, or for graduate, postgraduate students, and researchers exploring the many facets of information technology. ACADIA Quarterly

In writing this book, Coyne has done a considerable service to many people, especially those of us working primarily in design theory. He has achieved his â??audaciousâ?? proposition; he has written clearly about contemporary philosophy for an audience of designers and technologists, showing them the relevance of that philosophy to their praxis. Above all, he has â??kept the conversation aliveâ??-or rather, re-invigorated it and brought it onto a new plane of discourse. We can no longer ignore postmodern philosophy simply on the grounds that we cannot see its relevance, or that it is too obscure to gain access to it. Nigel Cross â?? Design Studies

Treatise yourself â?¦ Computing UK

Those readers who like the style of reasoning which I have tried to describe have already stopped reading this review long ago and left their homes to buy Coyneâ??s work. Information Economics and Policy

I found much of personal value in the book. It introduces a range of ideas that are rarely connected with technology and design. Those interested in creativity and innovation will find repeated challenges to connect up these bodies of knowledge with the authorâ??s ideas. Creativity and Innovation Management

With his ambitious project Coyne has carved a major niche within IT for the history of thought. Archis

See on-line reviews by Peter Ferreira, Matthew G. Kirschenbaum, and Jack Miller (offline).

OTHER BOOKS

Coyne, R.D., M.A. Rosenman, A.D. Radford, M. Balachandran and J.S. Gero (1990). Knowledge-Based Design Systems, Addison-Wesley, Reading, Massachusetts, 567 pages.

This book describes the application of expert-systems technology to design.

The ideas presented apply to all design activities, taking examples from engineering, architecture, and other domains. These ideas and examples will provide valuable instruction and inspiration for two groups of readers: those interested in current efforts to understand and to automate the design process, and those interested in practical uses of artificial intelligence.

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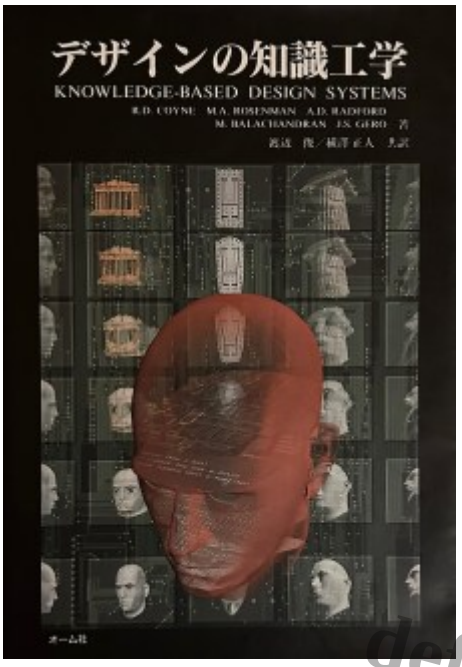
The question addressed here for all readers is this: Can we reasonably expect computers to generate expert designs?

In answering this question, the book provides broad coverage of the bases, approaches, techniques, and implementations of knowledge-based design systems. The authors find that such systems suggest new directions in design systems generally, and they explore these implications. The bookâ??s principal aim is to present the state of the art in knowledge-based design systems; inasmuch as it focuses on concepts, applications, and issues, little background in expert systems or knowledge engineering is required.

The authors divide the book into three parts. In Part I, they develop a formal model of design, which provides the framework on which the rest of the book is built. They. then examine, in Part II, the kinds of knowledge involved in design, and the tools and techniques available for representing and controlling this knowledge. In Part III, they turn to the interpretation of designs, including the role of expert systems in interpreting existing designs, before proceeding to describe how to generate designs. Finally, they show how to produce original designs within a knowledge-based environment, and demonstrate, with examples, what knowledge-based design systems can do now, and what they will be able to do in the future.

HIGHLIGHTS

- Provides a framework for understanding the design process
- Shows how design knowledge can be represented and controlled in a computer environment
- Presents current examples of knowledge-based design systems and points to future developments
- Includes exercises and references for self-study or classroom use
- The authors are well-known for their development of artificial-intelligence solutions to problems in engineering and architecture. This book represents a comprehensive introduction to important work in this area.



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Coyne, R.D. (1988). Logic Models of Design, Pitman, London.

This monograph places design in a theoretical context which applies developments in knowledge-based systems, logic programming and planning to design. Two important design issues are addressed: the interpretation of designs â?? which concerns the discovery of implicit design attributes, a key activity in design evaluation that can be modelled by deductive inference in logic programming: and the process of generation â?? whereby a design description is produced which exhibits these implicit design attributes. Implicit attributes can be seen as analogous to the semantic content of natural language utterances.

The work presented here is concerned mainly with design generation, and an operational model of design is investigated in which operations on processes are treated in a similar way to operations on form. It is argued that there are certain advantages in representing control knowledge explicitly as rules in a design system, and that logic is an effective medium for this purpose. This is demonstrated by means of programs developed in Prolog using the example of spatial layout in buildings.

Primarily, this book will be of interest to those in Al involved in logic programming. planning and expert systems. However, AI techniques are rapidly finding widespread application in industry and the use of an architectural design example makes this work relevant to architects, designers, engineers, and developers of intelligent design software.

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Author
rcoyne99