Universe of Discourse

A *Universe of Discourse* is a set of objects about which we want to say something.

Examples:
{1, 2, 3, 4, …}
{0, 1, -1, 2, -2, …}
Set of real numbers
Set of complex numbers
{washington, jefferson, … , bush, obama}
{○, ●, □, ✳, ✦}

Objects Of Discourse

Henry Brougham

Objects Of Discourse:

Reference to Abstract Objects in Discourse Nicholas Asher,2012-12-06 Reference to Abstract Objects in Discourse presents a novel framework and analysis of the ways we refer to abstract objects in natural language discourse The book begins with a typology of abstract objects and related entities like eventualities After an introduction to bottom up compositional discourse representation theory DRT and to previous work on abstract objects in DRT notably work on the semantics of the attitudes the book turns to a semantic analysis of eventuality and abstract object denoting nominals in English The book then substantially revises and extends the dynamic semantic framework of DRT to develop an analysis of anaphoric reference to abstract objects and eventualities that exploits discourse structure and the discourse relations that obtain between elements of the structure A dynamic semantically based theory of discourse structure SDRT is proposed along with many illustrative examples Two further chapters then provide the analysis of anaphoric reference to propositions VP ellipsis The abstract entity anaphoric antecedents are elements of the discourse structures that SDRT develops The final chapter discusses some logical and philosophical difficulties for a semantic analysis of reference to abstract objects For semanticists philosophers of language computer scientists interested in natural language applications and discourse philosophical logicians graduate students in linguistics philosophy cognitive science and artificial intelligence **Discourse and Ideology** Craig Martin,2021-11-18 Drawing on poststructuralist approaches Craig Martin outlines a theory of discourse ideology and domination that can be used by scholars and students to understand these central elements in the study of culture The book shows how discourses are used to construct social institutions often classist sexist or racist and that those social institutions always entail a distribution of resources and capital in ways that capacitate some subject positions over others Such asymmetrical power relations are often obscured by ideologies that offer demonstrably false accounts of why those asymmetries exist or persist The author provides a method of reading in order to bring matters into relief and the last chapter provides a case study that applies his theory and method to racist ideologies in the United States which systematically function to discourage white Americans from sympathizing with poor African Americans thereby contributing to reinforcing the latter s place at the bottom of a racial hierarchy that has always existed in the US **The Art of Discourse** Henry Noble Day,1875 *Encounters with Art-objects in Discourse Network 1890* Dominique Gracia,2017 **Discourse of the Objects, Advantages and Pleasures of Science** Henry Brougham,1831 *The Art of English Composition* Henry Noble Day,1875 **Discourse on the Objects, Advantages and Pleasures of Science** Henry Brougham,2014-03 This Is A New Release Of The Original 1829 Edition **Discourse of the Objects, Advantages, and Pleasures of Science** Henry Brougham Baron Brougham and Vaux,1831 **The Double Lives of Objects** Thomas Sattig,2015 Thomas Sattig develops a novel philosophical picture of ordinary objects such as persons tables and trees He carves a middle way between classical mereology and Aristotelian hylomorphism and argues that objects lead double lives

They are compounds of matter and form and each object s matter and form have different qualitative profiles **Lectures on Jurisprudence Or the Philosophy of Positive Law** Robert Campbell,1885 **The Indiana School Journal** ,1883 **The Journal of Philosophy** ,1929 Covers topics in philosophy psychology and scientific methods Vols 31 include A Bibliography of philosophy 1933 **Brandial '06** David Schlangen,Raquel Fernández,2006 **Plato's Doctrine of Ideas** John Alexander Stewart,1909 Instructional-Design Theories and Models, Volume III Charles M. Reigeluth,Alison A. Carr-Chellman,2009 Instructional Design Theories and Models Volume III Building a Common Knowledge Base begins the daunting task of developing a common knowledge base that underlies and supports the vast array of instructional theories models and strategies that constitute the field **The Realistic Assumptions of Modern Science Examined** Thomas Martin Herbert,1879 *Objects of Discourse* John R. Wallace,2005 **A Study of the Treatment of Speech Purposes of Writers on Rhetoric** Esther Lovina Hettinger,1927 **The History of European Philosophy** Walter Taylor Marvin,1917 **Indiana School Journal and Teacher** ,1870

Objects Of Discourse Book Review: Unveiling the Power of Words

In a global driven by information and connectivity, the power of words has are more evident than ever. They have the capability to inspire, provoke, and ignite change. Such could be the essence of the book **Objects Of Discourse**, a literary masterpiece that delves deep to the significance of words and their impact on our lives. Published by a renowned author, this captivating work takes readers on a transformative journey, unraveling the secrets and potential behind every word. In this review, we will explore the book is key themes, examine its writing style, and analyze its overall impact on readers.

https://dev.heysocal.com/files/uploaded-files/HomePages/International%20Bestseller%20Cybersecurity.pdf

Table of Contents Objects Of Discourse

Objects Of Discourse Introduction

In todays digital age, the availability of Objects Of Discourse books and manuals for download has revolutionized the way we access information. Gone are the days of physically flipping through pages and carrying heavy textbooks or manuals. With just a few clicks, we can now access a wealth of knowledge from the comfort of our own homes or on the go. This article will explore the advantages of Objects Of Discourse books and manuals for download, along with some popular platforms that offer these resources. One of the significant advantages of Objects Of Discourse books and manuals for download is the cost-saving aspect. Traditional books and manuals can be costly, especially if you need to purchase several of them for educational or professional purposes. By accessing Objects Of Discourse versions, you eliminate the need to spend money on physical copies. This not only saves you money but also reduces the environmental impact associated with book production and transportation. Furthermore, Objects Of Discourse books and manuals for download are incredibly convenient. With just a computer or smartphone and an internet connection, you can access a vast library of resources on any subject imaginable. Whether youre a student looking for textbooks, a professional seeking industry-specific manuals, or someone interested in self-improvement, these digital resources provide an efficient and accessible means of acquiring knowledge. Moreover, PDF books and manuals offer a range of benefits compared to other digital formats. PDF files are designed to retain their formatting regardless of the device used to open them. This ensures that the content appears exactly as intended by the author, with no loss of formatting or missing graphics. Additionally, PDF files can be easily annotated, bookmarked, and searched for specific terms, making them highly practical for studying or referencing. When it comes to accessing Objects Of Discourse books and manuals, several platforms offer an extensive collection of resources. One such platform is Project Gutenberg, a nonprofit organization that provides over 60,000 free eBooks. These books are primarily in the public domain, meaning they can be freely distributed and downloaded. Project Gutenberg offers a wide range of classic literature, making it an excellent resource for literature enthusiasts. Another popular platform for Objects Of Discourse books and manuals is Open Library. Open Library is an initiative of the Internet Archive, a non-profit organization dedicated to digitizing cultural artifacts and making them accessible to the public. Open Library hosts millions of books, including both public domain works and contemporary titles. It also allows users to borrow digital copies of certain books for a limited period, similar to a library lending system. Additionally, many universities and educational institutions have their own digital libraries that provide free

access to PDF books and manuals. These libraries often offer academic texts, research papers, and technical manuals, making them invaluable resources for students and researchers. Some notable examples include MIT OpenCourseWare, which offers free access to course materials from the Massachusetts Institute of Technology, and the Digital Public Library of America, which provides a vast collection of digitized books and historical documents. In conclusion, Objects Of Discourse books and manuals for download have transformed the way we access information. They provide a cost-effective and convenient means of acquiring knowledge, offering the ability to access a vast library of resources at our fingertips. With platforms like Project Gutenberg, Open Library, and various digital libraries offered by educational institutions, we have access to an ever-expanding collection of books and manuals. Whether for educational, professional, or personal purposes, these digital resources serve as valuable tools for continuous learning and self-improvement. So why not take advantage of the vast world of Objects Of Discourse books and manuals for download and embark on your journey of knowledge?

FAQs About Objects Of Discourse Books

1. Where can I buy Objects Of Discourse books? Bookstores: Physical bookstores like Barnes & Noble, Waterstones, and independent local stores. Online Retailers: Amazon, Book Depository, and various online bookstores offer a wide range of books in physical and digital formats.
2. What are the different book formats available? Hardcover: Sturdy and durable, usually more expensive. Paperback: Cheaper, lighter, and more portable than hardcovers. E-books: Digital books available for e-readers like Kindle or software like Apple Books, Kindle, and Google Play Books.
3. How do I choose a Objects Of Discourse book to read? Genres: Consider the genre you enjoy (fiction, non-fiction, mystery, sci-fi, etc.). Recommendations: Ask friends, join book clubs, or explore online reviews and recommendations. Author: If you like a particular author, you might enjoy more of their work.
4. How do I take care of Objects Of Discourse books? Storage: Keep them away from direct sunlight and in a dry environment. Handling: Avoid folding pages, use bookmarks, and handle them with clean hands. Cleaning: Gently dust the covers and pages occasionally.
5. Can I borrow books without buying them? Public Libraries: Local libraries offer a wide range of books for borrowing. Book Swaps: Community book exchanges or online platforms where people exchange books.
6. How can I track my reading progress or manage my book collection? Book Tracking Apps: Goodreads, LibraryThing, and Book Catalogue are popular apps for tracking your reading progress and managing book collections. Spreadsheets:

You can create your own spreadsheet to track books read, ratings, and other details.

7. What are Objects Of Discourse audiobooks, and where can I find them? Audiobooks: Audio recordings of books, perfect for listening while commuting or multitasking. Platforms: Audible, LibriVox, and Google Play Books offer a wide selection of audiobooks.
8. How do I support authors or the book industry? Buy Books: Purchase books from authors or independent bookstores. Reviews: Leave reviews on platforms like Goodreads or Amazon. Promotion: Share your favorite books on social media or recommend them to friends.
9. Are there book clubs or reading communities I can join? Local Clubs: Check for local book clubs in libraries or community centers. Online Communities: Platforms like Goodreads have virtual book clubs and discussion groups.
10. Can I read Objects Of Discourse books for free? Public Domain Books: Many classic books are available for free as theyre in the public domain. Free E-books: Some websites offer free e-books legally, like Project Gutenberg or Open Library.

Find Objects Of Discourse :

international bestseller cybersecurity
award winning cybersecurity
international bestseller investing
~~manual digital literacy~~
advanced psychology of success
tips self help
cybersecurity international bestseller
social media literacy ideas
fan favorite cybersecurity
~~ebook leadership skills~~
personal finance fan favorite
personal finance review
social media literacy award winning
~~ideas habit building~~
international bestseller psychology of success

Objects Of Discourse :

vhdl code for and and or logic gates geeksforgeeks - May 16 2022
web jun 21 2022   different types of vhdl modelling styles the architecture of vhdl code is written in three different coding styles dataflow modelling behavioral modelling structural modelling 1 logic development for and gate the and logic gate can be realized as follows the truth table for and gate is a
basic vhdl concepts springerlink - Jan 24 2023
web mar 22 2022   in this chapter the general background and coding techniques of vhdl are highlighted basic concept to programming can be summarized as follow three main units constitute a vhdl code a working library an entity that describes the external view of the system and an architecture that describes the behaviour or internal structure of the system
vhdl tutorial javatpoint - Jul 18 2022
web vhdl stands for very high speed integration circuit hdl hardware description language it is an ieee institute of electrical and electronics engineers standard hardware description language that is used to describe and simulate the behavior of complex digital circuits
vhdl basics intel - Apr 26 2023
web as an alternative you can also write your simulation stimulus using generic vhdl code called a testbench the testbench codes gets compiled along with the design so that the stimulus is also in the compiled simulation model ieee came along and created additional libaries that are supported by almost all vhdl compilers specific silicon
vhdl reference manual - Feb 22 2023
web for sample syntax and a list of vhdl statements supported by the vhdl synthesizer see appendix a quick reference for a list of exceptions and constraints on the vhdl synthesizer s support of vhdl see appendix b limitations this chapter shows you the structure of a vhdl design and then
vhdl code github topics github - May 28 2023
web jul 31 2023   vhdl alirezakay risc cpu star 23 code issues pull requests a multi cycle risc cpu processor like mips cpu architecture in vhdl a hardware side implementation processor architecture cpu vhdl isa cpu model instruction set architecture mips processor vhdl modules risc processor vhdl code cpu architecture multi cycle
vhdl code for all logic gates using dataflow method technobyte - Aug 31 2023
web nov 8 2018   in this post we will take a look at implementing the vhdl code for all logic gates using dataflow architecture first we will take a look at the logic equations of all the gates and then the syntax we will also test our logic by writing a testbench
vhdl wikipedia - Oct 01 2023

web from wikipedia the free encyclopedia vhdl source for a signed vhsic hardware description languagevhdl is a hardware description language hdl that can model the behavior and structure of at multiple levels of abstraction ranging from the system level down to that of logic gates for design entry documentation and verification purposes

from vhdl code to real hardware designing an 8 bit alu - Feb 10 2022

web oct 22 2023   alu project overview in this project i will walk through the creation of the 8 bit alu circuit with input dip switches and output leds demonstrated in operation in figure 1 i used the vhdl language to code the alu and ran it on a complex programmable logic device cpld development board

vhdl language server visual studio marketplace - Aug 19 2022

web vhdl tool vhdl tool provides a language server for the vhdl hardware description language this plugin makes vhdl tool s language server interface available from within vscode this is beta quality code report bugs here

vhdl code for full adder invent logics - Nov 21 2022

web apr 7 2014   the vhdl code for full adder circuit adds three one bit binary numbers a b cin and outputs two one bit binary numbers a sum s and a carry cout truth table describes the functionality of full adder sum s output is high when odd number of inputs are high cout is high when two or more inputs are high

and all elements of an n bit array in vhdl stack overflow - Apr 14 2022

web nov 30 2013   lets say i have an n bit array i want to and all elements in the array similar to wiring each element to an n bit and gate how do i achieve this in vhdl note i am trying to use re usable vhdl code so i want to avoid hard coding something like result array 0 and array 1 and array 2 and array n thanks oshara

vhdl tutorial electrical engineering and computer science - Mar 26 2023

web this tutorial describes language features that are common to all versions of the language they are expressed using the sy ntax of vhdl 93 and subsequent versions there are some aspects of syntax that are incompatible with the original vhdl 87 ver sion however most tools now support at least vhdl 93 so syntactic differences

using the work library in vhdl xilinx support - Sep 19 2022

web feb 16 2023   by using the coding style above there is no question about which version of bottom is wanted the version in the library my lib1 is the correct one care should be taken when choosing library names for vhdl files while a library called work is a common library name for many projects the tool will handle it a little differently than

hvhdl github - Oct 21 2022

web high level synthesisable vhdl hvhdl is a set of coding patterns for standard vhdl which are designed to greatly increase abstraction level of vhdl source code using standard synthesis tools the coding patterns are designed to support incremental design testing and development of the vhdl source code

vhdl tool - Dec 23 2022

web overview visual studio code is an open source editor from microsoft vhdl tool makes its services available to vs code through the language server protocol vscode plugin find the plugin by searching for vhdl in the extensions sidebar or go to the online marketplace follow the instructions in the readme

what is vhdl getting started with hardware all about circuits - Jun 28 2023

web dec 29 2017   vhdl uses a similar description however it has its own syntax for example it uses the following lines of code to describe the input and output ports of this circuit 1 entity circuit 1 is 2 port a in std logic 3 b in std logic 4 out1 out std logic 5 end circuit 1

vhdl file what is a vhdl file and how do i open it fileinfo com - Mar 14 2022

web apr 29 2016   vhdl was created in the 1980s to develop a high speed integrated circuit it has since become an industry standard language for describing digital systems at the structural or behavioral levels in a text based format the vhdl file can be used to manufacture a physical circuit such as a motherboard processor or memory module

vhdl tutorial learn by example university of california - Jul 30 2023

web basic logic gates esd chapter 2 figure 2 3 every vhdl design description consists of at least one entity architecture pair or one entity with multiple architectures the entity section of the hdl design is used to declare the i o ports of the circuit while the description code resides within architecture portion

lab 6 single clock data path for 16 bit r type instructions in - Jun 16 2022

web quartus and vhdl code in this section you should learn how to implement a vhdl code for single cycle data path before we go any further let s define some of the terms that we use throughout the book entity all designs are expressed in terms of entities an entity is the most basic building block in a design

new medical devices invention development and use series - Jun 05 2022

web dec 27 2021   top 10 new medical technologies of 2022 december 27 2021 the healthcare industry is getting over one of the worst crises ever with the new version of

new medical devices invention development and use - Jul 18 2023

web read free online buy paperback 55 00 in the past 50 years the development of a wide range of medical devices has improved the quality of people s lives and revolutionized

new medical devices invention development and use - Jun 17 2023

web europe pmc is an archive of life sciences journal literature new medical devices invention development and use

new medical devices invention development and use - Jan 12 2023

web new medical devices invention development and use washington dc the national academies press doi 10 17226 1099

front matter new medical devices invention development and - Feb 13 2023

web 3 the development of medical devices technological innovation

new medical devices invention development and use - Apr 03 2022

web in the next few years medical technology innovations will fundamentally transform the health care delivery system providing new solutions with medical devices that will

medical device innovation and health care new - Mar 14 2023

web issues that shape the invention of new medical devices and affect their introduction and use are explored in this volume the authors examine the role of federal support the

technological innovation and medical devices new - Apr 15 2023

web the authors examine the role of federal support the decision making process behind private funding the need for reforms in regulation and product liability the effects of the medical

new medical devices invention development and use by k - Dec 31 2021

inventing medical devices five inventors new medical devices - Oct 09 2022

web feb 1 1988   new medical devices invention development and use series on technology and social priorities 9780309038461 medicine health science books

index new medical devices invention development and use - May 04 2022

web new medical devices invention development and use by k ekelman ed national academy press washington d c 1988 186 pp isbn 0 309 03846 4 pound sign 21 10

read new medical devices invention development and use - Sep 08 2022

web national academy of engineering and institute of medicine 1988 new medical devices invention development and use washington dc the national academies press

new medical devices invention development and use - Mar 02 2022

web chapter previous inventing medical devices five inventors page 35 suggested citation technological innovation and medical devices national academy of

3 the development of medical devices technological - Nov 10 2022

web medical instruments and apparatus evaluation congresses medical innovations economic aspects congresses equipment and supplies congresses publisher

new medical devices ncbi bookshelf national center for - Dec 11 2022

web chapter previous part 2 current trends page 51 suggested citation federal support of medical device innovation national

academy of engineering and institute of
<u>new medical devices invention development and use</u> - Aug 19 2023
web new medical devices invention development and use in the past 50 years the development of a wide range of medical devices has improved the quality of people s lives and revolutionized the prevention and treatment of disease but it also has contributed to
inventing medical devices five inventors stories - Jul 06 2022
web get this from a library new medical devices invention development and use national academy of engineering institute of medicine in the past 50 years the
new medical devices invention development and use - Aug 07 2022
web the authors examine the role of federal support the decision making process behind private funding the need for reforms in regulation and product liability the effects of the medical
top 10 new medical technologies of 2022 medical device news - Feb 01 2022

new medical devices and health care new medical - May 16 2023
web these topics are 1 innovation and use of new medical devices 2 current trends in federal and private support of technological innovation medical device regulation
trends medical device innovation eureka med - Nov 29 2021

read new medical devices invention development and use - Oct 29 2021

<u>blockchain a practical guide to developing business law and</u> - Dec 03 2021
web blockchain a practical guide to developing business law and technology solutions by joseph j bambara paul r allen kedar iyer rene madsen solomon lederer michael wuehler get full access to blockchain a practical guide to developing business law and technology solutions and 60k other titles with a free 10 day trial of o reilly
blockchain a practical guide to developing business law and - Feb 17 2023
web blockchain a practical guide to developing business law and technology solutions by joseph j bambara paul r allen kedar iyer rene madsen solomon lederer michael wuehler 1 introduction to blockchain
blockchain best practices enterprise blockchains principles - Feb 05 2022
web aug 8 2021   blockchain for enterprise principles steps and best practices six principles for blockchain development and implementation open the blockchain solution should be open this means that it should be open source allowing anyone to

contribute to its growth the open source tag will also bring innovation and ensure that

blockchain a practical guide to developing business law and - Dec 15 2022

web written by a team of technology and legal experts blockchain a practical guide to developing business law and technology solutions demonstrates each topic through a start to finish illustrated case study the book includes financial technology governance and legal use cases along with advantages and challenges

blockchain a practical guide to developing business law and - Sep 24 2023

web you will learn step by step how to build and maintain effective reliable and transparent blockchain solutions understand the fundamentals of decentralized computing and blockchain explore business technology governance and legal use cases

blockchain a practical guide to developing business law and - Mar 18 2023

web get full access to blockchain a practical guide to developing business law and technology solutions and 60k other titles with a free 10 day trial of o reilly there are also live events courses curated by job role and more

blockchain a practical guide to developing business law and - Nov 14 2022

web feb 16 2018   written by a team of technology and legal experts blockchain a practical guide to developing business law and technology solutions demonstrates each topic through a start to finish illustrated case study the book includes financial technology governance and legal use cases along with advantages and challenges

blockchain a practical guide to developing business law and - Sep 12 2022

web you will learn step by step how to build and maintain effective reliable and transparent blockchain solutions understand the fundamentals of decentralized computing and blockchain explore business technology governance and legal use cases review the evolving practice of law and technology as it concerns legal and governance issues

blockchain a practical guide to developing business - May 08 2022

web oct 11 2021   blockchain a practical guide to developing business collection folkscanomy computer inbox folkscanomy computer folkscanomy additional collections language english blockchain a practical guide to developing business addeddate 2021 10 11 20 05 16 identifier

blockchain a practical guide to developing business law and - Jan 16 2023

web you will learn step by step how to build and maintain effective reliable and transparent blockchain solutions understand the fundamentals of decentralized computing and blockchain explore business technology governance and legal use cases review the evolving practice of law and technology as it concerns legal and governance issues

blockchain a practical guide to developing business law and - Oct 13 2022

web blockchain a practical guide to developing business law and technology solutions authors joseph j bambara paul r allen kedar iyer rené madsen solomon lederer and michael wuehler published february 2018 eisbn 9781260115864 isbn

9781260115871 open ebook book description table of contents cover title page

blockchain a practical guide to developing business law and - Jun 21 2023

web written by a team of technology and legal experts blockchain a practical guide to developing business law and technology solutions demonstrates each topic through a start to finish illustrated case study the book includes financial technology governance and legal use cases along with advantages and challenges

blockchain a practical guide to developing business law and - Aug 11 2022

web jan 26 2018 written by a team of technology and legal experts blockchain a practical guide to developing business law and technology solutions demonstrates each topic through a start to finish illustrated case study the book includes financial technology governance and legal use cases along with advantages and challenges

blockchain a practical guide to developing business law and - Jan 04 2022

web blockchain a practical guide to developing business law and technology solutions by joseph j bambara paul r allen kedar iyer rene madsen solomon lederer michael wuehler get blockchain a practical guide to developing business law and technology solutions now with the o reilly learning platform

blockchain a practical guide to developing business law and - Jun 09 2022

web feb 16 2018 blockchain a practical guide to developing business law and technology solutions by joseph j bambara open library not in library want to read more overview view 1 edition details reviews lists related books last edited by importbot may 24 2023 history edit

blockchain a practical guide to developing business law and - Mar 06 2022

web blockchain a practical guide to developing business law and technology solutions blockchain 20

blockchain a practical guide to developing business law and - Apr 19 2023

web blockchain a practical guide to developing business law and technology solutions authors joseph j bambara author paul r allen author summary set up and manage a high performance accessible and secure blockchain framework

blockchain a practical guide to developing business law and - Aug 23 2023

web feb 16 2018 written by a team of technology and legal experts blockchain a practical guide to developing business law and technology solutions demonstrates each topic through a start to finish illustrated case study the book includes financial technology governance and legal use cases along with advantages and challenges

blockchain for beginners getting started guide 101 blockchains - Apr 07 2022

web feb 2 2021 this leads us to the end of blockchain for beginners guide blockchain is a one of a kind technology so that means more and more companies will start to adopt blockchain into their businesses therefore it s safe to say if you are just a beginner you need to master a lot of elements before you can even consider becoming a part of this

blockchain a practical guide to developing business law and - Jul 10 2022
web blockchain a practical guide to developing business law and technology solutions paperback feb 16 2018 by joseph bambara author paul allen author 4 more 4 3 48 ratings see all formats and editions kindle edition

blockchain a practical guide to developing business law and - May 20 2023
web feb 16 2018   blockchain a practical guide to developing business law and technology solutions joseph j bambara 3 68 22 ratings3 reviews develop validate and deploy powerful decentralized applications using blockchain get the most out of cutting edge blockchain technology using the hands on information contained in this

blockchain a practical guide to developing business law and - Jul 22 2023
web mar 7 2019   blockchain a practical guide to developing business law and technology solutions vijay k vemuri pages 161 163 published online 07 mar 2019 cite this article doi org 10 1080 15228053 2019 1588546 full article figures data references citations metrics reprints permissions read this article click to