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-
- : Alex Pazaitis(((Alex Pazaitis) Ragnar Nurkse Department of Innovation and Governance, Tallinn University of Technology P2P P2P . Ragnar Nurkse Department .)), Primavera De Filippi(((Primavera De Filippi) Berkman Center for Internet & Society at Harvard Law School P2P . European University Institute in Florence .)), Vasilis Kostakis(((Vasilis Kostakis) Ragnar Nurkse Department of Innovation and Governance at Tallinn University of Technology Berkman Klein Center for Internet & Society at Harvard University Institute of Environmental Science and Technology at the Autonomous University of Barcelona 가 . P2P Lab P2P .))
 - : [“Blockchain and value systems in the sharing economy: The illustrative case of Backfeed”](#) (2017.5.25)
 - :
 - :
 - : Technological Forecasting and Social Change 125(2017)
-

가 :

4.1 () (“[r]evolution”)

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(Davidson et al., 2016).

(backbone)

가 .

(Wright and De Filippi, 2015:6).

(batches)

‘ (blocks)

—P2P

(Wright and De Filippi, 2015).

(Davidson et al., 2016)

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(Wright and De Filippi, 2015).

(Davidson et al., 2016; Tapscott and Tapscott, 2016).

(Swan, 2015). P2P
2008),
(nodes)

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(Nakamoto,

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’(proof of work)

(Davidson et al., 2016).

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가 (Wright and De Filippi, 2015).

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(Van Valkenburgh et al., 2014).

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(Wright
and De Filippi, 2015).

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(Free and Open-Source Software),
(OpenStreetMaps), (CouchSurfing),
(WikiHouse)

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가
(Fuster Morell et al., 2014).

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(Arvidsson et al., 2016).

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(Bauwens, 2011; Johnson, 2011).

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(reputation)

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(Reilly, 2010).

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 (Decentralised Cooperation, DC)

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(, ,) ‘ ’(stigmergy,)

(Davidson et

al., 2016; Marsh and Onof, 2007).

(peers, 가)

(generic)

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(Davidson et al., 2016).

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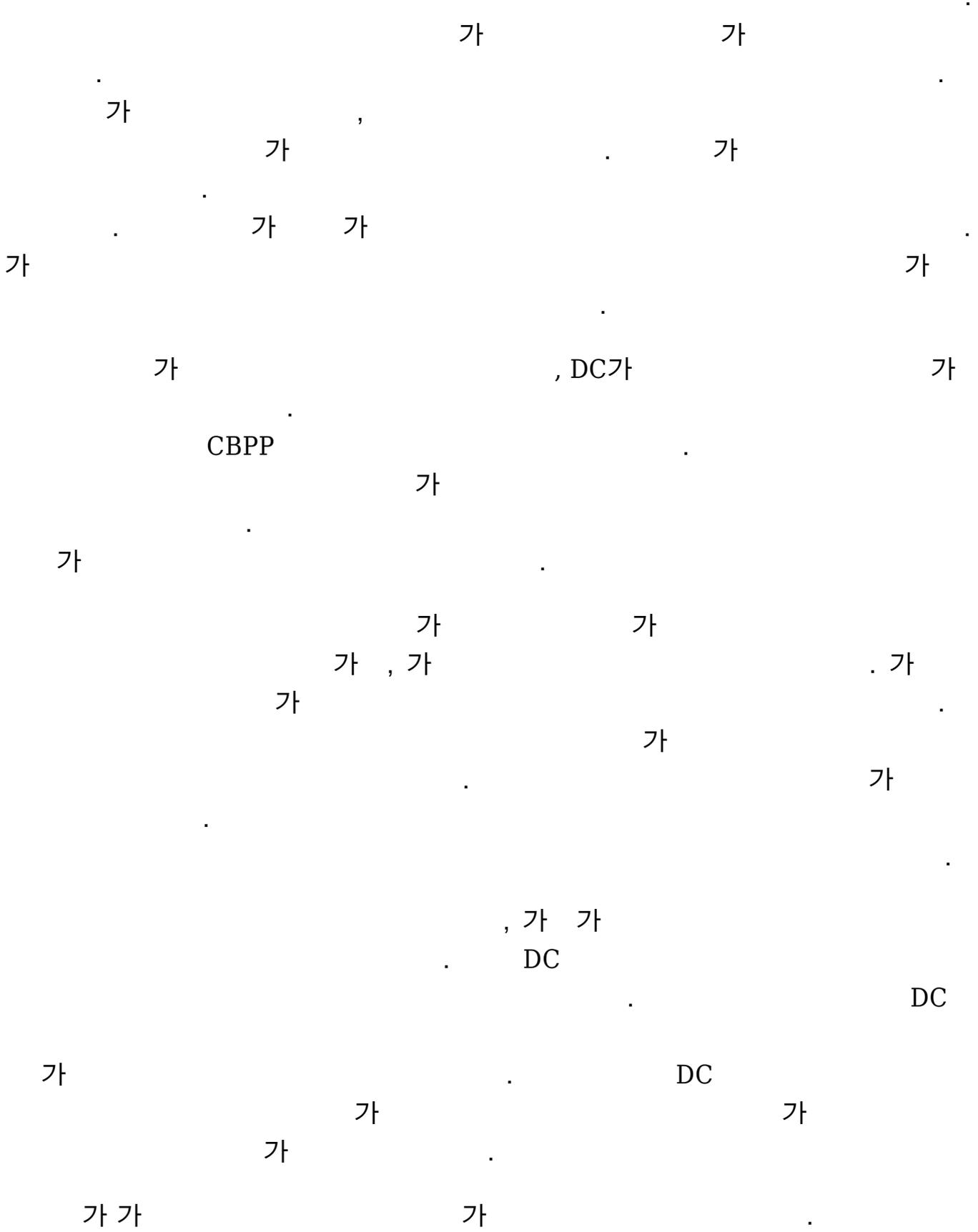
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4.6



산업경제에서 정보경제로

	산업경제 (가격체계)	정보경제 (사회적 공유)
가치 생산	분업 교환가치 잉여를 위한 생산	사용자/생산자의 소통 사용가치 공유를 위한 생산
가치 기록	복식부기 합리화 & 탈인격화 수량화 & 추상	블록체인 탈중심화된 합의 및 참여 다양성 & 다중심성
가치 실현	시장에 내놓는 상품 화폐 효용 극대화	커먼즈와 공유경제 디지털 토큰 인식된 사회적 혜택

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75% (mining pools) 가
(Blockchain.info, 2017).

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(Wikimedia Foundation, 2011).

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(Forte and Bruckman,

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production, CBPP) '(commons-based peer 가

(結晶)

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가 CBPP

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Gandini, A., Luise, V., Orria, B., Salcedo, J., Anselmi, G., 2016. Value in CBPP. Deliverable 4.3, P2Pvalue: techno-social platform for sustainable models and value generation in commons-based peer production in the future Internet. FP7-ICT-2013-10 (project: 610961). Available from: https://p2pvalue.eu/wp-content/uploads/2013/07/Deliverable_4.3.pdf (Accessed: 15.01.2017).

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-
- : Sarah Manski((Department of Sociology, University of California

Santa Barbara)), Ben Manski((Department of Global Studies, University of California Santa Barbara))

- : [“No Gods, No Masters, No Coders? The Future of Sovereignty in a Blockchain World”](#) (2018.5.17)
 - :
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 - : <https://drive.google.com/file/d/1o0XIYG80hE4vgL7dR3tPWRNb5HCPBukv/view?usp=sharing>
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<http://www.choicesmagazine.org/choices-magazine/theme-articles/economic-and-policy-analysis-of-advanced-biofuels/technology-forcing-and-associated-costs-and-benefits-of-cellulosic-ethanol>))

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- : (Aaron Fernando)
 - : [“Blockchain as a force for good: How this technology could transform the sharing economy”](#) (2018.7.14) / [Creative Commons Attribution 3.0 License](#)
 - :
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(Proof-of-Work)

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7 14

["Blockchain as a force for good: How this technology could transform the sharing economy"](#) (Shareable) (Aaron Fernando)

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< Cryptocurrencies & Contracts, IC3 >(the Initiative For
(Emin Gün Sirer) ‘

“ (bootstrapping)((‘ ’
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(Chelsea Rustrum)

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(Brooklyn Microgrid)

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P2P

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. (money pools, tandas, susus, chit funds) [‘ ’]

P2P (peer-to-peer credit) 가

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(financial inclusion),

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- : (Boyd Cohen)
- : [“How to power shared mobility startups with blockchain technology”](#) (2018.04.21) / [Creative Commons Attribution 3.0 License](#)
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- : ‘mobility’ 가 ,
가 . ‘IoM’
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, ‘mobility’ 가
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(Boyd Cohen)

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#Occupy #IdleNoMore
#BlackLivesMatter #WomensMarch

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[faircoin:](#) , ,

[osm-p2p:](#)

[scuttlebutt.nz:](#) 가

[economic space agency:](#)

[social.coop:](#)

[redcentralize.org:](#) +

[duniter:](#)

P2P .



‘ 가 ’ ‘ ’

- : (Samer Hassan)((Associate Professor, Univ. Complutense de Madrid Faculty Associate, Berkman Klein Center at Harvard University)), (Primavera De Filippi)((Researcher at CERSA/CNRS Faculty Associate at Berkman-Klein Center for Internet & Society))
- : [“The Expansion of Algorithmic Governance : From Code is Law to Law is Code”](#) (2017.12.31) / [Creative Commons Attribution 3.0 License](#)

- : [unclear]
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- : [unclear] (OpenEdition, journals.openedition.org)

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(DRM, digital rights management)

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(Citron 2007). □

(O'Neill 2016).

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(De Filippi & Hassan, 2016). ‘

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(Tapscott & Tapscott 2016).

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(ML, Machine learning)

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(Hardt, 2014).

(Guarino 2016).

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<https://www.washingtonpost.com/news/morning-mix/wp/2016/06/10/google-faulted-for-racial-bias-in-image-search-results-for-black-teenagers/>

가?

- : (Jamie Klinger)
- : [“What is Holochain and why does it matter?”](#)
(2018.2.15) / [Creative Commons Attribution 3.0 License](#)
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(a data integrity engine)
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([Snapchat](#))

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([TenX](#))

([Ethereum](#))

가 P2P

가

()

(

'Clutter

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가

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’(ColAge-

Twitter) [HonestlyJamieK](#)

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([Cepttr](#))—

母)

(parent project)—가

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가

(fork)

가

가가 . - ()
- (-
, . - +) , (Flickr), (Slack) —

가

- (負荷) 가 가
가 가

(nodes) 가 (dApp)[

가] 가
(shard)*
/ 가

*

(Lyft) & (La'Zooz) &

. 가 ,
가 ,

가? 가 가 가,
가 가 가 ,
, P2P (smart contracts)

(verification),

- 가 , 가가 가 (fork)

- ,

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- 가 가가 가 (Mass-Join-

Drivers)

가
(가)

- , -

가 A B

(call)

가

Interface,

, API(Application Programming

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가

[IFTTT](#)['If This Then That'

]

가

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(self-describing)

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10

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key words: holochain, blockchain, distributed, interoperable, decentralized, dApp, smart contracts, commons



-
- : (David Bollier)
 - : [“Reclaiming Public Control of Money-Creation”](#) (2017.8.25) / [Creative Commons Attribution 3.0 License](#)
 - :
-

가

(Northumbria University) (Mary Mellor) , < > ([Great Transition Initiative](#), GTI) 「 」 ([“Money for the People”](#)) (Debt or Democracy) 가

(public circuits)

가

가가 (“ ” seigniorage¹)

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(Bernie Sanders),

(Elizabeth Warren)

(‘ ’)

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2008

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가 ‘ , ‘ , (無)

가 , 가 가 가 (稅收)

“ 가 ” “(fiat money) 가 가 가? 가? 가? ”

“ 가 , 가 가 가 ”

” . “ ”

!— 가 (provisioning) 가

” “ () — ”

(participatory budgeting) 가

“ ” 가

(元帳) (가)

, 가 ()
()



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- : (Matthew Slater)
- : [“From Platform Cooperativism to Protocol Cooperativism?”](#)
(2017.7.5) / [Creative Commons Attribution 3.0 License](#)
- :

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가

가?

18

‘ 가 가
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(Gar Alperowitz)

『

가?』 ([What then must we do?](#))

. 150 가

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CIA가

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가
TCP/UDP, http, HTML

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5

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(John Perry Barlow)

가

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(["A cyberspace](#)

[Independence Declaration"](#))

가
가가

(quantum)

가

(pay

walls),
2017

가 가 가 .가
가 () 가
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가 , 가 가
가 가 가 .
() 가 가 .
가 . ([Mikko Dufva](#))

‘ (Ride-sharing)
(穴) (領地) .
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, , 가 . 가 ,
_____ (PayPal)
(Peter Thiel) . 가,
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가 가

(準)
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'(walled garden)

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3

(Arcade City)

(全)

(Ethereum)
SMTP가

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*

(Professor Jem Bendell)

“Thwarting an Uber Future for Complementary Currencies: Open
Protocols for a Credit Commons”

COOPERATIVES

OPEN COOPS & SUSTAINABLE LIVELIHOODS

OPEN MODELS

OPEN STANDARDS

P2P COLLABORATION

P2P GOVERNANCE

P2P HIERARCHY THEORY

P2P INFRASTRUCTURES

P2P TECHNOLOGY

P2P THEORY

TECHNOLOGY

From Platform Cooperativism to Protocol Cooperativism?

🕒 July 5, 2017

💬 9 Comments

👤 Matthew Slater

📖 7 min read

가?

-
- : Ellen Brown
 - : [“Central Bank Digital Currencies: A Revolution in Banking?”](#)
(2016.9.21) / [Creative Commons Attribution 3.0 License](#)
 - :

가?

, , , ()

가

(negative interest rates,)

(([] 'Bank of England'

.) (Ben Broadbent)

. (([]

—Sir Jon Cunliffe, Ben Broadbent, Andrew Bailey and Nemat Shafik—가 .))

(Central Bank Digital Currencies →CBDC)가

("fractional reserve" lending)

97%

가 (損耗)

(Martin Hiesboeck) 2016

"Blockchain

Is the Most Disruptive Invention Since the Internet Itself"(□

가)

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. CBDC

『 』 2016 7

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2014

97%가

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. CBDC

. CBDC

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(terms and conditions)

(Creditworthiness)가

(非)

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가? (“Central Bank Digital Currency: The End of Monetary Policy As We Know It?”) (Marilyne Tolle)

CBDC

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가 가 .

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(([] (“rehypothecation”,
(Leverage)

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))가
(Caitlin Long)

(base money) 1

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(가

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(double-counting)

(“ ‘ 가 가)

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(Ellen Brown)

(Public Banking Institute)

of Debt)

□(Web