Introduction to blockchain use cases to be found outside of the speculation mania.

www.alexpfeiffer.at | twitter.com/alexpfeiffer www.researchgate.net/profile/Alexander-Pfeiffer-2



www.alexpfeiffer.at

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www.blockchain-in-gaming.com/gallerydefenderontestnet/



www.cycle4value.at/en/

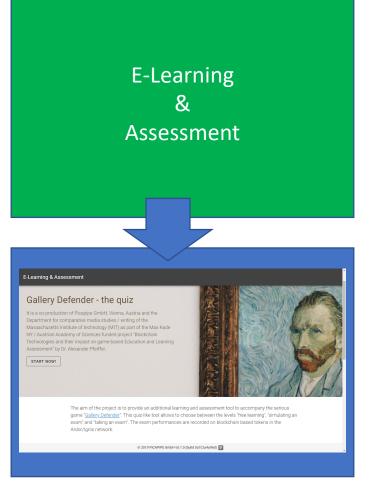


www.carbon-diet.at/

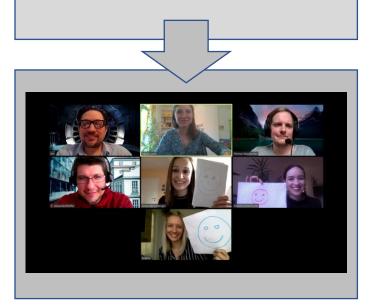


cities.ait.ac.at/projects/hotcity/





In person and online conducted oral exams



Tradeable Network Maintainance Utility Token

Non tradeable Utility Token

trade has to be verified through approval models Blockchain-based assets

Tradeable Utility Token

Cryptocurrency

Blockchain

and the BIUDE BEBDIE BEBDIE

TRY OUT ONE OF THE FIRST LEARNING GAMES WORLDWIDE, WHICH SECURES THE LEARNING RESULTS ON BLOCKCHAIN.

GALLERY DEFENDER WAS DEVELOPED BY THE LIVE LAB OF TEXAS A&M UNIVERSITY, THE BLOCKCHAIN PART WAS IMPLEMENTED UNDER THE SUPERVISION OF DR. ALEXANDER PFEIFFER (THE MIT EDUCATION ARCADE, MAX KADE NY SCHOLARSHIP RECIPIENT). IN FURTHER COOPERATION WITH DONAU-UNIVERSITÄT KREMS.

IF YOU LIKE TO TRY THE GAME PROTOTYPE AND TEST THE BLOCKCHAIN-SETTING (ON TESTNET AND/OR ON MAINNET), PLEASE CONTACT ALEXANDER PFEIFFER.

PLEASE HELP US AND FILL OUT OUR SURVEY ON THE IMPLACT OF BLOCKCHAIN IN THE EDUCATIONAL INDUSTRY.

READ THE PAPER ON HOW GALLERY DEFENDER WAS CREATED AND LEARN MORE ABOUT THE TOKEN

LIVE LAB TEXAS A&M UNIVERSITY

M

W

C

S

Massachusetts Institute of Technology



ACADEMY OF SCIENCES



Credits

LIVE Lab at Texas A&M University

André Thomas: Director Hadeel Ramadan: Assistant Director Lloyd Donelan : Engineering Lead Michael Black : Engineer Brenton Lenzen : Engineer Nick Muniz : Engineer Kishan Patel : Engineer

Comparative Media Studies | Writing at MIT

Alexander Pfeiffer: Blockchain Concept and Consulting on Education Framework https://alexpfeiffer.mit.edu/

Applied Game Studies at Danube-University Krems N. Koenig: Senior Researcher T. Wernbacher: Senior Researcher

Special Thanks

Trevor Higgins: Former Engineering Lead Aksel Taylan: Former Engineer

About & Licensing

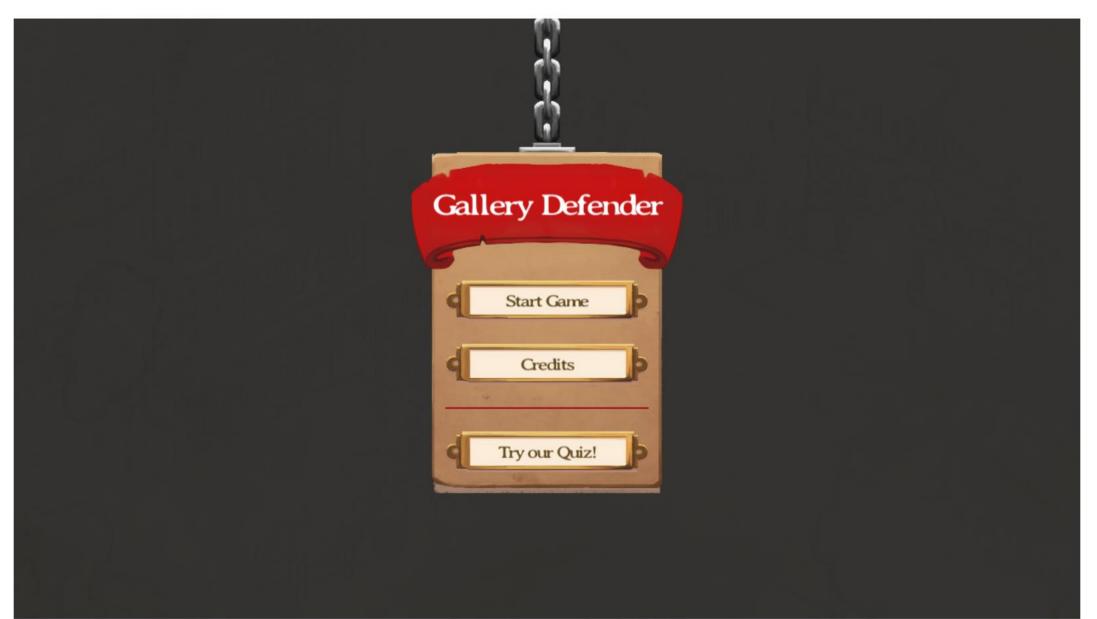
This particular version of the game gallery-defender has been developed as part of the research project Blockchain Technologies and their impact on game-based Education and Learning Assessment with support of the MAX KADE Foundation and the Austrian Academy of Sciences.

All artworks used in this game are low-resolution and licensed for free use in the US or public domain.

All artwork images used in this game are freely available online.

Gallery Defender is a non-commercial serious game intended for research and educational purposes.

Previous











Sending From Account Main : ARDOR-365M-XM4Z-RZ48-23XNQ

Sending Gift and Student Token to Student Account: ARDOR-X49X-72W4-A3P7-4P9S7 OR Your Personal Inputted Account

Sending Teacher Token to Teacher Account: ARDOR-W5Y8-TRR7-9YHX-7QYPV



27

Assessment Level

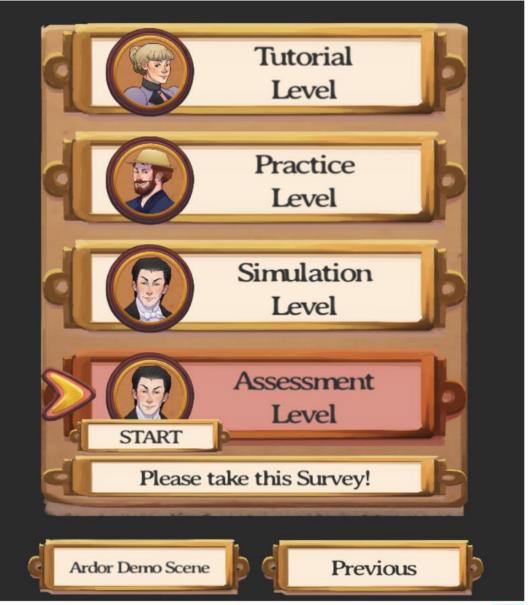
Movements

Abilities

Cubism Surrealism Impressionism High Renaissance Headphones Helmet Building

Win Case: 5 Lose Case:3 Game Type: Single Player Tutorial: False

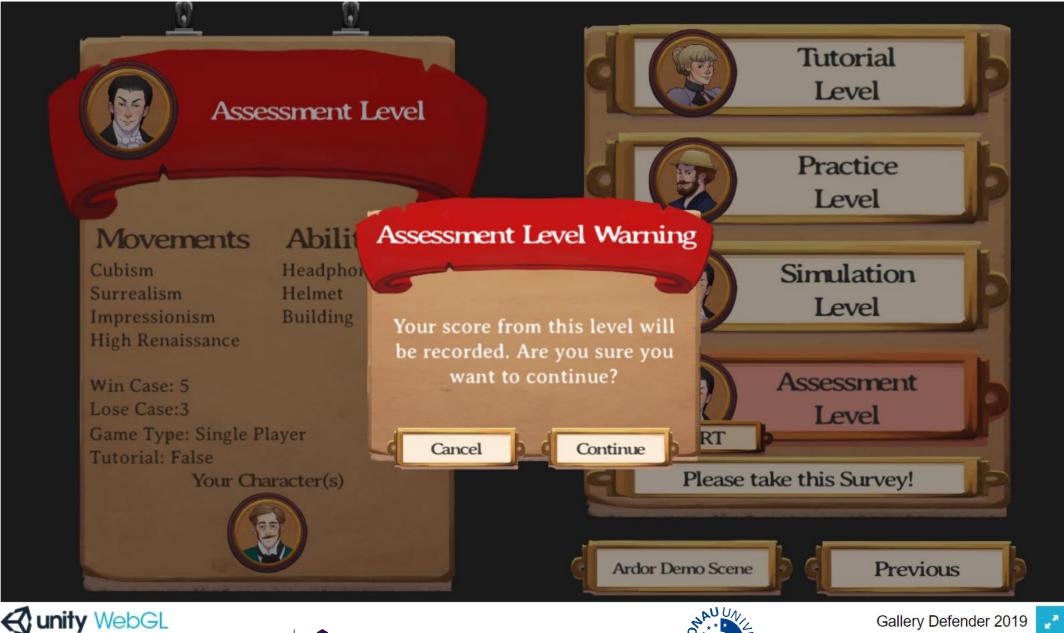
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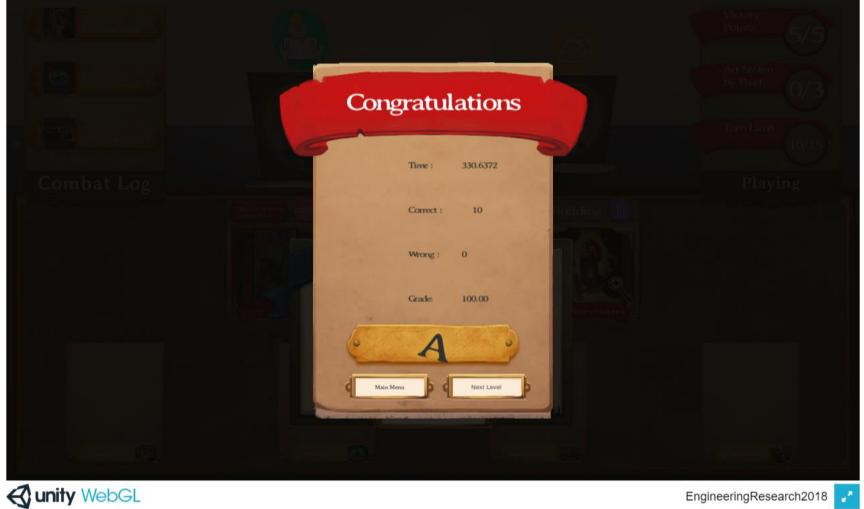




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Asset Transfer

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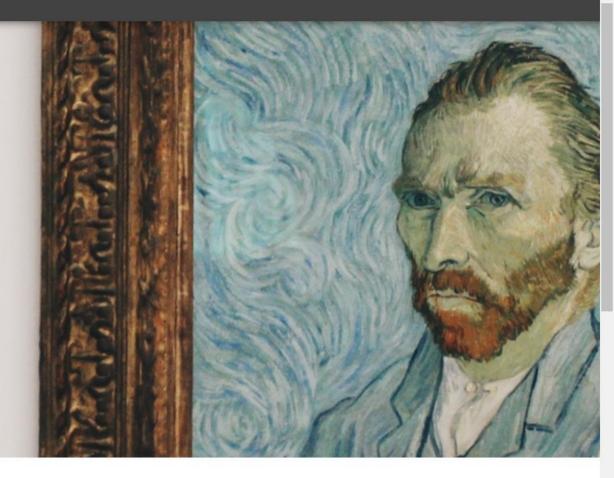
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Gallery Defender - the quiz

It is a co-production of Picapipe GmbH, Vienna, Austria and the Department for comparative media studies / writing of the Massachusetts Institute of technology (MIT) as part of the Max Kade NY / Austrian Academy of Sciences funded project "Blockchain Technologies and their impact on game-based Education and Learning Assessment" by Dr. Alexander Pfeiffer.

START NOW!



The aim of the project is to provide an additional learning and assessment tool to accompany the serious game "<u>Gallery Defender</u>". This quiz-like tool allows to choose between the levels "free learning", "simulating an exam" and "taking an exam". The exam performances are recorded on blockchain based tokens in the Ardor/Ignis network.

the project at any time.

Learn & practice

Learn and practice your knowlege about famous paintings, brilliant artists, and what you should know about different art styles. Read the introductional texts carfully and try to answer the questions best as you can. You can repeat this stage as often as you like. The time you feel fit try the next stage called "test yourself!"

Test yourself!

Test yourself! Show your knowlege about famous paintings, brilliant artists, and what you should know about different art styles. You have no introductional texts this time, but you learn what would have been right after each question. You can repeat this stage as often as you like. The time you feel fit go to the last stage "take the exam".

Take the exam

Take the exam! Show your knowlege about famous paintings, brilliant artists, and what you should know about different art styles finally to the world. The result of this exam will be stored on Blockchain. This could proof the teacher, that you took the exam and create a learning record no one can manipulate. Not you. Not your teacher. Not your parents.

LEARN NOW!

TEST YOURSELF!

START THE EXAM

A project by



© 2019 PICAPIPE GmbH v0.1.0 (build 0a7c2a4a96d) 🚍

Gallery Defender - the Quiz - take the exam

Take the exam! Show your knowlege about famous paintings, brilliant artists, and what you should know about different art styles finally to the world. The result of this exam will be stored on Blockchain. This could proof the teacher, that you took the exam and create a learning record no one can manipulate. Not you. Not your teacher. Not your parents.

You can create an Ardor Wallet on Testnet here: https://testardor.jelurida.com/index.html . After you created your walletaddress (and your privatekey which you should keep on a safe place)* you have to verify your address by entering your privatekey after you are logged in the first time. And you need to run one test transaction. You can get Ignis for the Testnet (they have no value - as it is testnet) on https://www.ardor.world/en/faucet_ignis/ . After you received them, send one Ignis to any other address, e.g.: ARDOR-W5Y8-TRR7-9YHX-7QYPV If you do not want to create your own Ardor Address, enter ARDOR-X49X-72W4-A3P7-4P9S7 in the address field and log in with this. (https://testardor.jelurida.com/index.html) *It is only testnet, so no token has any value. However do as you would do it on mainnet, where the privatekey is key ;). Learn more about Ardor (the public blockchain we used for this project) here: https://ardorplatform.org/ The Ardor wallet of the Quiz/E-learning App itself is ARDOR-V3NE-6DX6-2NQ6-37XPV - access the testnet node with this address, to see the processes live on the node.



E-Learning & Assessment

privatekey after you are logged in the first time. And you need to run one test transaction. You can get Ignis for the Testnet (they have no value - as it is testnet) on https://www.ardor.world/en/faucet_ignis/ . After you received them, send one Ignis to any other address, e.g.: ARDOR-W5Y8-TRR7-9YHX-7QYPV If you do not want to create your own Ardor Address, enter ARDOR-X49X-72W4-A3P7-4P9S7 in the address field and log in with this. (https://testardor.jelurida.com/index.html) *It is only testnet, so no token has any value. However do as you would do it on mainnet, where the privatekey is key ;). Learn more about Ardor (the public blockchain we used for this project) here: https://ardorplatform.org/ The Ardor wallet of the Quiz/E-learning App itself ic APDOP V2NE 6DX6 2NO6 27XPV access the testnet node with this address, to see the processes live on the node

Insert your ardor wallet!

Please insert your ardor wallet address. Otherwise you will not get your asset

Insert your ardor wallet. ARDOR-X49X-72W4-A3P7-4P9S7

START NOW!



START EXAM!

E-Learning & Assessment

Quiz finished!

Points 98

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Das Projekt wird im Rahmen des FTI-Programms Mobilität der Zukunft durch das Bundesministerium für Klimaschutz gefördert und von der Österreichischen Forschungsförderungsgesellschaft abgewickelt.

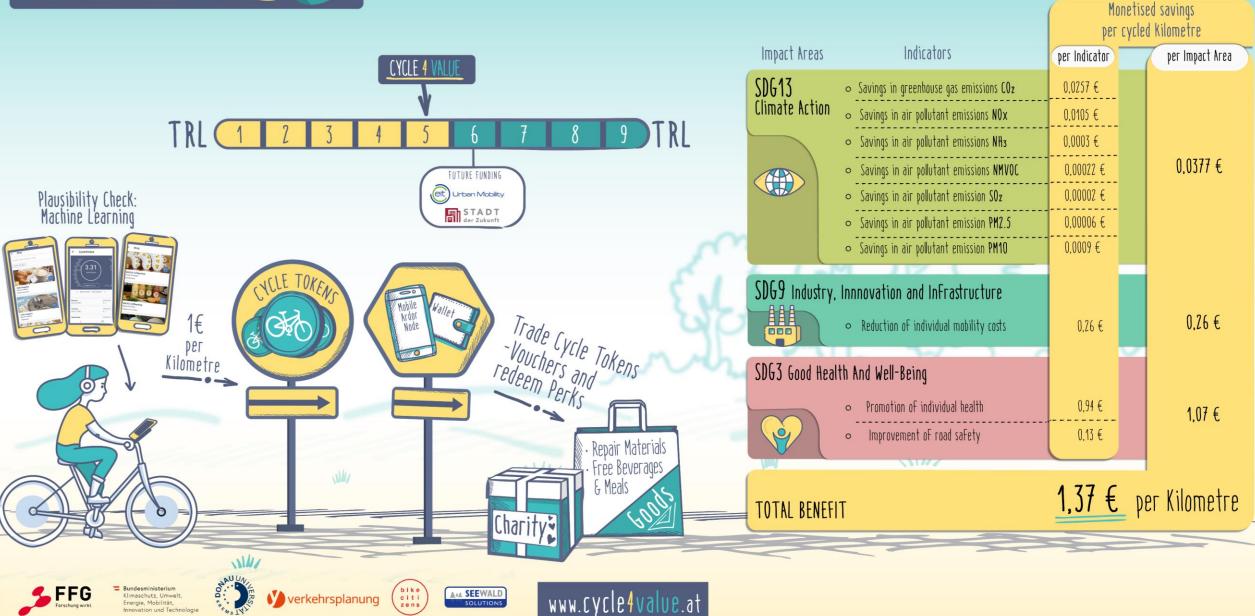


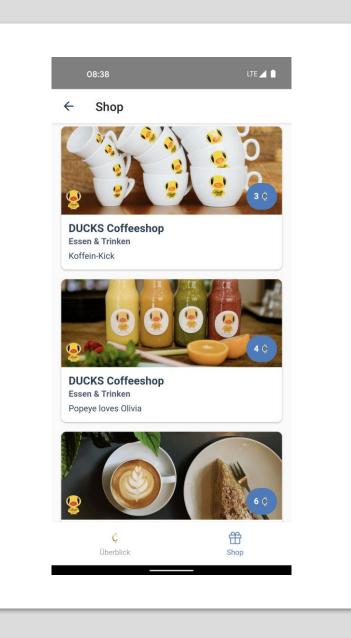
Bundesministerium Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie

Das Projekt



A BLOCKCHAIN-BASED REWARD SYSTEM TO PROMOTE CYCLING



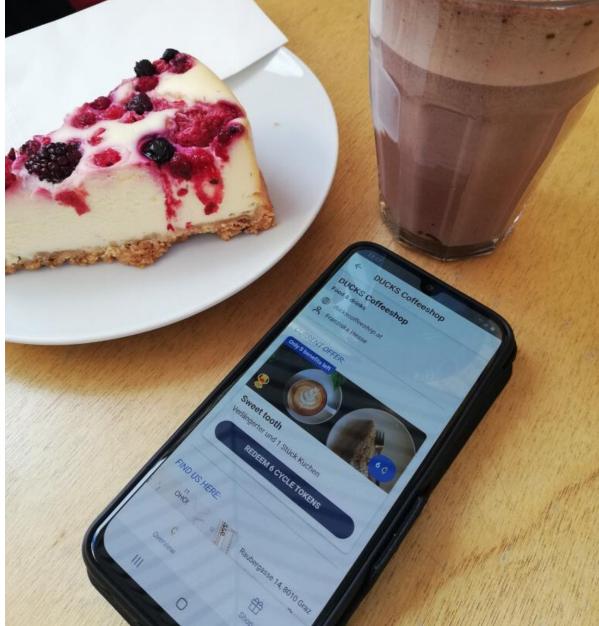


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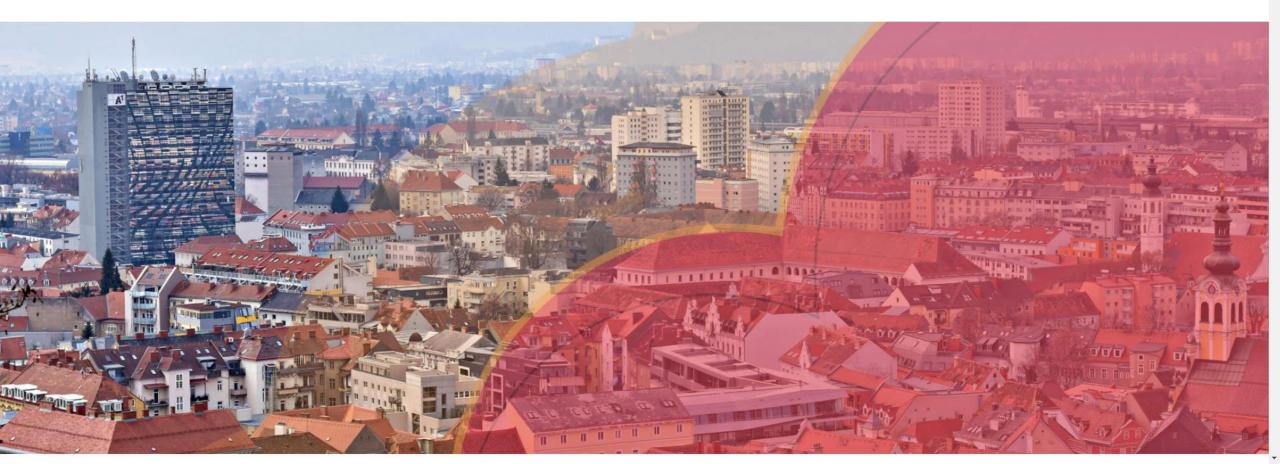
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Das Spiel rund um Abwärmequellen in Städten

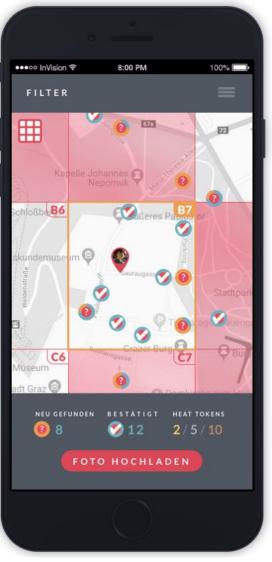
Im Rahmen des Förderprogramms Stadt der Zukunft (5.Ausschreibung) https://www.ffg.at/stadt-der-zukunft-programmlinie

Bundesministerium Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie













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Das Projekt

9

Hauptziel von CARBON DIET ist die Umsetzung und Testung des Konzepts suffizienter individueller Mobilitätskonten in einem konkreten Anwendungsfall mit hohem Wirkungspotenzial. Der konkrete Anwendungsfall betrifft das hohe Potenzial der CO2-Reduktion bei Dienstreisen und Dienstwegen, da in Österreich (laut "Österreich Unterwegs") töglich gut 1,5 Mio. Dienstwege mit dem PKW zurückgelegt werden. Gleichzeitig bekennen sich immer mehr Unternehmen zur Umsetzung von Klimaschutzmaßnahmen. Mit einem Mobilitätskonto-Tool können Unternehmen CO2-Einsparungserfolge nicht nur quantifizieren, sondern konkrete Einsparungsziele festlegen.

carbondiet

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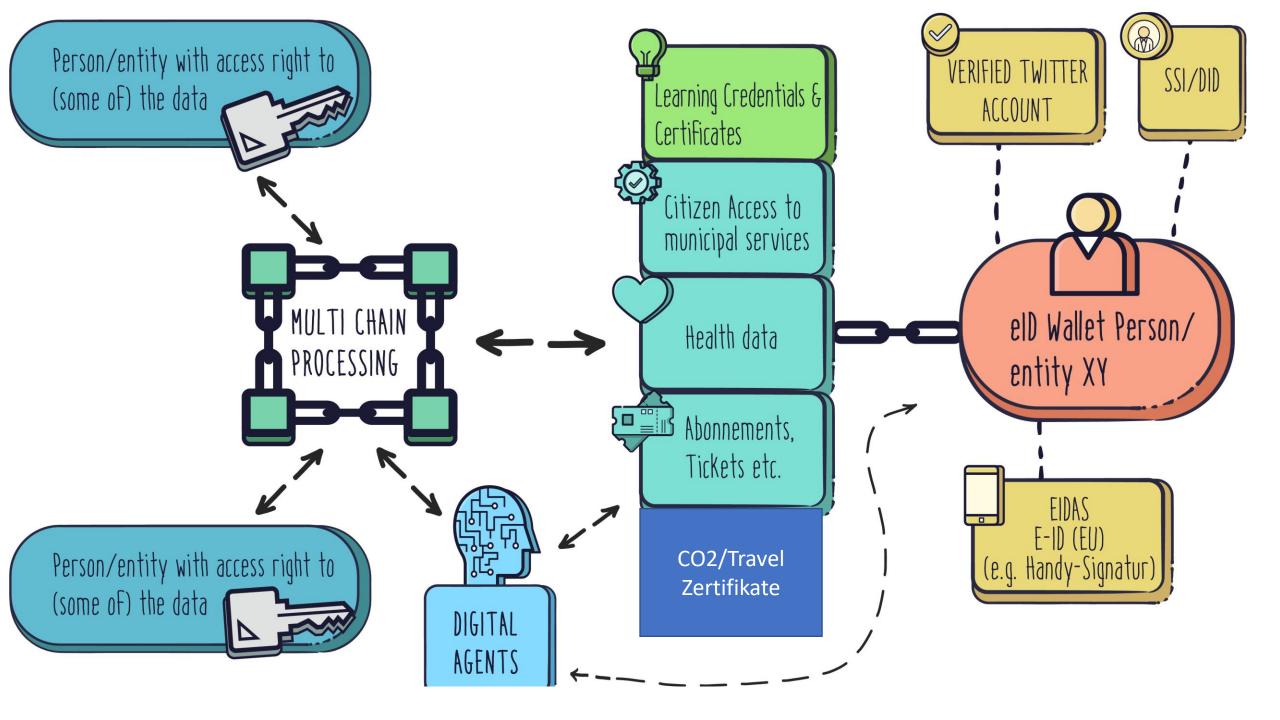
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Main findings:

A PUBLIC BLOCKCHAIN IS BEING USED. OR A COMBINATION OF PRIVATE/CONSORTIUM BLOCKCHAIN IN A SETTING THAT MAKES SENSE. TOKENS CAN NOT BE RETRANSFERRED TO OTHER USERS FREELY, BUT NEITHER CAN THE ISSUER WITHDRAW THEM FROM THE USER. TRANSACTION FEES TO THE NETWORK ARE PAID BY THE RESPECTIVE ISSUER(S) OR OPERATOR(S) OF THE TOKEN(S). IT IS POSSIBLE TO ENCRYPT THE MESSAGE ASSOCIATED WITH THE TOKEN, SO ONLY THE TRANSACTION ITSELF IS PUBLICLY VISIBLE, WHILE THE PRIVATE INFORMATION REMAINS PRIVATE AND ONLY ACCESSIBLE TO THOSE PARTIES WHO SHOULD HAVE ACCESS TO IT (FOR THE RELEVANT PERIOD). TO ACHIEVE THIS SHARED-KEYS CAN BE GENERATED, AND THUS A SHARING SYSTEM FOR THIRD PARTIES WHO GET ACCESS TO THE INFORMATION ATTACHED TO THE TOKEN CAN BE DEVELOPED (BUT NOT THE TOKEN ITSELF AS INFORMATION BEARER). THIS MESSAGE (THE CORE CONTENT) CAN, IN CERTAIN CASES WHERE IT MAKES SENSE, BE DELETED FROM THE BLOCKCHAIN AFTER SOME TIME (WITH THE KNOWLEDGE OF THE PARTNERS INVOLVED). ONLY THE PROOF OF THE TRANSACTION ITSELF REMAINS. USERS CAN, IF THEY WANT, ALWAYS OPERATE A FULL NODE AND THIS WITH EXISTING DEVICES SUCH AS THEIR OWN MODERN SMARTPHONE, THEIR OWN PC OR WITH INEXPENSIVE HARDWARE SUCH AS A RASPBERRY PI. USERS CAN, IF THEY WANT, ALWAYS OPERATE A FULL NODE AND THIS WITH EXISTING DEVICES SUCH AS THEIR OWN MODERN SMARTPHONE, THEIR OWN PC OR WITH INEXPENSIVE HARDWARE SUCH AS A RASPBERRY PI. THE FULL NODE CAN BE OPERATED WITHOUT HOLDING NETWORK MAINTENANCE TOKENS OR CRYPTOCURRENCIES.

THE AVAILABILITY OF DIGITAL QUALIFIED SIGNATURES, OR OTHER SECURE FORMS OF DIGITAL AND FORGERY-PROOF IDENTITY VERIFICATION.

USE OF AN EID WALLET. THIS IS A WALLET FOR BLOCKCHAIN TOKENS THAT IS BOUND TO A PERSON, IT CAN HOLD UTILITY TOKENS AND MANAGE SMART CONTRACTS.





www.blockchain-in-gaming.com/gallerydefenderontestnet/



www.cycle4value.at/en/



www.carbon-diet.at/



cities.ait.ac.at/projects/hotcity/

Thank you.

www.alexpfeiffer.at | twitter.com/alexpfeiffer www.researchgate.net/profile/Alexander-Pfeiffer-2