SCIENTIFIC RESEARCH IN THE MODERN WORLD

PROCEEDINGS OF II INTERNATIONAL SCIENTIFIC AND PRACTICAL CONFERENCE
DECEMBER 7-9, 2022

TORONTO
2022

SCIENTIFIC RESEARCH IN THE MODERN WORLD

Proceedings of II International Scientific and Practical Conference

Toronto, Canada

7-9 December 2022

Toronto, Canada

2022

UDC 001.1

The 2nd International scientific and practical conference "Scientific research in the modern world" (December 7-9, 2022) Perfect Publishing, Toronto, Canada. 2022. 750 p.

ISBN 978-1-4879-3795-9

Editor
Komarytskyy M.L.
Ph.D. in Economics, Associate Professor

Collection of scientific articles published is the scientific and practical publication, which contains scientific articles of students, graduate students, Candidates and Doctors of Sciences, research workers and practitioners from Europe, Ukraine and from neighbouring coutries and beyond. The articles contain the study, reflecting the processes and changes in the structure of modern science. The collection of scientific articles is for students, postgraduate students, doctoral candidates, teachers, researchers, practitioners and people interested in the trends of modern science development.

e-mail: toronto@sci-conf.com.ua

homepage: *https://sci-conf.com.ua/*

UDC 004.75

AN EXPLORATION OF CONNECTING UNITY TO BLOCKCHAIN TECHNOLOGY WITH WEB3

Chernykh Olena
cand.phys.-math. Sc., prof.,
Komendant Oleh
Bondarenko Yelizaveta
students
National Technical University
"Kharkiv Polytechnic Institute"
Khariv, Ukraine

Annotation: the possibility of applying the use of blockchain technology in the gaming industry is outlined.

Key words: unity, blockchain, web3

Introductions. In recent years, the demand for Blockchain technology and smart contracts has only increased. Unity has a very large number of developers and unlimited potential. Based on these important points, combining these two things would be very appropriate and useful.

Aim. To learn how to connect Unity projects and smart contracts on existing blockchain networks.

Materials and methods.

The Internet is in constant change and movement as technology advances. Web1 was static, Web2 was dynamic, and Web3 was decentralized (Fig. 1). Web3 is based on blockchain.

Web3 gaming is a huge industry, and its user base keeps growing daily. The exponential growth of Web3 and gamers participating in a blockchain game might be due to blockchain games' decentralized aspects and earning potential.
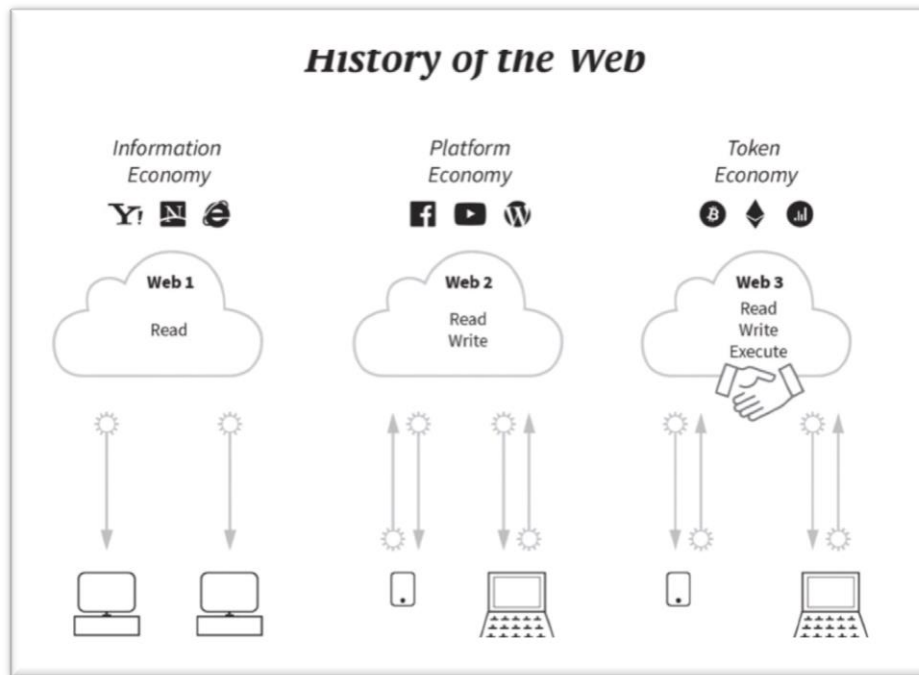
Fig. 1. Blog History of the Web

The owning in-game assets and trading them into actual money is also hugely beneficial. However, the feature of executing blockchain game transactions is something that developers find challenging to implement into their projects.

Recently, blockchain technology has been rapidly developing in the gaming industry, and tokenization of games in Unity Blockchain services is also used.

Consider several SDK options (Fig. 2):

1) ChainSafe Gaming SDK is a custom gaming SDK from ChainSafe that allows to interact with the underlying token standards (ERC20, ERC721, ERC1155), interact directly with the EVM, and make custom calls to your own contracts with any interface. For starters, prefabs are already created, there are pop-up scenes and very detailed documentation. Very good choice for development.

2) Moralis' Metaverse SDK is a handy Metaverse SDK from Moralis. It can also be used to interact with EVM networks, but in this case, Moralis can also provide additional benefits in the form of high-speed nodes, additional servers, etc. Thanks to Moralis' Metaverse SDK, you get to cover blockchain game transactions with just a few clicks and some basic setups.
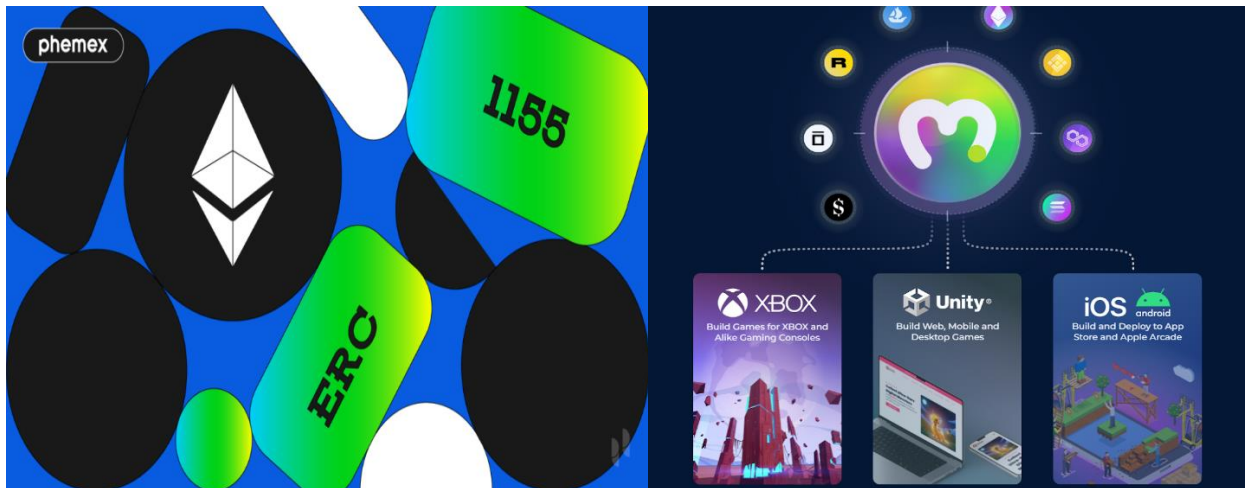
Fig. 2. Several SDK options

Results and discussion.

The gaming industry is just beginning to integrate with blockchain technology, but there are already convenient destructive tools for this.

Whatever the opinions, the future of the gaming industry will be very closely tied to the metaverse and the blockchain.