

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ  
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ  
ФАКУЛЬТЕТ ІНОЗЕМНОЇ ФІЛОЛОГІЇ  
ТА СОЦІАЛЬНИХ КОМУНІКАЦІЙ**



# **СОЦІАЛЬНО-ГУМАНІТАРНІ АСПЕКТИ РОЗВИТКУ СУЧАСНОГО СУСПІЛЬСТВА**

**МАТЕРІАЛИ V ВСЕУКРАЇНСЬКОЇ НАУКОВОЇ КОНФЕРЕНЦІЇ СТУДЕНТІВ,  
АСПРАНТІВ, ВИКЛАДАЧІВ ТА СПІВРОБІТНИКІВ**

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## DIGITAL CURRENCIES AND TECHNOLOGIES OF DISTRIBUTED LEDGERS

A. G. Krivodub, *student of SSU, group-IN-63*

Bashlak I. A. – *EL Adviser*

Electronic money (e-money), defined in the CPMI's *A glossary of terms used in payments and settlement systems* as "value stored electronically in a device such as a chip card or a hard drive in a personal computer", is also commonly used around the world. Some jurisdictions have developed specific legislation regulating e-money (e.g. the E-Money Directive in the EU). E-money balances according to the legislation applicable in a particular jurisdiction (e-money in a narrow sense) are usually denominated in the same currency as central bank or commercial bank money, and can easily be exchanged at par value for them or redeemed in cash.

Digital currencies, and especially those which have an embedded decentralized payment mechanism are based on the use of a distributed ledger. They are an innovation that could have a range of impacts on various aspects of financial markets and the wider economy. These impacts could include potential disruption to business models and systems, as well as facilitating new economic interactions and linkages. In particular, the potential implications of digital currencies and distributed ledgers on retail payment services seem to be especially important, as these schemes have the potential to facilitate certain retail payment transactions (e.g. for e-commerce, cross-border transactions and person-to-person payments), and possibly make them faster and less expensive for end users such as consumers and merchants.

Electronic representations of money are usually exchanged in centralized infrastructures, where a trusted entity clears and settles transactions. The key innovation of some of these digital currency schemes is the use of distributed ledgers to allow remote peer-to-peer exchanges of electronic value in the absence of trust between the parties and without the need for intermediaries. Typically, a payer stores in a digital wallet his/her cryptographic keys that give him/her access to the value. The payer then uses these keys to initiate a transaction that transfers a specific amount of value to the payee. That transaction then goes through a confirmation process that validates the transaction and adds it to a unified ledger of which many copies are distributed across the peer-to-peer network. The confirmation process for digital currency schemes can vary in terms of

speed, efficiency and security. In effect, distributed ledgers replicate the peer-to-peer exchange of value, although on a remote basis over the internet.

There are different ways in which these systems might develop: either in isolation, as an alternative to existing payment systems and schemes, or in combination with existing systems or providers. These approaches would have different implications, but both could have significant effects on retail payment services and potentially on financial market infrastructures. There could also be potential effects on monetary policy or financial stability of the world.

**References:** Digital currencies

Committee on Payments and Market Infrastructures, Bank for International Settlement (BIS) Basel, Switzerland.

## MODERN METHODS OF ANTI-AGING

S. A. Medvid, Podoprigora N. N., *students of SSU, group- EM-51*

Bashlak I. A. – *EL Adviser*

In ancient times people were looking for ways to extend or restore youth. Scientific methods in this direction started only at the beginning of the XIXth century.

Aging is an inevitable, genetically determined process that depends on the exhausting of the biological resource of an organism and accumulation of toxic products in the cells and tissues, which prevents the regeneration of cells.

Rejuvenation is a process of regeneration of new body cells at the same rate as in youth.

These are the rejuvenation techniques, which are used on the outside, allowing you to run the metabolic processes in the skin and muscles:

Chemical peels are superficial burns of the skin;

Photorejuvenation is applying an intense beam of light on the layers of the skin;

Laser resurfacing is laser treatment for surface layers of the skin;

Microcurrent therapy is a therapeutic effect on the skin's tissue, muscle tissue and lymph caused by pulsed current of weak voltage;