elements are placed inside a circle or semicircle. For such logos, dates are not an uncommon attribute.

This technique reflects the feelings of old times, traditions, and inheritance. [3]

We can conclude that graphic design of modern logos has certain disadvantages, it is not always appropriate style and color scheme are used. But the main reason is that the target audience is few Attention to brand advertising is to the communicative space of Ukraine is one typical advertisement, therefore, necessary in the work of specialist The purpose of graphic design is knowledge of the latest world trends in the development of logos and trademarks and the creation of logos, which among other things is unambiguous highlighted their brand, attracted attention and acmimic the perception of the viewer.

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TO THE QUESTION OF EVOLUTION OF COMPUTER-AIDED DESIGN

The currency of our research of CAD evolution is that knowing the way CAD developed, we can understand what features need to be paid attention to the improvement of CAD in future.

The aim of our work is to analyze the main periods of evolution of CAD.

The objectives of our work are: to analyse modern tendencies in development of CAD, to define main branches of evolution of CAD, to research the history of arising of CAD.

Modern engineering design and drafting can be traced back to the development of descriptive geometry in the 16th and 17th centuries. Drafting methods improved with the introduction of drafting machines, but the creation of engineering drawings changed very little until after World War II [1].

Today CAD is capable of showing designers, maufacturers, and homeowners, their design and interact with it before the design is even maufactured. CAD designs can be created using a variety of materials, directions and views, shapes, and dimension styles [3].

Some researchers consider that the main brabches of evolution of CAD are:

"Change in Drafting – Dr. Paul J. Hanratty invented a numberically controlled program that allowed designers to draw simple lines with a computer in 1950.

Early CAD – In the early 21st century, computer programs like CAD were able to create 3D models on the computer.

First CAD – The first true CAD system was developed in the 1960s. However, it didn't become widely used until the mid to late 1980s.

Solid Modeling – The first solid modeling was introduced in 1981 and was called Unisolid" [3].

Computer-aided Design (CAD) refers to the use of computer systems in assistance of the creation, modification, and analysis of a design. CAD printing refers to the specialised printing process associated with CAD design.

CAD implementations have radically evolved since their initial development in the 1960's. Before the 1980's, CAD systems were expensive and specialised on computers that only a select few could afford [2].

As the researchers say, "The first general purpose computer was developed in 1943 through the combined effort of US Army personnel and the University of Pennsylvania's Moore School of Electrical Engineering. The first graphics formed through mathematical equations took place roughly ten years later and involved the

use of a computer numerical control machine and a cutting tool. In the early 1960s the first commercially available Computer Aided Design (CAD) systems were coming out on the market. CAD took an enormous step forward with the introduction of SKETCHPAD in 1963 by Ivan Sutherland, then working at MIT. 1971-introduction of Automated Drafting And Machining (ADAM). 3D CAD was first introduced in the 1970s but not in a widely distributed fashion" [4].

Solid modeling was the major CAD advancement made in the 1980s. "Significant software offerings included the well known 2D system known as AutoCAD. Solidworks, an updated version of which we currently use at Creative Mechanisms, was first introduced in the 1990s" [4].

In conclusion, we analysed some points of view on the periods of evolution of CAD. Researchers define some periods according to innovations. CAD still needs some improvemetns in areas such as speed and ease of use. CAD is quite perspective and has many variants of developments in future, such as: 1) CAD will be able to think. It will anticipate the designer's next move and will automatically put preconfigured forms into the drawing. Designers of the future will also be able to use voice commands to draw and control CAD; CAD has the ability to share drawing and designs with other designers. One of the purposes of CAD is to show the buyer or manufacturer of the product what the final outcome will be before the design is produced. We defined the main branches of evolution of CAD. We researched the history of arising of CAD.

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CROWDSOURCING AS AN INNOVATIVE BUSINESS DEVELOPMENT TOOL

If people say that two heads are better than one, I wonder what a community of heads will make. Crowdsourcing, which means using 'crowds' to 'source' solutions to your problems, uses this simple concept to bring forth great ideas.

The purpose of the research is to clarify the role of crowdfunding in the process of running business projects.

According to the aim the following **tasks** have been identified: consider and analyse the existing points of view relevant to the given problem, explain and specify the role of crowdsourcing in achieving business goals.

Time after time, crowdsourcing has been shown to improve efficiency. While some campaigns and ideas may need a bit more time to develop, sometimes the process needs to be expedited. What's more, crowdsourcing can help to make the process easier, saving manpower on things like focus groups.