

Figure 1.A.U.Th. logo. Retrieved from https://www.auth.gr/en/logo

Collective Intelligence: essay presentation

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### **ABSTRACT**

The essay represents itself an attempt to research and observe the phenomenon of collective intelligence (CI), to study the historical events that caused the emergence of the phenomena, and today's situation with CI, as well as use cases and methods associated with it.

As research on the topic has shown, CI projects are trying to harness crowd's potential to solve this or that problem, and understand the crowd's potential

### Famous use cases of CI

### DARPA challenge

"Under the rules of the competition, the \$40,000 challenge award would be granted to the first team to submit the locations of 10 moored, 8-foot, red weather balloons at 10 previously undisclosed fixed locations in the continental United States. The balloons were to be placed in readily accessible locations visible from nearby roads. The balloons were deployed at 10:00 AM Eastern Time on December 5, 2009, and scheduled to be taken down at 5:00 PM. DARPA was prepared to deploy them for a second day and wait for up to a week for a team to find all of the balloons."

#### MIT team discovered all 10 balloons in 9 hours.

## Their winning strategy was similar to milti-marketing:

"We're giving \$2000 per balloon to the first person to send us the correct coordinates, but that's not all -- we're also giving \$1000 to the person who invited them. Then we're giving \$500 whoever invited the inviter, and \$250 to whoever invited them, and so on"

The challenge was designed to help the military generate ideas for operating under a range of circumstances, such as natural disasters

Source: Wikipedia

### Famous use cases of CI

Foldit

In three weeks, citizen scientists playing a game uncovered the structure of an enzyme that had eluded scientists for over fifteen years ( Malone & Bernshtein)

Wikipedia

The world largest encyclopedia comprised in about 10 years

Kaggle

Platform for online competitions in coding and innovative problem solving

Linux

Open Source Operating System

Github

Source code repository. Recently was acquired by Microsoft

Wikipedia Github Kaggle

Blockchain

Professional Forums

Peer reviews Amazon mturk

# **Essay Sections**

- Abstract
- Introduction where basic notions are defined and context is given
- Overview and use cases of CI: where famous projects from CI area are listed
- Conclusion where the research is briefly summarized

### Main questions and objectives

The main question investigated in the essay is how to harness a crowd in order it works to resolve particular needs or projects.

The question how to design online games or other tools to get audience engaged in problem solving will need further research and is out of the scope of the essay.

- 1. Figure 1. A.U.Th logo. Retrieved from <a href="https://www.auth.gr/sites/default/files/banner-horizontal-default-en.png">https://www.auth.gr/sites/default/files/banner-horizontal-default-en.png</a>
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