### CROWDSOURCING APLICATIONS

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**Abstract**: Crowdsourcing in field of innovation gives various opportunities for companies. They are related to types and different offerings of such initiatives. In this chapter different types of implementation of crowdsourcing web applications are presented. Examples are taken mainly from international perspective. And chapter was prepared with intention of finding ways in which such platforms are implemented for finding potential components for new projects.

Key words: Crowdsourcing, open innovation, crowdsourcing platform

### Introduction

In presented chapter crowdsourcing application review was realized in area of potential for innovation activities. Research was made for selection of trends in application development in conjunction of potential funding applications in European union framework program Horizon 2020 where project of creating new crowdsourcing solution was prepared for presentation at conference ICT 2013: Create, Connect, Grow - Digital Agenda for Europe. This chapter consist of introduction, definitions, crowdsourcing applications presentation and conclusions.

### **Definitions**

Defining crowdsourcing with Oxford online dictionary - obtain (information or input into a particular task or project) by enlisting the services of a number of people, either paid or unpaid, typically via the Internet[1].

According to analysis of various crowdsourcing definitions there usually are:

- clearly defined crowd,
- task with a clear goal,
- the recompense received by the crowd is clear,
- the crowdsourcer is clearly identified,
- the compensation to be received by the crowdsourcer is clearly defined,
- it is an online assigned process of participative type,
- it uses an open call of variable extent,
- it uses the Internet [1].

Such approach as this was noticed by Don Tapscott i Anthony Williams can be solution for arranging users groups which can design and manufacture products from software to motorcycles [14]. Successful examples also expand to social learning where for example in Codeacademy.com in first 48 hours 100 thousand

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users[2] had signed up for service where they can both learn to program or post online teaching courses. Also interesting solution is presented by LabourVoices where factory employees can anonymously report on working conditions in factories in developing countries [11]. There are also applications in art creation where audience engagement led to crowdsourced ballet [17]. Crowdsoursing solutions also help European Space Agency in their project run by Advanced Concept Team for collecting data on how robots navigate on real environments [15]. Such scientific solutions are prepared sometimes as games where volunteers "win" by finding patterns in data or by providing them [16]. But use of public brain work can lead to some threats when companies provide sensitive information on development projects to crowds [12].

It should be also noticed that in last seven years there was noticed increase in interest in crowdsourcing based on search queries coming from Google search engine as presented on Figure 1.

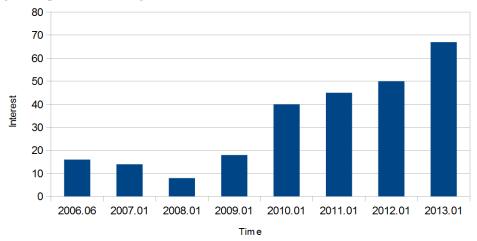


Figure 1. Change in interest in crowdsourcing from 2006 till 2013 Source: http://www.google.com/trends

We can make division of crowdsourcing sites based on number of players on supply and demand side. Easiest grouping is based on one to many and many to many relations. Where in case of one to many we will have following solutions:

- Cisco i-prize,
- YTL my-prize,
- Ideasproject,
- Mystarbucks idea,
- Ideascale.

On other side for many to many we will have for example:

- RedesignMe,
- Innocentive,
- Innoget,

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- Yahoo Answers,
- iBridge Network.

As internet is main solution for facilitation of crowdsourcing activities we can find various approaches to the topic. Other classification opportunity is based on activity type realized with platform, grouping sites can lead to creation of following groups which are represented by various web applications:

- Intermediary Platforms,
- Public Crowdsourcing,
- Peer Production,
- Corporate Initiatives,
- Creative Co-creation [5].

Also there are differences when considering differences among community versus individual innovators which can affect adoption of innovation [13].

# **Crowdsourcing applications**

For crowdsourcing applications presentation multiple case studies was used. Selected cases represent groups presented in previous point with consideration for applications at enterprises and Peer Production and Public Crowdsourcing are targeted mainly for social and political environment improvement. Also there is one example from Polish market as this concept is not widely used jet.

# BZWBK Bank Pomysłów "Idea Bank"

On corporate level platform created by bank BZWBK Bank Pomys³ów (Ideas Bank) should be analysis also as this is one of few successful crowdsourcing initiatives on Polish market. With this solution bank is collecting ideas mostly from its customers. Users can check most popular ideas, review comments, fill in questionnaires and view news. But most important from crowdsourcing point is functionality for collecting and making assessment of various ideas which are combined into categories:

- internet banking,
- phone banking,
- branch banking,
- ATM,
- banking accounts,
- credit cards,
- credits,
- savings,
- loans,
- offer for corporations,
- international offer,
- disabled people at bank,
- internet services.

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- promotion and advertising,
- other,
- faults and errors,
- changes in idea bank.

It should be noticed that this solution is for searching for improvements and innovations almost at every BZWBK banking service in scope of individual customers with fewer initiatives for corporate ones. There is also noticeable activity for disabled people what is not so visible in other solutions presented in this chapter. By fast analysis on some user inputs in May 2013 it was noticed that customers would like to add some categories related to merger with Kredyt Bank. It should be also noticed that partly such functionality as idea collecting is implemented in mBank mSpo3ecznoeæ (mCommunity) but not so advanced in features.

### My Starbuck Idea

Other corporate example in one to many area solution which is in active use is "My Starbuack Idea"[3] which is intended for used in development of Starbuck coffee shop with ideas created and assessed by customers. This functionality is realized in following fields:

- product,
- experience,
- involvement.

Moreover it should be noticed that this solution was implemented on force.com platform, which suggest close relation to Salesforce CRM systems.

Company also uses Leaderboard which contain following information:

- ideas submitted.
- comments submitted.
- votes submitted.

Those functionality help to build customers engagement and involvement in the platform. Although such functionality is not available to all Salesforce customers solution as Get satisfaction in many cases gives similar possibilities for customers and very good example of community communication is in case of Foursuare [9] where product ideas are sourced from customers through this platform.

### Innocentive

This is intermediary platform where various companies can post challenges in following categories:

- business & entrepreneurship,
- chemistry,
- computer/information technology,
- engineering/design,
- food/agriculture,
- life sciences,
- math/statistics,

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- physical sciences.

Posted challenges are related to financial compensation which varied from 1000USD up to 100'000USD. Where total awards were for 210 000USD in 17 challenges in May 2013 [10]. There were also challenges without exact recompensation only with information that award will be varied on proposal impact. It should be noticed that still this idea seems very small in number of challenges and projected award turnover especially comparing with crowdfunding platform Kickstarter where project can attract over 1milion USD in funding.

### <u>Innoget</u>

This is open innovation marketplace and was established in 2007. It was created by independent professionals with experience in the fields of innovation management and technology transfer. Therefore Innoget [7] is service provider that involved in technology transfer activities. There are presented both demand and supply side. With this application use process of matchmaking is improved as there is no need for brokering and consulting services and all this processes can be conducted automatically. As this solution is in open innovation area there are opportunities for getting new ideas, patents, innovative technologies and on their site at the end of May 2013 there was:

- technology requests 281,
- technology offers 383,
- innovation seekers -8,
- innovation providers -23 mostly universities.

So again this is rather small initiative with visible stronger supply side but still gives opportunity for promoting organizations technology portfolio.

## 99designs.com

Last considered solution is in area of co-creation and design crowdsourcing with strong base of more then 200'000 designers. With main categories covering:

- logo design,
- web page design,
- business card design,
- mobile app design,
- t-shirt design,
- banner ad design,
- book cover design,
- illustrations [8].

As example in logo design design category fee is starting from 299, in the process of defining expectations for each category there is special creator giving ability to formulate brief about logo expectations. Potential customers can select logo type, provide examples they like, provide colors with explanation of their meanings on site, places where logo will be used etc. With big base of designers customers can expect to receive quality of offering.

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# **Summary**

In presented cases selected crowdsourcing solutions were presented. With attitude for finding ways for crowd involvement with such solutions basic approach used as BZWBK is to use such platform for finding problems and improvements in bank services. Worth noting is special attention paid to people with disabilities. Similar approach is visible in 99design solution where main categories relate to offered services. Slightly different approach is considered by My Starbuck Idea where not only interest in gathering ideas for product developments is visible but also need for building involvement and improving experiences. On the other hand platforms as Innocentive and Innoget represent solutions which enable knowledge transfer for crowd to enterprises or institutions with use of competitions. And with Innoget managers can also find technology or service offers from other companies or research institutions.

There are also other interesting examples from crowdsourcing area as Amazon Mechanical Turk where companies or individuals can post micro tasks to be performed by crowd organized by Amazon but from innovation perspective this approach can be considered mainly from assignment perspective where users would share opinion abut product or offering. As it was presented there are various approaches to crowdsourcing. Still there seems to be unexplored potential of crowd on both commercial and non-commercial initiatives. Those practices seems promising especially considering interest in open innovation and various projects which will be prepared and are financed from European Union funds.

As information about innovation on crowdsourcing sites is usually presented in open format there is opportunity for further research of innovation activities by monitoring such sites. This seems to be not too much explored area. By analysis of provided data and its aggregation there is possibility to provide conclusions about market movements and can provide ideas for future products which should be researched in contexts on value creation for organization.

Use of crowdsourcing as of presented solutions can provide applications in various areas in from getting ideas, through designs up to finding solutions of complicated technology problems. Managers should consider those solutions to stay innovative and try to limit cost, remove barriers in product development or shorten time to market. But one should consider threats related to information exposure and influence on value created which should be researched more deeply.

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### APLIKACJE CROWDSOURCINGU

**Streszczenie:** Crowdsoursing w zakresie innowacji daje firmom wiele możliwości związanych z różnym zakresem rozwiązań takich inicjatyw. W tym artykule przedstawione zostały wybrane rodzaje wdrożeń aplikacji crowdsourcingowych. Przykłady zostały zaprezentowane z międzynarodowej perspektywy. Artykuł został opracowany z intencją przekazania informacji o rozwiązaniach możliwych do implementacjach w kontekście wyszukania komponentów dla nowych projektów takich aplikacji.

Slowa kluczowe: Crowdsourcing, otwarte innowacje, platforma crowdsourcingowa

## 眾包 APLICATIONS

**摘要:** 眾包在創新領域給出了公司的各種機會。它們是關於類型和不同產品的此類舉措。在本章中不同類型的執行眾包的 Web 應用程序的介紹。例子是從國際視角主要採取。和章節製備與尋找中,這樣的平台都實現了尋找新項目的潛在組件方式的意圖。

**關鍵詞:**眾包,開放創新,眾包平台。