

# Models of Charity Donations and Project Funding in Social Networks\*

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**Abstract.** One of the key fundaments of building a society is common interest or shared aims of the group members. This research work is a try to analyze web-based services oriented towards money collection for various social and charity projects. The phenomenon of social founding is worth a closer look at because its success strongly depends on the ability to build an ad-hoc or persistent groups of people sharing their believes and willing to support external institutions or individuals. The paper presents a review of money collection sites, various models of donation and money collection process as well as ways how the projects' results are reported to their founders. There is also a proposal of money collection service, where donators are not charged until total declared help overheads required resources to complete the project. The risk of missing real donations for declared payments, after the collection is closed, can be assessed and minimized by building a social network.

**Keywords:** charity, project funding, money collection, social networks.

## 1 Introduction

Reasons why people donate to charity projects and forms of support are subject of various studies [4, 13]. An approach, complementary to scrupulous observations and polls, to discover motivation for charity, used in our research, was studying comments on web portals that appeared under articles related to charity and social help issues. Although such a method could not bring us objective quantitative results, we intended to focus rather on identifying situations, problems and arguments for supporting or not participating in charity actions that people give in an anonymous discussion. We also tried to analyze if the will to help is a function of emotions risen by participation in a sad event (maybe reported on TV or elsewhere), observation how other people contribute or the ability to help is a basic instinct that awakes in us independent from circumstances and people around us.

Non Government Organizations (NGOs), main organizers of charity projects developed on country-wide and international scale, open the opportunity to participate in large scale support actions by small donations brought by big crowd of participants. *Many social problems seem too large for any one person to make a difference.*

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*Making a donation gives the donor personal power over a complex issue that is much larger than himself* [11]. It appeared that important factors that make people to contribute to projects run by NGOs are small donations (many can afford it) and feeling of being a part (founder) of an important project. Joined contributions of a group focused on solving particular problem is a good example of utilizing so called social capital [8, 12]. It is also worth to notice that good atmosphere (fun, joy, concert) and even day of the week has an influence on number of participants and their will to contribute to projects presented during an event. Martin and Randal in [9] describe an interesting experiment which statistically proved so called 'Sunday effect', where donations dropped to a donation-box in City Gallery Wellington, New Zealand were larger and more frequent on Sundays than on other days of the week. Observed donators' behaviour is a reason why many large-scale charity programs implement money collections during concerts and other outdoor events where participants can observe each other while donating.

Charity help and money donations become an important and growing part of world economy. While registered charitable donations, reported in the Giving USA 2007 survey[2], exceeded US\$295 billions in year 2006, the totaled sum collected in 2007 grew to US\$ 306 billion in 2007[3]. It is worth to notice that majority of giving came from individuals while only 1.3% of donations was contributed from huge actions supported by media.

An effective way to reach wide audience at low price is Internet. The interactive media provide tools for delivery textual and audiovisual content while visitors (participants) have the possibility to react instantly. The action performed by visitors to a charity collection sites may give donation via internet money transfer (e.g. Paypal or credit card payment). They may also do some work in distributing information about the charity program by sending a message to their friends. And finally the visitor, who register in charity collection web-site, may be informed about new charity programs when they start. Frequent web-site visitor is also a valuable donor, who may bring some funds to charity program. The money may come from sold advertising space in the web-site. Such an approach is used in a service run by Polish Humanitarian Action (NGO): pajacyk.pl, where a daily return and click of a user brings small donation from sponsor advertised in the site. Reported money donated this way is enough to serve daily ca. 2000 hot meals for children in selected Polish schools.

In this research we try to analyze reasons why people decide to help, distinguish the most preferred forms of donations in the Internet space and finally there is a proposal of an approach which assumes that support goes only to those projects which can be fully financed from declared donations. The novelty of the approach is in the fact that declared donations are deducted from accounts only in case when total declared sum is higher or equal to required resources. The projects is validated against legal regulations which, in case of Poland, do not allow (with some exceptions) public/internet basking for money by individuals but such a collection may be run by NGOs, foundations etc.

The paper is built of 5 sections. After introduction there is a collection of motivations and arguments for participation and avoiding charity actions found in literature review and on internet forums under articles related to charity issues. Section 3 is a survey of money giving and charity donation websites with discussion

of their main features and business models applied for money collection. In section 4 there is a proposal of a service based on a web-site dedicated to organize money collections for individually described program, project or action coordinated by an NGO or foundation. The work is closed by short conclusions and bibliographical references.

## 2 Motivation for Charity and Money Donation

People decide to donate to charity programs for various reasons which include social, economic and psychological factors [4, 10, 13]. Experimental research show that charitable giving is strongly influenced by contributions from a social group, e.g. people working together [5]. It is a strong argument in discussion whether building a stable or ad-hoc social network may increase the possibility of donation and amount of money given by individuals belonging to the social network [6]. Another reason to build a social network oriented towards charity projects comes from GivingUSA 2002 report [1], where the main reason why people donated was that they were asked to give by someone whom they knew well.

A popular technique, used by governments and employers, for increasing individuals' motivation for participation in charity giving is gift-matching. In this approach it is assumed that each donation provided by an individual donor is doubled or increased in some extent by offering coming from institutional body. Experimental research in this field showed that matching-gift contribution has positive influence on the possibility that an individual decides to donate and the amount of offered support[7].

Help may be addressed in various forms (medical care, assistance, babysitting, teaching, feeding, offering a job). In many cases, the most convenient form of aid, especially in distributed environment, is money donation. However, what is often addressed by organizations dealing with distributing social help, the value of the aid is low if it cannot change the ability of people in poverty to manage their problems themselves after the initial investment. In other words, the main problem to be solved is not how to give someone a fish but how to give her/him a fishing-rod and teach how to catch a fish in the future. In this field, it seems reasonable, that organizations which address their programs to groups of people have more professional experience, and potency to utilize the effort and resources in well coordinated social programs. On the other hand, aid offered by individual donor directly to another person may be used entirely (without institutional overheads) to appease basic and most urgent needs.

An interesting map of motivation and arguments – pros and cons money giving and charity aid may be collected while reading discussions appearing on websites under articles touching charity issues. The hottest discussion observed on Internet forums deals with the problem how direct money-gifts are consumed, whether the donation given to a begging person on a street is used according to declared aim of collection. Doubts about the real use of given money resist many people from supporting begging persons. Observation important for us in our research and efforts to build a website dedicated for collecting money for projects coordinated by NGOs is that people want and expect a kind of report how their money were used, whether their

donation had an influence on the final result of the project and finally they want to know and have satisfaction if their contribution 'made a change'.

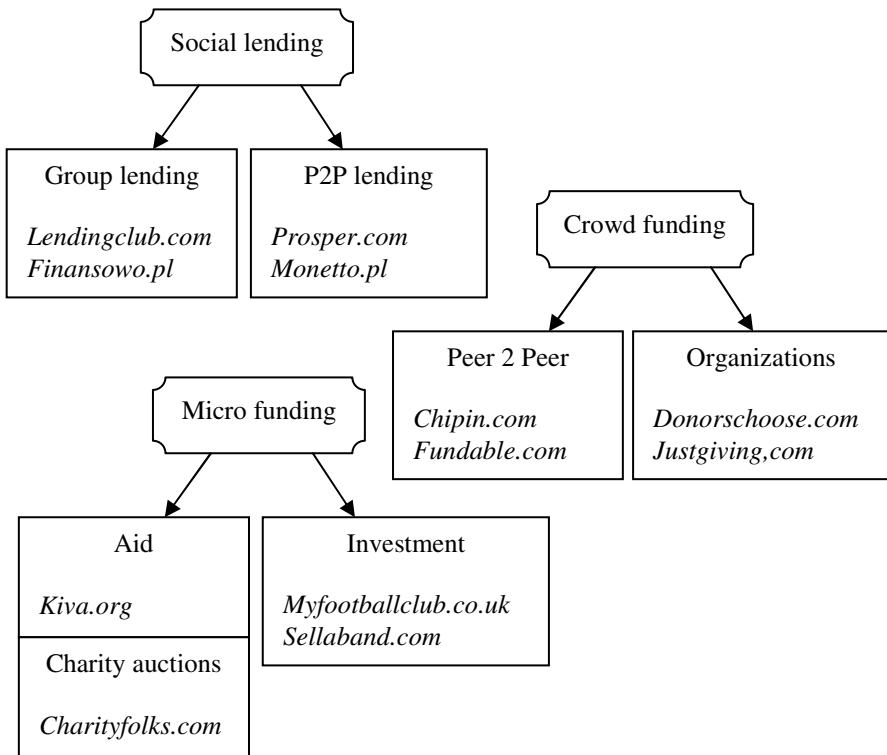
### 3 Money Giving, Lending and Social Aid Served over the Internet

Social activity observed in Internet sites which formed web 2.0 movement has also its reflection or a parallel branch on fields where joined efforts of crowds (social networks) and money donations may lead to successful realization of projects. Approaches used to stream joined good will efforts of people include the following forms:

- **Crowd-sourcing:** an approach commonly used while some tasks are outsourced or delegated to employees or volunteers willing to perform some work on good will bases, for free. This approach is used to produce new pieces of open source software, designing an algorithm or performing complex computational tasks on computers offered by volunteers who install special client-software able to download a task, perform the computations and send results to server which interprets and glue partial results into joined solution of entire problem.
- **Crowd-funding:** it is a special form of crowd-sourcing, where a group of people (a social network) collects money for a particular project. Internet facilities are used for spreading information about the project and possibility to join and donate. Crowd-funding is often used to support victims of natural disasters, to help in publishing first CD by a young music team, supporting projects coordinated by NGOs and, finally, supporting individuals in collecting resources on the way to realize dreams and plans.
- **Person-to-Person/Peer-to-Peer lending:** direct loans offered by a single person to another person. The concept of P2P lending assumes sidestepping banks or financial brokers, which typically play the role of an expensive middleman. Savings coming from direct contact of lender and borrower should provide better discount for the lender when compared to bank deposit and cheaper credit for the borrower when compared to a bank loan. P2P lending may also be an alternative for borrowers who, for any reason, cannot get a loan from a bank. Depending on local law regulations, P2P lending services may have several restrictions, e.g. sum of a single transaction may be limited. Because of 1-to-1 character of P2P lending transactions, risk of each transaction is attributed to lender unless the transactions are insured. One of methods used to minimize the risk of capital lose is diversification of peers who borrow money from a single investor. Reliability (or credibility) of peers increases with growing number of returned loans. Some P2P lending services allow users to provide links to their profiles in other social web-sites like linkedin.com or goldenline.pl (in Poland) to give more information about themselves.
- **Social lending:** a specific form of direct loans, where transactions are realized within a closed group (social network). A person willing to join the social lending network needs to be invited by a member of the community. Business model, where transactions are realized within a group of friends/colleagues, friends of

friends and so on..., may reduce the risk attributed to money lending. Among the most known private lending sites are: prosper.com and zopa.com.

- **Micro funding:** investing money in start-up projects, artists etc. In majority of cases supported firm or person allows investor to participate in success of financed project. It may be formally guaranteed by a contract. In this sense micro funding plays a role similar to stock market, where new shares are sold to support new investments while shareholders expect rise of stock price in the future as well as dividend.
- **Charity auctions:** last but not least in analyzed here forms of social funding are charity auctions, where various goods (artwork, antics, trophies and ordinary products) are offered for sale with condition that money coming from transaction will support a charity. The purpose of the charity is known to all participants and visitors. A factor that increase competition among bidders is public access to information who wins the auction. Sometimes, participation in a charity auction may also be a form of promotion, especially when name or some ID of bidder is known to the public and auction is broadcasted on a TV channel or the information remains for long on a web pages.



**Fig. 1.** Forms of donation and investment conducted by social networks and individuals over the Internet

## 4 Internet Basking for Money Based on Good Will Donations

Money collection for charity purpose is a process where an important role must be attributed to trust in organization and people who organize donation and control procedures. Trust that donors have in NGOs which organize social help could easily be liquidated if it comes to the daylight that money donated in public collection were subject of a fraud. This may be a reason why organizing country-wide or international money collection (e.g. conducted over the Internet) is restricted by law and in case of Poland it is allowed for NGOs, while individuals may only organize public money collection after approval from Ministry of Interior and Administration. In practice, it is convenient to organize such a project by an NGO, especially if the organization already has experience in similar actions.

Charity is not the only purpose of public money collection. As mentioned in section 3, social funding and micro funding may be oriented towards supporting interesting projects run by individuals. However, lessons learned from our research show that in our case it will be easier to pair an NGO and project inventor (money collector and performer) than organize a public money collection by an individual. Thus, in our proposal of organizational and business model of collection site it will be assumed that all money collections will be organized/controlled by an NGO. Individuals willing to run their own projects financed from public donations may get support from NGOs. In proposed solution, unlike in fundable.com, only NGOs will be allowed to start a collection, however in the description of the collection it might be specified who is responsible (e.g. inventor) for particular project and what are expected results.

A prototype application based on business model described in this section was developed in a research project run at Poznan University of Technology, Poland, partially described in [14].

### 4.1 Conceptual Model of a New Money Basking Site

In description of business model the terms ‘money collection’ and ‘money basking’ may be used alternatively to describe the same process. It is decided that donation process should be as simple as dropping some coins to a basket on a street. The difference of proposed system when compared to basking on the street is in fact that support may only go to projects which have chance to be entirely financed in 100% and every donor gets report on how the money were consumed. The operational schema for proposed money collection site is based on several assumptions selected to increase collection effectiveness:

- The community (social network) consist of two types of members: project coordinators (NGOs) and donors (individuals, institutions, etc.). If an individual wants to propose his/her own project (e.g. to plant an oak alley along a private field or to repair a bench in a park), he/she goes to a chosen NGO which may become the project coordinator and ‘opens a basket’ for money collection to support this action.
- Each money collection (basket) is described by several attributes: *inventor* and *coordinator*, *aim of the collection* in form of a webpage (title, description: text, photos, etc.), sum of *money required* for realization and *money donated by*

*inventor*. Two more attributes are: *donated money* and *declared support* (more detailed description is given further in this section). We believe that the bigger part of founding or work comes from the inventor, the more likely it is that project gets acceptance from the rest of society, because higher engagement of inventor expresses his will and determination to complete the project.

- Money basking website is organized in a form of a social network. Anyone can join the community, however it is preferred if new members are invited by already registered ones. When a new member joins the community after an invitation from another member he inherits credibility from the inviting member.
- A basket (money collection) for a single project may be opened for restricted time only. However, the period while community members can declare their donations for the project should be long – it is proposed that time limit may not exceed 6 months.
- Value of a single donations (donation declared by a single community member) is restricted. A donation limit boundary is built by selecting a lower number of two values: e.g. EUR 20.00 or a single donation cannot exceed 4% of all money expected from the social network. Numbers given above are just an example of bounds and actual values used in running system will be adjusted for operational convenience.
- Social network members may declare their support for selected project. To do this, a logged user declares a sum of money he/she is ready to give. Declared money are not required to be transferred instantly (although it is possible). If a member decides to pay instantly, the money transfer is made directly to the NGO coordinating the project with a note for what purpose the money are given.
- Every donation paid instantly is calculated as 100% sure money given to the project. From project coordinator's point of view, we may say, it is a preferred form of giving money. However, because of relatively small values of single donations it is assumed that NGO will not return instant donations to donators, even if the project is not realized because of missing resources. In such an event, money lodged to NGO account from instant donations, may be used by the NGO to support their other projects.
- Whenever a community member declares support to a project, he/she makes a conditional proposal. The user declares: *I will give my money to that project if it has chance to be realized (if it is financed in 100%)*. Declared donation are totaled separately from instant donations. Because it may happen that declared donations will not be paid by the person who promised to pay, declared donations are multiplied by the donor credibility. For example, if a new member, with credibility of 0.75 declares to donate EUR 10.00, the system counts expected benefit from such declaration as EUR 7.50. Member credibility grows with each declaration fulfilled and with every instant donation.

In particular case, it may happen that all members, even those with credibility below 1, pay their declarations, when the collection is finished. According to assumed rules, total money collected from such transactions would exceed the sum required to realize the project. In such case overpaid donations would be saved to cover missing declared donations in other baskets.

- During the entire period while a project basket is open for donation, besides description of project aims there is a visible information what support was already

offered for the project and how much is still missing. Information about declared offerings is adjusted according to credibility factor of donors who declared their support for this project.

- When total of inventor contribution, instant donations and credibility adjusted declared donations cover all required sum of money to realize the project, a message is sent to all project stakeholders. Donators, who declared their support get information that project is to be financed in 100% and they are asked to transfer declared money. Such an approach reduces risk associated with partial covering resources required for the project.
- After the project is realized, all its stakeholders receive a report with words of thanks and description how their donations were utilized in the project.

#### **4.2 Procedures to Maximize Probability That Declared Donations Will Be Paid**

Money giving may bring satisfaction for both sides: for those who receive money to realize their dreams and for those who support useful actions. In many cases even a small donation gives a feeling of participation in a project that brings happiness to other people. To preserve the feeling of safe donation and maximize probability that money donated to projects in basking system are not subject of a fraud several procedures are proposed:

- Projects are coordinated by NGOs and all donations are lodged to the NGO's account. Project expenses at the stage of realization are covered by the organization.
- Users not willing to pay instantly without guarantee that project will receive support sufficient for full financing, may donate after the collection is closed and declared donations cover the project requirements.
- User credibility attribute assigned to registered members of social network is a measure that helps to estimate how much money must be declared in order to obtain sum required for full financing the project.
- Whenever a user does not fulfill his declaration, his/her credibility is lowered, as well as it is reduced the credibility of a user who invited this 'not reliable' member to the community. Consequently, the user credibility rise, after successfully paid declared donation, as well as it rises the credibility of a member who invited 'reliable' member to the community.
- Descriptive status of a member (in sense of credibility) and participated collections is publicly visible and may be a sign of pride for users who actively donate various projects.
- Project report is sent to all stakeholders after the project is realized. Receiving such summary of how donators' money helped to finance a useful action is a form of thanks and good invitation to donors to support similar projects in the future.
- In proposed model it is assumed that user's credibility factor and formulas how it is calculated after a declared donation was/was not transferred are adjusted according to dynamic behavior of social network built around the donation system. The aim of adjusting formulas is to guarantee declared money collection at level sufficient to full financing of projects.

### 4.3 Technological and Social Network Features That May Affect Money Collection

Money collection process based on good will basis requires good scalability. This may be achieved by quick and cheap distribution of information about particular collections among people (social network members) who share the same beliefs and values. When a new collection begins, an information may be sent to the community members who used to support projects coordinated by the same NGO. The information may be delivered via e-mail or sent directly to users' mobile devices to keep them in touch with the community. Net of connections between community members is created upon their invitations to the community and shared interest which may be deducted from supporting the same collections.

An important role in building the good-will-society is invitation. The link between a community member and an invited person is permanent and the invited member behaviour affects inviting member's credibility. Once the invited member supports a projects (gives money) he increases his own credibility as well as he increases the credibility of the member who invited him to the community. Empty declarations (not paid after the collection ends) will decrease the member's and inviting person's credibility.

## 5 Conclusions

Many social activities and charity projects are financed from public money collections. In era of globalization and expanding social networks it is a natural consequence that basking for money is moving from streets to virtual space where it is easier and cheaper to reach crowds of volunteers and build a community willing to donate.

In proposed model of money collection, donations may be transferred after a project collects declared support at the level sufficient for full realization. Applied business model assumes that money given in instant donations are not returned to donors in case if the project is not supported in 100%. However, the money coming from instant donations go directly to an NGO coordinating the project and may be used by the NGO to support similar actions in the future or may increase project inventor contribution when the project calls for support in a new collection. Such an approach is different from existing money collection applications. For example in fundable.com donations are not taken from credit card account if the project does not get 100% support, but such a convenient function has one drawback – time for a single collection is limited to 26 days, as Paypal limits pledges to 26 days. Short period for money collection may be not sufficient to form a strong enough group or users willing to support the aim of the collection. A different approach if assumed in website siepomaga.pl, where money collections are not limited in time, and they remain active until they are fully paid by instant donations.

Approach assumed in proposed model is a compromise solution. There is a possibility of instant donations as well as it is possible do declare a conditional donation, which will be transferred if the projects gets full support. Because, support declarations can be realized in long term, time for particular money collections has

not to be limited to a very short period. In order to keep the system free from projects which do not get social acceptance and support it is recommended that a single money collection should not last longer than 6 months.

Good will character of donations in proposed model is expressed in two step procedure (initial declaration and money transfer performed after project gets full support). Assumed business procedures based on user credibility factor may guarantee that all the money required to realize projects will be covered from public collection conducted in the system.

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