How Did Reciprocity Evolve in Online Communication? Turnout of Reciprocal Altruism

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SUMMARY

Why do we help strangers on the Internet? Sharing our experience, knowledge, or information does not involve a large investment of energy, yet users often expect to be rewarded for sharing their personal resources. Economics and other disciplines call this type of exchange reciprocal altruism. The present research introduces different types of altruism and then deals with reciprocal altruism. It describes how this form of selflessness can appear in social media. The aim of the research is to create an overview of Hungarian and international research, which is the first step of a long-term, comprehensive research project.

Keywords: Altruism; Reciprocity; Knowledge Sharing; Social Community
Journal of Economic Literature (JEL) codes: D64, O35
DOI: http://dx.doi.org/10.18096/TMP.2020.02.11

INTRODUCTION

Online social networks are communication channels that allow information and knowledge to be shared and exchanged between people around the world. They have remodelled the traditional "face-to-face" form of social contact and contributed to cross-border networking. Although users have access to vast amounts of information and knowledge with the spread of online social networks, it is doubtful that they will expect reciprocity for sharing their own knowledge (Chang & Chuang 2011). This form of mutuality is the so-called reciprocal altruism, which is not a familiar concept in various disciplines. Most people have limited time, energy, or other resources, so they often expect a reward in return. Reciprocity is a very effective incentive for knowledge sharing and self-image building, especially in online communities (Davenport & Prusak 1998).

In our study, we use the academic literature to explore the concept of reciprocal altruism and illustrate its presence on online social media through various cases. We are examining, how reciprocity, as a type of altruistic behaviour can affect online knowledge and resource sharing, and how altruism can evolve on online social media sites.

THE CONCEPT OF RECIPROCAL ALTRUISM

Altruism is a dominant form of behaviour. Many researchers, sociologists and economists – (Piliavin & Charng 1990; Samuelson, 1993, Michalski 2003), etc. – have studied altruism; however there is no unified definition on it. The creation of the concept is attributed to the 19th century French philosopher Auguste Comte. In his view, altruism is an instinct that is the opposite of egoism and is related to selflessness. From time to time, researchers have raised several questions. Does any pure, selfless help actually exist? Are there different types of altruism? Sociologists seek social behaviour, so they base their thoughts on Comte's conception. Psychologists, however, regard altruism as a hidden egoism, because according to their view selfless behaviour is connected with additional reward. Proponents of the theory of evolution link altruism to behavioural genetics. According to Richard Dawkins: "An apparently altruistic act is one that looks, superficially, as if it must tend to make the altruist more likely (however slightly) to die and the recipient more likely to survive. It often turns out on closer inspection that acts of apparent altruism are really selfishness in

disguise" (Dawkins 1989, pp. 80-81). In his work *The Selfish Gene* (1989) Dawkins submitted many ideas and cases of a gene-centred view of evolution. To explain altruism, he also presents some cases from the world of animals. 'An entity, such as a baboon, is said to be altruistic if it behaves in such a way as to increase another such entity's welfare at the expense of its own. Selfish behaviour has exactly the opposite effect. 'Welfare' defined as 'chances of survival', even if the effect on actual life and death prospects is so small as to seem negligible. One of the surprising consequences of the modem version of the Darwinian Theory is that apparently trivial tiny influences on survival probability can have a major impact on evolution. This is because of the enormous time available for such influences to make themselves felt" (Dawkins 1989, p. 13). In the economic approach, according to Hámori, altruism can be defined as the application of others' prosperity into the individual's welfare function (Hámori 2003, p. 59).

In another study, Hámori points out that

> "[…] according to the development of economics over the last two to three decades, it examines the motivations of beyond self-interest and cases of propitiousness and viciousness. Onto the characters of the economy particularly the underdeveloped one, the envy and wicked joy changes individual utility functions and creates a connection between individual utilities. In the same way, altruistic and compassionate economic actors, whose survival has been questioned for a long time, not only exist, but with their manner »magnetize« the behaviour of selfish actors who contact them. As a result of this cooperation, they act »as if« they are selfless." (Hámori 1994, p. 510)

These concepts do not fully cover altruism, as definitions may differ even within disciplines, depending on which type of altruism is appearing. Here and now, we assume that in pure altruism the individual does not expect any reward in return for his selfless act. In selfish altruism, the individual is driven by his or her own interests and is only seemingly selfless.

In kin altruism, the closer is kinship; the more common is altruistic behaviour (Karajz 2018). In 1964, the American evolutionary biologist William D. Hamilton found a connection between altruistic behaviour and evolutionary selection, also referred to as Hamilton's rule. Hamilton relied on relative selection, according to which a person's genes are present not only in direct posterity but also in relatives. If altruists help their relatives to survive or reproduce, these relatives also develop a gene which is disposed to selflessness, that they can pass on to descendants. The more common genes are shared by relatives, the more certain they are to pass altruistic genes on (Hamilton 1963). In his work *The Evolution of Altruistic Behavior* (1963), Hamilton revealed the terms of theory: "It follows that altruistic behaviour which benefits neighbours irrespective of relationship (such as the warning cries of birds) will only arise when (a) the risk or disadvantage involved is very slight, and (b) the average neighbour is not too distantly related" (Hamilton 1963, p. 355).

According to Hamilton, the reason for the evolutionary spread of altruistic behaviour is the mechanism of kin selection. According to one of the basic tenets of the theory, the evolutional suitability of an individual depends on the extent of genes that the individual is able to pass on to the next generation. Each descendant inherits 50% of each parent's genes, which means that half of both paternal and maternal genes passed on to the next generation. Thus, in the case of four descendants, both parents double their genetic representation. However, copies of an individual's genes are not only carried by descendants, but also by other relatives, depending on the extent of kinship. The measure of common genes between relatives is shown by the so-called Coefficient of Relationship (r), first defined by American geneticist Sewall Wright in 1922. According to this coefficient, siblings share 50% of their common genes (r = 0.5), while first cousins share 25% (r = 0.25) (Hamilton 1964) .

There are examples of Hamilton's rule seen not only among humans but also among animals. One of the most frequently mentioned examples is observed for squirrels. In case of danger, ground squirrels signal each other with whistles, but in same time, they also draw the attention of the predators. However, the study showed that the purpose of the signalling is to warn those living in nearby hollows, although endangering their own safety. The study also showed that females in the nearby hollows usually mate with related individuals. Males wander at a young age, while females settle in a nearby hollow (Bereczkei 2009). Hamilton provided a scheme of four social behaviours with their effect on actor and recipient (Table 1). If a behaviour is beneficial for both actor and recipient it is a mutual benefit, if a behaviour is beneficial for only one party is selfishness or altruism, if a behaviour is disadvantageous for both it is labelled spite (West et al. 2006).

Table 1.
A Hamiltonian classification scheme for social behaviours

		Effect on recipient	
Effect on actor		+	-
	+	*Mutual Benefit*	*Selfishness*
	-	*Altruism*	*Spite*

Source: (West et al. 2006)

A non-related type of altruism is reciprocal altruism, a type of "exchange of gifts" where the individual expects a return in exchange for selflessness in the future. This differs from selfish altruism in that the altruist does not expect reciprocity from the recipient and in a specific situation, but trusts that another individual will later act in an altruistic manner. Henceforth, reciprocal altruism will be the focus of the study.

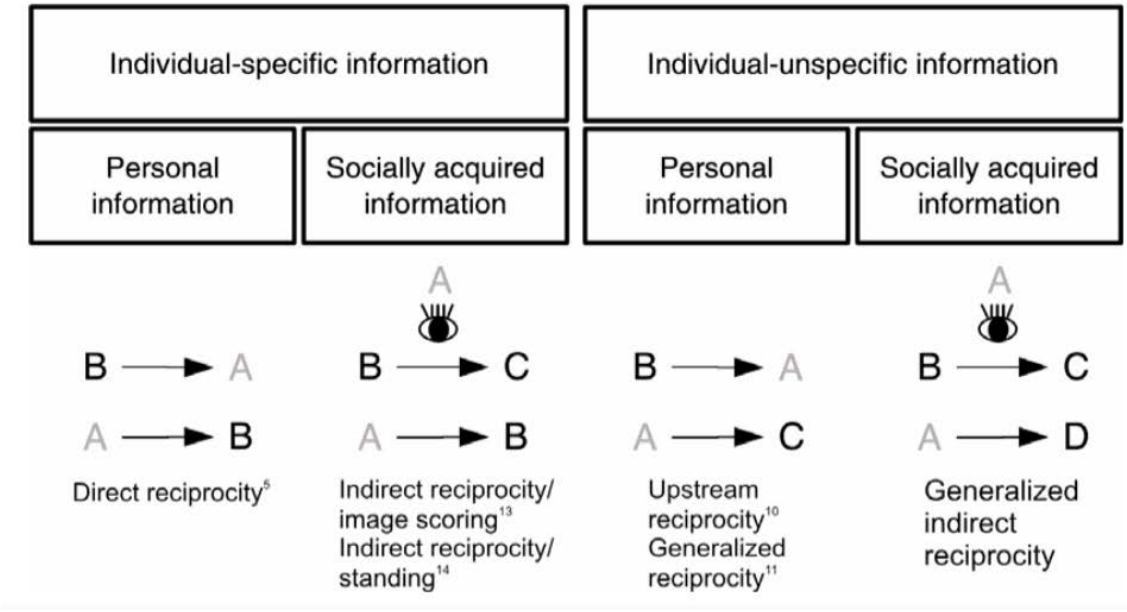
Reciprocal altruism is one of the most common turnout of altruism. Robert Trivers (1971) was the first to deal with this topic in detail, arguing that it is worthwhile to behave altruistically in long run, since selfless acts pay off later, and if the favour is reciprocated, kinship is not a premise. Imagine that two participants, strangers to each other, get into a distressed situation. Selfless action from one of them can be an advantage for the other, who can repay this act later to help us solve a serious problem. There are four conditions for reciprocity. One is the positive profit-loss balance, i.e., the amount of benefit caused by selflessness is greater than the cost to the assisting party. The second condition is the return of selflessness, that is, the existence of a circumstance which may justify cooperation. The third condition is to maintain a constant relationship, while the fourth is the existence of social intelligence by which fraudsters can be filtered out. In certain social situations, altruistic behaviour is explained by various emotional influences such as gratitude, guilt, anger or joy. Different emotions develop during the practice of reciprocal altruism in order to meet the above conditions. Trust, sympathy, and friendship are qualities that strengthen relationships with individuals who have reciprocated selflessness. Aggression, egoism and greed appear in individuals who have not reciprocated altruistic behaviour, thus cooperation is not worth maintaining (Trivers 1971; Bereczkei 2003).

According to the economic view, reciprocal altruism connects two actors: the victim and the beneficent. In this view, Christopher Stephens (1996) argues that further conditions can also be met with reciprocal altruism. In addition to the four conditions listed by Robert Trivers (1971), Stephens points out that the number of mutual assistance situations does not needed to be known. If the participants know in advance the number of collaborations, the last cooperation would no longer make sense, as it will no longer be reciprocated (Stephens 1996). In the case of altruism, however, there is always uncertainty. If someone does a favour to a certain person, that person – even if through no fault of his or her own – may not be able to return the favour later. Therefore, one of the most important components of reciprocal altruism is trust. Reciprocal altruism can be described as a kind of exchange relationship, more precisely as a clearing system for charities, but it is also a community of risk. Reciprocal altruism can also interpreted as risk sharing.

In order to guaranteed the benefits of mutual favours, in most cases we need to belong to a well-defined network. The bigger and tighter the net, the safer it is (Hámori 2003). Such networks can be formed not only among the players presented in the market, but can also be a circle of friends or a university group. Trust can also reduce the costs for actors, as cooperation in the other party awakens respect and propitiousness, and those who are respected can acquire financial benefits (Pinker 2009; Golovics 2015). Trust also leads to opportunistic behaviour. Advance of trust results in a long-lasting relationship, and the parties do not assume that either of them could abuse the situation. Breaking up a long-term relationship of trust is far more unfavourable than fraud for instantaneous gain, because if either party notices the fraud, trust-based cooperation leads to failure. It is beneficial for both participants to ignore situations that bring momentary benefits but undermine cooperation in the long run.

Researchers Rutte & Pfeiffer (2009) demonstrated a model (Figure 1) of the mechanism of reciprocal altruism with help of computer simulation. The authors found that "mechanisms for the evolution of reciprocal altruism may rely on personal or socially acquired information about the behaviour of other individuals. This information may be individual-specific or unspecific" (Rutte & Pfeiffer 2009, p. 1573). Figure 1 shows that individual-specific information can be gained through both personal information (by direct action with the environment) and socially acquired information (by observing the behaviour of others). Socially acquired information is used when personal information is not available or is costly. In these cases, direct reciprocity happens when individual A helps individual B, because they helped each other before. In indirect reciprocity, measures of reputation (image scoring and standing) apply. Individual A took notice that B helps C. Because of B's reputation (either it is image scoring or standing), A helps B. Individual-unspecific information is not ascribed to a specific individual, it can be anonymous. In generalized reciprocity, A receives help from B and then B helpsC. In generalized indirect reciprocity, A took notice that B and C had been cooperating; therefore, A helps D. Generalized indirect reciprocity is

[...]a mechanism for the evolution of cooperation based on marks that are (inadvertently) left in the environments from cooperative or non-cooperative actions. In an untidy place, for example, people may tend to care less to deposit waste in the waste bin than they do in a clean place. Such behaviour might be adaptive because it is not advantageous to invest in cooperative actions where it is unlikely that the investment will be reciprocated. Marks are pieces of socially acquired information that cannot be associated with a specific individual. (Rutte & Pfeiffer 2009, p. 1577).



Source: (Rutte & Pfeiffer 2009, p. 1574)

Figure 1. Mechanism of reciprocal altruism relied on individual-specific and individual-unspecific information.

Rutte and Pfeiffer showed that various strategies expand based on behaviour and interaction in the evolution of reciprocal altruism. In reciprocal altruism, many other aspects can appear, like the so-called "goods of trust", such as knowledge. One of the greatest values of the information society is knowledge and the capability of sharing. Through Internet connections and on social media, it is even truer that the sharing of trust and knowledge increasingly contributes to the building of lasting cooperation (Hámori 2003).

RECIPROCITY IN SOCIAL MEDIA

The community of Internet users is constantly growing: the share of households with Internet in Hungary in 2018 was 83%. This proportion increased by an average of 4.5% per year since 2010, and the proportion of frequent Internet users is 76%. The Hungarian population is also active in the use of social media, as 86% of them participated in some kind of social network in 2018. This figure is even higher than the EU average (65%) and The Visegrad Group (cooperation between the Czech Republic, Hungary, Poland and Slovakia, what focus on the construction of democratic systems) average (66%) (KSH 2018). The National Media and Infocommunications Authority in their latest report discriminated six different type of Internet users in Hungary (N=4000): net-aholic youth (5%), multi-communicatives (10%), versatile and skilled (17%), social media avoiders (16%), almost average (28%) and basic level browsers (23%). Among *net-aholic youth*, the time spent actively using the Internet is far above average (11,6 hours/day), they are typically young people (43% under 30). *Multi-communicatives* are the "champions" of online communication and social life. They have the widest range of used browsers to surf the Internet, also this group representing the highest proportion of graduated members (37%).The usage of social media sites is significant among *versatile and skilled,* who represent the second lowest average age group (age 37.4), and this group has the highest proportion of active workers (79%). This group have high rates of Internet use, visiting social networking and online entertainment sites are also great above average, however average activity in terms of online communication. The main feature of the group of *social media avoiders* – as can be judged by their title –is the conscious avoidance of social media, and this group has the highest proportion of men (60%). The most populous group is represented by the *almost average*. They slightly have outstandingly strong or weak characteristics; however, in the use of social media, especially the use of, they are significantly above average (100%). It is also worth to mention that this group contains the highest proportion of women (62%). *Basic level browsers'* Internet usage skills are lag behind other groups. They use the Internet mostly on one device (laptop or phone) usually at home exclusively for browsing and e-mailing. Taking the whole sample as a basis, the most frequently used social media site is still Facebook, which is followed by YouTube. The most common activity for social media users is "liking". In addition, women are more active then men in liking, posting or sharing (NMHH 2020).

The use of social media is significant, not only in Hungary, but in most parts of the world. Social media is

a tool that creates connection easily with different communities. Social networks are forums of a personal nature where users often reveal information about themselves that is often sensitive or intimate. Shared content can be seen as self-unfolding and self-presentation by users (Hubert 2016). Before we dive into a deeper overview of social media, it is important to mention Web 2.0., a platform built on community, whose contents are no longer created by service providers, but instead by users. According to Kaplan & Haenlein (2010) Web 2.0 is a platform for the ideological and technological evolution of social media. The authors mentioned that Web 2.0 has created a new cultural knowledge that requires only minimal competence and technical proficiency from the user, and a mass of people participate in the production of media content. O'Reilly links the success of blogs, wikis, tagging, and ultimately Web 2.0 to new representations of the wisdom of crowds. For example, by liking, the user connects new information to a specific text, image, or video, creating new content. By clicking on the link, other users confirm their opinion, creating a route that search engines, such as Google itself, register and take into account when ranking results. In this way, the wisdom of crowds creates a new kind of knowledge (O'Reilly 2007). Social media are Internet-based applications that are based on Web 2.0 and allow online interaction in order to obtain content or opinions and to create and share attitudes, insights, media and relationships with each other.

By strategic aspects, there are many categories of online social media, like blogs (both personal and corporate), micro-blogs (Twitter), collaborative projects (Wikipedia), content-sharing pages (Flickr, YouTube etc.), virtual worlds (Second Life), social news sites (Reddit), social media sites (Facebook, LinkedIn), or trading community (eBay) (Markos-Kujbus & Gáti 2012). According to Kietzmann et al. (2011) there are seven functional building blocks of social media, which can provide an instrument for understanding their mechanism for operation. The first one is *presence*, which characterizes the availability of users on each social media platforms. Then *identity*, which represents the extent of users revealing themselves. *Dialogues* represent the path of communication of users, where motivation, content and frequency are also key factors. *Sharing* is the exchange of several exchange of contents between users. *Relation* describes the affection and love for somebody. There is a strong connection between relation and identity: the higher the identity within social media, the higher the relationship is rated. *Reputation* describes how users esteem themselves. The main indicators are strength, availability, emotion and passion. Last, *groups* refer to communities or sub-communities, which are the basis of social media. There are two main types of groups: one is the type that is open for everyone, the second the type that is clarifying their connections and organizing them in different groups. Qi et al. (2018) compared four theoretical perspectives – Goffman's self-presentation, Bourdieu's social capital, Sartre's existential project, and Heidegger's shared-world – in relation to social media to get better understanding of human's social media usage behaviour. Erving Goffman's theory of self-presentation (Goffman 1959) provides a comprehensive picture of the strategies we use when we want to be recognized or liked. When we enter a social situation, we show a "facade" of ourselves. It is a constant set of traits, "an impression to others that lies in accordance with one's own interest" (Qi et al. 2018, p. 96). In the life of social media, people use this platform to present themselves as better than they actually are. For example micro-blogging sites like Twitter provide short messages that can be viewed publically and spread through shares and likes. Users can use this platform as a theatre, where they can play a role, showing only the "front stage" of themselves to others and controlling their impressions. Pierre Bourdieu's theory of social capital (Bourdieu 1986) is a complex set of resources that are based on belonging to a group. This social capital held by a group member serves as warrant and strengthen credibility in front of other members of the group. This social network is a product of investment strategies that are consciously or unconsciously aimed at establishing and maintaining social relations, which eventually promise direct benefits. For producing social capital, regular contact is essential. In the case of social media, the importance of strategy decisions in posting or sharing is crucial. The wide range of people that can be reached on social media can spread online social capital, and build an image of oneself. Jean-Paul Sartre's existential project (Sartre 2007) – in short form – states that existentialism is an endeavour that proclaims the primacy of existence over essence. "According to Sartre, behind each human, we need to discover a unity of his or her life. This unity is related to responsibility, and this responsibility should be personal. This unity is also the unity of the person, and the person should be free to perform this unity" (Qi et al. 2018, p. 98). Users can use online social media for "experimenting or finding justifications related to diverse aspects of their identity, including sexual, cultural, or ethnic characteristics" (Qi et al. 2018, p. 99). In the last theory, Martin Heidegger's shared-world (Heidegger 2010) is about a connection of our act in the past, present and future, which is characterized by concern and taking care for others. An individual's acts or thoughts are a reference to their loved ones. This mutual care is also expressed in the future by the way the individual will care about someone, whom they does not know yet. Social media sites allow people to consolidate identities: "when using Facebook, the behavior of users can be related to both their past and their future projects. The past appears in Facebook status updates; the present is seen in terms of what is going on; and the future appears through the intentions of the user or through a user's continuous use of Facebook" (Qi et al. 2018, p. 99). A relation between some typical characteristics of social media use and each theoretical finding is suggested in Table 2.

Table 2.
Theories appearing in social media

	SOCIAL MEDIA
Goffman's self-presentation	• Social media is like a theatre play, where I conduct a performance; I play a role • On social media, I present myself in order to influence my audience • On social media, I want to control the impressions that others form of me
Bourdieu's social capital	• The main purpose of social media is to build social capital, which may lead to economic capital in the long run • For each possible post, I should evaluate my hopes and the objective chances of success • My strategies on social media come partially from dispositions and are influenced with external conditions
Sartre's existential project	• My contacts on my Facebook or WeChat hold a secret – the secret of who I am • On social network sites, I identify myself in the way my contacts look at me • The world should be revealed to my contacts through me
Heidegger's shared-world	• The meaning of my posts on social network sites to those who matter to me is that I care for them • I want to tell them on social network sites that my concern for them is constitutive of my identity • On social network sites, I want to tell those I care for that the existence of others defines me

Source: (Qi et al. 2018)

There are different influences for using social media, such as collective social consciousness, certain personality traits, specific social situations, but also altruism. Virginia Anne Killian (Killian 2013) examined the incentives of using social media and pointed to three needs: respect, security, and the need for recognition (so-called "ego maintenance"). In her descriptive model, she classified altruism in the category of self-promotion, including self-affirmation, as in all cases the idea of charity and selflessness increased the self-esteem and social capital of the participants. The literature has already dealt with the psychology of social media in studies – (Újhelyi 2014; Wilson et al. 2010; Evans et al. 2012) – as it also contributes greatly to the development of corporate social media sites.

Eddleston and Kellermanns (2007) examined the presence of altruism in family firms. According to their results, it can be said that altruism reduces the extent of conflicts and increases the willingness of cooperation. Smooth communication is essential for knowledge sharing. Altruism is conducive to this and creates a space for knowledge sharing (Eddleston & Kellermanns 2007; Chang & Chuang 2011). This is especially true for social media, as it allows unlimited communication. However, it is important to note that social networking sites allow users to be free and behave on their own schedules, which makes it harder to stay in touch. Knowledge sharing is more common among users that are more active. Frequent presence results in reciprocity, as users are more likely to share information with those with whom they are in constant contact, as feedback is presumed.

Altruistic behaviour greatly increases user satisfaction and is related to building trust. Sharing information and experiences on social media increases user satisfaction as they take pleasure in helping others. This is especially true for groups with similar interests. Group members share information with each other to improve their self-image, and gain respect and recognition, thus increasing members' trust in each other. This is not only typical for relatives or groups of friends, but also on the social pages of online shops and businesses, where customers can provide feedback on the quality of products/services. Online marketers use the tools of psychology to monitor the impact of altruism on user behaviour. Reciprocity can also be observed in these cases, as users expect some reward (respect, recognition, reputation) in exchange for sharing the knowledge (Shiau & Chau 2015).

Ma & Chan (2014) discussed the motivation for online knowledge sharing using four measures: perceived online attachment motivation (POAM), perceived online relationship commitment (PORC), online knowledge sharing behaviour (OKSB) and altruism (ALT). Their key findings were that perceived online attachment motivation has both a significant and direct effect on perceived online relationship commitment and online knowledge sharing behaviour,

and altruism has a significant and strong effect on online knowledge sharing behaviour. According to their explanation: "Altruism is important to families, communities, and organizations as it promotes bonding by fostering loyalty, interdependence, and commitment to long term prosperity. We propose that altruism is especially important in social media environments in which communities are formed based on common interest" (Ma & Chan 2014, p. 56).

Other online platforms like blogs have become a significant way for knowledge and information distribution. A blog is also a form of social media community, as it gathers individuals with similar interests. Hsu & Lin submit, "In the past, knowledge sharing was viewed as a transaction process of knowledge markets, where the knowledge buyers and sellers needed to have reciprocal benefits from the exchange. Thus, expected reciprocal benefits, reputation, altruism and trust were considered as the incentives for knowledge sharing. Nevertheless, factors contributing to the sharing intention were likely to vary in the blog community due to its characteristics" (Hsu & Lin 2008, p. 66). Their results showed that individuals participating in blogs were motivated by the joy of helping each other with knowledge sharing. Enjoyment and easy utility were important factors, and "gain(ing) a sense of belonging" also motivated participants (Hsu & Lin 2008).

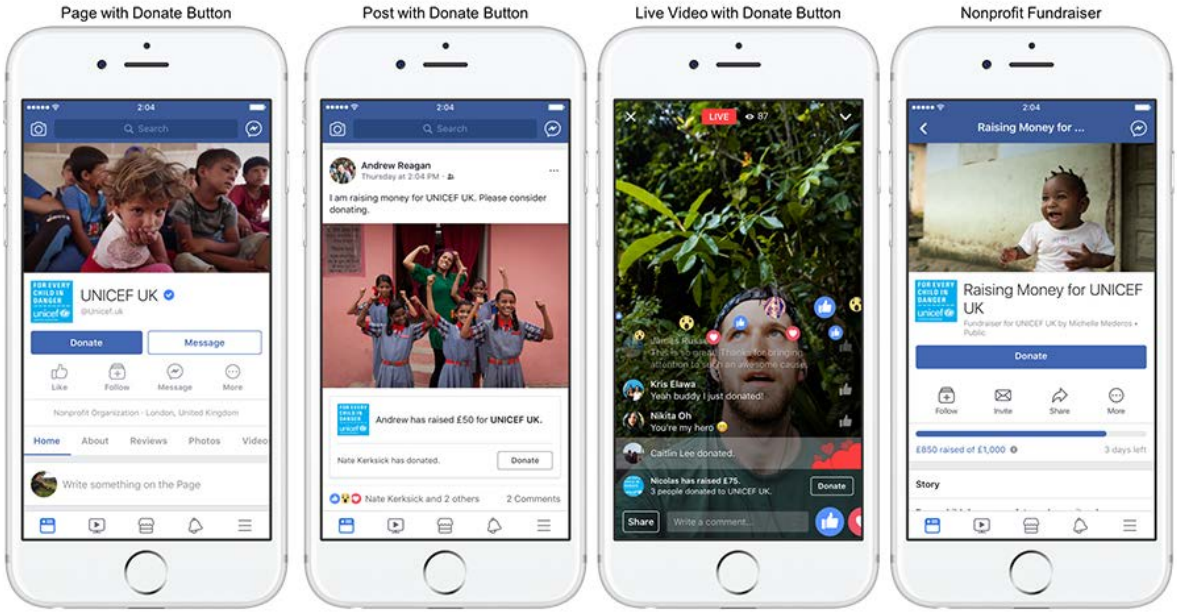
Another study found out further interesting results about online knowledge sharing. Pee (2017) examined whether the need for knowledge and knowledge sharing in Wikipedia was connected with altruistic behaviour. With a survey (N=323) he found that "[…] Wikipedia users who perceive a greater knowledge need in the community tend to perceive less forgone benefit of free riding and have a stronger knowledge sharing intention. In sum, others' need influences one's knowledge sharing due to utility interdependence. […] A potential explanation for the insignificance of level of knowledge is that the objective indicator of education level does not fully reflect one's level of knowledge and the capacity to provide knowledge in Wikipedia" (Pee 2017, p. 845).

New forms of expressing altruism are turning up in digital forms and forums. Cambridge professor and social psychologist Sander van der Linden (2017) identified a trend, so-called "viral altruism", which he described as a situation when "the altruistic act of one individual directly inspires another, spreading rapidly like a contagion across a network of interconnected individuals" (van der Linden 2017, p. 1). Social cause campaigns use viral altruism as a tool for raising donations. Linden labelled these campaigns as SMART acts, which is the acronym of social influence (S), moral imperative (M), affective reactions (AR), and translational impact (T). These kind of campaigns go viral very rapidly and influence the public to be a part of a social cause, triggering off a very strong emotional reaction. Although the course of viral altruism is fast, "viral social campaigns can effectively capture the attention and support of mass audiences, but in order to make viral altruism stick, more gradual and deeper engagement with a social cause is required over a sustained period of time" (van der Linden 2017, p. 3).

However, altruism does not only appear in thematic online community groups. Volunteerism is also related to altruism, as it defined as "a helping action of an individual that is valued by him or her, and yet is not aimed directly at material gain or mandated or coerced by others" (Til 1988, p. 6). The four main components of volunteerism are free will behaviour with no reward; aiming to help strangers on a long-term basis. Volunteerism is an organized and formal method of altruism (Haski-Leventhal 2009). Mejova et al. (2014) summarized with her co-authors (Mejova et al. 2014) summarized the factors that affect individuals in online volunteering in four points: individual capacities and willingness, the individual's range of interest, social influences, and external influencing factors, such as non-profit advertising. Their results show that positive returns also influence volunteerism, like benefit to self (for instance non-profit foundations share their results with volunteers), and benefit to others (a non-profit organization does a major act such as buying vital medical equipment for a hospital).

Social networking sites like Facebook, Instagram or Twitter have a so-called "click-to-donate" interface where practicing altruism is just a click away. Non-profit businesses are increasingly taking advantage of the opportunities offered by social media. Altruism has a significant impact on the social environment. The simplicity of click-to-donate has allowed users to do good with one click, and this altruistic behaviour encourages corporate social responsibility (Klisanin 2011).

Social media sites, like Facebook provide several possibilities for click-to-donate activity (Figure 2). Not only non-profit organizations can use these tools but also personal fundraisers can collect donations for personal causes (small businesses, collecting money for friends, etc.).



Source: Cooney (2017)

Figure 2. Variations of click-to-donate and fundraising via Facebook.

Facebook started fundraising action in 2015, and according to its own statements, the donations for non-profits and personal causes were more than US$2 billion over the world since then (Facebook 2020). Unfortunately, Facebook and other platforms do not provide available and detailed statistics about their fundraising activity; however, the most popular fundraisers are approachable. Since the breakout of COVID-19, the need for donations has became urgent; according to recent data (May of 2020) from the WHO, more than $214 million has been raised since the epidemic outbreak (United Nations Foundation 2020). On Facebook, the top two most popular fundraisers are CDC Foundation, in the name of Combating the Coronavirus, and United Nations Foundations, in the name of COVID-19 Fundraiser for WHO. Both fundraisers had collected more than $6 million from the end of March 2020 until May.

In the use of social media fundraising tools, Conolly (2012) found other interesting results. Her research has shown that altruistic behaviour and charity is related to the frequency of social media use. Users who visit social media sites more frequently are more willing to donate than less active users. Users' online social capital (number of acquaintances, amount of participation in groups, etc.) also influences the extent of charity. Connolly's research has also shown that commitment to a profession is related to altruistic behaviour. Careerists are more active in seeking new relationships and more committed to their own self-image, so they see charity as a means of building their careers. Social pressure also increases the prevalence of digital altruism. The active participation of a valued person in charity has an influence on the behaviour of acquaintances. Social pressure also plays a role in self-image. The more charity you make, the more positive your charity's recognition will be, thus it is increasing your self-esteem. In this case, reciprocity is valid, following the principle of "expect good in place of good". Users expect a higher degree of recognition and self-esteem in return for their altruistic behaviour (Connolly 2012).

CONCLUSION

Altruism can be rather diverse in both physical and digital environments. Through many studies and cases, we provide an overview about the classic presence of altruism from different disciplinary perspectives. It is hard to choose only one aspect, or a single definition that can fully cover the essence of altruism. Altruism is a form of selfless act that depends on several aspects (cost of the act, size of the reward, stage of kinship etc.). Although reciprocal altruism does not depend on relation, it also has many forms (direct or indirect reciprocity, etc.). Studies about reciprocal altruism in online communities provided an outline of how digital altruism can influence knowledge sharing, promote self-esteem or boost donations.

As a summary, we created an overview about the main findings of altruism in social media (Table 3). With help of content analysis, we collected the main factors of altruism in general appearing in social media to get a better understanding of users' behaviour. We created two groups: one is the premises of altruism; other is the effects of altruism. These premises are the most common factors prompting altruistic acts, which lead to several effects. Reciprocity plays a leading role, as it is crucial toward a long-term altruistic act.

Table 3.
Factors of altruism that affect users' behaviour on social media

ALTRUISM IN SOCIAL MEDIA	
PREMISE	• frequent presence
	• possibility of feedback/reward
	• smooth communication
	• similar interests
	• enjoyment
	• utility interdependence
	• commitment
	• social influence
	• simplicity
	↳ RECIPROCITY
EFFECT	• reduces the extent of conflicts
	• increases the willingness of cooperation
	• increases user satisfaction
	• builds trust
	• improves self-image
	• fosters loyalty
	• creates positive recognition
	• influences others' altruistic behaviour
	• increasing the number of acquaintances

Source: own editing

The research that we presented in this study provide an insight into the emergence of online altruism, but mainly deals with international viewpoints. The Hungarian literature focuses more on the traditional appearance of altruism, so in our following studies we will focus on Hungarian cases as well. Henceforth, it is worth examining two topics; the relationship between online knowledge sharing and reciprocal altruism, and between online volunteerism and reciprocal altruism.

The constant technological renewal of social media presents new opportunities for researchers. Users' online behaviour and attitudes are constantly changing, so their attitudes towards selflessness and altruistic behaviour are always evolving.

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