

## Awards in the digital world

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**Abstract** The digital revolution has led to a *quantification* of ever more areas of human life and society. At the same time, there is an explosion of the number of awards, which by their very nature are based on *non-quantified* performance. Will quantification take over completely, leading to “omnimetrics”? The paper argues that this will not be the case. An economic explanation for the paradoxical existence of two totally different developments is offered: The value of awards is the higher, the stronger is the effort to quantify. The two developments depend on each other. The more digitized the world is, the more non-quantified and non-quantifiable aspects of life are cherished. Strongly increasing quantification not only raises the value of awards but also the importance of personal relationships, of friendship, love and admiration. While digitization will proceed and will determine increasingly larger parts of our lives, it is hypothesized that the non-quantified aspects of life will not disappear but flourish.

**Keywords** Awards · Digital world · Quantification · Rankings · Ratings · Intrinsic motivation

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## 1 Omnimetrics?

Today's world is characterized and dominated by the digital revolution. It has led to a *quantification* of ever more areas of human life and society as a whole. At the same time, we observe a strong increase, or even explosion, of the number of awards, which by their very nature are based on *non-quantified*, and often *non-quantifiable* performance.

This paper seeks to present an explanation for this paradox: how can the two totally opposed developments exist and expand next to each other? Will quantification take over completely, leading to “omnimetrics”? On the basis of economic reasoning, the paper argues that this will not be the case. The value of, or preference for, awards is the higher, the stronger is the quest for quantification. While digitization takes over an increasing part of our lives, the non-quantifiable reasons for getting awards are getting more valuable. Due to this endogenous effect, the two major developments can coexist and support each other.

The first section shortly outlines the urge to quantification in the digital world. The second section discusses the rise of awards as an opposite, but coexisting development. An explanation to this paradoxical development is explained in the third section, and the last section offers a generalization: The quantification not only raises the value of awards but also bolsters the importance of non-quantifiable aspects of life such as those related to friendship, love, and religious piety.

## 2 The digital world and quantification

More and more areas of life are quantified. The major impetus for this development is due to the digitization in the form of computers, the many types of electronic communications, and the “internet of things”. This development has directly affected the lives of almost all human beings in today's world (see e.g. Mau 2017).

Digitization is not identical to quantification. The urge to measure existed long before digitization (see e.g. the instructive novel by Kehlmann 2009), and digitization should not simply be reduced to quantification. Yet never before almost everything is subject to measurement. It is widely seen to be inescapable and desirable. It is, for instance, taken as a matter of course that performance of schools is measured. In a large number of countries, the PISA (Programme for International Student Assessment) measurements and rankings are of major importance today in education policy. The same holds true for hospitals, the media (newspapers, radio stations, television), and even prisons and the police. The ranking of sports people is omnipresent. Thus, in tennis, there is a clear hierarchy of players in the overall ranking, and in the yearly ranking. There is also a ranking of who is the best player ever (as a Swiss, I am glad to know that it is Federer). Activities relating to leisure or cultural activities are equally subject to quantification. There is an exact ranking of the “world's best restaurant”, or of the most expensive painting traded at auctions. Thus, both organizations and individuals are subject to extensive quantification.

In business, a huge effort is made to exactly measure the performance of managers and other employees. Pay for performance has become the dominant instrument to motivate people (see e.g. Lazear 2000; Ariely et al. 2009; Frey and Osterloh 2012; Murphy 2012). This requires a precise measurement of what performance is. On the basis of *ex ante* criteria, bonuses are allocated if exactly specified goals are reached. If these goals are surpassed, income is raised according to a fixed standard. The basic idea is that human beings are extrinsically motivated; it is thought that if they are not increasingly paid for additional effort, they will not undertake it.

New Public Management has extended the quantification approach to the public sector, which is treated as if it was a firm. But the effort to measure increasingly more areas goes beyond. An example is academia and universities. Students are treated as customers, and there is an extensive ranking system of universities and individual scholars based on publications, citations, and impact factors of scientific journals (see e.g. Espeland and Sauder 2007; Osterloh and Frey 2014).

The dominance of quantification in all areas of society is due to several reasons. Digitization hugely reduces the costs of measuring and therefore invites its expansive use. Ratings and rankings help private and public decision-makers to cope with the great amount of information available today. Quantification suggests “objectivity” rather than a biased subjective evaluation of alternatives. Quantification in the form of rankings accords with a possibly innate trait of human beings, namely to compare themselves to other persons (Festinger 1954). It serves to provide an incentive to work hard and to expend additional effort, as the comparisons tend to be to persons in a better situation.<sup>1</sup>

### 3 Awards

Awards are ubiquitous in our world. There are an enormous number of awards. Some are orders bequeathed by monarchs and other heads of state, and military decorations are given to officers and soldiers. All sorts of organizations in the for-profit and non-profit sectors hand out a plethora of awards. Titles are another type of award, or honour. It is difficult to find an area of society without awards (see Frey and Gallus 2017a for a survey article, and Frey and Gallus 2017b for a book on the subject).

Historically, the use of awards is closely linked to monarchic systems. Among the most highly regarded *monarchic orders* is the “Gulden Vlies”, founded in 1430 by Philip III, the Duke of Burgundy. Another old order carries the curious name of Order of the Elephant (“Elefantordenen”); it is Denmark’s highest and oldest order of knighthood.

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<sup>1</sup> There are, of course, also major problems with quantifications. They are prone to mistakes; they homogenize what is taken to be performance by disregarding all aspects not included in the often haphazard criteria; they invite self-fulfilling prophecies raising inequality and suppressing new ideas (see e.g. the empirical study by Katz and Matter 2017); and—most importantly—they induce people and organizations to manipulate the data in an effort to manage their reputation.

However, republics also rely on orders to reward merit. (Switzerland is the only exception.) The French Republic hands out the highly valued Légion d'honneur going back to Napoléon Bonaparte. It became a model for many other modern orders of merit. The United States President and Congress bestow various medals close to orders: the Congressional Gold Medal (1776), the Presidential Medal of Freedom (1963), and the Presidential Citizens Medal (1969). Communist countries such as the former Soviet Union and the German Democratic Republic handed out a huge number of medals and titles such as Hero of the Soviet Union or Hero of Socialist Labour, and North Korea still does so.

The best-known order probably is the Order of the Garter. Founded in 1348 it is given at the discretion of the King or Queen. Britain also knows a lot of other orders ceremonially bequeathed by the Queen. Some orders reward truly extraordinary behaviour. The Military Order of Maria Theresa (1757) was given to officers who acted on their own initiative, sometimes even disobeying the commands of higher-ups, but who won a battle. Honouring courage remains a major function of awards in the military sector.

Not only monarchs and governments bestow awards. *Non-profit organizations* also hand out a huge number of honours. In the arts and media, sports, religion, the voluntary sector, and academia, awards are most prominent. More surprisingly, even the *for-profit sector*, supposedly only geared to increasing financial gain, features an astonishing number and diversity of honours.

The Oscars, or Academy Awards, and the prizes given at the film festivals in Cannes, Venice, Locarno, or Berlin, are given in many different categories to honour persons involved in the movie industry. The Grammy Awards are given for artistic significance in the field of recording, the Emmy Awards for achievement on television. The Pulitzer Prize is awarded in twenty-one categories, including history, poetry, music, and news reporting. Major literary prizes are the British Man Booker Prize, France's Prix Goncourt, Germany's Book Prize, as well as the Nobel Prize in Literature. Museums, theatres, opera houses, and orchestras often honour their supporters by titles, such as benefactor or patron.

There are also an uncountable number of awards in *sports*. The titles Olympic or World Champion, as well national, regional, and city champions, are handed out. Specific players are moreover singled out for their special performance, for example, by bequeathing them the Golden Ball, Golden Boot, or Golden Glove. There are International Masters (IM) and Great Masters (GM) in chess. Athletes get the honour of being elected Sports Personality of the Year and are admitted into one of the many Halls of Fame. The international soccer organization FIFA even created the Centennial Order of Merit to honour the two players Pelé and Franz Beckenbauer.

*Non-profit organizations* bequeath many different awards. For instance, the International Committee of the Red Cross bestows the Florence Nightingale Medal on nurses for "exceptional courage and devotion". Voluntary organizations such as fire fighters recognize their members' courage and engagement with many different forms of honour. Awards are also handed out in service clubs such as Rotary or Lions, and the World Economic Forum appoints young people to belong to the club of "Young Global Leaders".

Religious organizations such as the Roman Catholic Church also bestow various kinds of awards, such as the titles Canon, Monsignore, or Bishop. Even beatifications and canonizations can be considered post-mortem awards given by the Roman Catholic Church.

In *higher education and research*, awards abound. Academia is, next to the military and the arts, one of the places with most awards. Universities bequeath the titles of honorary doctor or senator, and professional scientific associations award a huge number of medals and prizes. The Nobel Prizes and the Fields Medal in mathematics are the pinnacle of the academic honour system. There is also an extensive system of titles ranging from lecturer, reader, assistant professor, associate professor, full professor, named professor, university professor, distinguished professor, to senior professor. There exist prestigious fellowships in academies of science such as Fellow of the Royal Society (established in 1660), of the Royal Society of Edinburgh (1783), or of the American Academy of Arts and Sciences (1780). Scholarly journals and scientific conferences hand out a flood of “Best Paper” awards.

Awards are much used also in the *corporate sector*. It is not only high income that counts. Titles are also very important. In management, there is the title of a vice-president, senior vice-president, and first senior vice-president. The number of titles of Chief Officers has virtually exploded. There is a COO (Chief Operating Officer), a CFO (Chief Financial Officer), a CRO (Chief Risk Officer), a CDO (Chief Development Officer), a CSO (Chief Strategy Officer), a CIO (Chief Information Officer), and a CVO (Chief Visionary Officer), among many other variants. In larger firms, there is not only one CEO (Chief Executive Officer), as the name would suggest, but there are CEOs of particular sections of the firm, and a Group CEO. Employees in firms are also honoured by being “Salesman of the Week” or “Employee of the Month”, and a great many similar distinctions. The media regularly choose the “Manager of the Month”, the “Manager of the Year”, the “Most Powerful Woman in Business”, or even the “Manager” or “Entrepreneur of the Century”.

Within the mass of awards, it is useful to differentiate *confirmatory* and *discretionary* awards (Gallus and Frey 2016). The former is given for a quantified performance determined *ex ante*. They just highlight the winner. That is, for instance, the case when a salesperson gets an award because he or she contributed most to the turnover of a specific product or in a specific sales area. In this respect, they are similar to bonuses based on exactly defined performance criteria to be reached. In contrast, discretionary awards are bequeathed to highlight performance that is not measurable, often based on intrinsic motivation of the recipient. Pertinent examples are an award given for Lifetime Performance, or a Nobel Prize in science. Alfred Nobel determined that the Prize be given to a scholar having contributed “the greatest benefit to society” which clearly is a distinction beyond serious measurement.

In the following, discretionary awards are considered, only, because they fundamentally deviate from awards, which just confirm an already existing ranking. When discretionary awards are handed out—which is invariably in a ceremony—the givers make an effort to highlight that the performance honoured is not just an

activity which could be compensated by money. As Bourdieu (1979) emphasizes, some areas of intellectual and cultural production, such as the art world, outwardly “disavow” economic considerations, and therewith quantification, pertaining to markets.

## 4 The paradox

The two major developments discussed in Sects. 2 and 3 are paradoxical. The quest for quantification produced by digitization is based on the idea that what is important should and can be measured. The awards explosion relies on the exactly opposite idea, namely that what is important should not and cannot be measured.

This specific feature of awards can be comprehended in two different ways:

First, it can be argued that we are only entering the age of digitization and quantification. Awards are just a remnant of the past and will disappear once the digital world is more fully developed. This view is well represented in the statement in *The Economist* (2004: 31), which featured an article on the British honours system entitled “A ridiculous, outdated system that cannot be improved upon”.

Second, awards and quantification are two developments that depend on each other and are able to coexist. The strongly increasing quantification of more and more parts of life and society *raises the value of non-quantified and non-quantifiable aspects represented by discretionary awards*. The facets of life reflected in awards become scarcer and are therefore considered more valuable by people cherishing them. While people acknowledge the advantages of digitization, at the same time they want to preserve aspects of life not subjected to measurement and quantification. The more dominant and intrusive quantification is, the more awards are demanded and valued because they document and represent cherished values.

Discretionary awards are devoted to the non-measurable aspects of performance, but there is nevertheless a *hierarchy of awards*, i.e. there is an indirect form of measurement. This is best visible in the British system of honours. The highest award is the Order of the Garter (founded 1348), followed by the Order of the Thistle (1687), the Order of the Bath (1725), the Order of St. Michael and St. George (1818), several other orders, and at the end the Order of the British Empire (1917). Within the latter, there are five ranks: Knight/Dame Grand Cross, Knight/Dame Commander, Companion, Officer, and Member. The Italian Ordine al Merito della Repubblica Italiana has six ranks (Cavaliere, Ufficiale, Commendatore, Gran Ufficiale, Cavaliere Gran Croce, Cavaliere Gran Croce con cordone), the German Bundesverdienstkreuz has nine ranks from Verdienstkreuz am Bande to Sonderstufe des Grosskreuzes. Interestingly, the public cares little about the ranks within and between awards. But those persons who received a particular order are well aware of the subtle differences between the various ranks.

In academia, similar minor differences also play a role. Someone who receives the highest possible award in science—the Nobel Prize—becomes immediately aware that there are four scholars who received two Nobel Prizes. Marie Curie received the Physics Prize in 1903 and the Chemistry Prize in 1911. Linus Pauling won the Chemistry Prize in 1954 and the Peace Prize in 1962. John Bardeen received the Physics Prize in 1956 and in 1972. Frederick Sanger was given the prize in Chemistry in 1958 and in 1980. It has also been reported that scholars who had to share the Prize with one or two other persons feel somewhat inferior to those winning it alone.

## 5 Generalization

This paper argues that digitization and quantification produces an increased value of *awards* because they are devoted to non-quantified and non-quantifiable aspects in society. Awards are not the only dimensions of life, which by their very nature abstain from quantifying.

*Personal relationships* are another important area outside digitization and measurement. A striking example is how Silicon Valley functions (see the lively account in Keese 2014). Silicon Valley is the apex of digitization. One would expect that people pushing forward the digital world would function accordingly in their professional and private lives. Exactly the opposite is true. It is impossible to establish contact with any executive by e-mail, phone, Facebook, Twitter or any other modern mean of communication. What is needed is a personal contact through a person well knowing the person one wishes to contact. The more advanced the quantification of most relationships is, the more valuable personal contacts become.

An even more extreme case in which personal relationships increase in value due to digitization and quantification are *friendship* and *love*.<sup>2</sup> These are aspects of life which if quantified lose their value. This can be considered a crowding out effect (see Frey 1997). It is impossible to buy true friendship and love. Indeed, the more aspects of life are quantified, the more value people attach to friendship and love.<sup>3</sup> Whether they are able to attain it, is of course, another matter. It is, however, worth noting that the young generation who has been brought up in the digital world craves for true friendship and love, especially when it comes to partnership or marriage.

Another closely related case is *recognition* of one's person by other persons. It is not possible to quantify and buy the appreciation of other persons. Sincere recognition will probably play an even more important role in the future even when people are trained and forced to quantify all their achievements in their CVs.

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<sup>2</sup> Digitization has made an inroad even in the case of friendship and love whose extent has been quantified by the number of “friends” and “followers” on Facebook, as well as by the number of “likes” on social networks.

<sup>3</sup> This effect is reflected in modern happiness research where the results of econometric estimates suggest that with rising income—i.e. a quantified element—people attach more and more importance to personal relationships within the family and among friends. (See e.g. Layard 2005; David et al 2017; Frey 2018).

Finally, it may be hypothesized that even in a world dominated by the cult of measurement, *religious feelings* will not disappear. Rather, they will be even more appreciated than today.

## 6 Conclusion

Digitization has already fundamentally changed many aspects of our life, and it is most likely that this development will even gain more momentum. More and more aspects of life will then be quantified. This paper proposes that there is an *endogenous* reaction to this development in which non-quantified and non-quantifiable factors are increasingly valued. While their domain is likely to shrink, one can be optimistic that non-quantified aspects of life will not disappear because they become increasingly valuable. Future society may well be dominated by digitization and the cult of measurement, but in terms of value attributed by human beings these areas are unlikely to disappear.

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