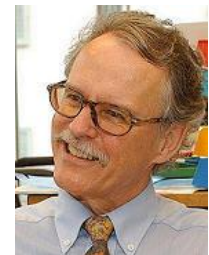


Limits of digitisation

Bruno Frey 02 October 2017

One of the major effects of digitisation has been to drastically lower costs of measurement in a wide range of activities and areas. This column argues that this has prompted many to react against the domination of measurement and the loss of intrinsic preferences, often by escaping into areas not yet captured by measurement which will likely be preserved.



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Digitisation has rightly become a major topic of research also in economics. A recent survey article with the promising title "Digital Economics" (Goldfarb and Tucker 2017) summarises studies on the effects

of digitisation on no fewer than 91 pages, and cites no fewer than 398 works. However, the article solely deals with the (strong) effects on costs. They comprise lower search, replication, transportation, tracking and verification costs. It is therefore, ceteris paribus, to be expected that the corresponding activities strongly expand as a result of digitisation. These consequences are undeniable and are rightly the subject of intensive research.¹

The survey article by Goldfarb and Tucker disregards, however, the consequences on the *preference* or *demand* side. In this column, I aim to show that digitisation also substantially effects consumption and individual well-being. The major reason is the rapidly expanding *measurement* of ever more activities and aspects of life. Human beings react by moving to *unmeasured* areas (at least so far) being perhaps even *immeasurable*, and by attributing ever higher values to them. This endogenous process sets limits to measurement. Future society will therefore not be totally taken over by digitisation; spaces free of digitisation and measurement will be preserved.

Digitisation induces comprehensive measurement

One of the major effects of digitisation has been to drastically lower costs for measurement in a large number of activities and areas. This development has been called 'numerocracy' or 'omnimetrics'. Silicon Valley corporations such as Google, Facebook, Twitter, Amazon, and Microsoft swallow enormous amounts of data, and the secret services are glad to participate. Pasquale (2015: 10) states: "Today, finance and internet companies feverishly sort, rank and rate". These firms use the data collected to get closer to, and to influence, consumer demand, and the governments and public administrations to better control the population. Digitisation to some extent overcomes the traditional antagonism between the market and government; both equally depend on measurement and employ them for their purposes.

The value of the unmeasured

Exactly because so much today is captured in quantitative terms, the desire of people for unmeasured aspects of life rises. They attribute increasing value or willingness to pay to aspects that (so far) escape measurement. There are various such areas incorporating values that in their essence are immeasurable – at least in a reasonable way.

On the *individual* level the unmeasured area comprises personal relationships in marriage, love and friendship, as well as trust. There are, of course, many attempts to measure trust. In a personal relationship such measurement is, however, most questionable. Most people would reject the notion that they can trust their marriage partner to 30%, 60%, or 80% (with respect to what?). Another area where measurement is seriously frowned upon is recognition by other persons. It should not depend on whether one is rich, powerful, or beautiful. Least of all, it is impossible to buy true recognition.

On the *societal* level there are various areas escaping measurement. Among them is what in German is called '*Heimat*', i.e. homeland or native land. It reflects the yearning for identity and

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belonging. Closely related is the 'back to nature' movement, which expresses the desire for a direct relationship to the pristine environment impossible to be offered by the market or government. The demand for 'natural' products of regional or local production such as biological, vegetarian, or vegan food is similarly motivated. The increasing use of dialects, traditional dresses as well as attending rural sports and festivals is another area. The same is true for the immersion into religious sects.

Reactions to comprehensive measurement

People sense that the increasing tendency to measure everything and everywhere undermines these 'intrinsic preferences'. They are crowded-out; the whole tendency is incompatible with digitisation.

The domain of the unmeasured is constantly threatened by an intrusion of measurement. For example, an effort is made to substitute 'love' by 'likes' on the internet, or by measuring the secretion of cortisol or the frequency of heart beats. The purely personal joy of jogging is accompanied by all kinds of measured health indicators. But everyone knows that this does not capture the essence of feeling, thinking, and acting.

Individuals can react in four ways against the domination of measurement and the loss of intrinsic preferences.

- First, they can oppose measurement, but this will in most cases be without effect because digitisation has made measurement so easily available and cheap.
- Second, individuals and groups can undermine measurements by malevolently hacking them and rendering them therewith more or less useless. This is difficult and arduous to do, and it is unlikely to be successful in a broad range of measurement.
- Third, individuals can escape to areas – at least so far – that are devoid of measurement. This requires a considerable amount of creativity.
- Lastly, they can exhibit a higher willingness to pay for areas of life where measurement is consciously renounced, or where it is clearly confined.

The third and fourth possibility of reacting against the 'digitisation of the world' can be observed in many places. Rural sport and music events are more popular than ever. In Switzerland, for example, attending *Schwinger* festivals (a kind of wrestling) and yodelling events (a kind of singing) have become trendy and attract more visitors than ever. Menu cards in good restaurants indicate from which particular farmer has provided the eggs or meat. Consumers are prepared to pay higher prices for bio-food. Publications catering for a romantic picture of country life are *en vogue*.² An increasing share of users of SMS and emails communicate in their dialect. More money is spent on marriage celebrations than ever (although about half of marriages end up in divorce). Awards are not only bequeathed by the state, but play an increasingly large role in private capitalist and non-profit oriented enterprises (see the evidence in Frey and Gallus 2017). Nowadays, artists, for example, commonly feature the awards they received.

Conclusions

Digitisation has a huge influence on our lives. This is the case not only because of the large cost savings achieved, but also because of the effects on the preference or demand side. This column argues that human beings make an effort to fight against losing their intrinsic preferences by escaping into areas not (yet) captured by measurement. They exhibit a high willingness to pay for the immeasurable. This serves to keep the continuous intrusion of digitisation and measurement at bay.

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Endnotes

² There are more effects on the production side, such as those examined by Waldfoegel (2017) who analyses the (positive) effects on the arts and the media.

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[2] Titles in the German language include Landliebe, Landlust, Landidylle, Land und Berge, and many others. They sell well; Landlust is one of the most successful bimonthlies with more than a million copies sold in Germany. It has even surpassed Der Spiegel, which is rather sensational.

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