

FROM SOCIAL DISTANCING TO THE FINANCIAL AND MEDICAL SERVICES DISINTERMEDIATION DURING THE COVID-19 PANDEMIC

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Purpose of the article: In one sentence, disintermediation, it is said, neutralized the negative effects of the lack of trust that accrue from the use of a trusted third party, the intermediary. Disintermediation it is new system allowing any two willing parties to transact directly with each other without the need for a trusted party. Its conceptual framework focuses on posing key cognitive questions. The first core question to ask here is: how can we in intermediation after Global Financial Crisis? The second core question to ask is: how can humans blend disintermediation with policy norms to sustain disintermediation when they know that a minority can violate pandemic norms? Institutional experiences of disintermediation to individual-level social distancing, can shape individual beliefs, risk attitudes, and choices for years to come. The aim of the article is to indicate the mechanisms of conscious exclusion from traditional financial intermediation. Indirectly, it is gaining momentum as a result of distrust of banks and health services. In the first part, we remind you how successive financial crises crushed the banks' natural monopoly on direct contact with customers. In the second part, we show how artificial intelligence penetrates people and enforces self-confidence. Social distinctions is ubiquitous in times of trust in social media. In conclusion, we show that the COVID-19 pandemic did not cause, but only exposed the scale of the social distance to traditional banking.

Research methods: Narrative literature review of disintermediation discuss the state of the science of a specific theme from a theoretical and contextual point of view. We start with critical analysis of securitisation, switch to social distancing and transfer to telemedicine. Systematic literature review need replace disintermediation by digital transformation, social distancing by pandemic as catalyst of change, securitisation as equivalent of financial capital and telemedicine as equivalent of human capital. This is a conceptual article.

Originality/value: The pandemic has become a catalyst for the disclosure of long-term changes in financial intermediation. The tendency to financial mediation emerged half a century ago during the crisis of small and medium-sized banks in the United States.

Collective memory has survived and has been used to advance digital non-banking intermediation. The barrier to its development was digital exclusion centered around seniors and socially excluded people.

Keywords: social distance, financial disintermediation, medical services, COVID-19 pandemic.

Category of the paper: Conceptual paper.

1. Introduction

The COVID-19 pandemic caused not only a massive, global health crisis, but also a reconfiguration of the established forms of social life. The virus contributes to profound disruption in:

- Economy – global shortage in product supply and falls in services, production and stock markets.
- Society – possible occurrence of panic, restrictions on migration and participation in social events.
- Culture – restriction of freedoms and stringent mitigation measures (Jarynowski, 2020).

The narrative dimension of human life is focused on the difficult balance between human lives and economic loss. We need to have the conviction that life is going somewhere, that there is a horizon of meaning that makes this life worth living.

At the outset of the pandemic, it was crucial to determine to what extent that was a new phenomenon and to what extent it was one long forgotten. In monograph entitled *Holistic management of the COVID-19 pandemic* Edu-Libri, Kraków-Legionowo, 2021, authors adopted a working definition that COVID-19 is a manifestation of global systemic risk. Based on current experiences, one may seek a reporting definition of this phenomenon. The idea of an ‘epidemic of epidemics’ known as REIDs (emerging and re-emerging infectious diseases) seems to be the most helpful here. In the literature, the term syndemia (Horton, 2020) is used to describe the phenomenon caused by the SARS-Cov2 virus – i.e., a syndemic epidemic as an aggregation of two or more simultaneous or sequential epidemics or clusters of diseases in a population with biological interactions that worsen the prognosis and disease burden causing excess mortality not only as a result of the main virus, but of other untreated diseases due to limited access to medical services.

Four strategies have been mobilized in response to the pandemic:

1. Containment of transmission of the virus at the level of individuals, through testing, case isolation and contact tracing. The aim of this strategy is to stop cluster from breaking out.
2. Containment of transmission of the virus to a specific territory within a country, through quarantine. The aim of this strategy is to keep infections from spreading out to adjacent areas within the country.

3. Suppression of transmission of the virus, within a given territory, realized principally through “lockdown”: an obligation to stay inside, close all “non-essential” places of education, work and leisure. The aim is to spare critical care capacity in hospitals from being overwhelmed.
4. Mitigation of the transmission of the virus, aims to protect vulnerable groups from spread of the virus through the population. In order to slow the spread of the virus, some physical distancing and partial closures of some places of education, work and leisure are put in place (Tessier, Stavrianakis, 2020, p. 2).

When we look at the diversity of national strategies to combat COVID-19, we recognise that it is an endogenous phenomenon. When we estimate the losses caused by COVID-19, we assume that it is an exogenous shock. We represent a holistic view of COVID-19 and acknowledge the pandemic as a hybrid phenomenon in which elements of exogenous shock are intertwined with an endogenous reluctance to announce a state of emergency.

When we describe the behaviour of the unvaccinated, we see an exogenous element in the pandemic. When we look at how the health system wants to maintain its ability to survive, we know that this is an endogenous phenomenon that may shape the quality of our lives over the coming decades.

An important element of the context of our further analysis of the structure of everyday life is the process of mass preventive vaccination of humanity. It is accompanied by a movement of people who consciously avoid vaccination. In economic theory, this can be defined as the deliberate replacement of public goods by private goods. In psychology, as a defence mechanism in the conditions of significant unmet basic psychological needs (Rudert et al., 2021).

The rational core of the anti-vaccine movement is the lack of knowledge about the long-term effects of SARS-CoV-2. Still the proportion between vaccinated and consciously avoiding vaccination does not allow for the development of herd immunity (Szmyd et al., 2021).

The attitude to vaccination against COVID-19 includes the attitude to remote work and defence mechanisms against the real threat of death (Bodner, Bergman, Ben-David, Palgi, 2021). We have to answer the cognitive question of what is virtual reality, is it fiction or everyday reality? (Chalmers, 2017). The modern world of finance has a hybrid character. The factor that binds the world together is physical and social time. It combines elements of virtual reality with the real circulation of goods and services. The real and virtual world are real, not imaginary beings. The practical and cognitive problem is finding a balance between these real beings in everyday life, a day still has 24 hours (Solarz, Waliszewski, 2022).

The alternation of endogenous and exogenous approaches to COVID-19 is perpetuated in the title of our study, which highlights the similarity of the process of transition from a natural monopoly in banking to social distancing in medical services. In the first part, we recall how successive financial crises crushed the banks’ natural monopoly on direct contact with customers. The crisis of small banks in the 1970s meant that the client of a local bank stopped

trusting the local banker. The global financial crisis has taken away trust in systemically important financial institutions. In the second part, we demonstrate how artificial intelligence comes between people and forces them to abandon direct contact when asking for repeat medical prescriptions.

In conclusion, we indicate that the COVID-19 pandemic did not cause, but merely exposed, the scale of social distancing towards traditional banking. Street art likens bankers to the SARS-CoV-2 virus. We live in times of an epidemic of epidemics; the new normality does not assume a return to the old systemic equilibrium. This is not a shock, but the emergence of a new hybrid reality of the vaccinated and the unvaccinated.

2. Literature review

The language of social discourse about COVID-19 is indicative. To describe changes in the economic outlook under the influence of the pandemic, the entire alphabet is used: V, W, L, U, K. At the beginning of 2020, the World Health Organization acknowledged COVID-19 to be a pandemic – i.e., a global epidemic. In response, some governments introduced a state of natural disaster, a state of emergency, or one of the states of emergency on their territory.

Some researchers pointed out that COVID-19 is not a standard pandemic with significant spread, but one with a relatively low death rate. There is talk of an overlapping of the external costs of a pandemic – in the form of quarantine and lockdown – with age discrimination. The response to a pandemic is influenced by the degree of herd immunity, which largely depends on whether a given population group has been exposed to a given type of virus in the past and whether it has been previously subject to a compulsory vaccination program (Buesa, Perez, Santabarbara, 2021).

Over time, the pandemic came in waves – the first, second, third, fourth, and so on. The cyclical nature of the COVID-19 pandemic makes it difficult to present it as a shock, a temporary disruption to the normal run of things. We argue that the fluctuation of the COVID-19 pandemic makes it more U-shaped in nature – at first it was exogenous, now it is endogenous, and it will highlight its exogenous nature in the future. The hybrid nature of the pandemic means that its stakeholders are many and varied; first it was epidemiologists, and then representatives of life sciences had their say. It takes a decade for clinicians to make a judgment about a disease, whereas red zone doctors fight every day for people's lives in the here and now (Lewis, 2021).

The category of *oikos* has regained its former glory, the natural environment of man, the family and their household, material, the social and economic bond that allows the needs of individuals to be met (Olcoń-Kubicka et al., 2021). Currently, sociologists and political scientists have more and more say. The trauma of the COVID-19 pandemic (Długosz, 2021)

emerges as a key category of description. The social discourse about COVID-19 is packed with rumours, misinformation and conspiracy theories (Demczuk, 2021). Economists and financiers are being invited to rebuild the economy and society after the losses caused by the pandemic. The pandemic economy describes a supply shock caused by the disruption of global chains of added value (Economic, 2022). The sources of demand-pull inflation are recognised. Tremendous attention is devoted to state interventionism and the macroeconomic policy of central banks to absorb the shock. The overlapping of health, climate and economic shock leads to the collapse of empires (Bergeijk, 2021).

An intense search is underway for language with which to describe COVID-19 that matches the reality. The authors propose that this should be the language of systemic risk management. This proposal was understood; the COVID-19 pandemic is a systemic catastrophe. ‘Systemic catastrophes are predictable in the sense that we know that, statistically speaking, they must happen one day, but we do not know exactly where it will lead and when it will happen’ (Afeltowicz, Wróblewski 2021, p. 11).

To this day, we do not know the correct method for calculating the losses caused by COVID-19. 2019 Estimates of the statistical value of life differ in both the results and the methods used. Nevertheless, when it comes to the United States, the median is \$7 million, with statistical deviations ranging from \$2.4 and \$11.2 million. The statistical value of a life depends on when it is interrupted. At 18, the value is \$4.62 million, at 46 it is \$10.62 million, and at 62 it is \$6.94 million. (Banzhaf, 2021, p. 11).

COVID-19 mortality statistics are not reliable (figure 1). It is difficult to pinpoint a causal relationship between death and contraction of the coronavirus. Deaths after being put on a ventilator, in the absence of co-existing illnesses, represent hard data. In other cases, it is a question of speculation about ‘excess deaths’ (Cusmaiu, 2021).

Mortality among white US citizens increased by 15% during the COVID-19 pandemic, blacks by 25% and Hispanics by 39.5% (Alsan, Chandra, Simon, 2021).

One of the causes of excess deaths is the stay-at-home policy. Counterintuitively, it leads to an increase in mortality among self-isolating people (Agrawal, Cantor, Sood, and Whaley, 2021).

The lack of agreement on how to calculate the losses caused by COVID-19 makes it difficult to effectively limit them. In our monograph, we postulate that the fight against the pandemic should be acknowledged as a global public good.

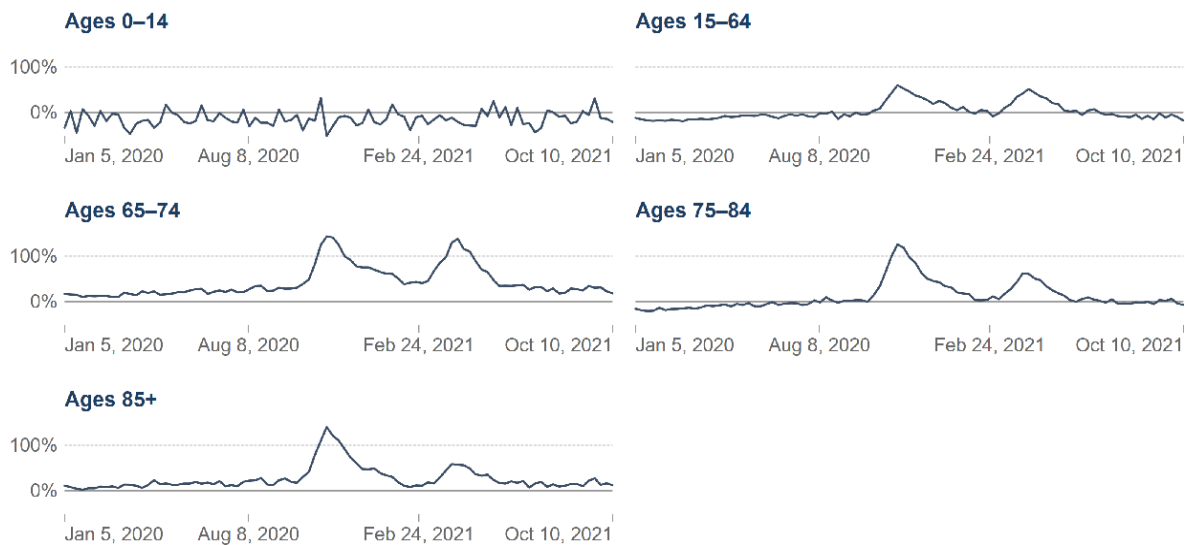


Figure 1. Excess mortality in Poland by age groups compared to the same period of the previous year. Source: https://github.com/akarlinaky/world_mortality, 10.11.2021.

“The interconnection of individual welfare levels resulting from empathy makes a difference to the allocation of resources in the presence of externalities and public goods: in maximal form it leads to efficient outcomes and in weaker forms can lead to the partial internalization of external costs and benefits, and to a greater level of provision of public goods than would occur with non-empathetic preferences. In the case of public goods, an increase in empathy leads to a greater level of provision and an approach to the efficient level” (Heal, 2021, p. 20).

This approach focuses the attention of stakeholders on the scale of disability caused by the consequences of COVID-19 disease. The axis of the analysis is vaccinated vs unvaccinated, and the endogenous or exogenous nature of the pandemic. As a result of the overlap of these two dimensions, we obtain four fields for further analysis presented in Table 1.

Table 1.

Conceptual framework of analysis for the COVID-19 pandemic

Dimension of analysis	Vaccinated	Unvaccinated
Endogenous model	Systemic risk management	Disintermediation of financial and medical services
Exogenous model	Crisis management, Elimination of natural disaster.	Monitoring social distance and triple vaccinations Organized isolation

Source: own study.

In the national legal order, the COVID-19 pandemic is considered to be a natural disaster (The Economic, 2022). One of the important consequences of the COVID -19 crisis is that crisis management is directly related to fundamental rights and liberties.

The first organized isolation of healthy but potentially sick people took place in response to the Great Plague (also commonly known as Black Death) in 14th century in the independent trading city-state of Ragusa (now Dubrovnik, Croatia (Peters, Jandric, Mc Laren, 2020).

Due to the size restrictions on this publication, we shall focus on an identified gap in previous publications, which overlook the existence of a significant group of people who believe that their personal rights are being violated so severely that they do not agree to voluntary vaccination. Any statements by respondents about their plans to vaccinate against SARS-CoV-2 should be handled with caution. Attempts to nudge and guide people towards the decision to vaccinate are not effective unless made by heads of state (Chang, Jacobson, Shah, Pramanik, & Shah, 2021).

We remember that the method of overcoming a systemic crisis will determine the origins and course of a subsequent systemic crisis. The existing strategies for combating the virus can be conventionally divided into elimination – i.e., 10% of the world's countries, inhabited by 25% of its population – and controlling the degree to which a countries health system is overloaded for the remaining countries. At the end of May 2021, the cumulative death rate due to COVID-19 in the former was 4.3 while in the latter this figure stood at 69.3 per 100,000 inhabitants (Helliwell, Norton, Wang, Akinin, Huang, 2021, p. 25).

We are aware that in crisis management of natural disasters, material losses are not taken into account, but efforts are made to keep human losses to a minimum (Blanchot, 1986). How do these two philosophies of coping with the shock of the COVID-19 pandemic relate to deliberate refusal to vaccinate?

There are different types of misinformation about COVID-19 vaccine:

- Vaccines leading to infertility.
- Vaccines contain microchips.
- Vaccines cause one to be magnetic.
- Vaccines alerting one's DNA.
- Vaccines shed components.
- Vaccines are causing one to obtain a positive result when tested.
- Miss menstrual cycle (Chukwure, 2021).

Table 2.

The myths versus true information about the virus SARS-CoV-2

Myth	True information
Mortality for SARS-CoV2 is similar to the influenza	Mortality for COVID19 is higher than for influenza
The increase of the temperature will eradicate the virus	There is no scientific proof that the temperature influences the activation of the virus
Drinking alcohol eradicates the virus and protect from the contamination	Consuming alcohol weakens the immune system and thus does not destroy the virus
The 5G technology is a possible source of the virus transmission	There is no confirmation of spreading SARS-CoV-2 by the 5G network

Source: Cudy, Matuszczak, Donderska, Haczyńska, 2021, p. 56.

To answer this question, we shall draw on the experience of providing financial services. Historically, banking services have been the first to be licensed and regulated. The Venetian police used to monitor how bankers from the Jewish community executed the privilege of providing banking services to the townspeople. Half a century ago, government guarantees were introduced for bonds issued by venture capital funds purchased by small and medium-sized American banks. In the language of finance, refusal to cooperate in a crisis is called financial disintermediation or self-exclusion.

3. Financial service disintermediation (financial self-exclusion)

Financial exclusion is a range of processes that serve to restrict the access of specific social groups, mainly those with limited incomes, to the financial system (Leysdon, Thrift, 1995). Financial exclusion may take various forms depending on the causes that influence the occurrence of the phenomenon (types). The following types of financial exclusion should be mentioned: geographic (e.g., insufficient number of establishments, lack of infrastructure), accessibility (e.g., difficult access to products due to age, lack of creditworthiness), circumstantial (mismatch between products and services and customer needs), price (e.g., high fees and commissions), marketing (lack of information about current offers, no products for people with the lowest income) as well as self-exclusion (voluntary withdrawal from banking services).

It is useful to differentiate society into banked, unbanked and underbanked. The first group uses a wide range of banking products and services, thereby meeting their own needs. Members of the second group have no contact with financial institutions, and do not even have a basic bank account. On the other hand, the third group has limited access to services (e.g., they might not be eligible for a loan) or can use banking services, but do not do so (e.g., they have a personal account, but withdraw everything once a month and spend it on cash purchases) (Solarz, Swacha-Lech, 2011). Self-exclusion could be a life choice or a consequence of past folly. In the first case, there is a bias against using financial services, while in the second, the exclusion results from risky behaviour on the financial market, which temporarily excludes the perpetrator from the legal credit market. Financial self-exclusion may also have a psychological and behavioural basis – e.g., the repetition of well-worn patterns or negative perceptions, and may be caused by gaps in basic economic knowledge. Therefore, these are the reasons from the demand side of the financial market.

4. Narrative literature review on telemedicine, during and after the COVID-19 pandemic

Telemedicine is the provision of healthcare services at a distance with communication conducted between healthcare provider (provide to provider telemedicine) or conducted between remote healthcare users seeking health services and healthcare provider telemedicine (WHO, 2019).

Prior to the pandemic, several obstacles hindered the acceleration of telemedicine. The first was human nature. There was still a lack of training, support, and fully embedded telemedicine culture within all health organizations. For example, in the US, remote visits accounted for less than 1% of primary care visits before 2020.

The second obstacle was financial. For doctors, who are mainly paid on a fee-for-service basis, telemedicine consultation, expertise, and training were not, for some medical specialities, admissible practices reimbursed by health authorities. Challenges remained such as concerns in medical liability, and proof of the value of telemedicine on a wider scale was still limited.

Lastly, ethical obstacles such as privacy and confidentiality, as well as cybersecurity issues, technological barriers, and data availability to external actors also hindered the spread of telemedicine (Brunet, 2021).

In 2020, countries reported on average, about half of essential health services were disrupted. Pursue telemedicine as alternative to disrupted face to face healthcare services was:

- Reduce unnecessary exposure to the COVID-19 pandemic.
- Help mitigate the spread of the virus.
- Reduce surges in hospitals and clinics.

Most importantly telemedicine can be used to ensure the healthcare resources are used in the most efficient and effective way during pandemics (Cassar, 2021).

Disparities with telemedicine use, which ultimately led patients with the highest risk of COVID-19 infection to use telemedicine the least (Qian, 2022).

Using a mobile health application is associated with increased ease of booking telemedicine appointments (Taha, 2022).

While telemedicine is not poised to replace in-person care, it is a useful adjunct when faced with disasters and public health emergencies by providing healthcare workers the flexibility to quickly transition care from clinics to homes seamlessly and without interruption. Barriers to access still exist, however, and are more pronounced in rural minority, and technologically unserved communities (Greiwe, 2021).

Patient experiences with inpatient telemedicine were largely favourable. Improvements in technical and a care team use may enhance acceptability (Vilendrer et al., 2022).

There remain many open questions about the role of supporting technologies, the design of optimal reimbursement policies, and the optimal ways to combine telemedicine and inperson care for different conditions (Zeltzer, 2021).

To work toward this goal, payers could:

1. eliminate geographic and originating-site restrictions,
2. reimburse video telemedicine at the same rate as in-person services to encourage universal adoptions by clinicians,
3. eliminate reimbursement for audio-only telemedicine because of quality concerns,
4. cover only select services shown to be equivalent in quality, and
5. require an occasional inperson visit to offset some of the limitations of telemedicine (Uscher-Pines, 2021).

A number of social implications may arise with increasing use of telemedicine. The rapid progress of the digital age has already led to patient complaints about physicians spending more time looking at computer screens than their patients. As telemedicine replaces more in-person visits, the patient-physician interaction could be further jeopardised. Since not all systems offer telemedicine services at this time, a patient's utilisation at a telemedicine service could mean having to see a new provider, creating discontinuity of care (Kichloo, 2020).

Financial services cannot function without public trust. To what extent has the COVID-19 pandemic changed the level of trust in financiers? The results of research in the Netherlands and the United States showed no significant changes in the level of confidence in financial institutions (Crujisen, Haan, Jonker, 2021).

Contrary to the global financial crisis (GFC) of 2007-2009, this time there was no wave of unemployment and bankruptcy. Banks wanted to, and did, grant loans so that people could adapt to the new economic circumstances caused by the pandemic. This was possible thanks to the banks' equity, which was higher than a decade ago (Ikeda et al., 2021).

Systemically important banks had more capital and better liquidity, which allowed them to absorb macroeconomic shocks rather than generate them. At the same time, the pandemic test showed that the resilience of non-bank financial intermediaries has room for improvement (Lessons, 2021). During the pandemic, payments and settlements became an area of particularly far-reaching shifts. ATM users avoided meeting with others and made fewer transactions but for larger amounts. This change in user habits entailed an overestimation of the scale of spending by 7% (Dahlhaus, Wlitzke, 2021).

COVID-19 has exposed the scale of digital illiteracy among the world's population. Young, well-paid and full-time employees switched to remote financial services. Women found it more difficult to switch to remote work due to the nature of their work. People over 65 had more difficulties than others when switching to remote work. The poor have disproportionately borne the external costs of the COVID-19 pandemic (Saka, Eichengreen, Aksoy, 2021).

Women in the United States are twice as likely as men to work in occupations exposed to automation and exposed to direct contact with people infected with coronavirus (Chernoff, Warman, 2021). In Poland, the concentration of this type of risk affects women working in banks.

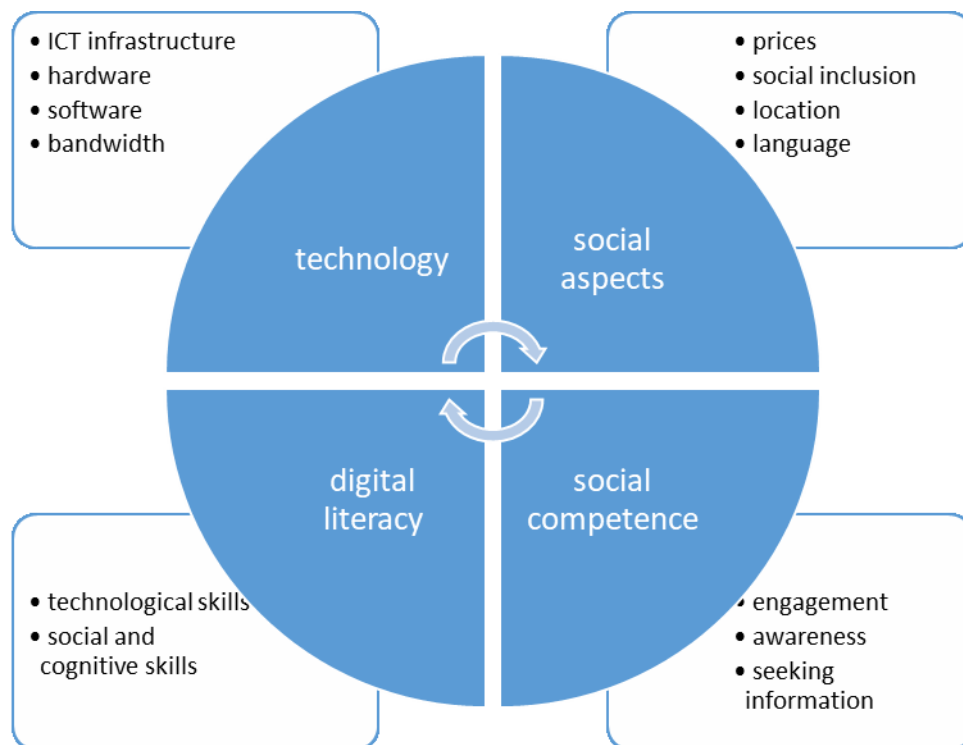


Figure 2. Framework of digital exclusion. Source: Folwarski, 2021, p. 131.

The framework of digital exclusion is presented on figure 2. The digitally excluded cannot take advantage of support from:

- Bank Tech – banking services.
- Big Tech – data collection services.
- InsurTech – insurance services.
- Lend Tech – loans.
- Pay Tech – payment services.
- Reg Tech – protection of sensitive data.
- Sup Tech – support for supervisory activities.
- Wealth Tech- wealth management (PayTech, 2020).

The supply of technological support for people in quarantine and those working remotely is clearly over-represented in contactless payments and loans on internet platforms with a clear lack of insurance support. A clear shift towards households is not a passing fad, but an appreciation of their economic significance (Lerner, Seru, Short, Sun, 2021).

There is a consensus that the COVID-19 pandemic has accelerated the digitisation of the economy and society by a decade. Neo-banks have appeared *en masse*, whose basis is an internet platform rather than a network of local branches. Transactions will be carried out by

numerous participants in the transaction; the data used to assess creditworthiness will be counted in thousands, not tens. Information technology improves the quality of lending (Pierri, Timmer 2021).

Access to broadband internet gives residents of small towns and villages access to financial services. Shunted from their habit of direct contact with service providers by the COVID-19 pandemic, they discover the advantages of access to the global financial market (Michelangeli, Viviano, 2021).

At the same time, the widespread use of artificial intelligence as a reliable intermediary between people raises well-founded fears that algorithms of conduct will perpetuate stereotypical perceptions about transaction participants (Armantier et al., 2021).

Synthetically recalled experiences of abandoning the natural monopoly of face-to-face contact in the provision of financial services may provide an indication of how the fate of remote medical services will unfold, one that does not involve listening to the patient. This type of medical service has a future and will develop no less rapidly than non-bank financial intermediation.

6. Conclusion

The gross world product decreased by 6.5% in 2020, and by the end of 2021 this gap is expected to have shrunk from pre-pandemic levels to 4.0% (Rungcharoenkitkul, 2021). The dilemma between life or economic activity is slowly weakening. The field for economic activity increases as the effectiveness of monitoring compliance with compulsory quarantine increases and the vaccination coverage of the population grows.

The dispute continues as to whether what we are observing is a temporary glitch in the global balance or if it is punishment for the sins of humanity. Who is the leper, the people who infect or those who do not get vaccinated against the coronavirus? Are the antivaxxers outcasts?

Pandemics occur as often as global financial crises: every 12-15 years. In this situation, routine and professional systemic risk management or crisis management should suffice. A new element is the emergence of an anti-vaccine movement outside the system, which draws its strength from bonds established in social networks on the Internet. They are manipulated via artificial intelligence. Artificial intelligence creates effective social distancing in the interests of service platform owners. A pandemic is no longer a natural process with a natural beginning and end. In financial services, the natural monopoly on their provision ceases to apply. The new fluid normality requires new language with which to describe it. Intermediary medical services are becoming a permanent feature of the new normality.

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