Non-Economic Economics around the Digital Economy

1. Introduction

Starting with the late 90s of the last century we have been witnessing a rapid expansion of new economics that are trying to explain the flourishing of economic, but also social and cultural phenomena which accompany new achievements in the area of digitising products and services. Judging by the example of the media sector, this digitisation was a powerful all-encompassing process, which embraced not only the digital design of products but also their digital distribution and consumption. This digitisation was not only destroying hitherto existing business models, but also creating new opportunities for products and niche services, as in Ch. Anderson’s long-tail hypothesis. This article strives to review these new economics by making a synthesis of their potential challenges to today’s mainstream economics. An attempt will also be made to evaluate whether these economics can successfully cope with the dismantling of the contemporary economy’s paradigms and also whether there is a need for a new economy to explain the processes and outcomes of the digital economy, which may have far-reaching implications for the education of economists. The historical roots of the contemporary economy are still firmly anchored in the industrial era with its dominance of an industrial order in the organization of life, organisation of production, storage and distribution of products. In such

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1 Warsaw School of Economics, Collegium of Economic Analysis, Institute of Information Systems and Digital Economy.
4 As exemplified by little flexibility in office hours, the functioning of the retail trade and services, vacation and holiday schedules which are in stark contrast with the flexibilization of work.
an economy, consumer choices took place when the market was a meeting place for goods and services which could be physically assessed and chosen. This era was dominated by turnover involving change in ownership (meaning the seller was the proprietor of goods and services and he/she exchanged them with the buyer for money). It was also the assumption of mainstream economics that goods and services were in short supply. In the digital economy, these imminent characteristics of an economic transaction have disappeared or have been significantly transformed, which raises the question of whether we can still apply the same categories to a strikingly different reality.

2. Economics of the Digital Economy

This paper refers to the economics ‘around’ the digital economy, rather than economics ‘of’ the digital economy. This concept will be used to analyse diverse, fragmented and (frankly) partial attempts to generalise about the new phenomena applicable to digital production, distribution, turnover and consumption of digital products and services. Such an approach is by necessity eclectic, as it reflects the choices made by the author in the selection of currents based on a review of the existing literature. This review includes the sharing economy, remix economy, access economy, attention economy, trust economy, relationship economy, creative economy, reputation economy, gift economy, experience economy and wikinomics. These approaches appear to be loosely connected but when putting them together, they offer an interesting perspective on the consequences of the digital economy, as summarized in Figure 1 below.

While none of the above offer a comprehensive explanation of the digital economy’s complexity and specificity, they constitute a set of interlocking relationships explored below.

It must also be noted that in their background there are the three powerful processes running through the digital economy:

– disintermediation (in the sense of bringing producers within direct contact with consumers);
– prosumption (consumers increasingly involved in the designing, improvement and customization of products and services);
– widening the scope of freemium, user-generated content and the gig economy, which together could be labelled as the emergence and expansion of
the ‘new’ informal economy\(^5\). This signals the spectacular comeback of the seemingly forgotten informal economy in an unexpected digital age context, but (to quote M. Castells): "wherever a social fact is believed to be a secular trend, experience reverses it eventually”\(^6\).

Figure 1. Diverse approaches to the digital economy
Source: the author’s own compilation.

3. Changes in the Character and Conditions of Work

Far-reaching ideas on the evolution of work in the digital economy emerged in the works authored by J. Rifkin in his *Age of Access*\(^7\), but also in the lesser known works of North American and European scholars\(^8\). This type of ‘New Work’


\(^6\) M. Castells, in: *The informal economy*..., p. 11.


was in fact used to distinguish new segments of the economy such as the *creative economy* or the so-called *gift economy*. This reflected on the new opportunities which this work seemed to offer to both employees and employers, as well as to the economy as a whole. On the one hand, it describes the process of creating new job posts and types of work, which eased the anxiety caused by shrinking of the labour market (loss of jobs in the ‘old economy’, advancing automation of clerical and routine tasks and elimination of intermediaries between producers and consumers), on the other – it posed the threat of a destructive impact on the organisation of labour hitherto based on regular pay and full-time employment. The management of employees still needs to figure out a way how to adjust to extremely individualised work schemes, marked by the transition from full time contract work on site (like in the industrial era) to task-based and fully flexible work arrangements in remote work, as well as to deal with unrivalled insecurity and uncertainty resulting from the lack of stable monthly wage payments stipulated by work contracts. These contracts are increasingly superseded by precarious and temporary work arrangements, even for the employees who are in possession of unique skills much sought after in key labour markets. New work delivered a number of privileges offered to entice outstanding employees to the company, such as ‘Google-like’ equipment of offices with recreational spaces, quality restaurants, medical services, beauty services, fitness and spa centres, kindergartens on site, etc. The difference between the place of work and home indeed seems to be diminishing quickly. At work, time is set aside for one’s own projects, some professions are exempt from the obligation to face customers. Contrary to expectations, many of the amenities’ beneficiaries from the creative sector (who had the possibility to self-manage their work time) voluntarily increased their working week to 60–80 hrs per week. This seemed to be compensated by frequent use of long weekends. This work followed the rhythm of task-based projects, with heavy loads of work culminated around deadlines, followed by more relaxed and slack work periods complemented with a wider use of long weekends and short holidays, which contrasted with the vacation making period of the industrial era, with its long vacation break once a year in the peak summer season and associated with the hollowing out of industrial cities and the closing of entire companies for maintenance or new investment. The

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9 According to R. Florida, op. cit. in the US most people employed in the creative sector will work on the average 60 to 80 hours a week.
project-oriented task work of creative teams goes on at times far removed from wage-earners’ work schedules, late into the night, omitting breaks and weekends, during meals and holidays. Such work ties in well with the concept of 24/24h economy, with greater demand for a number of services late at the night (restaurant, healthcare, shopping, care of the elderly and children, additional education). This corresponds well with Florida’s comments on fast development of the service class, which catered for the needs of creative people working at odd times and unpredictable hours\textsuperscript{10}. This all-encompassing concept of work is highly reminiscent of the psychological phenomenon of the flow experience\textsuperscript{11}. This emotion in work also reappears in the experience economy\textsuperscript{12}.

This flexible edition of project-based task work also means that nearly all of its related risks are passed on to employees. Living from one contract to another, they are unprotected by labour unions to the extent which was still possible under fixed labour contracts. Employees are responsible for updating their professional skills and promotion of themselves among their potential customers. Most of their professional activities take place outside of the workplace, therefore their employer is free from the obligation to provide decent working conditions, because the specialised software, access to the Internet, hardware or professional literature is shifted onto employees. Such a type of relationship with the employee also calls for other “soft” management, motivating rather than by disciplining, growth of personal reputation and individual development. The composition of the working team and its management is only within the competence of the contractor, who deals with the team on the basis of quality, prompt finishing of the project and keeping within the budget.

4. Legal Aspects of New Economies

The digitisation of production and services, and in particular their distribution over the Internet differs significantly from the hitherto existing exchange of physical goods in the industrial era economy. Broadly speaking, this exchange consisted of transferring ownership in the process of selling and buying. In contemporary

\textsuperscript{10} R. Florida, \textit{The Rise of the Creative Class}…


times, as described by J. Rifkin in his “Age of Access”, there is a transition from ownership to effective use (by having access, as in the media). This use gives no legal rights to manage the accessed goods, in particular in making them available to other parties. In such an account with access the main source of revenues is subscriptions, from the point of view of so-called ‘Freakonomics’, such offered goods and services are of club type and cannot be made available for typical sale/purchase transactions. An additional complication in the ownership of the digital area comes from the so-called sharing economy, where joint action including the creation of value added takes place removed from possession or ownership. In the era of most use and access to content (such as on the Internet) we are dealing with the problems of the ‘remix culture’, where small elements of code, text image or sound are lifted, copied from original and copyrighted products and pasted into new products and services, and their context is so much different. The cut-and-paste metaphor is now commonly used to create work and entertainment. This raises the question about the limits of remix, mechanism of remix acts like a quote, however, it can be difficult to define in advance from when it becomes plagiarism. In some areas of activity (such as music and in particular rap music) remix has become a mode of production that can be found in a number of web 2.0 products, mentioned jobs, comments, tutorials, mash-ups. Some creators wish their audiences to be treated in a diversified way, depending on the commercial or amateur hot pursuit of the products, such as the desire to impose a Creative Commons licence. New business models would respond to digitisation of the various areas of activity and are already taking into consideration this new reality – musicians make money on ringtones and concerts rather than on the sale of discs.

Another problem to be considered is the global scope of the so-called gift economy. This type of economy always accompanied human activity, but in recent times the growing commercialisation has decreased its scope considerably. Up to the web 2.0 era this gift economy was associated with tribal societies and rituals described by anthropologists. In the gift economy, there existed culturally sanctioned rules about making gifts and receiving them. This was the principle of reciprocity: the total value of the gift had to be clear, its value had to be known to its beneficiary in order for him or her to make an equivalent – gift in the future. Literature of the subject points to the possibility of offending gift takers by offering gifts of such value that they could not be adequately reciprocated.

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Too low a value of the gift can also convey low esteem for the gift taker. These considerations dating back to pre-industrial era do not fit the reality of web 2.0 epoch. Some current estimates quote that 1.5 billion Internet users are generating their own content, which they make available free of charge to all Internet users. This is the so-called UGC, or user generated content. Even though it may seem that this gift is not entirely altruistic, it largely serves the purpose of attracting attention to one’s work, which may be a step towards a professional career.

In this context, we may now turn to another of the new economies related with the digital economy: attention economy, which deals with atrocious techniques to attract the attention of users under the conditions of oversupply of information. This has to do with the psychology of cognitive processes and human reaction to this oversupply. Thus, our attention has become a scarce good and the lack of time is one of the more prominent barriers in expanding consumption. This scarcity may in the long term be more important than the lack of purchasing power among consumers/users. In light of the huge deficit in the available consumption time and an oversupply of information, researchers write about attention as one of the most important elements of the digital economy’s functioning, a form of capital. As the digital era unfolds, one may comment, as R. Lanham has done, on the ground-breaking transition from the economy of objects to the economy of attention. In such a world, intellectual property will be more essential to the economy than the possession of physical goods or real property. As a consequence and contrary to the conventional explanations (which shape our system of education), in this world humanities and culture will become more important than economics, physics and maths.

In the context of the ‘gift economy’, we may come back to the slightly forgotten concept of public domain, which is a pool of resources from which one can use/quote at will and freely use its elements. The logic of such resources mainly applies to the archives of public media and institutions as well as the set of goods which are not liable to have their intellectual property rights renewed. This ‘public domain’ is a historical heritage of humanity to which this humanity has unlimited free access for cognitive and personal reasons. However, its use for commercial and the moneymaking purposes calls for a licence payment.

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5. Prosumption and Commitment

The term presumption (which contains both the component of production and consumption) appeared in its modern form in the works of A. Toffler long before the emergence of the Internet (to say nothing of the digital economy) in the 70s. of the past century. Earlier in economics a narrower concept of auto-consumption was used to explain production for one’s own use. This was used mainly to describe the activities of the farmers and petty service activities done in households. The outcome of these activities serves the needs of the producers and was not destined for the market, so from the point of view of the economy as a whole they were not essential. At present, however, Internet users are in possession of (in many cases – free) tools to create global platforms of information, interaction and exchange (Web 2.0). The bulk of people contributing to user generated content (UGC) fall into this category and revenues from their activities are a sizeable part of the gig economy and together with the development of their reputation and customer base they can create for themselves a real alternative to formal contractual work posts.

The idea of presumption also appears in the context of bringing together passion, hobbies and work. This appears in such diverse theoretical approaches as wikinomics, creative economy or serious leisure (R. Stebbins, 2014). Prosumption may be seen as one of the contemporary ways of entering the labour market, it also links with the attention economy’s building of reputation and giving gifts. While compatible with hobbyists’ heavy commitment in their work, it also ties in with the considerations on the experience economy, in which immersion and passion is in stark contrast with the attitude of passive consumption and routine completion of tasks characteristic of the industrial economy.

6. Cooperation, Openness, Reputation, Trust

Given the growing role of cooperation between dispersed collaborators completing projects on a global scale, Wikinomics highlights the advantages gained by companies which decide to create platforms and technologies for collaboration and seek assistance in fulfilling advanced projects such as reading the

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human genome, research in outer space, designing aircraft etc.\textsuperscript{18}. This is also true of companies which were rooted in the ‘old economy’ (i.e. industrial) such as Goldcorp, which made an unprecedented move by revealing its most sensitive secret – geological maps of plots of land on which it had a mining concession for gold. As the consequence of reversing the ‘real economy’ logic, which would be to keep the company’s most sensitive information to itself, it benefited from thousands of claims to spot gold on the geological maps posted on the Web. Of these claims, several hundred proved to be rich in gold deposits, which brought great rewards to the company, which was previously on the verge of bankruptcy. Within a few months the company bounced back on the stock market with the value of its assets increasing tenfold. The advantage of this process of openness is reflected in the transformation of suppliers into collaborators, such as in the Amazon marketplace. Internet companies focus on building platforms for collaboration, as these ensure long-term relationships with customers rather than just transactions. An example of this was IBM’s decision to abandon its ambition to create its own operating system and jump on the Linux bandwagon to which IBM’s patents were added as a symbolic contribution to the free and collective operating system. The open code, transparency in code changes are significant characteristics of such collective projects (as in Wikipedia).

The close collaboration between dispersed and unknown members of teams which meet only the virtual world for a specific task calls for large amounts of trust (i.e. the discourse on the \textit{trust and reputation economy})\textsuperscript{19}. Building this trust and reputation (with becomes a surrogate of new social capital, nearly as crucial for economic activity as its financial counterpart) is mostly done by accumulating a professional status among peers, comments of happy collaborators or customers. Such trust echoes the activity in social media, the sharing or making fragments of one’s work available to others (i.e. elements of the \textit{sharing economy}). It is now often speculated that there is a need for an aggregate coefficient which integrates the opinions scattered across various activities on the Internet into one composite evaluation of the person’s reputation and reliability (such as opinions coming from Internet opinions on the supply of petty services under the \textit{gig economy}, blogging, activity in provision of user generated content, i.e. tips and advice). Taking into consideration that contemporary


employers no longer limit themselves to the analysis of a work candidate’s CV, but perhaps above all look up on the Internet as the basic measure of the candidate’s activity (not only professional), such coefficients could now be much more representative and comprehensive than letters of recommendation, a diploma or professional qualification certificates. The downside of this process of building reputation and trust is a decrease in the role of formal education. Part of this reputation-building cannot only be seen as a spontaneous outburst of activity, but must be seen as an opportunistic process of meticulous building of one’s professional position, by analogy to the process of meeting influential people in the days of the industrial economy and (then – mainly) interpersonal human contacts. In small communities it may still be possible to have direct contact with the job candidate and his/her network of relationships to assess his/her reputation, but otherwise this is nearly always a remote process, intermediated by activity on the Web.

Cooperation on the Internet, where human contacts are intermediated, calls for particular openness of procedures and standards. The company’s desire to fence itself within the circle of proprietary technologies known only to the company generates additional cost and it narrows down the pool of potential collaborators and product development opportunities by hobbyists and prosumers.

7. Economy of Experiences and Relationships

Another current of economics which aspires to capture and explain some of the phenomena of the digital economy is referred to as experience economy. As contemporary products are changed into services on which higher profits can be made than is the case of material goods, we are witnessing the transfer from the actual transaction consisting of a sale and a purchase, after which comes the satisfaction of the consumer, to the building of long-term relationships in which customers’ needs can thus be better assessed. This is epitomised by ‘software as a service’ concept with the supplier making the transition from selling software to serving IT needs of the company.

The experience economy transforms events from our life into services and can be commercialised (such as J. Pine’s examples of the birthday party which turns from a family event into a social event delivered by a professional event maker; we can observe similar processes in relation to celebrating weddings
or job promotions). The more experiences our product or service delivers, the higher can be its value added. In order to deliver these experiences, the activity of the firm must include show and performance, elements hitherto associated with artistic production, the sphere of culture. This is the sense of R. Pine’s metaphor between business and a stage as reflected in the title of his book, "The experience economy. Work is theatre and every business a stage". This also establishes a new parallel between economic and cultural activity.

The delivery of experiences instead of goods does not only contribute to highest value added from economic activity, but it also calls on the consumers to cross the border between passivity and engagement/commitments, which lead him/her to engagement in prosumption, sharing, co-creation as needed by the digital economy and the Web 2.0 era.

This calls for a fresh look at economics as a primarily social science which analyses patterns of human behaviour in such areas as collaboration, trust, openness, reputation, which in the previous century were largely left to social psychology and sociology, but which now come to the fore in the digital age. Paradoxically, the pattern which seems to emerge here is that of an increasingly humanistic and qualitative approach to an area that is deeply technical.

**Bibliography**


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Web sources


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Nieekonomiczne ekonomiki – debata wokół gospodarki cyfrowej

**Streszczenie**

Artykuł dokonuje przeglądu prób teoretyzacji nowych zjawisk spowodowanych przez cyfryzację gospodarki, procesów produkcji i konsumpcji. Wyjąście poza ograniczenia świata materialnego (czas, przestrzeń) zmienia reguły gry i uruchamia nowe procesy. Z analizy przedstawionych tendencji wynika, że procesy te odwołują się do zjawisk, wartości, postaw i zachowań (współpraca, współdzielenie się, reputacja,
zaufanie), będących dotychczas w zakresie zainteresowań i metodologii stosowanych w socjologii czy psychologii społecznej. W tym sensie artykuł sugeruje, że taki kierunek myślenia o gospodarce cyfrowej nawiązuje do schodzącego obecnie na dalszy plan społecznego i jakościowego charakteru nauk ekonomicznych.

**Słowa kluczowe:** gospodarka cyfrowa, ekonomia społeczna, wikinomia, współdzielenie się, reputacja, zaufanie, praca cyfrowa, gospodarka daru.