

## CHAPTER 7

# Communication Society

In what kind of society do we live? Is it an information and communication society? Or a capitalist society? Or something different? This chapter discusses these questions. First, the chapter discusses a typology of information society theories (section 7.1). Second, it introduces a dialectical approach (7.2). Third, it deals with indicators and questions of measuring information and communication in capitalist society (7.3).

### 7.1. Information Society Theories

The increasing importance of the computer and knowledge work in the economy has led a significant number of scholars, experts and observers to make the claim that we live in an information/knowledge/network society.

In the early 1960s, Fritz Machlup documented an increase of knowledge-producing occupations in the USA's total occupation and value creation during the first sixty years of the 20<sup>th</sup> century.<sup>1</sup> He introduced the notions of knowledge-producing workers/occupations/industries. Ever since Machlup's work, concepts of the information society have remained popular among analysts and observers of the role of information and communication in society. In the 1970s, Daniel Bell spoke of the emergence of a post-industrial society that 'is based on services'<sup>2</sup> in 'health, education, research, and government'<sup>3</sup> and where what 'counts is not raw muscle power, or energy, but information.'<sup>4</sup> In the 1980s, Alvin Toffler described the information society as third wave society

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<sup>1</sup> Fritz Machlup. 1962. *The Production and Distribution of Knowledge in the United States*. Princeton, NJ: Princeton University Press.

<sup>2</sup> Daniel Bell. 1974. *The Coming of Post-Industrial Society. A Venture in Social Forecasting*. London: Heinemann. p. 127.

<sup>3</sup> *Ibid.*, p. 15.

<sup>4</sup> *Ibid.*, p. 127.

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that followed agricultural society and industrial society.<sup>5</sup> In the 1990s, Nico Stehr introduced the concept of the knowledge society, a ‘society based on the penetration of all its spheres of life by scientific knowledge.’<sup>6</sup> In the light of the rise of the Internet and the World Wide Web, Manuel Castells argued that the information society took on the form of the network society. One ‘of the key features of informational society is the networking logic of its basic structure, which explains the use of the concept of “network society”.’<sup>7</sup> ‘As an historical trend, dominant functions and processes in the Information Age are increasingly organized around networks.’<sup>8</sup>

Theories of society and its phenomena can be classified by two questions: Does the theory put more focus on stressing the role of human subjectivity (including knowledge and practices) or objective structures in society? Does the theory conceptualise societal change more in terms of continuity or discontinuity? Combining answers to these questions yields a 2x2-matrix structure that helps to characterise theories of society. The basic distinction is between subjective discontinuous theories, objective discontinuous theories, subjective continuous theories, and objective continuous theories. Burrell and Morgan have termed these paradigms in social theory radical humanism (subjective, radical change), radical structuralism (objective, radical change), interpretive sociology (subjective, continuity), and functionalism (objective, continuity).<sup>9</sup> Figure 7.1 visualises this typology.

Although the basic distinctions of this typology are useful, they lack the insight that there are approaches where the separation between subject and object and between continuity and discontinuity is fluid. Dialectical approaches assume that subjects produce objects and objects produce subjects. Humans in social relations produce and reproduce society’s social structures. Such structures condition, enable, and constrain human practices. Dialectical theories also stress that continuity is achieved through discontinuity and that there is continuity in discontinuity. The dialectical process of change as sublation is a dialectic of continuity and discontinuity. Therefore, dialectical approaches need to be added as a fifth approach to the typology of social theories (see figure 7.2).

The typology outlined in figure 7.3 is suited for classifying theories and concepts that analyse the role of information, knowledge, and communication in society.

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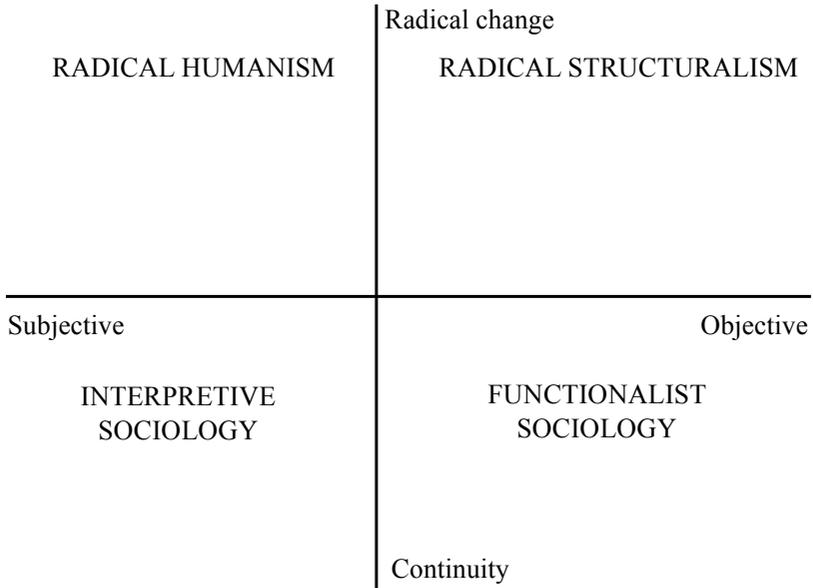
<sup>5</sup> Alvin Toffler. 1980. *The Third Wave*. New York: Bantam.

<sup>6</sup> Nico Stehr. 1994. *Knowledge Societies*. London: Sage. p. 9.

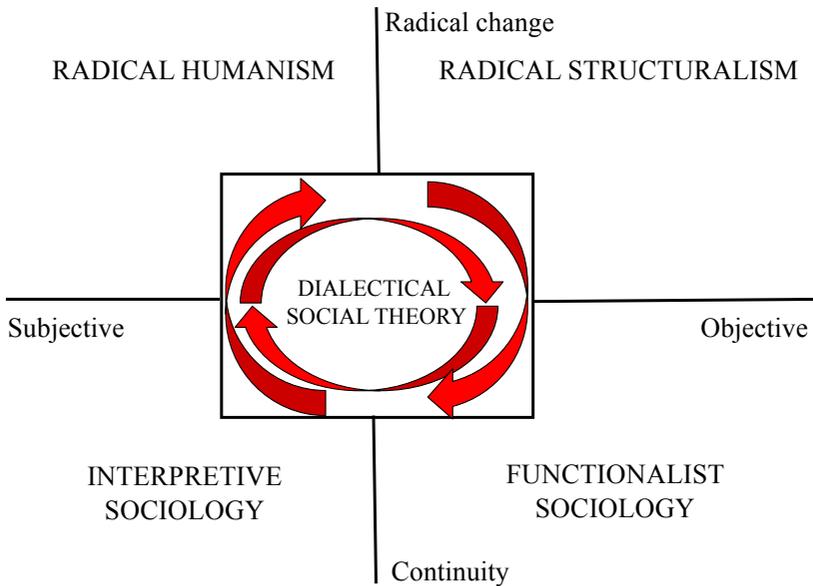
<sup>7</sup> Manuel Castells. 1996/2000/2010. *The Rise of the Network Society*. Malden, MA: Wiley-Blackwell. Second edition with a new preface. p. 21.

<sup>8</sup> *Ibid.*, p. 500.

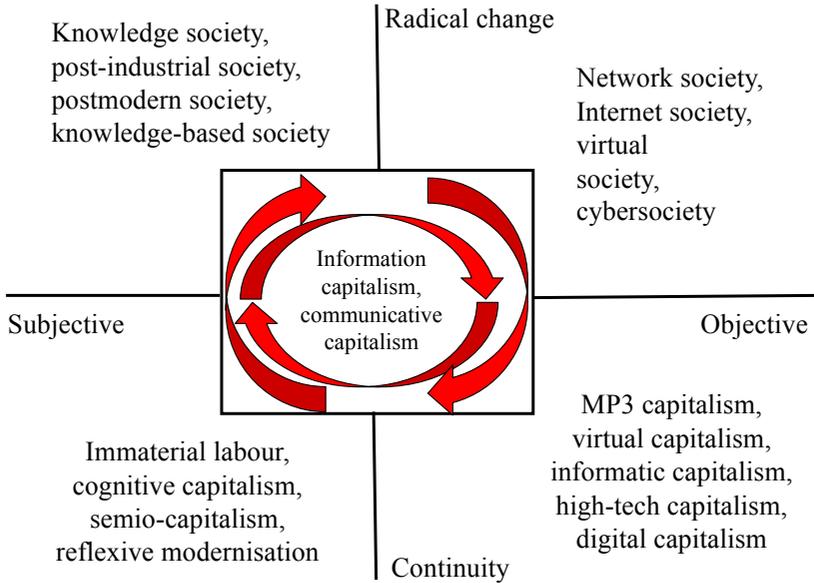
<sup>9</sup> Gibson Burrell and Gareth Morgan. 1979. *Sociological Paradigms and Organizational Analysis*. Aldershot: Gower.



**Figure 7.1:** A typology of social theories based on the works of Burrell Gibson and Gareth Morgan.



**Figure 7.2:** A revised typology of social theories.



**Figure 7.3:** A typology of information society theories.

Subjective discontinuous theories of the information society stress that knowledge and knowledge labour play a major role in contemporary society and that this society has been undergoing radical transformations so that the knowledge society is a new society. Example concepts are the knowledge society, the post-industrial society, the postmodern society, and the knowledge-based society. Objective continuous theories of the information society stress that digital information and network technologies play a key role in contemporary society, and claim that these technologies have radically transformed society into a new society they call, for example, network society, Internet society, virtual society, or cybersociety. Subjective continuous theories stress the continued importance of capitalism, modernity, class or labour, and argue that in the organisation of these phenomena knowledge, cognition, and reflexivity have become more important. Example categories that fall into this kind of theory are immaterial labour, cognitive capitalism, semio- and reflexive modernisation. Objective discontinuous theories argue that we do not live in a new society, but that information technologies have become more important. They speak, for example, of MP3 capitalism, virtual capitalism, informatic capitalism, high-tech capitalism, and digital capitalism.

Discontinuous theories prefix specific categories to macro-sociological terms (society, economy, etc.) in order to claim that society has been fundamentally transformed and that we therefore live in a new type of society. The problem with categories such as network society, knowledge society, and information society, however, is that they make contemporary society sound harmless and positive and often deny the continued existence of capitalism and class. But given the

world economic crisis that started in 2008, and the ubiquity of precarious labour, it is evident that exploitation, crisis, inequality, and capitalism continue to exist.

Continuous theories are to a certain degree sceptical about the assumption that radical change has taken place in society. They stress that we continue to live in a capitalist society, modern society, or class society. They normally consider that capitalism has been undergoing some changes but without being fundamentally transformed. One problem with such approaches is that they tend to be too focused on one dimension such as knowledge (e.g. cognitive capitalism), digital technologies (e.g. digital capitalism), finance (e.g. finance capitalism), globalisation (e.g. global/transnational capitalism), mobility (e.g. mobility capitalism, high speed capitalism), warfare (e.g. new imperialist capitalism), neoliberalism (e.g. neoliberal capitalism), etc. Capitalism is a multidimensional phenomenon, in which several dimensions exist and interact at the same time. In their extreme form, continuous theories argue that contemporary society does not differ from 19th century capitalism.

Whereas subjective information society theories stress the role of knowledge in society, objective ones foreground the role of information technologies in society. In the 20<sup>th</sup> century, societies experienced a growth of knowledge work and the emergence and increasing importance of computer-based technologies. One cannot really argue that one of the two phenomena has been more important, because labour and technologies are dialectically related as subject and object of production.

The next section discusses, based on the preceding analysis, the notion of communicative capitalism.

## 7.2. Information Capitalism, Communicative Capitalism

Capitalism is a dialectical system. It reproduces class and domination by changing the organisation of the economy, politics, and culture. These changes are not radical, but are certainly transformative at different levels of society's organisation. Through its in-built crises, capitalism experiences non-fundamental sublations that preserve the fundamental structures of capitalism by transforming society at the upper levels of its organisation. Marx sees capitalism's antagonisms and resulting crises as the source of dynamics that result in the differentiation of capitalism and the emergence of new accumulation regimes. Capitalism needs to change its organisation of the economy, politics, and culture in order to overcome crises and defer them into the future. Crises that are the outcome and source of 'periodic revolutions in value [...] confirm what they ostensibly refute: the independence which value acquires as capital, and which is maintained and intensified through its movement'.<sup>10</sup> What can be

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<sup>10</sup> Karl Marx. 1885/1978. *Capital. A Critique of Political Economy. Volume Two*. London: Penguin. p. 185.

termed information or communicative capitalism is a dimension of capitalism that is based on the organisation of the productive forces and structures of economic, political and cultural production with the help of knowledge, communication and communication technologies. Information/communicative capitalism refers to the roles played by knowledge/communication work and communication technologies in capitalist society and its economic, political and cultural systems, practices, and processes.

Roy Bhaskar distinguishes different forms of sublation: real negation, transformative negation, and radical negation.<sup>11</sup> Sublations are not always equally fundamental, but can take place continuously and at an upper level of organisation (real negation), at a medium level from time to time (transformative negation), or at a fundamental level (radical negation). Bhaskar formulates the relation between these types of sublation as  $\text{real negation} \geq \text{transformative negation} \geq \text{radical negation}$ , which indicates that the real negation takes place at upper levels of organisation and the radical negation at the most fundamental level. Capitalism maintains continuity at the fundamental level of class and power relations by real negations (the production of new commodities, laws, ideological artefacts) and transformative negations (economic, political and ideological crises). A radical negation of capitalism means a social revolution that abolishes the capitalist mode of production, the capitalist state and capitalist ideologies.

Information capitalism is the outcome of capitalism's dialectic of continuity and discontinuity. Class, exploitation, labour, capital, commodities, surplus value, the state, and ideology are fundamental aspects of capitalist society. In information capitalism, these dimensions of capitalism are organised based on information production and information and communication technologies.

Therefore, phenomena such as information commodities, digital commodities, knowledge work, the mass media (television, newspapers, radio, cinema), the Internet, social media, and the computer shape social relations in contemporary capitalist society. Communication and communication technologies mediate the accumulation of capital, decision-making power, and definition and reputation-making power. The emergence of information capitalism can be dated to the time after the second world economic crisis that was also a crisis of the Keynesian welfare state and of welfare state ideology. Capitalism recomposed itself, which resulted in the rise and dominance of neoliberal politics and ideology, a flexible regime of accumulation, and information capitalism as a means of relative surplus value production and the globalisation of the economy, politics, and culture. The emergence of information capitalism was a transformational sublation of capitalism, not a radical one.

In the *Grundrisse*, Marx predicted the emergence of information capitalism in the course of the development of the productive forces. He argues that capitalists have to strive to increase productivity in order to produce more commodities,

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<sup>11</sup> Roy Bhaskar. 1993. *Dialectic. The Pulse of Freedom*. London: Verso. p. 12.

capital, value, and profit per unit of time, and to be able to accumulate capital. The growth logic of the accumulation of capital results in the quest for relative surplus value production and innovations of fixed capital. By developing and using new technologies in production, the bourgeoisie hopes to increase productivity. As a consequence, there are waves of rationalisation and automation, and the organic composition of capital ( $c/v$ , the relation of constant and variable capital = the mathematical relationship of investments into resources, including technologies, to the wage costs per unit of time) increases. Together with new technologies, the role of science and knowledge labour in the economy increases because technologies need to be developed, managed and used, which requires professionals in science and the knowledge industries. ‘The development of fixed capital indicates to what degree general social knowledge has become a direct force of production, and to what degree, hence, the conditions of the process of social life itself have come under the control of the general intellect and been transformed in accordance with it. To what degree the powers of social production have been produced, not only in the form of knowledge, but also as immediate organs of social practice, of the real life process.’<sup>12</sup>

Marx anticipated the development that ‘the entire production process’ becomes ‘the technological application of science.’<sup>13</sup> The ‘transformation of the production process from the simple labour process into a scientific process [...] appears as a quality of fixed capital in contrast to living labour.’<sup>14</sup> Marx argues that knowledge in production (the general intellect) increases its importance to a degree where a transformative negation takes place; as part of this negation, qualitatively new knowledge-based productive forces emerge that form a new technological paradigm of capitalism. The rise of computing, computer networks, and knowledge labour in the context of global, neoliberal capitalism since the 1970s constituted the emergence of information capitalism. For Marx, the rise of the general intellect in information capitalism is the consequence of capital’s need to innovate the productive forces in order to overcome crises (like the crisis of the mid-1970s), increase profits and the exploitation of labour, and form new spheres of commodity production and sales. The emergence of the ‘information society’ and information society discourse is the result of the development of capitalism.

Information capitalism is one of the dimensions of capitalism. But there are many capitalisms that in a unity of diversity constitute capitalism: finance capitalism, information capitalism, hyper-industrial capitalism, mobility capitalism, neoliberal capitalism, imperialism, etc. These dimensions of capitalism interact with each other. Capitalism is at the same time a general mode of production and exploitation and a specific realisation, co-existence and interaction of different types and forms of capitalist production and exploitation.

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<sup>12</sup> Karl Marx. 1857/58/1973. *Grundrisse*. London: Penguin. p. 706.

<sup>13</sup> *Ibid.*, p. 699.

<sup>14</sup> *Ibid.*, p. 700.

In order to decide what dimension of capitalism is dominant at a particular level of organisation, one needs to empirically study aspects of capitalist society, gather and analyse primary and secondary data. One example is the structure of transnational corporations (TNCs), i.e. corporations that produce and sell commodities internationally. Table 7.1 shows some relevant data.

In the data analysis, the mobility industries were defined as consisting of transportation, oil and gas and vehicles, and information industries as including telecommunications, hardware, software, semiconductors, advertising, Internet, publishing and broadcasting. FIRE stands for finance, insurance and real estate. The power of global capital is evident by the fact that the revenues of the world's largest 2,000 corporations account for about 50 percent of the global gross domestic product. A look at the structure of TNCs' profits shows that finance is the dominant sector, followed by roughly equal shares of the mobility industry, manufacturing and the information industry. Transnational capitalism is to specific degrees finance capitalism, mobility capitalism, hyper-industrial capitalism and information capitalism. These dimensions are

**Table 7.1:** Aspects of the world's 2000 largest transnational corporations: calculations based on data from Forbes 2000 list for the years 2004 and 2014, in billion US\$; data source for world GDP: IMF World Economic Outlook Database (2003 and 2013, world GDP in billion US\$).

<b>Variable:</b>	<b>2004</b>	<b>2014</b>
Total revenues	19 934 bn US\$	38 361 bn US\$
Total capital assets	68 064 bn US\$	160 974 bn US\$
Share of total revenues in world GDP	50.8%	51.4%
Total profits	760.4 bn US\$	2927.5 bn US\$
Total market value	23 755 bn US\$	44 410 bn US\$
Share of FIRE (finance/insurance/real estate) in total assets	70.8%	73.6%
Share of FIRE in total profits	32.7%	33.5%
Share of FIRE in total revenues	20.2%	19.8%
Share of information industries in total assets	5.9%	5.5%
Share of information industries in total profits	-0.8%	17.3%
Share of information industries in total revenues	11.3%	13.1%
Share of mobility industries in total assets	7.5%	6.9%
Share of mobility industries in total profits	22.4%	19.0%
Share of mobility industries in total revenues	21.4%	24.0%
Share of manufacturing in total assets	7.1%	6.9%
Share of manufacturing in total profits	28.3%	18.6%
Share of manufacturing in total revenues	21.1%	21.7%

interrelated: Finance invests venture capital into digital corporations so that they can operate on stock markets, which increases the financialisation and crisis-proneness of digital capitalism. Digital communication is also a medium that enables globalisation. As a result of the dialectic of digitisation and globalisation, the transport of people and commodities has increased. Communications and digital commodities are not immaterial or weightless, but require physical labour of miners and assemblers in the international division of digital labour, and massive amounts of energy to operate communications networks and communication technologies. Finance capitalism, mobility capitalism, hyper-industrial capitalism and communicative capitalism are organised as a dialectical unity in which these different moments interact and reach into each other. Capitalism is a dynamic, developing unity of diverse capitalisms.

Information capitalism is neither purely knowledge-oriented nor purely technology-based, neither purely subjective nor purely objective in character. Information is a process that relates subjective knowledge and communicative practices to objective structures, networks and technologies that store and disseminate information. Information structures condition, enable and constrain information practices that produce and reproduce information structures. There is a dialectic of information practices and information structures. Therefore, to speak of knowledge or cognitive capitalism is to focus too much on human cognition, while terms such as digital or high-tech capitalism foreground too much the role of structures and technologies. Given that information and communication are processes that connect the subjective and the objective dimensions of semiosis (information practices/work and information structures, the communication process and communication technologies), the best way to grasp the dialectic of subject and object is to speak of information capitalism and communicative capitalism. The quest of capital to increase productivity and create new spheres of accumulation has resulted in information and communication labour constituting a significant share of employment and value-added in advanced economies. The rise of such labour has been accompanied by the increasing importance of information and communication technologies in the production and circulation of commodities, and that of information commodities in society. Information labour and information technology stand in a dialectical relationship. There is a similar dialectic of information labour and information commodities.

### *The Fundamental Question of the Present Structure of Society*

Theodor W. Adorno argued in 1968 that the ‘fundamental question of the present structure of society’ is ‘about the alternatives: late capitalism or industrial society’.<sup>15</sup> Today, Adorno’s question can be reposed in a slightly altered form:

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<sup>15</sup> Theodor W. Adorno. 1968/2003. Late Capitalism or Industrial Society? The Fundamental Question of the Present Structure of Society. In *Can One Live*

Do we live in capitalism or an information society? Adorno rejected the dualism the question implies and formulated a dialectical answer:

In terms of critical, dialectical theory, I would like to propose as an initial, necessarily abstract answer that contemporary society undoubtedly is an industrial society according to the state of its *forces* of production. Industrial labor has everywhere become the model of society as such, regardless of the frontiers separating differing political systems. It has developed into a totality because methods modeled on those of industry are necessarily extended by the laws of economics to other realms of material production, administration, the sphere of distribution, and those that call themselves culture. In contrast, however, society is capitalist in its *relations* of production. People are still what they were in Marx's analysis in the middle of the nineteenth century [...] Production takes place today, as then, for the sake of profit.<sup>16</sup>

Paraphrasing Adorno, we can give a similar answer to the question 'Do we live in a capitalist or an information society?': Contemporary society is an information society according to the state of its *forces* of production. In contrast, however, contemporary society is capitalist in its *relations* of production. People are still what they were in Marx's analysis in the middle of the 19th century. Production takes place today, as then, for the sake of profit, and to achieve this end it to a certain extent makes use of knowledge and information technology in production.

The question about what society we live in relates to both the productive forces and the relations of production. The informational productive forces are an organisational mode of the productive forces that are based on the role of the computer and knowledge in production. The informational productive forces stand in a dialectic with class relations. Knowledge work and information technologies have transformed and continue to transform class relations so that new forms of exploitation of knowledge labour (such as various forms of digital labour) emerge. But information technology has also advanced the potentials for the production of common information and digital goods that are not commodities and that are available to everyone without payment (the communicative commons, the digital commons). So, information capitalism has produced the seeds of its own negation. There is an antagonism between informational, networked productive forces and digital and informational class relations. This antagonism becomes evident in phenomena such as intellectual property rights vs. digital gifts/non-commercial Creative Commons, for-profit

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*After Auschwitz?*, ed. Rolf Tiedemann, 111–125. Stanford, CA: Stanford University Press. p. 111.

<sup>16</sup> *Ibid.*, p. 117.

open access vs. non-profit open access, ad-funded for-profit Internet platforms vs. non-profit Internet platforms, digital capital vs. digital commons, capitalist platforms vs. platform co-operatives, etc.

Georg Lukács deals with the issue of knowledge labour in a 1919 article titled “Intellectual Workers” and the Problem of Intellectual Leadership.<sup>17</sup> He writes that intellectual workers are not an independent class. Those ‘who, like manual workers, are able to participate in production only by means of their labour power (white-collar workers, engineers, etc.’ differ ‘sharply from those whose intellectual work is only an accessory to their bourgeois status (major share-holders, factory owners). The class distinction between these two groups is so clear to the objective observer that it is impossible to bring them together under one heading, as the class of “intellectual workers”.<sup>18</sup> Those “intellectual workers” who participate in production therefore belong (*with an unclear class consciousness, at best*) to the same class as the manual workers.’<sup>19</sup> Intellectual workers are not ‘a *homogeneously structured class*, since even within their ranks a clear division into oppressors and oppressed’ can be found.<sup>20</sup>

In the information society discourse, one commonly distinguishes between the agricultural sector, the manufacturing sector, and the service sector.<sup>21</sup> Information/communication/knowledge workers are in this discourse often placed in the service sector. But there is a problem with this categorisation: it assumes that managers, who control workers, and the workers controlled by managers, who produce knowledge commodities sold for profit, are part of the same class. The class aspects of knowledge labour are complicated by freelancing: Freelancers sell their labour power with one-time contracts that are often short-term. Most of them do not have enough capital to employ others. There is a high share of freelancers among knowledge workers such as data inputters, software and web developers, designers, translators, writers, personal assistants, editors, and proof-readers. Such freelancers are part of the working class because they sell their labour power in order to survive. As long as freelancers do not own businesses that, besides the freelancer herself/himself, also employ others, they are part of the working class. Journalists mostly work as freelancers or wage-workers. Because of their position in the production process, they are part of the working class. But journalists, consultants, researchers, etc. often serve, as Lukács writes, ‘material, ideological and power interests’ when they

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<sup>17</sup> Georg Lukács. 1919/2014. ‘Intellectual Workers’ and the Problem of Intellectual Leadership. In *Tactics and Ethics, 1919–1929*, 12–18. London: Verso.

<sup>18</sup> *Ibid.*, p. 12.

<sup>19</sup> *Ibid.*, p. 13.

<sup>20</sup> *Ibid.*, p. 13.

<sup>21</sup> See: Frank Webster. 2014. *Theories of the Information Society*. Abingdon: Routledge.

justify capitalism in their analyses, reports, writings, recommendations, etc.<sup>22</sup> When doing so, they are just like managers betraying the working class, and are thereby part of the capitalist class. Only the critical journalist is a full member of the working class.

An important question that arises in the context of critical social analysis is how one can measure informational capitalism. The next section deals with this issue.

### 7.3. Information Society Indicators: Measuring Information Capitalism

Information society indicators are measurements of the informational productive forces. They assess to what degree certain aspects of the productive forces are information-based or based on alternative modes of organisation such as agriculture or manufacturing. Such indicators include, for example, the percentage share of workers in information industries in the total work force, the percentage share of information occupations in the total work force, the percentage share of information industries in total value-added, the wage share of workers in information industries (the share of their wages in total revenues in the industry), the percentage share of information companies in the world's largest 2000 corporations' combined capital assets or combined profits or combined market value, the percentage share of information industries in the combined total foreign direct investment inflows or outflows or instock or outstock, the percentage share of information products in total exports or imports, etc.

An important distinction can be drawn between indicators measuring occupation-wide shares and those measuring industry-wide shares. So, for example, one can measure the percentage share of wages that is paid to knowledge workers who as their occupation create knowledge in the total economy's wages (occupation approach), or the share of wages in the total economy's wages that is paid out in industries that create informational goods (industry approach). In the first approach, one includes labour that is an informational activity, but does not necessarily result in an informational commodity (e.g. the labour of a web designer who is employed to maintain the website of a sausage factory), whereas the second approach includes all labour that contributes to the creation of an information commodity (e.g. the labour of a caretaker or a cleaner who works for a software company).

Such indicators help to show to what degree the productive forces are based on information and on other resources. Indicators measuring informational productive forces are a measure of the role of information in the economy and a

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<sup>22</sup> Lukács, 'Intellectual Workers' and the Problem of Intellectual Leadership, p. 13.

measure of the absence of aspects of physical production (agriculture, the manufacturing of physical goods, non-information-based services, etc.). The notion of information capitalism does not imply that capitalism is only informational, but rather indicates a degree, share and tendency that can be measured. To decide to what degree capitalism is information-based one needs to conduct empirical research, analyse statistical data and create relevant indicators.

Such an analysis should not be limited to the productive forces. It is also important to analyse the social relations of production and aspects of capitalism's class structure. Indicators are, for example, the size of the working class, the size of the capitalist class, the size of intermediary classes and the number of the unemployed;<sup>23</sup> the wage share, the profit share, the relation of the poorest groups to the richest groups (measured for example as the 90:10-ratio of income or wealth inequality), the relation of the growth of wages to the growth of profits, the development of particular corporations' or industries' profits, the development of profits on the world level and in certain nation-states, global gross capital formation, listed companies' market capitalisation, etc.

One should take a modest approach in the analysis of informational capitalism. Information and communication are an important dimension of capitalism, but not the only one. The analysis of capitalism should always relate diverse moments to each other in a dialectical manner. So, for example, both those analysing communication and those analysing finance should take the relationship of communications and finance into account.

A further task of empirical research is the combination of class analysis and information society analysis. Such analysis has two dimensions, namely the analysis of the class character of informational activities and resources and of the informational dimensions of class. An example is the analysis of wages and working conditions in specific information industries, on the one hand, and percentage share of information labour in the total number of wage-workers or freelancers, on the other.

Such research should be both quantitative and qualitative. Qualitative class analysis of information labour and informational analysis of class focuses on the study of workers' experiences of exploitation. Knowledge workers are particularly affected by an ideology that is known as the new spirit of capitalism. The new spirit of capitalism is an ideology that promises to workers unalienated work that allows them to lead self-fulfilling working lives similar to many artists, celebrities or journalists.<sup>24</sup> Empirical studies indicate that knowledge workers in media, creative, cultural and digital industries experience their labour as highly creative, self-determined and self-fulfilling. But at the same

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<sup>23</sup> See: Erik Olin Wright. 1997. *Class Counts: Comparative Studies in Class Analysis*. Cambridge: Cambridge University Press.

<sup>24</sup> Luc Boltanski and Ève Chiapello. 2005. *The New Spirit of Capitalism*. London: Verso.

time their labour is often precarious.<sup>25</sup> Rosalind Gill provides a summary of the main features of knowledge labour in the cultural and media industries.<sup>26</sup> Such labour's characteristics typically include:

1. love of the work,
2. the entrepreneurial aspiration to innovate and pioneer,
3. short-term, precarious and insecure labour,
4. low pay/income,
5. long hours,
6. workers' need to constantly develop their knowledge and skills,
7. DIY learning,
8. informality,
9. inequalities in respect to class, gender, age, ethnicity and disability,
10. lack of time and resources for planning the future.

Creative labour often *appears* to be less alienated than manual and other forms of labour. Its reality, however, often differs from the promises and the ideological discourse surrounding creative labour. It is often organised as precarious labour that lacks social, job and income security. The ideology of the new spirit of capitalism can result in creative workers' reified consciousness so that they do not see themselves as workers, but as actual or aspiring entrepreneurs, are hostile to unionisation, and see precarity as an individually, not a capitalistically caused condition. '[S]pecialist employees, technical personnel, clerical workers and so on swell the ranks of the working class – even if they are not “blue-collared”, and their status is not absolutely clearly defined, so that often they have illusions about it themselves.'<sup>27</sup> The new spirit of capitalism has helped constitute a new form of alienation that appears to be unalienated. Whether workers can resist this new ideology depends on various factors, including whether or not they collectively organise themselves and can develop critical consciousness that lets them see the capitalist reality behind the false appearances.

In the time period from 1970 until 2016, the share of agriculture/hunting/forestry/fishing in the world GDP decreased from 9.1% to 4.2%. The share of manufacturing decreased from 24.9% to 16.0%. And the share of the service sector increased from 51.5% to 64.0%.<sup>28</sup> Such an indicator operates purely on the level of

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<sup>25</sup> See: Richard Maxwell, ed. 2016. *The Routledge Companion to Labor and Media*. New York: Routledge.

<sup>26</sup> Rosalind Gill. 2011. 'Life is a Pitch': Managing the Self in New Media Work. In *Managing Media Work*, ed. Mark Deuze, 249–262. London: Sage.

<sup>27</sup> Radovan Richta et al. 1969. *Civilization at the Crossroads. Social and Human Implications of the Scientific and Technological Revolution*. White Plains, NY: International Arts and Sciences Press Inc. p. 248.

<sup>28</sup> Data source: UNCTAD Statistics, <http://unctadstat.unctad.org/>, accessed on 29 August 2018.

**Table 7.2:** Aspects of the global working class: data in millions.<sup>29</sup>

	<b>1991</b>	<b>2019</b>
Total labour force	2,395.1	3,531.7
Total employment	2,260.1	3,342.5
Wage workers	995	1,811.1
Own account workers	739.9	1,081.2
Contributing family workers	466.5	345.1
Unemployment	134.9	189.2
Employers	60.6	105.1
Employment in agriculture	979.3	850.7
Employment in manufacturing	522.5	743.3
Service employment	758.3	1,748.4
Persons not in labour force (excluding those aged below 15)	1,247.9	2,202.5

the productive forces. For a critical theory, indicators that combine class analysis and analysis of the productive forces are more interesting. An important question is how many proletarians there are today in the world and in which sectors of capitalism they are exploited. Today, there are more workers in the world than ever before, but they may be less politically organised than ever before. The tables that follow provide an overview of relevant data from the International Labour Organization (ILO). Table 7.2 provides some basic indicators.

The ILO defines employment as the sum of all paid employees, including wage-workers, own-account workers (those who work on their own account in self-employment, but do not employ others), and contributing family workers (those who work as own-account workers in family-operated organisations run by someone in the same household). The definition includes full-time as well as part-time employees. The labour force variable adds the unemployed to the number of employees. If we take the labour force variable as constitutive of the size of the working class, then in 2019 there were more than 3.5 billion workers in the world, which means an increase of 47.5 percent in the size of the working class since 1991. In contrast, the class of employers, with slightly more than 100 million members in 2019, was comparatively small, but very powerful because of the capital it controls. 52.3 percent of the world's active workers are service workers, 22.2 percent are manufacturing workers, and 25.5 percent are agricultural workers. 2.2 billion people aged 15 or above are not active in the labour force.

<sup>29</sup> Data source: ILO World Employment and Social Outlook, <http://www.ilo.org/wesodata>

The world population was around 7.7 billion in 2019, of which 3.88 billion individuals were biologically male (50.4 percent) and 3.81 billion biologically female (49.6 percent).<sup>30</sup> As noted above, the world's population not active in the labour force amounted to 2.2 billion in 2019, excluding 1.97 billion children aged 0–14.<sup>31</sup> If we assume that the poor are part of the working class and retired people to the roughly the same share have the same class status as those who are economically active (105.1 million employers, 3.5317 billion workers: 2.9%/97.1%), then it is a good estimate that at least 2.1 billion individuals currently not in the labour force are part of the working class because they are either poor or retired workers. This brings the estimation of the total size of the global working class to 5.7 billion in 2019. The world's 2 billion children are left out of this calculation because their future class trajectory is not necessarily determined by the class status of their parents.

The largest human group is the universal group of humans that in 2019 consisted of around 7.7 billion individuals. The second largest group is not the one of men, women, children, or aged people. In 2019, there were 3.9 billion men, 3.8 billion women, 2 billion children, and 702 million people aged 65+.<sup>32</sup> Seventy-four percent of the world's population were in 2019 part of the working class. The working class is the largest sub-group of humanity. It is, with 5.7 billion people, larger than all other sub-groups. So, there is empirical evidence that class is more substantial than sex, gender, age, ethnicity, etc. There are of course diverse forms of oppression in the world that are interrelated. But the working class is the world's largest group of the oppressed. Exploitation is the form of domination that affects the largest number of people in the world.

Tables 7.3, 7.4 and 7.5 combine the analysis of the working class with geographical data and sectoral economic data related to the productive forces.

Global agricultural labour has decreased from around 1 billion in 1992 to 850 million in 2019, a fall of 14.2 percent. This decrease has been significant in both the developing and the developed world. In 2019, 97% of the world's agricultural workers were located in developing countries and just 3% in developed countries, which shows the uneven geographical development of industrialisation and informatisation in the world. The developing world is much more agriculture-based than the developed world. In China, the number of agricultural workers has decreased from 349.1 million in 1992 to 117.3 million in 2019, a fall of 66.4 percent. China has in the past decades been simultaneously industrialised and informatised at very high speed. The country's productive forces have turned from a predominantly agricultural economy into a service- and manufacturing-based economy. The number of Chinese manufacturing workers has grown by 9 percent to 197 million in the period from 1992 until

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<sup>30</sup> Data source: World Bank Data, <http://databank.worldbank.org/>

<sup>31</sup> Data source: World Bank Data, <http://databank.worldbank.org/>

<sup>32</sup> Data source: World Bank Data, <http://databank.worldbank.org/>

**Table 7.3:** Global agricultural employment, in millions.<sup>33</sup>

	1992	2019
<b>Total:</b>	991.3	850.7
<b>Region:</b>		
Eastern Europe	22.5	12.1
Northern, Southern and Western Europe	13	6.8
USA	3.4	2.5
Canada	0.6	0.4
Australia and New Zealand	0.6	0.5
Japan	4.2	2.2
South Korea	2.8	1.3
Singapore	0.0	0.0
UAE	0.1	0.0
<b>Total developed world:</b>	<b>47.2</b>	<b>25.8</b>
Arab states (without UAE)	4.2	6.7
Northern Africa	13.6	18.8
Sub-Saharan Africa	122.4	226.8
Central and Western Asia	18.6	15.2
South-Eastern Asia and the Pacific (without Australia, New Zealand and Singapore)	119.9	101.5
Latin America and the Caribbean	42.5	41
Southern Asia	265	286.3
thereof India:	208.7	208.9
Eastern Asia (without Japan and South Korea)	358.1	128.7
thereof China:	349.1	117.3
<b>Total developing world:</b>	<b>944.3</b>	<b>825</b>

2019. Chinese service labour saw a massive growth during the same period from 120 to 442 million workers, a growth rate of 269 percent.

The number of the world's manufacturing workers increased from 529.5 to 743.3 million during the analysed period, a growth of 40 percent. So, at the level of the global working class, it is not true that there has been de-industrialisation. De-industrialisation rather affected the developed world, where in total more than 25 million manufacturing jobs have disappeared. In developing countries, there was a significant growth of manufacturing. The growth

<sup>33</sup> Data source: ILO World Employment and Social Outlook, <http://www.ilo.org/wesodata>

**Table 7.4:** Global manufacturing employment, in millions.<sup>34</sup>

	1992	2019
<b>Total:</b>	529.5	743.3
<b>Region:</b>		
Eastern Europe	49.8	38
Northern, Southern and Western Europe	55.8	44.6
USA	29.3	29.4
Canada	2.9	3.7
Australia and New Zealand	2.4	2.8
Japan	22.6	16.3
South Korea	7	6.5
Singapore	0.5	0.5
UAE	0.3	2.5
<b>Total developed world:</b>	<b>170.6</b>	<b>144.3</b>
Arab states (without UAE)	4.1	11.7
Northern Africa	8.5	19
Sub-Saharan Africa	16.2	44.4
Central and Western Asia	11	19.1
South-Eastern Asia and the Pacific (without Australia, New Zealand and Singapore)	27.9	70
Latin America and the Caribbean	37.3	62.9
Southern Asia	65.7	167.3
thereof India:	49.5	124.1
Eastern Asia (without Japan and South Korea)	188.3	204.7
thereof China:	181.1	197.2
<b>Total developing world:</b>	<b>359.0</b>	<b>599.1</b>

rate there was 67 percent. Since the 1970s, many large corporations have outsourced the manufacturing of their commodities to developing countries in order to increase their profits. The consequence was the creation of Taylorist labour with high exploitation under poor working conditions. Labour in the service sector increased massively in both the developing and the developed world. The increase during the analysed period amounted to almost a billion workers worldwide. In 2019, there were around 1.7 billion service workers in the world.

<sup>34</sup> Data source: ILO World Employment and Social Outlook, <http://www.ilo.org/wesodata>

**Table 7.5:** Global service employment, in millions.<sup>35</sup>

	<b>1992</b>	<b>2019</b>
<b>Total:</b>	<b>782.5</b>	<b>1,748.4</b>
<b>Region:</b>		
Eastern Europe	70.3	85.4
Northern, Southern and Western Europe	104.5	152
USA	88.8	125.5
Canada	9.6	15
Australia and New Zealand	6.5	11.6
Japan	38.2	46.2
South Korea	9.9	19
Singapore	1	2.8
UAE	0.6	3.9
<b>Total developed world:</b>	<b>329.4</b>	<b>461.4</b>
Arab states (without UAE)	10.7	29.1
Northern Africa	13.7	30.1
Sub-Saharan Africa	43.1	128.6
Central and Western Asia	17.7	38.1
South-Eastern Asia and the Pacific (without Australia, New Zealand and Singapore)	52.5	155.2
Latin America and the Caribbean	88.4	190.5
Southern Asia	98.8	259.2
Thereof India:	72.4	182.8
Eastern Asia (without Japan and South Korea)	128.3	456.2
Thereof China:	120.0	442.6
<b>Total developing world:</b>	<b>453.2</b>	<b>1,287.0</b>

Tables 7.6 and 7.7 provide some data on the size and geographical distribution of the capitalist class.

The number of employers increased from 62.9 million in 1992 to 105.1 million in 2019, a growth of 67 percent. Although the number of employers shrank in developed countries, there was significant growth in developing countries. China accounted for over 40 percent of new employers that emerged during that period, which is an indication that rapidly industrialising and informatising capitalist countries not only create a new proletar-

<sup>35</sup> Data source: ILO World Employment and Social Outlook, <http://www.ilo.org/wesodata>

**Table 7.6:** The global distribution of employers, in millions.<sup>36</sup>

	<b>1992</b>	<b>2019</b>
<b>Total:</b>	<b>62.9</b>	<b>105.1</b>
<b>Region:</b>		
Eastern Europe	6.1	2.6
Northern, Southern and Western Europe	9.9	8.8
USA	5.6	5.7
Canada	0.8	0.9
Australia and New Zealand	0.6	0.8
Japan	1.4	1.3
South Korea	0.6	1.5
Singapore	0.1	0.2
UAE	0.0	0.2
<b>Total developed world:</b>	<b>25.1</b>	<b>22.0</b>
Arab states (without UAE)	0.6	2.1
Northern Africa	3.4	4.6
Sub-Saharan Africa	4.8	10.7
Central and Western Asia	1.6	2.9
South-Eastern Asia and the Pacific (without Australia, New Zealand and Singapore)	4.1	10.2
Latin America and the Caribbean	7.5	13.8
Southern Asia thereof India:	7.9	12.4
Eastern Asia (without Japan and South Korea) thereof China:	7.6	26.4
<b>Total developing world:</b>	<b>37.5</b>	<b>83.1</b>

iat, but also a new bourgeoisie. The number of corporations listed on the stock market increased from 25,277 in 1992 to 43,520 in 2019, an increase of 72 percent. In 2009, the world's total number of corporations decreased absolutely, which was an effect of the new world economic crisis. China was in this respect not affected by the crisis. Its number of corporations continued to increase and multiplied by a factor of 2.5 during the time period between 1992 and 2019.

<sup>36</sup> Data source: ILO World Employment and Social Outlook, <http://www.ilo.org/wesodata>

**Table 7.7:** The number of companies listed on stock markets.<sup>37</sup>

	1980	1992	2006	2009	2017
World	17,273	25,277	43,084	42,520	43,039
East Asia and Pacific	3,356	5,323	12,378	13,207	18,148
EU	5,822	6,006	10,213	10,240	N/A
Euro area	2,842	3,691	6,409	6,250	5,470
North America	6,288	8,167	8,939	8,518	7,627
OECD	15,494	18,933	26,067	25,718	22,624
Latin America and Caribbean (excl. high income)	697	1,009	835	871	842
Arab World	N/A	N/A	N/A	1,249	1,172
Middle East and North Africa (excl. high income)	N/A	N/A	N/A	N/A	984
South Asia	N/A	2,781	5,883	6,030	6,483
China	N/A	N/A	1,421	1,604	3,485

## 7.4 Summary and Conclusions

We can summarise this chapter's main conclusions as follows:

- In the discourse on the information society, there are continuous, discontinuous, subjective and objective approaches. Whereas some see society as continuously capitalist without large changes, others argue that the information society is a radically new society. Whereas some approaches focus on knowledge in society, others stress the role of information and communication technologies. The dominant version of information society theory, which includes concepts such as the network society, the post-industrial society or the knowledge society, is a bourgeois ideology that describes society in positive-sounding terms. It thereby ignores the negativity of class and capitalism that the world's workers have to face in everyday life.
- A dialectical theory conceives of contemporary society as unity in a diversity of various capitalisms, of which information and communicative capitalism is one dimension. Whereas the productive forces have increasingly become based on information, knowledge and service labour, such changes have helped reproduce capitalism's class relations. Contemporary society is to a specific degree informational at the level of the productive forces. And society is capitalist at the level of the relations

<sup>37</sup> Data source: World Bank Data, <https://data.worldbank.org/>

of production and power. There is a dialectic of object (information and communication technologies) and subject (knowledge, knowledge labour) in information capitalism.

- The working class is in the 21<sup>st</sup> century as large as it has ever been. With almost 6 billion members it is humanity's largest group, which shows the importance of class in global capitalist society. The structure of labour has been changing: There has been a significant decrease of agricultural labour in the world that has taken place in the centre, periphery, and semi-periphery countries. It also affects the Global South. While there has been de-industrialisation in the West during the past decades, the Global South has experienced a growth of manufacturing labour because of transnational corporations' global outsourcing practices. Service labour has shown very rapid growth in both the developing and developed world.

Radovan Richta was a Czech philosopher. At the time of the Prague Spring in 1968, when the Czech Republic tried to introduce democratic, humanist socialism under Alexander Dubček, Richta headed a group of researchers that studied the potentials of the scientific and technological revolution for the advancement of democratic, humanist socialism. The results were published in the Richta-Report *Civilization at the Crossroads. Social and Human Implications of the Scientific and Technological Revolution*.<sup>38</sup> Today, this report is a forgotten and overlooked aspect of information society theory. But it remains highly important and topical.

Richta was critical of the capitalist shaping and use of science and information technology. He argued, based on Marx, that a commons-based, democratic, humanist society needs scientific and technological foundations. 'Marx implied before the event that the changes we know today as the scientific and technological revolution would be an integral part of the communist transformation of society'.<sup>39</sup> Socialism requires 'a new, technical basis in the shape of the fully implemented automatic principle'.<sup>40</sup> The 'chances of carrying out the scientific and technological revolution to the full lie with a society advancing towards communism. And, on the contrary, for a society pursuing this aim and "whose fundamental principle is the full and free development of every individual" it is essential to advance by degrees beyond the traditional industrial system and the industrialization model of growth to the scientific and technological revolution'.<sup>41</sup>

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<sup>38</sup> Radovan Richta et al. 1969. *Civilization at the Crossroads. Social and Human Implications of the Scientific and Technological Revolution*. White Plains, NY: International Arts and Sciences Press Inc.

<sup>39</sup> *Ibid.*, p. 17.

<sup>40</sup> *Ibid.*, p. 52.

<sup>41</sup> *Ibid.*, p. 53–54.

Richta sees the potential of the scientific and technological revolution that led to the emergence of the computer in helping to create a society beyond necessity that abolishes toil and maximises free time: 'If the age of science and technology sees the true potential of leisure to lie in the diversified cultivation of human abilities, the abstract antithesis of leisure and work will be overcome as soon as work is transformed into creative activity. At this divide the time available to man which has been released for human development will take the place of "working time" as the measure of *social wealth*'.<sup>42</sup> Richta reminds us that democratic, humanist, information and communicative socialism is the only true alternative to information capitalism. 'Harnessing science and technology within a unified social context, promoting the effective interest of all in raising the productivity of social labour, [...] creating and asserting all human abilities – these are the potential means [...] of victory for the new social principles within civilization as we know it today. With them socialism and communism stand or fall'.<sup>43</sup> Society is at a cross-roads, where transforming the world 'to the benefit of man is obliged to rely on the delicate compass of science and the power of creative thought'.<sup>44</sup>

Capitalism's political economy not only includes economic production, circulation, and consumption, but also political power relations. The next chapter will shift the analysis from the economic to the political level. It will focus on the political system, political communication, and the public sphere.

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<sup>42</sup> Ibid., p. 177.

<sup>43</sup> Ibid., p. 278.

<sup>44</sup> Ibid., p. 278.