

Chapter 2

Liberalisation of Telecommunications Services: Social Embedding of the Liberalised Market as a Regulatory Challenge

Abstract This chapter deals with the question what makes telecommunications services so particular so as to explain their special regulatory treatment. It studies why telecommunications services are considered to be services of public interest by identifying what characteristics or values are attached to these services so as to signify public interest in them. In this context, it further discusses traditional models for telecommunications provision and regulation. The chapter draws on the theory of social embeddedness of markets developed by Karl Polanyi and puts both the existence of markets and the necessity of their regulation in a broader political-economic context. The chapter focuses on the instrument of universal service that is widely used for social embeddedness of liberalised competitive markets for telecommunications services. It studies its history and development as a regulatory concept that is effective and flexible and can be used at different stages of technological and market development. Various forms of universal service bear witness to its responsiveness to various social needs in terms of *Polanyi's* social embeddedness thesis. The capability of socially embedding the telecommunications market with the help of the universal service regulatory concept is further tested by studying whether and how it responds to social considerations.

Keywords Basic telecommunications • Electronic communications • Market failure • Network externalities • Public interest • Public service • Social embeddedness • Technological convergence • Universal access • Value-added telecommunications

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2.1 Telecommunications Services as Services of Public Interest

Telecommunications are considered by many to have a great and ever-growing influence and significance in their everyday lives. This is reflected in the fact that special legislative arrangements are often made in order to ensure the ubiquitous presence of telecommunications infrastructure and the possibility for it to be used by everybody. At the same time, such a regulatory distinction of telecommunications might seem puzzling: after all, more important goods like, for example, bread are not subject to a special regulatory regime. Therefore, a justified research question is what makes telecommunications so particular so as to explain their special regulatory treatment.

In order to answer this question, the notion of services of public interest shall be employed because telecommunications services are usually classified as such and their special regulation is justified by their belonging to this group. Following a brief outline on services of public interest, the general framework of their provision will be described. The general introductory part of this chapter ends with theoretical elaborations on the social embeddedness of markets drawing on the legacy of *Karl Polanyi*. This turn is perceived to be indispensable in order to put both the existence of markets and the necessity of their regulation in a broader political-economic context and to strengthen the argument for the regulation of markets in the societal interest.

After that, the present chapter will focus on telecommunications services in an attempt to identify what characteristics or values are attached to these services so as to signify public interest in them. For this, it is necessary to clarify in more detail the subject of the research, namely telecommunications services. Although it would be difficult to find a person in the industrialised world who has never used telecommunications services, the notion of what exactly they are is difficult to precisely define even for experts. Understanding telecommunications is complicated by rapid and constant technological developments in this field, as well as the evolution of the respective markets over the last couple of decades. After that, the traditional models for telecommunications provision and regulation will be discussed and a brief conclusion will be made on the main findings.

2.1.1 *Services of Public Interest*

Services of public interest are one of the topics which, although well researched in the scholarly literature, does not lose its popularity. Some of the obvious reasons for the steady flow of publications¹ are globalisation, the liberalisation of the provision of certain public services under the influence of international trade and the transfer of certain public interest obligations from the state to private actors and/or international organisations.

The present section does not intend to provide any new insights into the understanding of services of public interest and/or their provision and regulation, but aims at presenting a general theoretical framework for the subsequent conceptualisation of telecommunications services as services imbued with a public interest and for focused research into the regulation of their provision in liberalised markets.

2.1.1.1 **Notion of Services of Public Interest**

Many, if not all, national legal regimes developed special treatment for certain services singling them out among market-provided services. Although influenced by globalisation, regionalisation and the legislation of international organisations in various fields and by other processes, the legal, economic and social roles and functions of such services remain highly heterogeneous, reflecting the historical, cultural, economic and political traditions of different countries.² In his monograph, *Krajewski* characterised the situation with the definition of services of public interest in a more or less integrated European system as “terminologically varied, while the circumstances are comparable”.³ It can be safely assumed that the terminological variety worldwide is even greater, while the content of the terms and their regulation and circumstances of provision might still resemble each other.⁴

Due to terminological diversity and because of the concept of the present study, which limits itself to a comparison of only two legal frameworks for the regulation of services of public interest, it would be only logical to turn to European and WTO law in search for a more general definition. In the GATS the term, which is usually associated with services of public interest, is “services supplied in the exercise of governmental authority”, and it is defined as “any service which is

¹To the most recent publications belong van de Gronden 2009; Krajewski et al. 2009; Krajewski 2011; Szyzszak et al. 2011.

²Communication from the Commission to the Council and the European Parliament. Green Paper on Services of general interest COM (2003) 270 final, p. 6.

³See Krajewski 2011, p. 8.

⁴Zacharias 2008, p. 59.

supplied neither on a commercial basis, nor in competition with one or more service suppliers” (Article 1:3(b) and (c) GATS). The precise scope of the named provision remains contested among scholars as well as among government and some WTO officials as there has been no coherent WTO practise in this regard.⁵

Although interpretations of this clause are not very manifold, their study and discussion do not seem to be of much use for the present research. This section aims at understanding what kinds of services can be subject to a special regulation, while the definition provided by the GATS has a functional character and looks at the mode of service provision. Thus, the GATS leaves the choice of both services and of a special legal regime for them to its Members.

At the EU level, the terms “services of general economic interest” and “services of general interest” are employed.⁶ Both the content of and the relation between these two terms have been studied extensively.⁷ The findings can be summarised as follows: “Services of general economic interest”, the term used but not defined in primary law, correspond in most instances to public services and other similar concepts of Member States, but refer in the first line to economic services. The term “services of general interest” seems to be introduced in Commission documents solely in order to account for both market and non-market services that are subject to special national regulation.⁸ However, both terms are rather vague, based on a functional approach referring to modes of service provision, and are not clearly delineated from each other.⁹ Therefore, European law definitions also cannot be considered satisfactory.

Extensive scholarly research offers a better framework for a holistic understanding of public services. In light of the fact that there is no uniform usage of terms in the scholarly literature, which can be explained by the above indicated diversity of legislative traditions as well as with difficulties in translating terminology,¹⁰ the term “service of public interest” shall be employed in this study. It represents an attempt to cope with the terminological complications and

⁵The most thorough work on the interpretation of the term “services supplied in the exercise of governmental authority” has been done by Adlung 2006; Krajewski 2003, 2009; Leroux 2006; Zacharias 2008.

⁶See respectively Article 14, 106 para 2 TFEU, Article 36 ECFR and Communication from the Commission to the Council and the European Parliament. Services of General Interest in Europe, OJ C 281/3 of 26.09.1996; Communication from the Commission to the Council and the European Parliament. Services of General Interest in Europe, OJ C 17/4 of 19.01.2001; Communication from the Commission to the Council and the European Parliament. Green Paper on services of general interest. COM(2003) 270 final of 21.05.2003; Communication from the Commission to the Council and the European Parliament. White Paper on services of general interest. COM(2004) 374 final of 12.05.2004.

⁷To name just a few recent studies, Franzius 2009; van de Gronden 2009; Krajewski 2011.

⁸See Krajewski 2011, pp. 74–107.

⁹Communication from the Commission to the Council and the European Parliament. Green Paper on services of general interest. COM(2003) 270 final, No. 15–19.

¹⁰For a summary of terminological semantic complications see Krajewski 2011, pp. 9–10.

varieties. Moreover, it allows an abstraction from the context of a particular legal order and the placing of more emphasis on the commonalities between different legal orders.¹¹

Despite different terminology, the services which fall under a special regulatory regime are largely the same: medical services, education, the provision of utilities (energy, water, sewage), social security and a few others. Natural questions therefore are why these particular services are singled out, and what features of these services justify their special treatment. Surprisingly, there is little research on this question.¹²

A starting point for the discussion can be the obvious statement that services of public interest, just as any other types of services, imply a legal relation of exchange between the provider and the recipient.¹³ Another common feature of such services is that the necessity for their special status is recognised by the political process¹⁴ and is based on a consideration of the kind of service involved.¹⁵ Most commonly, the following theoretical approaches are used to justify the special legal status of certain services: public interest, public goods and merit goods.

In employing the concept of public interest in order to explain the distinctiveness of services imbued with a public interest, policymakers¹⁶ assume that certain services are essential not solely for the counterparts involved in the legal relation of service provision, but for society as a whole due to a special interest attributed to them. Yet, the use of the term “public interest” does not bring us much closer to a solid definition of services of public interest, because the precise notion of public interest, which is so frequently used by the legislature and the judiciary, has been slipping away from scholars for decades. The consensus prevails that public interest depends on political, economic and ideological conditions¹⁷ and at different times and in different countries different services were considered to be associated with it.¹⁸ Therefore, an abstract definition of public interest is possible in the most vague terms as the interest of a community or of all relevant stakeholders, but a precise notion can only be provided on a case-by-case basis.¹⁹

¹¹For other reasons see Scott 2000, p. 313.

¹²Van de Walle 2008, p. 258.

¹³A concise discussion of the notion of service in the relevant context can be found in Krajewski 2011, pp. 120–121.

¹⁴Krajewski 2011, pp. 121–124.

¹⁵Stone 1991, p. 26; Scott 2000, p. 312.

¹⁶The term “policymakers” is chosen as a neutral description of whoever determines the public interest. Obviously, in different societies different groups may take this decision.

¹⁷See some of the accounts, trying to grasp the meaning and analysing the evolution of the term: Bozeman 2002; Hantke-Domas 2003; Uerpmann 1999; Viotto 2009.

¹⁸Exemplary for the development of the notion of public service in the UK and the USA is Stone 1991, pp. 27–38.

¹⁹Hantke-Domas 2003, p. 186; Viotto 2009, p. 47.

In an attempt to overcome this criticism, *Krajewski* convincingly singles out one particular kind of public interest inherent in services of public interest: interest in the regulation of the quantity and quality of the services supply in the market.²⁰ However, interest in regulating the quantity and quality of a service by itself is too abstract and prone to arbitrary use because it does not relate to the type of service. It cannot account for the special status of telecommunications services as compared to accounting services or, to make a more elaborate example, the special status of voice telephony as compared to videoconferencing, which are both telecommunications services. *Krajewski* himself admits that public interest cannot be defined *ad abstractum* and rests upon a value judgment.²¹ An additional criterion is necessary to render the said public interest more precise in order to enable a case-by-case examination. While in some countries the criteria for this circumstantial examination can be found in their national laws,²² in other countries they were developed by the judiciary. For instance, the US courts examine cumulatively whether a service is requisite for the community's level of civilisation or necessary for its economic life, whether it has current or future widespread effects on the community and whether the free market would not provide the relevant service to significant segments of the community in sufficient quantity and quality.²³

In the search for more generalised additional criteria, the economic literature where concepts of public goods and of merit goods were developed and used to justify services of public interest may be helpful.

The authorship of the public goods concept belongs to *Paul Samuelson* who described them as "collective consumption goods which all enjoy in common in the sense that each individual's consumption of such a good leads to no subtractions from any other individual's consumption of that good".²⁴ This feature of public goods is usually referred to as non-rivalry and it is complemented by non-excludability, meaning that it is impossible to exclude any individuals from consuming the good even if they have not paid for it.²⁵ This latter characteristic creates a free-rider problem that discourages private actors from providing public goods on the market in sufficient quantities (market failure). Therefore, for public goods to be provided and distributed efficiently government intervention is necessary in the form of either strict regulation or direct provision meaning that there is a public interest in correcting the market failure.²⁶

The application of the public goods concept to justify special regulations for services of public interest was criticised on fundamental grounds.²⁷ It is built on

²⁰Krajewski 2011, p. 130.

²¹Idem.

²²For example, in Germany. See Viotto 2009, pp. 28–47.

²³Stone 1991, pp. 31–32.

²⁴Samuelson 1954, p. 387.

²⁵Mankiw 2004, pp. 225–226.

²⁶Samuelson 1954, pp. 387–389; Mankiw 2004, p. 226.

²⁷Anton 2000, pp. 8–11; Krajewski 2003, pp. 343–344.

the assumption that some goods and services are inherently unmarketable and this quality cannot be reversed. Yet, this assumption proved to be rebuttable: many goods were converted from public to private as a result of technological developments and political decisions.²⁸ Therefore, the public goods concept may serve as a foundation for services of public interest only in very particular circumstances.

The concept of merit goods developed by *Richard Musgrave*²⁹ seems to offer a more profound economic framework for understanding of services imbued with a public interest; at the same time, it comes close to and complements the public interest theory. Merit goods are commodities which are judged by the political system of a society to be due to an individual or society on the basis of some concept of need, rather than an ability and a willingness to pay.³⁰ Merit goods should not be confused with public goods. A good is considered to be public or private because of its intrinsic characteristics (non-rivalry and non-excludability of consumption). Merit goods' special feature refers not to the particularities of their consumption, but to the value judgement attributed to these goods. Therefore, merit goods may be both private and public goods provided through government intervention in the market by a method or at a level which disregards the actual wishes of an individual consumer.³¹

The concept of merit goods interferes with the premises of the classical Western economic theory which builds upon the wishes and preferences of individual consumers. On the contrary, it justifies budgetary governmental action on behalf of the society in order to correct individual choices that may be distorted for some reason (e.g. due to imperfect information or unsatisfactory provision by the market).³² This aspect provoked criticism of the concept as paternalising consumers and making illegitimate choices for them.³³ While *Musgrave* explained that interference with consumer sovereignty can be justified in certain cases in democratic societies (e.g., by a better informed, knowledgeable group (adults) for a worse informed one (minors) or by the interdependence of utilities),³⁴ his proponents strengthened his argument with an ethical component of economic thinking.³⁵

In further developing his merit goods concept, *Musgrave* builds a bridge to philosophical-ethical categories linking the existence of these goods and public

²⁸Krajewski 2003, p. 344.

²⁹Musgrave introduced the concept of a merit good/merit want in: Musgrave 1956.

³⁰Compare Pulsipher 2007, p. 153.

³¹Ver Eecke 2007, p. 331.

³²Head 2007, p. 118.

³³See, for example, McLure 2007, pp. 73–83.

³⁴Musgrave 1956, pp. 37–38.

³⁵Ver Eecke 2007, pp. 327–347.

values (called “community preferences”) attributed to a particular good.³⁶ Similar to public interest, community preferences are formed and attributed to particular goods as an outcome of broadly understood historical processes in a certain community. They may derive from conflicting sets of values where an individual has to submit his/her preferences to those of the community due to expected external costs.³⁷ *Musgrave* turns to ethics in looking for a justification of the choice in favour of the community. It seems plausible that any conflict between individual wishes and community preferences can be satisfactorily politically solved only when some overriding non-economic values add weight to the arguments of one of the parties. Here, “higher values” of positive external implications for the whole community are pointed to, as identified in their variability by philosophers from Aristotle and Immanuel Kant to John Rawls and Amartya Sen.³⁸

The changeability of community preferences and their dependence on non-economic factors is well demonstrated by historical research. Examining the provision of transport infrastructure and food over five historical periods, *Charles* et al. define public values as “deeply felt needs and wishes that citizens have regarding the delivery of services, such that they are in effect deemed essential” and identify three main factors determining public values in infrastructure: technological development, political integration and economic ideology.³⁹ The authors come to the conclusion that public values “can only be claimed as rights when the wider political, economic, and technological contexts in which they appear allow for this” and that their perception is “culture and time specific, and can only evolve if their wider developmental path allows them to be recognized, construed, and physically and institutionally elaborated.”⁴⁰ Further, it is even likely that “economic and political structures *enable* the salience of certain public values, rather than that the *need to realize these values* leads to the kinds of economic and political structures that can support and safeguard them” [emphasis in the original text—O.B.].⁴¹

Summing up the results of the challenging quest for the notion of services of public interest, the following definition can be outlined: a service of public interest is a legal relation of exchange between the provider and the recipient where a special legal status of the service is recognised by the political process based on specific values attributed to it, and because of the interest in regulating the quantity and quality of its supply.

³⁶See the entry on merit goods by Richard Musgrave in: Eatwell et al. 1987, pp. 452–453.

³⁷Eatwell et al. 1987, pp. 452–453.

³⁸*Idem*, pp. 452–453, Ver Eecke 2007. Barry Bozemann and Torben Beck Jørgensen have recently analysed problems of studying public values and made an interesting attempt to draw a list of public values in Bozemann and Jørgensen 2007.

³⁹Charles et al. 2011.

⁴⁰*Idem*, p. 86.

⁴¹*Idem*, p. 86.

2.1.1.2 Specificities of Regulation and Provision

As repeatedly mentioned above, services of public interest are subject to special legal treatment which is reflected in arrangements regarding their provision that are different from the ordinary provision by the free market. Basically, services of public interest cannot, by virtue of their very nature, be provided, according solely to competition law, on the unregulated free market. An interest in regulating the quantity and quality of their supply is an immanent characteristic of services of public interest. Thus, the population, dependent on these services, shall not suffer inappropriate and exploitative treatment by the providers in the form of under-provision or high prices and shall receive the required amount of services of appropriate quality. Usually, the behaviour of undertakings in unregulated competitive markets is considered to be exploitative as regards consumers because it is profit oriented and therefore not compatible with other, non-economic objectives. For this reason, state intervention in the market provision is presumed in some form.

Therefore, two major forms of provision are employed for services of public interest: provision by a monopolistic market and provision by a regulated competitive market.⁴² It is only logical to start with the description of provision by a monopolistic market because this traditional form of provision is still widespread. Provision on a regulated competitive market is a more recent phenomenon and can be considered a transitory form from a monopolistic market to an unregulated competitive one. Besides, the regulation of a competitive market in the social interest is a topic of the present research and will be studied further in depth in the example of the telecommunications services market.

In the case of provision by a monopolistic market, services of public interest are supplied either directly by the state (special public administration) or by a public or private undertaking. If a private undertaking is employed, one can speak of services provision by a market with limited competition: private providers can be selected by a tender or other form of procurement procedure and thus compete *for* the market. Competition with other undertakings for consumers *in* the market does not take place.

Public or private monopolistic undertaking is not, however, left to its own devices: a special public administration keeps a watchful eye on it and can issue various binding rules and instructions, prescribing certain behaviour, making investment and personnel decisions, and providing for indicative planning.⁴³ Such regulation and control are necessary in order to ensure that the monopolist does not abuse its singular position and accounts for other than its own economic interests. At the same time, the monopolist complies with tight regulation and tolerates it because it is keen to keep the market for itself where it benefits from monopoly profit, which is higher than profit on a competitive market.⁴⁴

⁴²See Franzius 2009, Chap. 3; Krajewski 2011, p. 350.

⁴³Hulsink 1999, pp. 2–3.

⁴⁴Mankiw 2004, pp. 321–328.

The provision of services of public interest directly by the state or by a monopolistic market is preferred for a number of reasons. On the one hand, there is a political–juridical argumentation that the provision of services of public interest is a task for the government and a justification of its existence.⁴⁵ The German *Daseinsvorsorge* and especially the French *service public* are examples of services of public interest concepts which are heavily influenced by this school of thought.⁴⁶ Its logical implications are that services of public interest should be preferably provided by the state proper and, if this is impossible, by a monopolist, which is easier to supervise than rival undertakings, under state custody in the form of ownership or tight control.

On the other hand, there is an economic argument that the provision of services of public interest by the state or a monopoly is more efficient than by the free market due to the prevention or anticipation of possible market failures.⁴⁷ The possibility of market failures is frequently explained by the alleged public goods or club goods nature of services of public interest or by the natural monopoly character of the respective industry as a whole. The use of the public goods concept in connection with services of public interest was dealt with above. Therefore, here only a brief overview of club goods and the natural monopoly theory shall be given.

Club goods were conceptualised by *James Buchanan* in his clubs theory which he developed while studying Samuelson's not yet well-elaborated concept of public goods.⁴⁸ *Buchanan* aimed to close a gap between purely public goods and private goods. He observed that some goods are non-rival, but still excludable, and that their excludability is based on the inherent feature that they can be shared, but—unlike purely public goods—not by an indefinite number of consumers. *Buchanan* called the self-restricting communities of people sharing such goods “clubs”—a voluntary group deriving mutual benefits from sharing production costs, the members' characteristics, and/or a good characterised by excludable benefits⁴⁹—and studied extensively the clubs' optimal size for different goods. At the same time, clubs have restrictive implications for competition because their membership arrangements and conditions for producing and using club goods are an effective way to keep away potential rivals and can be considered monopolies.⁵⁰

Natural monopoly theory⁵¹ is based on the assumption that due to the special characteristics of a given industry, economies of scale and scope can be better

⁴⁵Krajewski 2011, p. 358.

⁴⁶For a detailed analysis see Schweitzer 2001/2002, pp. 61–81.

⁴⁷Krajewski 2011, p. 357.

⁴⁸Buchanan 1965.

⁴⁹Sandler and Tschirhart 1997, p. 335.

⁵⁰Berglas 1976, p. 120; Mankiw 2004, p. 317.

⁵¹A detailed explanation can be found in Langenfurth 2000, pp. 57–73; Mankiw 2004, pp. 316–317.

achieved by a monopolistic market. This is generally presumed for all network and infrastructure industries because the initial costs of network construction and development as well as capital and running costs (e.g. amortisation, maintenance) are usually high. Besides, the minimum optimal size of enterprises in such a market is relatively large when compared to the market size, which also requires high initial investment. In a natural monopoly market, a competitive structure is not possible and/or not efficient because it would lead to a duplication of infrastructure, meaning (unnecessary) high costs for the consumers. As a result, one provider can supply the demand of the market at lower prices than several would do. State ownership of the provider or state control of the supply should effectively prevent market failure and secure action in the public interest, as reasoned by the prevalent opinion at that time.⁵²

The monopolistic provision of services of public interest was a dominant provision form in the twentieth century. Only during the late 1970s—early 1980s did economic liberalism take over as an influential economic theory causing the liberalisation, privatisation and deregulation of the economy, and giving priority to market mechanisms over state intervention. The background, course and results of these processes in the telecommunications sector will be discussed later on in Sects. 3.1.1 and 3.2.1.

For the reasons outlined earlier in this section, the provision of services of public interest on an unregulated competitive market is quite impossible, or at least unthinkable, at the moment. However, the introduction of competition mechanisms in services provision possesses a number of benefits as compared to the traditional provision form. From the economic point of view, competition enhances both static and dynamic efficiency and promotes a greater choice of products at lower prices, thus contributing to consumer welfare.⁵³ It is also attractive from an administrative point of view because it relieves the state of a part of its costly and difficult to sustain duties.⁵⁴

What, exactly, regulation is in this context is a contested question. Analysing modern tendencies in regulation becoming decentralised and decoupled from the state, *Black* studies the understanding of the notion of “regulation”.⁵⁵ She notes that usually three types of definitions are employed. Regulation may be conceived as “promulgation of rules by government accompanied by mechanisms for monitoring and enforcement, usually assumed to be performed through a specialist agency”.⁵⁶ Also, regulation may be any direct state intervention in the economy. While the first two definitions clearly highlight the role of the state, the third one

⁵²Bauer 1999, pp. 331–332.

⁵³Schulze 2006, p. 32. For other welfare advantages of competition before monopoly see Mankiw 2004, p. 328.

⁵⁴Franzius 2009, pp. 39–42.

⁵⁵Black 2002, p. 8.

⁵⁶Idem, p. 8.

breaks this connection: regulation is all means of “social control or influence affecting all spheres of behaviour from whatever source, whether they are intentional or not”.⁵⁷ As *Prosser* notes, the first two understandings of regulation reflect the more traditional approach⁵⁸ which is narrower and accounts mostly for economic regulation: it is “fundamentally politico-economic” and refers to “different systems of economic organisation and the legal forms which maintain them”.⁵⁹ These definitions of regulation represent an approach to regulation as an infringement of private autonomy where the main objective of regulation is to maximise economic efficiency and social concerns are left to the government.⁶⁰

The broad concept of regulation is too vague to be of any scientific use, but it reflects current regulatory trends: decentralisation (in the sense of decoupling from the state) and privatisation. Therefore, *Black* makes it more precise: regulation is a “sustained and focused attempt to alter the behaviour of others according to defined standards or purposes with the intention of producing a broadly identified outcome or outcomes, which may involve mechanisms of standard-setting, information-gathering and behaviour-modification”.⁶¹ This newer concept, according to *Prosser*, can be called “regulation as a collaborative enterprise”. It is a more realistic one because it responds to recent developments of regulatory institutions which pursue social objectives or a mix of social and economic objectives.⁶²

Needless to say, however, the economic understanding better reflects reality in the case of the provision of services of public interest because, by virtue of the definition provided above, services of public interest presuppose an active intervention by the state into market forces.⁶³ At the same time, judging by current developments like liberalisation, privatisation, Europeanisation and globalisation, states tend to entrust other, non-state actors not only with their economic tasks, but social ones as well. The presently examined case of telecommunications services provision is one of the most telling examples of social regulation deployed at the transnational EU level. Therefore, the broad definition of regulation should also be kept in mind for the purposes of the present study.

Regulatory instruments which are used to provide for public interest in controlling the quantity and quality of service supply are manifold. Without going into details that might go far beyond the scope of this section and this study in general, the following instruments can be named which are frequently employed specifically to regulate services supply.⁶⁴ In order to increase market performance

⁵⁷Idem, p. 8.

⁵⁸*Prosser* 2010, p. 2.

⁵⁹Ogus 2004, p. 1.

⁶⁰*Prosser* 2010, pp. 4–5.

⁶¹*Black* 2002, p. 20.

⁶²*Prosser* 2010, p. 5.

⁶³Similarly Krajewski 2011, pp. 354–356.

⁶⁴For a longer list of regulatory instruments and their detailed description see Ogus 2004.

affected by imperfect information indicative planning,⁶⁵ the state elaborates numerical forecasts and targets for future economic development and encourages undertakings to comply by persuasion, cognitive framing and incentives (tax reductions, subsidies, grants). Additionally, public investment may be guided into favoured projects. Demand creation policies in the form of tax reductions, price controls, subsidies and vouchers for certain goods, as well as various forms of income redistribution, are usually employed to regulate the quantity of a good, while licencing, certificates and especially standard setting regulate the quality. Public procurement programmes and public service obligations are popular instruments for the regulation of utility sectors.

2.1.1.3 Polanyian Theory of Social Embeddedness of Markets

The above described arrangements for the provision of services of public interest can be best understood in terms of the theory of the social embeddedness of markets developed by *Karl Polanyi*.⁶⁶ This theory both explains and justifies governmental intervention in markets, setting it in a broader societal context. At the same time, the Polanyian theory allows the comprehension of regulation as something naturally accompanying market developments, and not a competing counterpart as it is usually presented in economic scholarship.

In analysing the development of economic systems through history, *Polanyi* came to the conclusion that economic activity is just one of many functions of the social order and is therefore subject to a non-economic rationale. The market as a part of the economic system had been embedded in the society,⁶⁷ until the development of the market economy in the nineteenth century reversed relations between economy and society: society became subordinated to market requirements and market logic.⁶⁸ *Polanyi* considered this dis-embedding move to be not a natural development of the economy, but a deliberate political choice of the state, realised with the help of legal instruments.⁶⁹

This dis-embedding move can be understood as an institutional separation of the market from social relations. Instead of social institutions such as family and kinship, the market relies on the driving force of prices which follow the interplay of supply and demand.⁷⁰ Through these intrinsic mechanisms the market regulates itself independently from society, but is able to affect the latter considerably because market components derive from society.

⁶⁵Nielsen 2008.

⁶⁶Beckert 2007, p. 7.

⁶⁷Polanyi 2001, p. 74; see also Chap. 5 in Polanyi 2001.

⁶⁸Polanyi 2001, p. 74.

⁶⁹Idem, pp. 67–68, 145–146.

⁷⁰Idem, pp. 71–72.

The crucial implication of the market system for society is the treatment of essential elements of society as commodities (i.e. commodification). According to *Polanyi*, labour, land and money form the most important input factors for the economy, but they are not commodities per se, because they exist in a natural way and are not made for sale. As they were commodified by the market, *Polanyi* calls them fictitious commodities.⁷¹ In the commodification of these elements and in the application of market principles to non-economic domains generally, lies the danger of the expansion of self-regulated markets.

However, according to *Polanyi*, such a self-regulated market system is unviable, because, by imposing on society market rules which are alien to it, the market endangers society in its totality and thus undermines its own basis.⁷² Therefore, the need for protection arises in order to safeguard the status of fictitious commodities for their reproduction. These protective forces stand in counter-movement to the former processes. Thus, a “double movement” emerges: economic liberalism (dis-embedding) spreads, promoting self-regulated markets, but it is met by social protectionism (re-embedding) through legislation and administration in order to control market action as regards fictitious commodities.⁷³

At first glance, the application of the social embeddedness theory to services may seem rather odd. At the time of *Polanyi*’s writing, some services of public interest—for instance, the subject of the present study, telecommunications—were not considered part of the market, and therefore it is difficult to imagine that he had them in mind. However, as will be shown below, technological changes, economic developments and legislative reforms turned many such services into important marketable commodities. If understood as the regulation of markets by predominantly non-economic rationales,⁷⁴ the notion of social embeddedness can be applicable to any market. In the case of services of public interest, their provision through traditional arrangements—by the state or by a monopolist under strict state control—can be considered as a social embeddedness of respective markets because commercial considerations indeed played the last role in the supply of these services. Through the admission of competition these previously deeply embedded public services sectors have been dis-embedded. Economic liberalisation promotes self-regulation, but usually triggers a counter-movement of social protectionism in the form of governmental intervention through regulation and associative self-organisation.⁷⁵ In this regard the above-mentioned understanding of regulation as a collaborative enterprise pursuing both social and economic objectives seems to be especially fitting. Re-embedding moves are necessary in order to alleviate the

⁷¹Idem, pp. 75–76.

⁷²Idem, pp. 76–77.

⁷³Idem, p. 79.

⁷⁴Caporaso and Tarrow 2009, pp. 598–599.

⁷⁵Polanyi 2001, pp. 79 and 136–139.

effects of liberalisation on society. Thus, the double movement of dis-embedding and re-embedding tendencies is present in markets for services of public interest as a precondition for the existence of a sustainable market.⁷⁶

2.1.2 Telecommunications as a Service

Every research subject is fascinating and challenging for its devoted scholars. Therefore, a mere statement that telecommunications possesses a number of distinctive features making it truly unique among other services would not appear to anybody as particularly original. Nevertheless, this section aims to outline the most important, and at times striking, facts and significant and sometimes unusual characteristics of telecommunications in order to lay down the foundation for a further analysis of their liberalisation and special regulatory regime.

Telecommunications are rather complicated to grasp and to regulate due to their strong dependence on technological developments, their frequent fusion and confusion with other services, and their comparative invisibility. Because of this, for a long time telecommunications were not considered to be an autonomous service. Therefore, this section starts with an attempt to clarify the definition of the research subject—telecommunications—and proceeds with a brief explanation of the technological features of telecommunications, the comprehension of which is important in order to separate them from other services, to understand the specificities of their provision and to develop a suitable autonomous regulatory regime. Technological features of telecommunications are also important for a further discussion of their significance for an individual, society as a whole and the state.

Specific technological features of telecommunications services, the significance of telecommunications for daily life which derives from them, have always been reflected in the special regimes regulating their provision and thus distinguishing them most notably from many other services freely traded on the market. These traditional regimes, existing before liberalisation, will be briefly presented as well, as they are relevant for further research and arguments.

This section mainly builds on and refers to European and WTO law—the two legal orders which are the principal subject of comparison as regards the social regulation of the telecommunications services market.

2.1.2.1 Notion of Telecommunications and Telecommunications Service

The terms “telecommunications” and “telecommunications service” have no clear definition in European law or in WTO law and are often used interchangeably. In the GATS, telecommunications is defined in para 3 of the Annex

⁷⁶Ebner 2011, pp. 33–34.

on Telecommunications as the “transmission and reception of signals by any electromagnetic means”. The Annex attempts further to define public telecommunications transport services because its scope of application extends over “all measures of a Member that affect access to and use of public telecommunications transport networks and services” (para 2(a) Annex). The term “telecommunications *transport* service” is used in place of “telecommunications service” reflecting the dependent, complementary role that telecommunications were perceived to play throughout most of the twentieth century as a channel for other services, more about which will be said in the next section.

Any telecommunications transport service is considered to be public if it is “required, explicitly or in effect, by a Member to be offered to the public generally” (para 3(b) Annex). This formulation implies that a public telecommunications service can be equally provided by a state-owned or a private undertaking. According to the Annex, telecommunications services “typically involve the real-time transmission of customer-supplied information between two or more points without any end-to-end change in the form or content of the customer’s information” (para 3(b) Annex). The Annex lists examples of such services: telegraph, telephone, telex and data transmission. The reference to the pure transmission of information as well as the listed examples point to the description of basic telecommunications services used during the Uruguay Round of negotiations.⁷⁷

In national schedules of commitments one can find further definitions of telecommunications services while the GATS Members prefer to refer to the Services Sectoral Classification List in order to achieve greater clarity. The Services Sectoral Classification List MTN.GNS/W/120 of 10.07.1990 was elaborated by the GATT Secretariat on behalf of the Members and taking into consideration their comments. The List was to be a negotiation aid on the services issues in the Uruguay Round.⁷⁸ Telecommunications services are classified in 15 categories depending on the type of service. This approach harks back to the early version of the international products classification of the UN, called Central Product Classification (CPC).⁷⁹

In European law the terminology is less blurred than in WTO law. Still, the notions of “electronic communications”, “telecommunications” and “communications” are used interchangeably, although their meaning is not identical. The term “electronic communications” was introduced in secondary law in 2002 in order to account for the phenomenon of technological convergence. It is a general term encompassing, besides telecommunications, other forms of communication by

⁷⁷Moos 2003, p. 159; Gao 2008a, pp. 692, 694.

⁷⁸On the status of the document see Appellate Body Report, United States—Measures Affecting the Cross-Border Supply of Gambling and Betting Services (US—Gambling), WT/DS285/AB/R, adopted 20 April 2005.

⁷⁹The classification by the GATT Secretariat corresponds to the version CPCprov. Currently, there is the fourth version CPC Ver. 2. <http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=9&Lg=1>.

means of electromagnetic signal (e.g. radio, cable television, glass fibre).⁸⁰ The term “electronic communications” is not independently defined, but it can be deduced from the definition of electronic communications service being the content of this service.

The notion of electronic communications service—in place of telecommunications service—is contained in secondary law: “a service normally provided for remuneration which consists wholly or mainly in the conveyance of signals on electronic communications networks, including telecommunications services and transmission services in networks used for broadcasting, but exclude services providing, or exercising editorial control over, content transmitted using electronic communications networks and services; it does not include information society services, as defined in Article 1 of Directive 98/34/EC”.⁸¹ One can assume that “electronic communications services” relates to “telecommunications services” in a similar way as “electronic communications” relates to “telecommunications”. Therefore, telecommunications services are a special case of electronic communications services.

Compared to the dictionary definition of telecommunications, both the WTO and the EU framework grasp the essential element: telecommunications is a “technology of transmitting voice, audio, facsimile, image, video, computer data, and multimedia information over significant distances by the use of electromagnetic energy in the form of electricity, radio, or optics”.⁸² At the same time, the EU definition is distinguished by the high level of precision and detail, while it obviously emphasises aspects which are different from the dictionary definition: it is less focused on technology and more on questions of delimitation from services regulated by other sets of rules.

Complex or too vague terminology and delimitation attempts reflect the difficulty of developing a legal definition of telecommunications and telecommunications services that can be attributed, in the first line, to the highly technological nature of telecommunications and their continuing evolution. Due to this, the definition of telecommunications cannot be captured precisely for a long period of time and needs constant readjustment. The definition of telecommunications and telecommunications services at the WTO level is especially prone to failure due to the working mode of the organisation. Alterations in the texts of the treaties cannot be undertaken frequently and require an agreement of the WTO Members. Moreover, unlike in the EU, there is no body to monitor the situation and to suggest necessary changes in the WTO.

⁸⁰For clarification of the terms see Recital 7 Commission Directive 2002/77/EC of 16 September 2002 on competition in the markets for electronic communications networks and services, OJ L 249/21 of 17.09.2002; Burri-Nenova 2007, Chap. 4, Sect. 3.2.2.

⁸¹Article 2(c) Directive 2002/21/EC of the European Parliament and the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive), OJ L 108/33 of 24.04.2002.

⁸²Horak 2007, p. 482.

2.1.2.2 Technical Special Features of Telecommunications and the Role of Technological Change

As pointed out by the definitions above, telecommunications consists of the transmission of electromagnetic signals. *This* is the independent service which telecommunications by itself represents. The utility and value of telecommunications usually lie in the content of the signal which nowadays can carry text, voice, data, video or images. However, for a long time only the transmission of signs (telegraph) or voice (telephone) were technically possible as a service for the population and the signal was tightly connected to the content or even identical with it. This technical characteristic became the basis for perceiving telecommunications as a supporting or intermediary service for other activities. Self-contained economic importance was denied to telecommunications over the greater part of the twentieth century, because prominence was given to the value of service, which was supported by telecommunications as an information channel.

Not until the 1970s–1980s was this way of thinking questioned in the light of technological developments and regulatory reforms in a few nation states (the USA, the UK). The second function of telecommunications—as an independent service—came to the fore and was actively discussed in preparation for and during the services liberalisation round of GATT/WTO. One started to talk of the double function of telecommunications: on the one hand, it was a supporting service, but, on the other, it was an independent one whose value could be determined autonomously. This process of transforming telecommunications into a tradable product can be defined as commodification.

Changes in telecommunications technology and technological evolution in general had a crucial impact on the regulation of telecommunications services. Technological developments have direct far-reaching consequences for management and human interaction because telecommunications is a very technology-intensive industry sector which, through its transportation role, is connected to different economic activities. This causes more or less a regular need for the reform of its regulation. The most important technological changes of recent decades for telecommunications were digitalisation and technological convergence.

Digitalisation means the conversion of an analogue signal into a digital one. The informational content is encrypted by means of binary code and in such a way can be indistinctively transmitted over any infrastructure (radio waves, cable networks).⁸³ From this it follows that the borders between different communications networks—telecommunications, computers and broadcasting—which were previously strictly separated from each other, begin to blur. At the same time, it means a decoupling of the informational content from a certain carrier signal. In the past only voice signals could be transmitted over telecommunications networks. Now text, image or data can be carried as well, because encrypted in binary code all of

⁸³See the article “telecommunication” in Encyclopaedia Britannica Online Academic Edition, 2012. <http://www.britannica.com/EBchecked/topic/585799/telecommunications>.

them are quasi-identical. Digitalisation, which is connected to the development of computer technology, broke up the existing communications infrastructures, changed the market structure, optimised telecommunications in general, reaffirmed the independence of telecommunications as a service and was a prerequisite for the currently occurring convergence.

Convergence refers to the coming together of voice, data, video, image and facsimile applications, systems and networks, both wireline and wireless, as well as industries (i.e. telecommunications, broadcasting and information technologies).⁸⁴ Convergence allows for the provision of similar services over different networks (e.g. movies over television cable and videos on demand per mobile phone) and leads to the merging of the terminal equipment (e.g. PCs and TV sets). The formerly separate markets for telecommunications, broadcasting and information services merge slowly into one, challenging the still separate and non-converging regulation of the three markets.

2.1.2.3 Models of Regulation and Provision of Telecommunications Services

Before liberalisation, which will be discussed later on, telecommunications services together with other infrastructure services belonged to the system of public supply and were provided by state monopolies in the public interest. In many countries the original monopolisation of the telecommunications sector took place for fiscal, military and security reasons shortly after the invention of the telephone or as a result of regulatory export that accompanied the export of the telephone. Moreover, it was embedded in the traditional centralist structure of post and telegraph that were both considered germane means of communications. The justification of the telecommunications monopoly through economic and other theories happened much later in the twentieth century.⁸⁵

Three main models of telecommunications services provision existed before liberalisation of the sector: provision by the state directly, provision by a public undertaking and provision by a regulated private undertaking.⁸⁶ Common to all

⁸⁴Horak 2007, p. 112; see the article “Media convergence” in Encyclopaedia Britannica Online Academic Edition, 2012. <http://www.britannica.com/EBchecked/topic/1425043/media-convergence>.

⁸⁵For information on the introduction of telecommunications (telegraph and telephone) in different countries see Noam 1992.

⁸⁶Schenk et al. 1996, pp. 33–36. *Eli Noam* wrote and edited several publications studying various national telecommunications systems. These studies demonstrate that the absolute majority of countries have employed one of the versions of a public monopoly system, well known to us from our familiar domestic environment, either as a part of the colonial heritage (Africa, some countries of Latin America and Asia) or following the example or under the influence of developed Western countries (some countries in Latin America and Asia) or due to similar political and economic considerations and developments. For more information see Noam 1997, 1998, 1999; Campbell 1995.

of them was the monopolistic market structure and extensive regulation of the market, either by the state directly through a respective ministry or by an independent regulatory agency acting at arm's length to the government. In a very few countries the state or state-controlled monopoly was incomplete: for example, in Finland local networks were often privately owned. Another common feature in all provision models was the exclusive right and respectively the obligation to serve everyone without discrimination. Due to public ownership or public control of telecommunications providers it was generally assumed that they acted in the public interest, ensuring redistribution and price control of essential services as well as the universality of coverage and access to them.

The most popular model was monopolistic provision by a respective governmental department or by a public enterprise, known as PTT, which belonged to the public administration and was responsible for postal, telephone and telegraph services provision. Revenues generated by PTT were considered part of the state budget and PTT's management decisions (labour conditions, capital and investment decisions, tariffs for services provision) needed legislative acceptance.⁸⁷

The second model—the provision by a public undertaking—was employed, for instance, in Japan and the United Kingdom where such an undertaking was separated from the public administration, but tightly controlled by it. In a few countries (Canada, the USA) one private undertaking was licenced as a monopolistic provider, and its compliance with the licence conditions was monitored by an independent regulatory agency.

All three models became known as different versions of a public monopoly model. *Noam* describes it in general as a closed system designed around the PTT monopoly for the mutual benefits of protectionism and rent-seeking for its major participants.⁸⁸ The rent-seeking coalition consisted of the national government, parliament, the telecommunications administration, domestic suppliers of telecommunications equipment, residential users and labour unions.

For governments, the revenues from the overpriced telecommunications service were an important source of income for the state budget as well as a reliable source of hard currency. They were used to cross-subsidise other, loss-generating services within and beyond the telecommunications sector (e.g. to subsidise postal services). The telecommunications administrations were obviously interested in the preservation of the PTTs as their *raison d'être*.

Producers of telecommunications equipment were integrated in the monopolistic structure, sometimes even being a unit of the monopolistic undertaking. Usually, they were exclusive suppliers of the national monopolist and availed themselves of the public procurement system. Due to the monopolist's system of cross-subsidies, research and development by the equipment producers was financed even when they were separate undertakings. The fact that technical standards for the national telecommunications market were set by the monopolist

⁸⁷Hulsink 1999, p. 5.

⁸⁸Noam 1992, pp. 22–25; Noam 1987, pp. 31–32.

strengthened the privileged position of national equipment producers and at the same time meant an additional barrier to access for a foreign undertaking.⁸⁹

Residential private end-users of telecommunications services profited from lower prices which were cross-subsidised by the PTTs by imposing extensively high charges on businesses and by charging international calls more heavily. Labour unions supported telecommunications monopolists as large employers and because of their policy of redistribution; moreover, where PTTs were part of the public administration, their employees enjoyed a secure status as public servants.

In the system of national monopolistic markets the international provision of telecommunications services was possible only through cooperation among exclusive national providers. Monopolistic undertakings signed bilateral interconnection agreements according to which the monopolistic provider of the addressee was obliged to forward an international call from the state border to the destination point. The other monopolistic undertaking was responsible for conveying the call from the addresser up to the country border of the addressee. The originating carrier never dealt directly with the residents of a foreign country, but with the telecommunications company.⁹⁰ Thus, the international market was fragmented according to the national states' territories. The agreements between providers were based on the International Telecommunications Convention of the ITU, which contributed to the technical and managerial operation of cross-border communication as well as accounting arrangements, without limiting the sovereignty of the participating nation states.⁹¹

One could hardly argue for the existence of a telecommunications market at that time because its decisive element—price formation—took place beyond the mechanism of supply and demand. Generally, the price for providing telecommunications services was determined centrally—by the state—and was even called a “fee” in some countries. At the international level, the price of an international call was negotiated bilaterally between the monopolistic undertakings involved in the provision of this call. The price remained the same between two involved countries irrespective of over which route (directly or over third countries) the signal was transmitted. This way of price formation did not reflect the real costs of the provision of services and was based on different, sometimes political, considerations.⁹²

The accounting arrangements in the ITU were used for a long time to prove the alleged non-tradability of telecommunications services. According to the traditional theory of foreign trade, trade only occurs when a commodity produced in one country crosses the national border to be sold to another country.⁹³

⁸⁹Sandholtz 1998, p. 14; Hulsink 1999, pp. 7–8.

⁹⁰Pipe 1990, p. 109.

⁹¹More information on cross-border provision of telecommunications services in Langenfurth 2000, pp. 141–145; Tegge 1994, pp. 159–160.

⁹²For a detailed description of the Accounting-Rate-System of the ITU see, for example, Langenfurth 2000, pp. 145–150; Frühbrodt 2002, pp. 122–130.

⁹³Frühbrodt 2002, p. 64.

Telecommunications services did not fall under this definition. Usually in the case of an international call from country A to country B, the A provider handled the call up to the state boundary to B, where the B provider took it over and completed it. The price of such a call was split 50/50 between the participating providers as the distance of the service provision was assumed to be the same. The record of international calls in a balance of activities was also very peculiar: a call from country A to country B is booked as an export in B, whereas the export service consists of providing access to the telecommunications network in B and completion of the call by the B provider. In practical terms, the exporting country pays the importing country. The described peculiarity was used as an argument for the non-tradability of telecommunications services.⁹⁴ It required a fundamental change of mind-set and detachment from the narrow classic theory of foreign trade to reconsider the role of telecommunications services in international trade.

The above mentioned technological developments triggered a discussion on the models of telecommunications provision, because the justification for the existence of a natural monopoly itself was questioned. The argument for a natural monopoly could not hold up against digitalisation and the following convergence, and introduction of competition into the market (liberalisation) became a seriously debated alternative. Liberalisation does not necessarily lead to overinvestment and duplication of networks. Also, a partial duplication of networks would then result in a reduction of costs. Besides, competition in the telecommunications sector occurs at different stages of production: for example, construction, operation and management of the network infrastructure, creation of telecommunications services, and their transmission and marketing.⁹⁵ Moreover, thanks to digitalisation, different networks (copper cable, television cable, power line etc.) can be used for the supply of telecommunications service and thereby they can compete against each other. The problem of the duplication of networks can be partially avoided because of network interconnection.

Considering the just described PTT practices favouring the participants in the rent-seeking coalition, an important concern raised against the liberalisation of the telecommunications sector was that in a competitive market it would be impossible for the monopolistic provider to comply with its state-imposed public services obligations, consisting of the provision of telecommunications service with blanket coverage of the national territory, under the obligation to enter into a contract with anybody who would be willing, and under the condition of uniform tariffs nationwide. This task of social policy could be carried out only by a protected monopoly, because by using cross-subsidising between profit-yielding and loss-generating market segments it could provide eligible services below their costs and cover the losses by a surplus from other products.⁹⁶ If competition were to be

⁹⁴Idem, p. 64.

⁹⁵Idem, p. 37.

⁹⁶Langenfurth 2000, p. 97.

introduced to the markets, the market entrants would throw themselves at the especially lucrative segments (“cream-skimming”) and, thus, cause price reduction in these parts of the market. This would destroy the mechanism of cross-subsidisation by the monopolistic provider and it would not be able to comply with its obligation to supply the whole population with basic services.

However, a competitive market can also be socially embedded through different mechanisms. One possibility is the framework of a general redistributive social policy, when disadvantaged households/citizens obtain financial aid in the form of “telephone money”. Another possibility, which at the moment is the most popular among governments, is to develop a sector-specific social regulation for the telecommunications market. Preference for sector-specific social regulation can be explained by the fact that it allows the state to displace the costs of the universal provision of telecommunications services onto private undertakings. The need for sector-specific regulation of the telecommunications market in general is justified by the argument that competition in a freshly liberalised market needs special protection from possible misuse by the former monopolist. At the same time, a special mechanism is necessary in order to make possible a nationwide supply of telecommunications services. The regulatory instrument that satisfies all these demands is a form of public service obligation called “universal service”. Universal service is the central topic of this study focused on social market regulation and will be dealt with in great detail in the following chapters.

2.1.2.4 Differentiation Between Basic and Value-Added Telecommunications Services

In the context of the preceding overview of models for the provision and regulation of telecommunications services, the differentiation between basic and value-added (enhanced) services is of central importance as a special regulatory technique employed for this sector. Until a certain point in time all telecommunications services were provided through the described monopolistic arrangements. It needs to be remembered that for a very long time the assortment of services offered by the monopolist was rather scant: only telegraph and (fixed) voice telephony were widely available for the general public; additionally, large businesses and authorities also used telex and facsimile.⁹⁷ Only gradually, as a result of technological progress, did other telecommunications services emerge in the second half of the twentieth century. They were based on the named core or basic services, but offered enhancement—or additional value—to them.

⁹⁷On the use of the named services see the following articles in Encyclopædia Britannica Online Academic Edition, 2012: “telex” <http://www.britannica.com/EBchecked/topic/586267/telex>, “telegraph” <http://www.britannica.com/EBchecked/topic/585850/telegraph>.

In order to give an overview of the forms of the provision of telecommunications services and for a better understanding of the further analysis of transnational regulation and the research in general, it would be useful to explain in more detail the distinction between basic and value-added services and to outline the services belonging to either group. The documents of the GATS framework, both legally binding and preparatory, provide a very insightful necessary background: first, they may be considered the least common denominator for the participating countries; second, the categorisation is more or less consistent and strict thanks to the listing of services.

The differentiation between basic and value-added telecommunications services was practised by many countries, though sometimes using different terms, for regulatory purposes. In most countries value-added services were offered either on a competitive basis, or the possibility of opening the market for these services to competition was high. The services of the basic telecommunications group were generally reserved for a monopolistic provider because only they were considered to be clothed with a public interest. “Basic” and “enhanced” telecommunications is U.S. terminology, introduced in order to ensure FCC jurisdiction over the former ones. The distinction between the two groups is a purely technical one, whereby the basic telecommunications offer a transmission capacity for the pure transfer of information and the value-added telecommunications offer more than a basic transmission service. This simple categorisation allowed the FCC to exempt from competition those telecommunications services providers which were considered as common carriers because they offered core (basic) telecommunications services.⁹⁸ The same regulatory consideration lay in the foundation of the distinction between basic and value-added telecommunications in Western Europe when in the 1970s–1980s it was necessary to identify those areas where competition with telecommunications administrations could be allowed. Some other countries differentiated between reserved and unreserved telecommunications,⁹⁹ which even better illustrates the reasons for such a distinction.

The public interest in basic telecommunications consisted of the coverage of the whole territory by telecommunications infrastructure capable of providing basic telecommunications. It needs to be recalled that in the beginning territorial coverage was essential for military and security reasons, with economic reasons being added later. Public values of security, territorial cohesion and economic development dominated. Therefore, ubiquitous territorial coverage did not necessarily mean that each and every citizen was able to have a telephone at home: for a long time other factors determined infrastructure and market development.

Furthermore, it should be stressed that before the indicated technological changes and liberalisation the quality of service was not a separate important issue in telecommunications provision. All legacy networks—broadcasting and

⁹⁸For more information see Bronckers and Larouche 2008, pp. 323–324.

⁹⁹Note by the Secretariat “Trade in telecommunications services”, MTN.GNS/W/52 of 19.05.1989, paras 9–10.

telephone—were designed to carry one particular kind of service. In the case of voice telephony, quality was granted automatically by assigning a dedicated channel to a single connection. If the channel is free—meaning that there is no other call in process on the line in question—the call is completed and, herewith, the service is provided. As a rule, the network operator was also the service provider and could therefore easily guarantee high end-to-end quality. If several network operators had to be involved, like in the case of international calls, a simple agreement on signalling, capacity and availability requirements could be signed.

While this distinction between basic and value-added telecommunications services is no longer made in the EU regulatory framework as the term “electronic communications” is used in place of “telecommunications”, under the GATS liberalisation framework it still exists. Moreover, a proposed further social regulation of telecommunications services markets has developed from this regulatory distinction and confines itself largely to basic telecommunications services, although due to ongoing technological developments it is possible that already in the near future some value-added services will be included.

For the purposes of GATS negotiations, telecommunications services were grouped into 15 sub-sectors as enclosed in the comprehensive classification of the document MTN.GNS/W/120 (further W120) of 10 July 1991 covering all service sectors.¹⁰⁰ This bulk classification was aimed at providing a basis for the outline of schedules of commitments. Later these 15 sub-sectors were broken down into two groups of basic and value-added services for the purposes of negotiations. Liberalisation commitments on the value-added services were made during the Uruguay Round, whereas the services of the basic telecommunications’ group were left for further negotiations within the specially created Negotiating Group on Basic Telecommunications (NGBT),¹⁰¹ later renamed the Group on Basic Telecommunications (GBT).

In para 1 of the Decision on Negotiations on Basic Telecommunications “basic telecommunications” are defined as “telecommunications transport of networks and services”. In further negotiations, the WTO Members were unable to agree on a more precise definition of basic telecommunications.¹⁰² In their respective schedules of commitments the Members also did not further define basic telecommunications, but followed the outline of W120 taking into account the division into two groups.¹⁰³ Thus, the definition of basic telecommunications in the GATS framework remains very broad and covers virtually all telecommunications services.¹⁰⁴

¹⁰⁰Note by the Secretariat “Services Sectoral classification list”, MTN.GNS/W/120 of 10.07.1991.

¹⁰¹Decision on Negotiations on Basic Telecommunications Services of 15 April 1994, para 1.

¹⁰²See negotiations documents: MTN.GNS/TEL/1, paras 23–26, 39–44; MTN.GNS/TEL/2, paras 104–136.

¹⁰³See, for example, GATS/SC/46 (Japan), GATS/SC/90 (USA), GATS/SC/31 (EC) and other.

¹⁰⁴See similar criticism in the Communication from the EC TN/S/W/27, S/CSC/W/44, para 4.

The only clarification of which services belong to basic or value-added telecommunications is provided by the already mentioned W120 list. According to the classification of the W120 list, basic telecommunications include the sub-sectors from (a) to (g): voice telephone services, packet-switched data transmission services, circuit-switched data transmission services, telex services, telegraph services, facsimile services, and private leased circuit services. The services from (h) till (n) are considered value-added telecommunications: email, voice mail, online database storage and retrieval, online data processing, electronic mail interchange, encryption and protocol conversion. The W120 list is open. There is also a category (o) (“other”) for unnamed or new services in which both basic and value-added services could be included. The seemingly stringent classification of the W120 list has its flaws besides being non-exclusive. Contrary to most other services sectors under W120, there is no unequivocal link between that classification and the Central Product Classification of the United Nations, although the W120 list contains the corresponding CPC numbers.

The practices of the Members regarding the assignment of individual services to either group diverge because the attribution of individual services to the groups did not always correspond with their experience. While the United States uses the classification of W120 as an exhaustive list of what is covered under telecommunications services, the EU takes the opposite position and regards the W120 classification as “illustrations of a broader definition which is included at the beginning of their commitments”.¹⁰⁵ Most WTO Members have made commitments using the W120 structure, but sometimes with significant disparities. Regarding the distinction between basic and value-added telecommunications, some WTO Members rejected it in their schedules. Thus, the EU defines telecommunications services generally as “the transport of electro-magnetic signals—sound, data, image or any combination thereof”.¹⁰⁶ The commitments undertaken by the EU in the telecommunications sector do not cover “the economic activity consisting of content provision which requires telecommunications services for its transport” which is handled under a different schedule. Japan uses the terms “basic” and “value-added” telecommunications services, but applies them to its national differentiation between Type I and Type II telecommunications.¹⁰⁷

In light of the above, *Bronckers* and *Larouche* express the opinion that after the commitments have been made for both basic and value-added telecommunications, there is no need to distinguish further between the two if no substantive consequences are connected with it.¹⁰⁸ Moreover, technological change and convergence have largely eliminated the technical differences between them. A similar position is presented by the EU in the communication TN/S/W/27,

¹⁰⁵Bronckers and Larouche 2008, p. 325.

¹⁰⁶See GATS/SC/31/Suppl.3. The EC explicitly excludes broadcasting from telecommunications services.

¹⁰⁷See GATS/SC/46 and GATS/SC/46/Suppl. 2.

¹⁰⁸Bronckers and Larouche 2008, p. 325.

S/CSC/W/44, reflecting its domestic policy approaches. As mentioned above, in the regulation of the European Single Market no distinction is made between basic and value-added telecommunications and the term “electronic communications service” is used instead of both. The definition of electronic communications service clearly excludes services mingling with the content of the transmitted information, namely services providing, or exercising editorial control over, content transmitted using electronic communications networks and services, as well as information society services if they do not consist wholly or mainly in the conveyance of signals on electronic communications networks.¹⁰⁹

Still, the distinction between basic and value-added telecommunications is relevant for the present research on social market regulation because WTO law sticks to it and the Reference Paper—the central document for the topic—explicitly refers to basic telecommunications. Moreover, the universal service instrument has been applied only to basic telecommunications in many legal orders.

2.1.3 Intermediary Conclusion: Telecommunications Services as Services of Public Interest and Dynamics of Their Provision in Terms of Polanyian Theory

Returning to the issue raised in the introduction to Sect. 2.1, namely what makes telecommunications services of public interest, it can be stated with certainty that this specific factor consists of particular public values attributed to telecommunications services justifying public interest in the regulation of their provision which is recognised and expressed through a special regulatory regime. This statement shall, however, be rendered more precise.

First, only 20 years ago there were doubts about whether telecommunications is a service. This question was answered in the affirmative and there is no need to re-debate, it even for the sake of argument, because time has proved the correctness of such a decision. Moreover, it seems that the discussion itself emerged from a lack of understanding about telecommunications, on the one hand, and an unwillingness to liberalise them, on the other, which made governments look for excuses and justifications for retaining their control over telecommunications provision. Most generally described, the service of telecommunications consists of the end-to-end transmission of electromagnetic signals. The benefit of this is that in such a way any kind of information can be transported over significant distances.

Second, the commonly used expression “telecommunications are services of public interest” needs to be specified in so far as merely a handful of telecommunications services seem to be vested with public values, public interest in the

¹⁰⁹Article 2(c) of the Framework Directive; Article 1 Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations, OJ L 204/37 of 21.07.1998.

regulation of supply and are subject to a special legislative regime. Here the obsolete distinction between basic and value-added telecommunications becomes useful because so far only some of the former ones have been qualified as services of public interest. This does not mean, however, that only basic telecommunications possess the potential: further technological, economic and societal developments may cause a revision of the status of value-added services.

Third, public values attributed to telecommunications have changed over time. At the dawn of telecommunications, the telephone was considered very much an evolution of the telegraph, shared the same values attached to it, and public policy towards the telegraph became a model for telephone policy. Military, security, national cohesion, fiscal (related to state budget) and economic values stood at the forefront of regulation. Yet, with time, as will be shown below, economic transformations and technological developments, which have such a paramount importance for telecommunications, resulted in a revision of the hierarchy of values attributed to telecommunications. Political and social values moved into the limelight while economic values have remained important.

Fourth, a remarkable unanimity between different countries on the question of telecommunications service regulation shall be stressed. Public interest in regulating the quantity and quality of the supply of telecommunications services through the described provision modes has persisted until now. Due to recent technological and economic developments the significance of telecommunications services for the state and society has not faded, but has increased dramatically. Interestingly, the monopolistic grip on the market was not strengthened. On the contrary, the modes of telecommunications provision were modified considerably: monopolistic markets were liberalised and regulated competition was introduced instead.

Furthermore, the dynamics of the market for telecommunications services can be a vivid example of *Karl Polanyi's* double movement. Telecommunications services were considered non-tradable assets and, consequently, from an economic point of view, there was hardly a market for them. The main characteristic element of the market—price formation as a result of bargaining between the demand and supply sides—was absent with regard to them. The prices for telecommunications services and the development of telecommunications in general were conditioned by other than market rationales. Politically and legally, the social embeddedness of telecommunications services markets was expressed in state ownership and/or close governmental control and regulation of their provision.

The fundamental change of ideational politics caused by technological developments led to a commodification of telecommunications services and to a shift in the way of thinking about their provision¹¹⁰: one clearly recognised that it took

¹¹⁰Drake and Nicolaïdis write that, in the 1980s “the shift to a trade discourse was a revolution in social ontology: it redefined how governments thought about the nature of services, their movement across the borders, their roles in society, and the objectives and principles according to which they should be governed”. See Drake and Nicolaïdis 1992, p. 38.

place on monopolistic markets. The market logic, now applicable to telecommunications services, required their provision to become more efficient. This could be achieved by the liberalisation and deregulation of the market: by introducing competition and freeing price formation from social and political considerations. Yet, due to important public values attributed to some telecommunications services, a re-embedding countermove was bound to accompany liberalisation in an attempt to re-establish the social connection of this market. It has taken the form of universal service regulation, although other regulatory instruments—price controls and inductive planning, to name just a couple—are also used.

Before turning to the questions of why and how the change in the provision modes occurred, as well as to the reasons and exact arrangements for a re-regulation of the sector, and before demonstrating in detail the tide of the dis-embedding and re-embedding of the telecommunications services market, the instrument of universal service shall be examined as regards its conceptual underpinnings and its aptness for employment in the social regulation—that is to say for social embeddedness—of the telecommunications services market.

2.2 Universal Service: Regulatory Concept for Social Embeddedness of Liberalised Telecommunications Services Markets

As explicated above, regulation of markets is the means of their social embeddedness. The instruments of regulation differ from market to market, depending, it seems, on the market or service characteristics. In the case of liberalised telecommunications markets the choice was made in favour of the instrument of universal service by many countries which, having received positive reviews as regards its effectiveness and competition-friendliness, have started to spread it to other similar markets and industries as well.

This chapter shall study the history and development of universal service as a regulatory concept. The conceptual and regulatory development in several national legal orders—most notably in the US-American one where the term “universal service” originated—will be followed by an elaboration of a transnational concept at the EU level. After that, the two modern forms of the universal service concept will be discussed, namely universal service and universal access, because understanding of the variety of the concept’s nuances helps to make the character of transnational regulation, and the wording employed there, comprehensible. Also, the WTO does not have its own universal service concept, but refers to its Members’ legal orders. Moreover, the different forms of universal service bear witness to its responsiveness to various social needs, thus proving *Polanyi’s* social embeddedness thesis. The capability of socially embedding the telecommunications market with the help of the universal service regulatory concept will be tested by studying whether and how it responds to social considerations.

2.2.1 *Origins and History of the Universal Service Concept in the United States of America*

Although the concept of universal service became best known during the phase of top-down liberalisation initiated by the WTO and the then European Communities,¹¹¹ it was not invented in the WTO negotiation rooms or by the European Commission. As some other regulatory concepts, universal service has been long used in national legal orders. Emerging in the U.S. at the beginning of the twentieth century, the concept has been changed substantially before finding its way into the legislative frameworks of the EU and of the WTO. It seems essential to look at the roots of the universal service concept for a better understanding of its present-day meaning. Moreover, the original meaning and historical discussions might be relevant for the contemporary processes at the international level.

At the end of the nineteenth century the Bell System was modelling itself after the telegraph system of Western Union, which was a nationwide, centrally coordinated and centrally interconnected monopoly connecting mainly big economic centres.¹¹² After the expiry of Alexander Graham Bell's patents in 1893–1894, a great number of independent equipment manufacturers and service providers appeared on the market and occupied what had been left by the Bell System as unprofitable: small towns and rural areas.¹¹³ A “dual service” situation emerged in the USA telecommunications market as the two rival camps—the Bell System and independent companies—refused to interconnect with each other.¹¹⁴ Each system intended to beat the other by the only means left: expansion which would lead to a more powerful system than that of the rival and thus force the rival to give up and to merge. It was a “winner takes all” situation. *Milton Mueller* argues that this competitive struggle was determinative for the unprecedented high growth in the penetration rate in the USA at the dawn of the twentieth century.¹¹⁵

The first mention of universal service occurred in the context of this access competition and had quite a different significance from that of today. The doctrine of universal service was brought in by the president of AT&T,¹¹⁶ Theodore Vail, during the crucial period when the independents controlled 49 % of the nation's

¹¹¹See Chaps. 3 and 4 below for more details on the liberalisation and re-regulation of telecommunications services markets.

¹¹²Dordick 1990, pp. 230–231.

¹¹³Mueller 1993, pp. 357–358; Friedlander 1995, pp. 39–41, 56–57.

¹¹⁴On the reasons for interconnection refusal see Mueller 1997c, pp. 43–53.

¹¹⁵Mueller 1993, pp. 355–360; Mueller 1997c, pp. 146–149; see also Friedlander 1995, p. 55.

¹¹⁶AT&T (American Telephone and Telegraph) was first formed as a subsidiary of Bell Company for long-distance service. In 1899 AT&T was restructured as the holding company of regional operating companies, research and development, manufacturing and long-distance services operator. Thus, AT&T and Bell System became synonymous. For more information see Friedlander 1995, pp. 3–9, 26.

telephones.¹¹⁷ He used the term “universal service” as a counterpart to the dual service that existed at that time on the telecommunications market. Vail criticised the access competition as detrimental to network externalities whose value for the users he fully recognised. In order to take advantage of network externalities, one should put an end to the access competition and unite intercommunication under the control of one company.¹¹⁸ Vail considered not interconnection between competing companies, but monopoly to be the best solution for communication. Interconnection was not an answer, according to Vail, for technical reasons (because the network would stay heterogeneous and would lack integrity and coordination) and for “fairness” reasons (in an interconnected network a small company would share the benefits of the Bell System’s large access possibilities). A telling slogan “One system, one policy, universal service”¹¹⁹ brings across the essence of Vail’s doctrine.

Obviously, in the described context “universal service” did not mean a commitment to extend service to everyone, but rather that those with telephone access should enjoy it to the full extent and not be separated by the competitive struggle. The word “universal” did not refer to the social ubiquity of the service, but pointed at the source of service, meaning that there is one and only provider (AT&T) for any telephone service in any given location.¹²⁰

The result of a further smart elaboration of the doctrine and lobbying, as well as regulatory experience gained during World War I, was that AT&T found support from the public, industry and the regulators. The deliberate choice of a regulated monopoly was also reflected in the legislation (e.g. 1921 Willis-Graham Act). Thus, the telephone monopoly did not grow as a natural monopoly due to supply-side economies of scale, but “emerged due to demand-side economies of scope created by universal interconnection.”¹²¹ At the same time, universal service did not mean the provision of service to everybody at affordable prices, but a unified, interconnected monopolistic system.

It is widely believed that attachment of the meaning of comprehensive household penetration occurred with the passing of the Communications Act 1934, which was part of U.S. President Franklin D. Roosevelt’s New Deal agenda.¹²² This document identified telephony as a public good which should be regulated by the government in the public interest and provided by a private monopoly. The choice of monopolistic structure was justified by the theory of natural

¹¹⁷Mueller 1993, p. 363.

¹¹⁸Dordick 1990, p. 230.

¹¹⁹For a detailed analysis of Vail’s doctrine see Mueller 1997c, pp. 96–103.

¹²⁰Compare Dordick 1990, p. 230; Friedlander 1995, p. 7.

¹²¹Mueller 1993, p. 365.

¹²²Friedlander 1995, p. 77.

monopoly.¹²³ *Mueller* points out that the subject and the term “universal service” appeared neither in the Communications Act 1934, nor in the preparatory papers and reports.¹²⁴ Instead of framing a new telecommunications policy, the Communications Act 1934 confirmed the status quo.¹²⁵

For several decades the term “universal service” was not used in the regulatory telecommunications vocabulary. It appeared again as late as the 1960s–1970s, filled with a new meaning, namely an industry-government commitment to put a “telephone in every home”. *Mueller* argues that the transformation of the meaning happened exactly at the time during the eight-year antitrust procedure initiated by the U.S. Department of Justice against AT&T. In the 1970s the telephony monopoly was again threatened by competition¹²⁶ and needed a plausible rationale to legitimise its existence. To justify its monopoly position, AT&T undertook a number of defensive strategies, among them historical research.¹²⁷ The concept of universal service was rediscovered, but this time it was taken to mean universal penetration of telecommunications services. At the same time, the cross-subsidisation practices of a regulated monopoly were made a particular feature of universal service.¹²⁸ In his extensive historical research on the topic,¹²⁹ *Mueller* convincingly shows that the credit for the high telephone penetration rate was retrospectively connected to the existence of a monopolistic system and its cross-subsidisation practices. The original debate over universal service was forgotten, and the Preamble to the Communications Act 1934 was used to impute new meaning into the term.¹³⁰

Although in 1982–1984 AT&T lost its case and the Bell System was broken up in the divestiture procedure, the reconceptualised doctrine of universal service found its way into telecommunications policy and legislation years later. In the 1996 Telecommunications Act, which is still in force, the entirety of Sect. 254 is dedicated to universal service.¹³¹

¹²³The theory of telephony as a natural monopoly was successfully contested in the scientific research carried out in the 1970s–1980s. For a literature overview see Friedlander 1995, pp. 53–71.

¹²⁴*Mueller* 1997c, pp. 150–164.

¹²⁵In *Mueller* 1997b, p. 42, an example of a report to the Congress is given that stated that the Telecommunications Act did not change existing law.

¹²⁶The production of terminal equipment was deregulated, new long-distance carriers were authorised, private microwave networks were legalised. See: *Mueller* 1997b.

¹²⁷For a list of the publications produced see Friedlander 1995, pp. 4–5.

¹²⁸*Mueller* 1993, pp. 366–367.

¹²⁹*Mueller* 1993, 1997b, c.

¹³⁰In reality, the Preamble refers to the creation of a separate regulatory body for telecommunications, Federal Communications Commission. See *Mueller* 1997c, pp. 150–159.

¹³¹Telecommunications Act of 1996, Pub. L.A. No. 104-104, 110 Stat. 56 (1996). An electronic version can be downloaded from the website of the Federal Communications Commission: <http://transition.fcc.gov/telecom.html>.

2.2.2 *Universal Service in Europe*

In contrast to the United States, the legislations of the European countries did not recognise the concept of universal service in its final meaning until it was introduced at the EC level in the process of liberalisation. The regulation of the telecommunications services market occurred with different regulatory instruments, similar in their mission and function to universal service. A brief overview of these regulations would be useful in order both to demonstrate the long tradition of telecommunications market embeddedness and to explain the necessity of elaborating an innovative and genuinely European regulatory instrument at the EC level.

The development of universal service in the regulatory framework of the EC will be presented in some detail. Such presentation seems to be useful in order to follow the evolution of the universal service concept in the liberalised market and to understand the motivation of the legislators. Also, the findings of this section are necessary components in the further argumentation on the reform of universal service in the future.

2.2.2.1 **Universal Service Concepts in National Legislations of the European States with Monopolistic Markets**

Due to the governmental monopoly on telecommunications in European countries, there was no strict separation between the operation of telecommunications networks and their regulation—which was the case in North America. A tenet was widely supported that public ownership of telecommunications was sufficient to secure action in the public interest. Consequently, there was no need to clearly state universal service goals in terms of achieving a certain penetration rate.¹³² In the absence of sector-specific regulatory concepts, social embeddedness was expressed through general concepts justifying state provision and/or control of important utility services and infrastructure.

Thus, in France the concept of *service public* legitimised the power of the government to intervene in the telecommunications service industry in order to safeguard public interests as defined by the state for the given moment of societal development.¹³³ The consequences of the attribution of the *service public* character to telecommunications were that respective undertakings were bound to certain principles of conduct. The equity principle forbade discrimination. The continuity principle had temporal and territorial dimensions: the services should be provided without interceptions and with blanket coverage. The adaptability principle meant the government's competence to constantly adjust the *service public* sector. Although

¹³²Bauer 1999, p. 332.

¹³³On the *service public* concept see Schweitzer 2001/2002, pp. 61–73.

the *service public* principles are reminiscent of some elements of the modern universal service concept as it is foreseen in current EU legislation,¹³⁴ *Schweitzer* in her comparative research on *service public*, *Daseinsvorsorge* and universal service explicitly emphasises the distinction: the French concept does not include a legal obligation on the part of the state to provide the whole population with certain basic services at affordable prices.¹³⁵ The *service public* doctrine is represented in all legal regimes of the French civil law family (Italy, Spain, Belgium) with some distinctive features determined by national conditions.¹³⁶

The German concept of *Daseinsvorsorge* has not been as precise, well developed and institutionalised as its French equivalent.¹³⁷ Similar to *service public*, it transformed social interests into public interests and therefore legitimised governmental intervention in the market economy.¹³⁸ The main distinctive point between the two is that *Daseinsvorsorge* is one of the public tasks of the government while *service public* is the only task.¹³⁹

The regulatory law developed in the United Kingdom in the course of liberalising services of common economic interest is considered by some to be a predecessor of the EC regulation on universal service in the telecommunications market.¹⁴⁰ Concepts developed by British common law are aimed in the first place at the correction of market failures and are based on social and economic considerations. Similar reasoning provides the underlying motivation for the market intervention in the EU law as will be shown below.¹⁴¹ The British doctrine of *common or public callings* imposes certain obligations on the provider of a service which is considered to be of the utmost importance for the general public. A provider in question was obliged to provide effective access to the service at an appropriate price and on a non-discriminatory basis. Such a limitation of commercial freedom was justified by public interest in access to the scarce services.¹⁴² This doctrine was complemented by the *prime necessity* doctrine which obliged the provider of a prime necessity service to provide it to all the users willing to pay an appropriate price.

It is obvious from this very brief and incomplete overview of the most formative national legal orders of European states that there was no holistic concept of the social embeddedness of the telecommunications services market. At the same

¹³⁴See Sect. 3.2.2.2.

¹³⁵*Schweitzer* 2001/2002, p. 70.

¹³⁶For an overview, see Eliassen and From 2009, p. 243; Krajewski 2011, pp. 61–67.

¹³⁷See Krajewski 2011, pp. 27–34.

¹³⁸*Schweitzer* 2001/2002, pp. 74–81.

¹³⁹Krajewski 2011, pp. 44, 46.

¹⁴⁰See Krajewski 2011, p. 53.

¹⁴¹See Sect. 3.2.

¹⁴²At the same time, the case law on common callings is regarded as a predecessor of the essential facilities doctrine in EU competition law. See Beckmerhagen 2002.

time, all the national concepts reveal certain similarities both as regards the underlying motivation/rationales (social solidarity, equality, provision for the needy) and their elements (blanket coverage, affordable prices, obligation to contract). As will be shown below, these same features are reflected in the EC concept of universal service.

2.2.2.2 Development of Universal Service as a Genuine Concept of European Law

The concept of universal service in the EC was developed as a genuine concept of European secondary legislation. Its elaboration is closely connected to the liberalisation of the telecommunications market.

As early as 1987, in the Green Paper on the Development of a Common Market for Telecommunications Services and Equipment¹⁴³ (further, the 1987 Paper) the European Commission indicated that the liberalisation of the telecommunications service market and its regulation had to go hand in hand. Proposing a policy orientation at the substantial opening of the telecommunications service market to competition, the 1987 Paper allowed for a temporary exemption of certain basic services from competition that were considered indispensable to “satisfy current public service goals”.¹⁴⁴ Further, in elaborating future common objectives for the liberalised telecommunications market, the 1987 Paper named as a regulatory issue “availability of certain vital ‘basic’ services under reasonable equal conditions everywhere in the Community”.¹⁴⁵ The 1987 Paper indicated two telecommunications services—voice telephony and telex—to have been regarded not only technically as basic services¹⁴⁶ but also as vital basic services provided on a universal basis. The characteristics of these services’ provision are reminiscent of some features discussed above for national regulatory concepts: they were provided with general geographical coverage and on reasonably the same terms regardless of the users’ location and the cost of connection to the network within the service provider’s territory.¹⁴⁷ However, the 1987 Paper did not associate the significance of these services directly with social needs, but pointed out their high profitability, essential for financing national telecommunications administrations and for supporting their ability to carry out tasks assigned to them. Due to the especially high revenues from voice telephony, only this service should

¹⁴³Communication from the Commission to the Council and the European Parliament. Towards a Dynamic European Economy—Green Paper on the Development of a Common Market for Telecommunications Services and Equipment, COM(87) 290 final of 30 June 1987.

¹⁴⁴*Idem*, p. 14.

¹⁴⁵*Idem*, p. 27.

¹⁴⁶*Idem*, pp. 34–35.

¹⁴⁷*Idem*, p. 66.

temporarily remain reserved for provision by telecommunications administrations in order to safeguard their financial viability.¹⁴⁸

Consequently, in 1987 the Commission insisted on the regulation of the future liberalised telecommunications market, but it recognised neither the social value of certain telecommunications services, nor the necessity of market embeddedness. It rather indicated the importance of telecommunications services as a financial means to guarantee the economic viability of telecommunications administrations, which can be understood in the first instance as the budget interests of Member States. The 1987 Paper indirectly hinted at social embeddedness, assuming that telecommunications administrations as carriers of public authority fulfil tasks in the public interest, which also comprises meeting social needs. Indeed, the 1987 Paper mentioned some social tasks of telecommunications administrations as parts of public service obligations: “universal service for certain basic services”,¹⁴⁹ emergency services or subsidising telephone services in rural areas.¹⁵⁰ The main task of telecommunications administrations remained the development and provision of telecommunications infrastructure, which was also understood as an action in the societal interest.¹⁵¹ The phrase “universal service” was used several times in relation to the public tasks of telecommunications administrations. However, at this stage of the liberalisation process it seems to have been an empty term or a rather vague term meaning ubiquitous coverage.

The subsequent EC regulatory documents introducing competition in the telecommunications services and equipment markets kept mentioning the promotion of social needs and consumer benefits in a liberalised environment.¹⁵² However, until the Commission’s 1992 review of the situation in the telecommunications services sector (further the 1992 Review)¹⁵³ there was no clear concept of the social embeddedness of the liberalised telecommunications services market.

In the 1992 Review, the Commission undertook an attempt to develop a social concept as a specific objective of telecommunications service. In doing so, it adopted the American definition of universal service and set aside the concepts from the legislative traditions of Member States. The reasons for this step were manifold. On the one hand, the Commission needed to develop a concept of social embeddedness which could be reconciled with the competitive environment in the

¹⁴⁸Idem, pp. 66–67.

¹⁴⁹Voice telephone service is meant. See Communication from the Commission to the Council and the European Parliament. Towards a Dynamic European Economy—Green Paper on the Development of a Common Market for Telecommunications Services and Equipment, COM(87) 290 final of 30 June 1987, p. 77.

¹⁵⁰Idem, p. 79.

¹⁵¹Idem, pp. 67, 74, 75.

¹⁵²See para 3 Council Resolution 88/C 257/01 of 30 June 1988 on the development of the common market for telecommunications services and equipment up to 1992, OJ C 257/1 of 4.10.1988; Article 3 Commission Directive 90/388/EEC of 28 June 1990 on competition in the markets for telecommunications services, OJ L 192/10 of 24.07.1990.

¹⁵³Communication from the Commission. 1992 Review of the situation in the telecommunications services sector. SEC(92) 1048 final of 21 October 1992.

telecommunications market. On the other hand, the legislation of Member States seemed not to offer an appropriate concept because of the previously described traditions of the governmental provision of telecommunications services. As the liberalisation experience in the USA showed, the objective of universal service could be pursued under competitive conditions.¹⁵⁴ Moreover, in contrast to the US law, in European law the concept of universal service was not neutral, but symbolised the decision for an open competitive telecommunications services market. It reduced the competences and tasks of governmental authorities—telecommunications administrations—and thus opposed the previous national concepts of *service public* or *Daseinsvorsorge*.¹⁵⁵ In addition, the 1992 Review positioned the Community's universal service as a major objective inherent in telecommunications policy. This initial distinction between social needs in telecommunications services, which could be met by universal service means, and other social needs (e.g. education, public health) was subsequently pursued in the European telecommunications policy and made clear in later documents.

The 1992 Review, being the very first step in the concept elaboration process, did not deliver a clearly structured and holistic view of universal service for the single European market. On the one hand, it defined universal service as “provision and exploitation of a universal network, i.e. one having general geographic coverage”.¹⁵⁶ This did not necessarily relate to the social interest in telecommunications infrastructure and services, but rather clearly emphasised the economic value of telecommunications for “a flourishing single market”.¹⁵⁷ This line of thought was further strengthened by referring to the non-discriminatory provision of services and network access to “any user or service provider within a reasonable period of time at affordable prices” and by indicating that all “telecommunications organisations should be allowed to participate fully in the growth of new liberalised markets”.¹⁵⁸ Thus, here universal service was presented as universal access to the networks and services for all kinds of users, not only end-users. The expansion of infrastructure and its opening to new telecommunications operators and providers had primary importance.¹⁵⁹ Special emphasis was put on the possibility of achieving higher penetration rates of telecommunications services through the liberalisation of the market.

On the other hand, the 1992 Review picked up the social element of service provision—affordability. By referring to affordable prices for services, it indicated that not only the universal availability of telecommunications infrastructure and the possibility of providing services over it represent part of universal service, but also the ability of the users to make use of the service offered. However, the 1992

¹⁵⁴Schweitzer 2001/2002, p. 239.

¹⁵⁵Compare Schweitzer 2001/2002, p. 239; Franzius 2010, p. 71.

¹⁵⁶Communication from the Commission. 1992 Review of the situation in the telecommunications services sector. SEC(92) 1048 final of 21 October 1992, p. 23.

¹⁵⁷Idem, p. 23.

¹⁵⁸Idem, p. 23.

¹⁵⁹Idem, p. 31.

Review did not engage in the definition of affordability or a consideration of characteristics of the service(s) to be offered as universal service. By default, the obvious candidate was voice telephony, which should be offered throughout the Community at “reasonable conditions and quality”.¹⁶⁰

The 1992 Review represented a very liberal approach to telecommunications market regulation. Discussing the problem of maintaining and increasing the regional cohesion of the single European market, the document admitted that users in remote and rural areas might be disadvantaged compared to users in urban areas. However, the 1992 Review put its trust in technological development and competitive forces to bridge the possible divides based on experience in the other liberalised markets.¹⁶¹

Interestingly, the 1992 Review did not limit universal service to the Community’s borders. With possible enlargements of the EC/EU and negotiations on the liberalisation of telecommunications services in mind, the document pointed to the need to promote universal service beyond the EC/EU’s boundaries, especially in the countries of Central and Eastern Europe and Southern neighbours of the Community.¹⁶²

All in all, the 1992 Review presented a strong liberalising agenda with a comparatively weak emphasis on the social relevance of telecommunications services. In the scholarly research an assumption was put forward that this approach arose because throughout the 1980s the liberalisation process was driven more by civil servants than by politicians. *Eliassen* and *From* suggest that “the bureaucrats had a more instrumental rather than ideological approach to the desired and eventually undesired effects of these developments”.¹⁶³ Thus, in the beginning, the focus of liberalisation efforts was on efficiency and economic gains. However, over the years the public and politicians became anxious about the ongoing liberalisation, especially in France where the state’s commitment to *service public* was threatened.¹⁶⁴

The 1992 Review definitely piqued public interest in telecommunications. After its publication the Commission launched a public consultation on the development of the telecommunications services sector during which, among other questions, the universal service concept was discussed. The result was a general agreement on the necessity of a clear definition of universal service because the consultation revealed diverse understandings thereof.¹⁶⁵ The Commission identified common

¹⁶⁰Idem, p. 31.

¹⁶¹Idem, pp. 32–33.

¹⁶²Idem, p. 24.

¹⁶³Eliassen and From 2009, p. 245.

¹⁶⁴Idem, p. 246.

¹⁶⁵Communication from the Commission to the Council and European Parliament on the consultation on the Review of the situation in the telecommunications services sector, COM(93) 159 final of 28 April 1993, p. 9.

points in the variety of definitions which it further developed into principles of universal service provision. The principles, which are strongly reminiscent of the principles of *service public*, included¹⁶⁶:

1. universality, meaning access for all and at an affordable price;
2. equality, understood as access independent of geographical location; and
3. continuity, in the sense of temporal sustainability and constant quality.

Also, there was a broad consensus that universal service was an evolving concept and that at that moment the scope of it comprised only voice telephony. Further, there was an acceptance of the fact that its provision should not be imposed on one single undertaking.¹⁶⁷

By and large, the consultation resulted in the enhancement of the social elements of the universal service concept. The universal access considerations were driven back. A probable reason for this could be a greater familiarity with the competition process in the telecommunications services market and its consequences, and the further experiences of liberalised markets in other countries. By then it was obvious that the expansion of telecommunications infrastructure and access to public networks could be easily achieved under competitive conditions. However, the need for a regulation of some questions remained e.g. provision of public pay-phones and access to emergency services, and information from users about the quality of service and minimum service features.¹⁶⁸

A further important result of the consultation regarding the universal service concept was the realisation of the need for action at the Community level. The participants in the consultation recognised that the decision to introduce competition in the telecommunications services market requires a Community-wide definition of universal service principles.¹⁶⁹

Based on the consultation, the Commission further developed the universal service concept in the Communication on developing universal service for telecommunications in a competitive environment and made a proposal for a Council resolution on universal service principles in the telecommunications sector.¹⁷⁰ With this latter act universal service was finally conceptualised as a re-embedding one: it should safeguard reasonable access at an affordable price (in the light of national conditions) irrespective of income levels and geographic location. The social role of universal service policy started to act as a safety net in order to

¹⁶⁶Idem, p. 21.

¹⁶⁷Idem, p. 9.

¹⁶⁸Idem, p. 22.

¹⁶⁹Idem, p. 23.

¹⁷⁰Communication from the Commission to the Council, the European Parliament and the Economic and Social Committee. Developing universal service for telecommunications in a competitive environment. COM(93) 543 final of 15 November 1993.

enable a minority of consumers to catch up with the majority which were already enjoying basic telecommunications services.¹⁷¹ This is more or less the form which the universal service concept preserves today.

2.2.3 Modern Concepts of Universal Service: Universal Service and Universal Access

In the most general terms, the modern concept of universal service can be described as an idea that within a social market economy any person, regardless of his/her income, location and abilities, should have access to and the possibility of using a communications network and certain communication services. The following major elements of this concept proceed from this definition¹⁷² and are rendered precise in relevant legislation in order to make the concept more clear-cut.

First of all, universal service is conceived as both an objective of telecommunications policy and telecommunications legislation, at least in some legal orders, and as the instrument for its achievement.¹⁷³ The objective of universal service shall in the first line be reached by competitive market efforts, not by state provision. The degree of reliance on market forces depends on the given circumstances and regulatory traditions, but its primacy seems unshaken.¹⁷⁴ Where the market falls short of the objective, complementary regulatory measures, called universal service obligations, are employed.

Universal service furthermore means blanket coverage of both territory and population. It should be noted, however, that these two aspects do not equate: complete coverage of territory does not necessarily mean that the entire population can use telecommunications services. At the same time, blanket territorial coverage is a precondition for service provision to the population. Territorial coverage simply means that communications infrastructure and services are available for use. Availability as an element of the universal service concept can be extended to the quality of service and the connection offered because if the quality is not adequate, services cannot be considered effectively usable. Yet, for actual usage, availability alone is not enough: services need to be affordable, that is to be offered at a reasonable price.

¹⁷¹Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the second periodic review of the scope of universal service in electronic communications networks and services in accordance with Article 15 of Directive 2002/22/EC, COM(2008) 572 final of 25 September 2008, p. 8; Fetzer 2011, p. 708.

¹⁷²Compare Jayakar and Sawhney 2004, pp. 341–342.

¹⁷³See, for instance, Article 1 of the Universal Service Directive.

¹⁷⁴Burri-Nenova 2006b, p. 8.

In this context, inclusiveness should be mentioned as another element of the universal service concept. Inclusiveness should be understood broadly: a connection to people living in remote and rural areas, a service which must be just as affordable for people with low incomes, and there should be special arrangements allowing disabled users to enjoy the same services as other users.¹⁷⁵

There are substantial differences in the universal service concepts employed by developed and developing countries. Developed countries have higher levels of economic development and qualitatively better and broader communications infrastructures, as well as a longer tradition of some sort of economic regulation. For these reasons, the above mentioned issues of availability and affordability have a different significance and content for such countries: the segments of the population and/or territory that need to be covered are much smaller, and the question of a choice between various infrastructures and/or services is raised. Quality of service becomes an important discussion point and accessibility is high on the agenda.

By contrast, the telecommunications legislations of developing countries mostly did not contain social goals at the moment they were dragged into the liberalisation process, and some of them did not even have proper telecommunications legislation in the first place.¹⁷⁶ They lag behind in their technological and economic development and their perception of telecommunications differs strongly. Thus, developing countries adopted universal service in their telecommunications policies, but adapted it to their needs and technological and financial capacities.

In most developing countries universal service took the form of universal access which means that everyone, at home or at the office, should be within a reasonable distance of a telephone. This reasonable distance is measured in kilometres or in hours/minutes of walking or driving, and varies from country to country depending on the availability of the telecommunications network, the density of the population, geography and the distribution of habitation.¹⁷⁷ Developing countries have to establish connectivity or access (the availability element) before they are able to decide what type and quality of service should be provided to everybody and before giving a reasonable opportunity to everybody to join the network.

Thus, the main distinction between the implementation of the universal service concept in the developing and developed countries lies in the access orientation of the former and the service policy orientation of the latter.¹⁷⁸ Yet, as noted above, both of these aspects are strongly interrelated: prior to achieving service objectives, there is a need to meet universal access objectives.¹⁷⁹

¹⁷⁵The latter aspect is often called accessibility in the context of universal service. See Goggin and Newell 2000, pp. 127–133.

¹⁷⁶For more details see Sect. 3.1.

¹⁷⁷Shafiu Alam Bhuiyan 2004, p. 270.

¹⁷⁸Freund 2002, p. 670; Bahtsevanoglou 2010, p. 58.

¹⁷⁹Bertot et al. 1999, pp. 314–317; Freund 2002, p. 670.

2.2.4 Universal Service's Potential for Social Embeddedness of the Telecommunications Services Market

Drawing on the history of the concept development, and based on the outlined modern concepts, this book shall try to determine whether the telecommunications services market can be socially embedded with the help of universal service, and what social considerations are responded to by this concept. This social responsiveness can be studied through an analysis of the rationales which are given in scholarly literature and legislation to justify the use of the universal service concept. These rationales typically represent public values attached to telecommunications services and universal service should be able to guarantee them.

To facilitate the overview, all the rationales can be divided into two groups: socio-economic and socio-political rationales.

2.2.4.1 Socio-Economic Rationales

Most easy to grasp is a pragmatic rationale for universal service which is connected to the network externalities effect. This effect means that the value of a network increases every time a new user joins it. Network value is to be understood broadly: not only does the commercial value for the network's owner/operator grow and transaction costs fall, but the value or utility of the network for every given user also increases because he/she has an opportunity to communicate with a greater number of users and services.¹⁸⁰ At the same time, network externalities decline at high levels of penetration, which makes this argument less valid in the case of highly developed infrastructures and markets.¹⁸¹ However, aside from the direct utility of the network, there are benefits for the society as a whole, which brings this seemingly pragmatic argument for universal service closer to the social objectives. Telecommunications provide an alternative to transport services, thereby alleviating pollution. Socially important externalities of telecommunications are connected with emergency situations and the fight against crime.

Having the global interplay of societies in mind, a developmental argument is of great significance. It is generally acknowledged that penetration rates correlate with national GDP and per capita income as well as economic welfare in general,¹⁸² although it is not completely clear whether investment in telecommunications contributes to economic growth or economic growth leads to investment in

¹⁸⁰Langenfurth 2000, pp. 85–90; Graham et al. 1996.

¹⁸¹Vogelsang 2013, p. 48.

¹⁸²Madden 2009, pp. 110–116; Roller and Waverman 2001; Young 2005, p. 195.

telecommunications.¹⁸³ A well-developed and well-managed telecommunications infrastructure can contribute to virtually every aspect of economic and social development.¹⁸⁴ Economic studies and models cited in the Report by the Independent Commission for World Wide Telecommunications Development of the International Telecommunications Union, “The Missing Link” (also known as the Maitland Report), demonstrate this interdependence and even show which communication destinations are most important at certain stages of economic development.¹⁸⁵ For instance, accessible and reliable telephone service removes physical constraints on organisational communication in various sectors of the economy, both public and private. Market effectiveness grows with the improvement of communications infrastructure. The coordination of different activities can be optimised in industrial sectors. Commerce as a mainly information-processing activity also benefits greatly from efficient telecommunications. Telecommunications can substitute for other forms of communication (postal service, personal travel) and transport, being at the same time more effective and more efficient in their use of time and energy. Last but not least, telecommunications provide an important source for education and healthcare, for enriching the national culture and for strengthening national identity.

Linked to the development rationale is the rationale of a more individual-oriented economic development that is supported by communication technologies. There is a widespread opinion that universal service can fuel innovation-driven economic growth. *Bar and Riis*, relying on economic research, describe economic development in the information society as a “dynamic, iterative, cumulative path-dependent learning process”.¹⁸⁶ Advances come not from technological progress alone, as in the past, but also from the use of the product. The information economy is more user-oriented because user-producer relations occur without intermediaries and therefore become central for shaping technological evolution. This, in its turn, puts a tight relationship between the communications network and innovation in the focus of development, as communications networks become instrumental in supporting innovation. Simultaneously, by improving network possibilities through innovation, the effects for the rest of the economy should multiply.¹⁸⁷ Within this framework, universal service obtains a new rationale, as a universally accessible, advanced communication network becomes the backbone of experimentation, innovation and learning processes. A ubiquitous network allows

¹⁸³Report of the Independent Commission for World Wide Telecommunications Development of the International Telecommunications Union “The Missing Link”, December 1984, p. 9; Cronin et al. 1991; Shiu and Lam 2010; Mueller 1999.

¹⁸⁴See Saunders et al. 1994, pp. 16–18. For examples see pp. 22–29.

¹⁸⁵Cited in the Report of the Independent Commission for World Wide Telecommunications Development of the International Telecommunications Union “The Missing Link”, December 1984, pp. 9–10.

¹⁸⁶Bar and Riis 2000, p. 101.

¹⁸⁷Bar and Riis 2000, pp. 101–103.

producers to reach all potential users. An affordable connection to advanced services enables all users to contribute to the developmental process and opens the possibility of cultivation and education.¹⁸⁸

Disregarding the identified positive economic implications of universal service, scholars are divided about the nature of its impact. Two main points of criticism are the distortion of competition on the market¹⁸⁹ and the lack of evidence as to whether universal service indeed has the desired effect.¹⁹⁰ These two considerations are of particular relevance, especially in the policy context, because competition may serve the same end as universal service. Lower prices, enhanced innovation, greater efficiency and market growth resulting from effective competition ultimately lead to increased affordability and access to the service.¹⁹¹

Oğuz¹⁹² points out that both the costs of universal service and the ways of their minimisation are well studied in the economic literature and taken into account by policy makers. By contrast, benefits are taken for granted and usually discussed in political and social frameworks, which leads to the prevalence of non-economic considerations in the general universal service debate.¹⁹³

2.2.4.2 Socio-Political Rationales

In this context, universal service is an expression of a liberal democratic school of thought which implies that an ubiquitous communications infrastructure can contribute to national unity and equality of opportunities. In some countries (e.g. the United States) universal service is connected to human rights, namely to the freedom of speech and the right to information. Some scholars regard universal service as a social right and/or as a fundament for the exercise of other civil, political and social rights.¹⁹⁴ Interestingly, some scholars¹⁹⁵ advance the view that also at the EU level universal service is conceptualised as a set of rights for end-users and obligations for Member States to guarantee these rights.

The connection between participative democracy and telecommunications is strengthened by the recent rush of revolutionary developments in technology. Over the last couple of decades telecommunications have played such a fundamental role in modern life that exclusion from the telecommunications network has been

¹⁸⁸Bar and Riis 2000, p. 103.

¹⁸⁹Crandall and Waverman 2000; Rosston and Wimmer 2000; Alleman and Rappoport 2003.

¹⁹⁰Rosston and Wimmer 2000; Riordan 2001; Jain 2012; Pociask 2012.

¹⁹¹Harker 2013, p. 16; Broadband Commission (2013). Report on the State of Broadband 2013: Universalizing Broadband, p. 54.

¹⁹²Oğuz 2013, p. 15.

¹⁹³Similar emphasis on the prevalence of political considerations over economic ones: Franzius 2010, p. 71; Vogelsang 2013, p. 51.

¹⁹⁴Preston and Flynn 2000, pp. 95–96; Young 2005, pp. 194–195.

¹⁹⁵Nihoul and Rodford 2004, p. 505.

perceived as disadvantageous for economic, political and social activities. The problem of the “digital divide” has emerged, which refers to the gap between those people with access to communications and information technology and those without it. Internationally, the digital divide intensifies the North-South problem and reflects many societal clefs based on gender, race, income and education.¹⁹⁶ Within societies, proper employment of telecommunications technologies by taking into account the accessibility element of universal service makes it possible to reduce or even eliminate disadvantages suffered by disabled people in many spheres of social, political and economic life, as well as by residents in remote rural areas.¹⁹⁷

The universal service concept thus frames the provision and/or facilitation of citizens’ full participation in the life of society and aims at the prevention of social exclusion and division by guaranteeing access to a certain (basic) level of telecommunications facilities and services to everyone.

2.2.5 Conclusion: Universal Service as a “Black Box”

An observation that the evolution of universal service has had many unpredictable turns is trivial, but nevertheless spot on. Its meaning has indeed changed dramatically from “monopolistic service provision” as coined by Theodore Vail to “available, accessible and affordable service for everyone within a competitive market” in modern legislation. The preceding overview of the history of the universal service concept in the United States, especially the presentation of the process of the development of universal service in the EU, and the short introduction to different understandings thereof in different countries of the world, bear witness to the extreme flexibility of this instrument and its adaptability to current needs, on the one hand. On the other hand, however, universal service can be understood as a “black box”: its content changes (or more precisely—is overwritten) depending on the evolution of the market, industry, and society, and the preferences of legislators.¹⁹⁸

Several scholars have tried to develop a “yearbook” of the universal service concept, documenting its maturation through slight changes responding to the evolution of statehood, the economy, technology and social perceptions of telecommunications.¹⁹⁹ Claire Milne’s²⁰⁰ study seems to be the most convincing of all, as she took into account many relevant factors and came up with a full classification

¹⁹⁶For more details on telecommunications’ potential to contribute to a solution to the North-South divide see Hills 1998; Bourdeau de Fontenay and Beltrán 2008.

¹⁹⁷Jaeger 2006, p. 121.

¹⁹⁸Similarly Burri-Nenova 2006a, p. 11; Sawhney and Jayakar 2005, pp. 30–32.

¹⁹⁹Sawhney and Jayakar 1996; Sawhney and Jayakar 2005.

²⁰⁰Milne 1998, see in particular Table 1 on p. 776.

of universal service policy development in five subsequent stages which allows for the prediction of its evolution in a given country. Her assumption is based on historical studies of the development of telecommunications networks. In brief, her classification can be presented as follows²⁰¹: Developed countries have by now completed the first three stages (network establishment, wide geographic reach and mass market take-up) and are going through the fourth stage (network competition) or have even reached the fifth (service to individuals). Developing countries, however, are still in the phase of establishing the network or are struggling for wide geographic reach. Countries with transitional economies dangle somewhere in between in the phase of mass market take-up.

According to the stages of development, the goals and instruments of universal service policy vary. However, despite their differences an “underlying unity of aim” at all stages can be identified, which is characterised by the following elements²⁰²:

1. social or political reasons for universal service based on the notion of “equity”;
2. apparently, the achievement of universal service goals is not commercially viable;
3. dynamic nature of the universal service concept;
4. reference to basic telecommunications services, which means well established, affordable and important for ordinary people;
5. some adequate quality of service is implied or defined.

One cannot but notice that the core purpose of universal service has always had a social character, namely that a certain set of the most important basic telecommunications services shall be available for everybody.

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²⁰¹A more detailed discussion of Claire Milne’s findings and an actual application of her theory can be found in Chap. 5. Here a short outline of her theory seems to be sufficient for the purpose of this concluding section in order to present universal service as a “black box” whose content changes under the influence of external factors.

²⁰²Milne 1998, p. 777; similarly Jayakar and Sawhney 2004, p. 341.

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Universal Service in WTO and EU law
Liberalisation and Social Regulation in
Telecommunications

Batura, O.

2016, XVI, 300 p., Hardcover

ISBN: 978-94-6265-080-0

A product of T.M.C. Asser Press