9. From competition law to sector-specific regulation in internet markets? A critical assessment of a possible structural change*

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1. REGULATION CHALLENGES CAUSED BY INTERNET MARKETS

Though the worldwide triumph of the internet and of the new internet-based services has already lasted about two decades, many competition authorities have taken a hands-off approach with regard to the internet industry for quite some time. This situation, however, is changing and competition authorities are more carefully monitoring the internet sectors.

1.1 Specific Features of Internet Markets

A primordial task for any competition law analysis is the delineation of the relevant market. As far as the internet is concerned, some specific features are to be taken into account.

1.1.1 Two-sided markets and network effects

A particular characteristic of internet markets is the fact that the services offered are normally free of costs for users.[1] Revenue is only generated from one side of the market, more precisely from the advertisers' side. To be attractive for advertisers, the website has to generate as much traffic as

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[1] Except for charges that might be owed to the officials.

possible. A webpage's advertising space value directly correlates with its visits by internet users. Internet markets are, therefore, typically so-called two- or multi-sided markets.

In two- or multi-sided markets, internet service providers enable the parties involved – through reducing the transaction costs of finding each other – to realize gains from the interaction between each other. This usually leads to network effects. Network effects can be of a 'direct' or 'indirect' nature. 'Direct' network effects mean that the more customers use the same service, the higher is the value of that service.[2] 'Indirect' network effects arise if the attractiveness for one side of the market rises with the increasing number of users on the other side of the market, since this increase may attract more potential transaction partners.[3] 'Indirect' effects are characteristic of two-sided markets.[4]

1.1.2 'The winner takes it all' or concentration effects

Network effects may cause strong 'concentration effects', which are also referred to as 'winner-takes-it-all effects'; this means that the biggest player will receive most of the revenues. However, these 'concentration effects' depend largely on the type of network, and are not equally pronounced.[5] Network effects of two-sided markets may also lead to a kind of 'pulling effect', because all users of a market will decide to use the same provider or product. For internet users the existence of one single market place may be efficient, because it reduces searching costs and ensures price transparency.

The mentioned 'winner takes it all' effect is reduced through certain facts: capacity restraints may naturally limit the size of a network. Furthermore, its degree depends on the heterogeneity of a market. The more other providers may differentiate their offerings, the more specificity must be added by a new provider.[6] Finally, the concentration effect has to be put into the perspective of 'multi-homing' possibilities.

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[2] See R. Whish and D. Bailey, *Competition Law* (7th edn, Oxford University Press 2012) 11; A. Fatur, *EU Competition Law and the Information and Communication Technology Network Industries* (Hart Publishing 2012) 82.

[3] J. Haucap and U. Heimeshoff, 'Google, Facebook, Amazon, eBay: Is the Internet Driving Competition or Market Monopolization?' (2014) 11 *Int'l Econ. & Econ. Pol.* 49.

[4] Whish and Bailey (n. 2 above).

[5] Haucap and Heimeshoff (n. 3 above).

[6] Fatur (n. 2 above) 96. See also Haucap and Heimeshoff (n. 3 above) 7.

1.1.3 Switching costs and multi-homing

Switching costs and multi-homing possibilities may have an influence on network effects and concentration. Switching costs are impediments which may prevent customers from changing supplier. Possible switching costs in internet markets are costs for the adaption to a new technological environment or becoming familiar with a changed infrastructure, but also psychological, emotional and social costs.

Multi-homing refers to the possibility of consuming different services in parallel.[7] The existence of multi-homing mainly depends on the switching costs and the form of payment, i.e. whether user-based or flat rates apply.[8]

1.1.4 Free services for one market side

As mentioned, most online services can be used free of cost. Consequently, users are highly price-sensitive and tend to resist any attempt to impose charges for internet services. If a provider starts to charge for a service, users will switch to an alternative, free service.[9]

The free-of-charge-mentality has two main consequences: First, as one side of the market is not willing to pay for the service, the other has to find funding for the provided service. Second, the non-remuneration for the users' side leads to an increase in the importance of other features of a service. A significant parameter for competition in internet markets is the quality of a service.[10] Therefore, service providers may only attract users if they constantly raise the number and/or quality of the services provided. The users will not accept poor services, since worse quality cannot be compensated for by a lower price.[11]

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[7] Commission Decision of 7 October 2011, Case COMP/M.6281 – *Microsoft/Skype*, available at: http://ec.europa.eu/competition/mergers/cases/decisions/m6281_20111007_20310_2079398_EN.pdf (accessed March 2014), at para 33; see also Summary Decision, [2011] OJ C 341, p. 2.

[8] Haucap and Heimeshoff (n. 3 above).

[9] Case COMP/M.6281 – *Microsoft/Skype* [2011] OJ C 341, p. 2 (n. 7 above) paras 75ff.

[10] Case COMP/M.6281 – *Microsoft/Skype* [2011] OJ C 341, p. 2 (n. 7 above) para 81.

[11] Cf. D. Geradin and M. Kuschewsky, 'Competition Law and Personal Data: Preliminary Thoughts on a Complex Issue' (12 February 2013), available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2216088 (accessed March 2014).

1.1.5 Entry or exit barriers

Existing or non-existing entry or exit barriers for markets are important for the evaluation of market power. Entry barriers may result from a variety of factors such as investment cost, licensing requirements or customer loyalty.

In general, everybody can easily start doing business online; all you need is a good idea and a website. Moreover, capital costs usually are minimal, except that in technically complex market segments, the required technology may be very costly, both in terms of development and maintenance. The most significant barrier is, however, the aforementioned network effects, since most users are captured by the leading provider. Furthermore, network effects constitute barriers in the sense that the platform requires a certain size to be efficient.

Exit barriers are obstacles which make it difficult for undertakings to leave a market. Exit barriers on the one hand may strengthen competition, because they can actually force undertakings to stay in the market. On the other hand, exit barriers may create entry barriers since undertakings are not prepared to start a business in light of the costly exit. Accordingly, the 'just give it a try' strategy will not work. Exit costs may consist in asset write-offs, closure cost or the loss of customer goodwill.

To date, EU and US competition agencies and courts have not yet established a clear policy on defining the markets for internet businesses.[12] However, looking at the practice of competition authorities as well as at the legal doctrine, a tendency can be identified to distinguish three different kinds of markets:

- *Advertising*: Advertising is the common source of financing for internet service providers. There is a wide diversity of internet advertising, ranging from traditional banners or pop-ups to context-sensitive search advertising.[13] Usually the relevant product or service market for internet advertising is distinguished from offline

[12] See G. Gürkaynak, D. Durlu and M. Hagan, 'Antitrust on the Internet: A Comparative Assessment of Competition Law Enforcement in the Internet Realm' (2013) 14 *Bus. L. Int'l* 51–53; see also the summarized statements made by J. Haucap at the 47th Symposium of the Research Institute for Economical Constitution and Competition (FIW) (13 March 2014) *Neue Zürcher Zeitung* 26.

[13] Cf. J. Kagan, 'Bricks, Mortar, and Google: Defining the Relevant Antitrust Market for Internet-Based Companies' (2011) 55 *N.Y. L. School L. Rev.* 285.

advertising.[14] Furthermore, different markets for 'direct sales' and 'intermediate sales' by publishers of web space to advertisers can be differentiated. However, to date, an established court practice for the distinction of online advertising markets does not exist, particularly with regard to a possible further segmentation into search and non-search advertising.[15]

- *Retail*: Online trading platforms or auction sites, such as eBay, sell a wide variety of products and goods. Normally, these products have existing brick-and-mortar substitutes. Accordingly, there are functional alternatives to online auction markets in the offline world. For this reason, a relevant market containing only online auctions would be too narrow. As far as retail products/services are concerned, specific market places could be established, such as direct sales or online auctions.[16]
- *Social networks*: The primary problem is to define the term 'social network', since there is a variety of applicable descriptions. The key features are, however, the possibility of creating a profile which enables persons to connect and socialize with friends, relatives and other individuals. Due to their special features and applications, social networks may constitute an independent market.[17] Nevertheless, the lines are blurry in the online world, and it is unclear whether other interactive websites which enable users to generate and share content may also count as social networks.[18] However, there seems to be no doubt that social networks are a rare online phenomenon with no brick-and-mortar substitute.

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[14] Commission Decision of 11 March 2008, Case COMP/M.4731 – *Google/DoubleClick*, paras 44–47 and 56, available at: http://ec.europa.eu/competition/mergers/cases/decisions/m4731_20080311_20682_en.pdf (accessed March 2014); see also Summary Decision, [2008] OJ C 184/10; Commission Decision of 18 February 2010, Case COMP/M.5727 – *Microsoft/Yahoo! Search Business* para. 61, available at: http://ec.europa.eu/competition/mergers/cases/decisions/M5727_20100218_20310_261202_EN.pdf (accessed March 2014).

[15] Case COMP/M.4731 – *Google/DoubleClick* (n. 14 above) paras 48–56; Case COMP/M.5727 – *Microsoft/Yahoo! Search Business* (n. 14 above) para. 75.

[16] See Kagan (n. 13 above) 289. See also Gürkaynak, Durlu and Hagan (n. 12 above) 60.

[17] *LiveUniverse Inc. v. MySpace Inc.*, Case CV 06-6994 AHM (RZx) (C.D. Cal. 2008).

[18] See S.W. Waller, 'Antitrust and Social Networking' (2012) 90 *N.C. L. Rev.* 7.

1.1.6 Geographical market

The definition of the geographical market relates to the question of whether consumers can effectively attain any substitutes. In the offline world, the geographical market might be limited through transportation costs, national preferences of consumers or language barriers. Additionally, the requirement of local support or local sale networks may restrict the geographic market, as well as different prices or conditions depending on the location of the consumer.[19]

When assessing the relevant geographic markets in the internet, two specific characteristics of online markets have to be considered: on the one hand, there is de-localization, which makes national borders less significant. For online presence, only the technical infrastructure is necessary;[20] consequently, it is often difficult to locate users.[21] On the other hand, through geo-localization technical instruments enable us to clearly identify where in the real world the internet has been accessed from.

Internet markets are global if a product is available over the internet, since it can be purchased from anywhere in the world. Most of the internet-based services are provided globally. They are hardly limited through technical or legal standards, and users' habits are usually universally identical.[22] Because the services are mostly free – irrespective of the location of the consumer – price differences are also irrelevant. However, some authors and courts require a real 'physical place' which cannot exist without outer boundaries.[23] In fact, for the time being, the European Commission has left the exact geographic scope of 'pure' internet services open.[24]

As soon as brick-and-mortar substitutes are available, the geographic market will also include these alternatives and the market will have to be

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[19] Case COMP/M.6281 – *Microsoft/Skype* [2011] OJ C 341, p. 2 (n. 7 above) paras 64 and 66.

[20] Cf. R.H. Weber, *Regulatory Models for the Online World* (Schulthess 2002) 48.

[21] Ibid.

[22] Case COMP/M.6281 – *Microsoft/Skype* [2011] OJ C 341, p. 2 (n. 7 above) paras 64ff. A partly different opinion is expressed by B. Lundqvist, 'Competition Law as the Limit to Standard-setting', in this volume.

[23] Kagan (n. 13 above) 283.

[24] Case COMP/M.6281 – *Microsoft/Skype* [2011] OJ C 341, p. 2 (n. 7 above) para 68.

defined in a manner that accounts for these offline locations of the physically available substitutes.[25]

1.2 Competition Law and Sector-Specific Regulation as Intervention Means

Competition law, usually referred to as *ex post* regulation, is characterized by the fact that competition authorities may intervene if abusive behaviour by one or more market participants on a normally well-working market takes place.[26]

In contrast, sector-specific regulation is a form of (at least partial) *ex ante* regulation, which tries to lay the groundwork for basic competition. It is only admissible in those markets in which forces and actors fail to ensure workable competition (for example natural monopolies).

Competition rules are considered to be generally applicable norms that disregard the particularities of a certain market. They are backward-looking (*ex post*), i.e. they rely on historical evidence; for example, evidence of abusive behaviour of a market-dominant enterprise.[27] Sector-related regulation is specifically designed to meet the requirements of a certain market; it is forward-looking (*ex ante*), i.e. it describes regulatory solutions regardless of particular circumstances.[28] Sector-specific regulation can mostly be found in infrastructure and utility sectors, in which – due to the importance of the services – governmentally controlled monopolies exist. In addition, specific regulation is adopted in market segments in which competition pressure is weak or even non-existent, and the systematic abuse of market power is therefore likely.

Both approaches have their strengths and weaknesses; at large, it can be said that competition rules are quite general and normally do not

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[25] Kagan (n. 13 above) 283.

[26] An exception applies in the case of merger control, allowing competition authorities to pre-emptively block a proposed transaction or attach conditions and obligations thereto.

[27] Cf. P. Alexiadis, 'Balancing the Application of Ex Post and Ex Ante Disciplines under Community Law in Electronic Communications Markets: Square Pegs in Round Holes?' in E. Buttigieg (ed.), *Rights and Remedies in a Liberalised and Competitive Internal Market* (Gutenberg Press 2012) 137, 139, available at: http://www.gibsondunn.com/publications/Documents/Alexiadis-BalancingtheApplicationofExPostandExAnteDisciplines.pdf (accessed March 2014).

[28] Ibid.

provide specific solutions, but are consequently more flexible. In contrast, sector-specific regulation contains precise terms, which offer certainty for regulatory bodies and concerned undertakings; they usually make faster and more effective solutions available.[29]

With regard to the relationship between general competition rules and sector-specific regulation, the existence of certain tensions is obvious. Nonetheless, between the two regimes a certain form of co-existence applies. To clarify the correlation, reference is frequently made to the different goals of the two instruments. Competition rules try to protect competition in general, whereas sector-specific regulation often focuses on promoting entry into markets that are deemed to lack sufficient competition. As a general principle, it may be stated that the existence of – even extensive – regulation does not free an undertaking from the obligation to comply with general competition rules.[30] Sector-specific regulation and competition rules work together. The main problem, though, is to find the most effective and well-functioning balance.

In recent years, the problem of sector-specific regulation was especially discussed with regard to the liberalization of previously publicly monopolized areas, for instance telecommunications. These sectors are often characterized by the existence of a non-duplicable network that is necessary to reach other markets, a so-called monopolistic bottleneck.[31] In these sectors, sector-specific regulation has the function of avoiding undesirable developments and ensuring market entries of interested undertakings.

2. CALL FOR MORE REGULATION

2.1 The Political Call

Regulation of internet markets has not been a topic of international agreements so far, except for technical issues, such as standardization, that have been addressed by the International Telecommunication Union (ITU) since 1865. During the last decade, however, internet governance

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[29] See Weber (n. 20 above) 116ff.

[30] See Case T-398/07 *Spain v. Commission* EU:T:2012:173; for further details see also M. Siragusa and F. Caronna, 'A Reassessment of the Relationship between Competition Law and Sector-specific Regulation', in this volume.

[31] G. Knieps, 'The Three Criteria Test, the Essential Facility Doctrine and the Theory of Monopolistic Bottlenecks' (2011) 46 *Intereconomics – Rev. Eur. Econ. Pol.* 17.

has attracted more attention, starting from the World Summits of the Information Society (WSIS) of 2003 (Geneva) and 2005 (Tunis), followed by the establishment of the Internet Governance Forum, which has conducted eight annual conferences so far.

Thereby, the bottom-up process has been widened to a so-called multi-stakeholder approach that aims at the equal participation of governments, the private sector, academia and civil society. This multi-stakeholder approach reflects the fact that members of academia and civil society have been responsible for a vast extent of the programming and protocols of the internet; the private sector has provided the backbone (i.e. the technical infrastructure), whereas governments have not played a major role in this context.

However, during the last few years, the situation has changed: many countries claim that the current, mainly private, order of the internet is impairing their national security; these 'cyber sovereignty'-oriented countries advocate that control over the internet must remain in the competence of national governments, which, accordingly, should have the right to decide about the activities occurring in the internet to the extent that the domestic population is concerned by its contents.

These voices were particularly strong during the World Conference on International Telecommunications (WCIT) held in Dubai in December 2012. In fact, the negotiations revealed two different visions of political power: 'Cyber sovereignty'-oriented countries advocated for an extension of the mandate of the International Telecommunications Union (ITU) to include internet governance topics. Liberal democracies, however, pleaded for a privately organized regime allowing the free flow of information without any national interference.

The internet is not limited to national borders, while this is the case for legislation. Although national borders are softened through international legal harmonization, legal differences still exist. This applies even more with regard to different world regions. Therefore, it seems highly unlikely to find a common solution. The ubiquity of the internet services and the national borders of legislation are in a relationship of mutual tension, as the following two examples show.

An important element in the task of managing the internet is the security challenge. Obviously, governmental regulators are interested in reserving potential rights to intervene in the internet for emergency cases, reaching from intelligence services in military matters through supervision for combating criminal activities to the protection of minors against pornography. The problem of the term 'security' lies in its vagueness; apart from the mentioned objectives, the reference to security

can also be used for exercising political pressure. The extensive discussions about Article 5 of the International Telecommunications Regulations (ITRs) at the WCIT show how different state interests can be interpreted.[32] Meanwhile, countries such as Russia, China or Saudi Arabia are attempting to subject the management of the internet to governmental control, mainly by referring to issues such as security and public order; in contrast, the United States and some allied countries strongly disapprove of such censorship of the internet for ideological and economic reasons.

A further problem with the ITRs consists in the fact that Iran supported an Internet Resolution submitted by some Arab countries to the plenary session at the WCIT, which called for an inclusion of the 'right to access of Member States to international telecommunications services' in the ITRs' Preamble. The resolution was adopted by majority decision (not unanimously, as is customary for international agreements) and has been included in the Preamble as demanded. Western media have presented this amendment as an attempt to subject the ITRs to governance and content regulation; they additionally argue that such a right could be (mis-)used to force internet application, content and service providers to deliver services to particular organizations.[33] Notwithstanding the fact that the Preamble and therefore the Internet Resolution is legally non-binding, it is part of the ITRs package and can evolve as a standard-setting principle, particularly in case of a re-interpretation over the next few years.[34]

The approach of the cyber-sovereignty advocates leads to a (national) fragmentation of the internet, since each national government under this concept has its own right to decide about the internet activities which are accessible in its area. It seems obvious that national decisions will differ widely and that the 'governance regime' could jeopardize the cross-border flow of information and business activities (for example e-commerce).

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[32] See W. Kleinwächter, 'Internet Governance Outlook 2012: Cold War or Constructive Dialogue?' (2012), available at: http://news.dot-nxt.com/2012/01/10/ig-outlook-2012-part-one (accessed March 2014).

[33] See, for example, G. Lynch and D. Burstein, 'WCIT Collapses: US, UK, Allies Refuse to Sign Treaty after Africa Wins Floor Vote' (14 December 2012), available at: http://www.commsday.com/uncategorized/wcit-collapses-us-uk-allies-refuse-to-sign-treaty-after-africa-wins-floor-vote (accessed March 2014).

[34] Available at: http://files.wcitleaks.org/public/S12-WCIT12-C-0065!!MSW-E.pdf (accessed March 2014).

2.2 The Economic Call

From the economic side, different voices can be heard. The economic industry especially has expressed its concern about more regulation or surveillance for the internet, as business is concerned that a governmental big-footing in the industry may hinder innovation and new developments. However, it cannot be overlooked that those who urged investigation against Google were mostly Google's competitors, above all Microsoft. It seems that these competitors try to restrain their successful market leader through regulatory methods instead of fighting it through economic methods such as innovation, quality or efficiency.[35]

Net neutrality (also called network neutrality or internet neutrality) has become an important principle in internet debates.[36] According to this principle, internet service providers (ISPs) as well as governments and telecommunications carriers should be bound to treat all data transmissions on the internet equally, without exercising any kind of discrimination against or differentiation in charging any user, content, site, platform, application, and mode of communication. Advocates of net neutrality claim in particular that prices for internet transmissions as well as speed of delivery may not be distinguished along customers' categories.

The imposition of a tiered service model allowing a controlling of the infrastructure could lead to a removal of competition and to the creation of artificial scarcity. Eventually, such a model could also require customers to buy otherwise uncompetitive services. Opponents of net neutrality argue that data discrimination would be able to guarantee the quality of the services and would allow deep packet inspection that avoids the transmission of undesirable contents (pornography, hate speech).

3. CASE STUDIES

Based on the described understanding of the general competition law principles and the mentioned call for more regulation, three case studies will be presented in order to deepen the discussion of the risks of a

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[35] See R.H. Bork and J.G. Sidak, 'What Does the Chicago School Teach about Internet Search and the Antitrust Treatment of Google?' (2012) 8 *J. Comp. L. & Econ.* 663.

[36] See Weber (n. 20 above) 203.

structural change in the internet markets. These case studies will examine online sellers, search engines and social networks.

3.1 Online Sellers

One of the first commercial appropriations of the internet was its utilization as a sale channel.[37] Apart from its use as an additional distribution channel, the internet also brought up new business models, such as strictly online sellers and, in particular, the model of online trading platforms. In general, online trading platforms simply utilize the fundamental functions of traditional market places in matching demand and supply.

As a popular representative of the retail market, eBay can be mentioned. Since the beginning of the internet age, eBay has constantly increased its market share. In fact, eBay is not a simple online reseller but an online trading platform, which provides sellers with the possibility of selling their products.

3.1.1 Economic elements and characteristics of the relevant markets

Trading platforms benefit from strong 'indirect' network effects. From the buyers' point of view, the more sellers are active on the platform, the greater is the variety of offered goods and the better the opportunity to compare the offered products. From the sellers' perspective, an online trading platforms' attractiveness is enhanced as more buyers join the platform, since the likelihood of finding a buyer increases and the price resulting from the online auction will be higher. These network effects increase the tendency for concentration, since the existence of one single platform is the most effective option for both sellers and buyers.

The possibility of 'multi-homing' exists especially for buyers, who may easily search for goods on different platforms. For sellers of unique goods, multi-homing is not feasible. The limited possibility of multi-homing strengthens the concentration tendency.

Furthermore, concentration is enhanced through the importance of the reputation on trading platforms. Since everybody may act completely anonymously online, trading platforms are very prone to fraud. Therefore, trust and confidence are an essential issue of all internet transactions. To avoid fraudulent behaviour, most trading platforms have introduced a 'reputational system', which enables sellers and buyers of a

[37] See also M. Dolmans and L. Leyden, 'Internet & Antitrust: An Overview of EU and National Case Law' (2012) No. 45647 *e-Competitions Competition Laws Bulletin* 3.

certain transaction to evaluate each other. Especially for sellers, reputation is very important and it depends on the number of successful transactions.[38]

Reputation is platform-specific and may not be transferred to another platform which results in high switching costs and lock-in effects. Although the reputation system also applies to buyers, reputation is generally less important and lock-in effects lower.[39]

3.1.2 Abusive behaviour through rating practices

The mentioned lock-in effects for sellers gave rise to the question of whether eBay is able to abuse its strong market position to foreclose the market for online auctions.[40] The apparently existing market dominance is offset by different factors. On the one hand, despite its strong position on the market for trading platforms, eBay is facing competition not only from other platforms but also from 'traditional suppliers' making use of the direct sale channel and the online distribution of their products. On the other hand, the potential barriers should not be overestimated, since they could be of importance for professional resellers only representing a small part of the participants; for 'normal' sellers, reputation is not of such great importance.[41]

3.2 Search Engines

To assess the relevant competition problem better, it is important to understand how search engines work. Broadly speaking, search engines try to map the contents of the internet by collecting all the information on the different websites through so-called 'web crawlers'. The information found by the web crawler is collected based on the indexes of the search engines.

The majority of the revenues of a search engine depend on advertising, normally through so-called search advertising. This means that the user conducting a search on such a website will see on the result page not only the result of his search, but also a list with some query-related advertisements also known as 'sponsored links'. The ads are bought by the advertisers on the basis of the search words of the user (keywords). The search engines sell the keywords to the advertisers who bid most for

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38 Haucap and Heimeshoff (n. 3 above) 11.
39 Ibid., 12.
40 Ibid., 11ff.
41 Ibid., 12.

the respective search word.[42] A particular feature of this form of advertisement is represented by the payment terms, as Google earns revenue from the advertisements only if the advertisement was clicked by a user. Therefore, strong incentives exist to make the advertisements useful and valuable for the recipient.[43]

Google is an important search engine as well as a big player in the advertising market in the internet, since the undertaking not only directly sells advertising space to advertisers, but also acts as an intermediary with its own advertising network. On Google's website, advertisers can place their ads through Google's auction-based advertising program 'AdWords' directly on Google's website or on websites of Google's 'AdSense' network. For website publishers Google offers its intermediary program 'AdSense', which places either contextual targeted ads on the publisher's website or 'normal' search ads if the publisher embeds a special Google search box on its website.[44] This sophisticated direct and indirect advertising system makes Google the leading provider of online advertising.

3.2.1 Economic elements and characteristics of the relevant market

The search engine business is characterized by very high fixed costs; the technical infrastructure as well as the development and the necessary constant progression of the search algorithms are cost-intensive (hardware, human capital, IP patents). However, marginal costs are very low, applying to both market sides: costs for providing the search function to users as well as for the advertising possibility to advertisers are quite modest.

As explained above, search engine markets are two-sided markets. First, they provide search functions to users, who are aiming at relevant and accurate search results. Secondly, search engines provide advertising space to advertisers, who are aiming at a large number of users and good visibility for ads. Network effects between the market sides are of a direct nature.[45]

These direct network effects in turn cause economies of scale, which are enhanced through the importance of size for search engines: the more the search function is used by customers, the more data are available. These data are essential for the search engines to improve their search

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[42] Case COMP/M.5727 – *Microsoft/Yahoo! Search Business* (n. 14 above) para 35.

[43] See Bork and Sidak (n. 35 above) 6.

[44] Case COMP/M.4731 – *Google/DoubleClick* (n. 14 above) paras 92ff.

[45] Bork and Sidak (n. 35 above) 5.

algorithm quality and provide an accurate and relevant search function to the users, with the result that Google's search gets even more attractive for the users.[46]

Another remarkable feature in the search engine market is the low switching costs.[47] Especially for users, the next search engine is always only 'one click away'. Furthermore, there is no possibility for providers such as Google to prevent users from switching to other search engines or to generate other lock-in effects. The only way to keep users is to provide them with a better service.

3.2.2 The gatekeeper issue

Search engines are often referred to as 'new gatekeepers'. Due to the massive information flood, users need search engines to find the information they are interested in. For businesses it is, therefore, of crucial importance to be found through a search engine. Therefore, a search engine – in practice mostly Google – is often compared with 'mass media', viewed as a bottleneck through which the information has to flow in order to reach the general public.[48]

Sometimes, users only consider the first few sites listed in the search results. Therefore, in order to be found by users, sites have to appear in the top positions.[49] Obviously, this is a problematic requirement because at any given time only a limited number of sites can be displayed on the first page of the search results. The determination of a certain order is indispensable; search engines, therefore, have to make editorial judgments through their search algorithm about the pages' relevance; the same applies to traditional mass media. It is obvious that 'pure objectivity' is not possible; furthermore, the term 'neutrality' even lacks a common understanding. In fact, every medium – be it a conventional newspaper or a search engine – is heavily reliant on editorial judgments

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[46] Haucap and Heimeshoff (n. 3 above) 9.

[47] See Bork and Sidak (n. 35 above) 7ff. For a different opinion see K.L. Devine, 'Preserving Competition in Multi-Sided Innovative Markets: How Do You Solve a Problem Like Google?' (2009) 10 *N.C. J. L. & Tech.* 59.

[48] See F. Pasquale, 'Beyond Innovation and Competition: The Need for Qualified Transparency in Internet Intermediaries' (2010) 104 *Nw. U. L. Rev.* 7.

[49] See FairSearch Coalition, 'Google's Transformation from Gateway to Gatekeeper: How Google's Exclusionary and Anticompetitive Conduct Restricts Innovation and Deceives Consumers', available at: http://www.fairsearch.org/wp-content/uploads/2011/10/Googles-Transformation-from-Gateway-to-Gatekeeper.pdf (accessed March 2014).

and control.[50] For users, the main goal may be termed 'relevance': relevant results are the ones satisfying the user the most.[51] If the search engine is not able to provide the user with 'relevant' – thus satisfying – search results, it will lose its (dominant or strong) position within a short time, since users will no longer use the service.

3.2.3 Abuse of dominant market position

The primary charge against Google was the preferential treatment of its own vertical services, caused by a major shift in Google's business strategy.[52] While in the beginning Google acted as a pure search engine and tried to help users to find the information they were looking for, in recent years it has expanded its business to vertical search and other specialized content services. Vertical search engines are websites that specialize in specific content, such as travel services, books, local businesses, etc. Vertical search engines are important because consumers are actively searching for something and are, therefore, interesting for advertisers as immediate consumers.[53]

3.2.4 Abuse through privileging own services

Google was accused of displaying links to its own vertical search services in a different way than it did for links to competitors' webpages, and thus steering users to its own services. According to Google's competitors, this may result in preferential treatment compared to those of competing services. Furthermore, Google was blamed for manipulating its search algorithm to exclude any competing sites.[54]

Even if the most often mentioned complaint, that Google privileges its own services, may be true, further questions arise as to whether such preferential treatment constitutes anticompetitive behaviour or whether the preference given to Google's services simply depended on its

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[50] See E. Goldman, 'Search Engine Bias and the Demise of Search Engine Utopianism' in B. Szoka and A. Marcus (eds), *The Next Digital Decade – Essays on the Future of the Internet* (TechFreedom 2010) 461, 473.

[51] See J. Grimmelmann, 'Some Skepticism about Search Neutrality' in B. Szoka and A. Marcus (eds), *The Next Digital Decade – Essays on the Future of the Internet* (TechFreedom 2010) 435, 439.

[52] For an actual overview R.H. Weber and S. Volz, 'Kartellrechtlicher Handlungsbedarf im Lichte potenzieller Meinungsmacht von Suchmaschinen' (2015) 4 *Wirtschaft und Wettbewerb* 356 ff.

[53] See G.A. Manne, 'The Problem of Search Engines as Essential Facilities: An Economic and Legal Assessment', in B. Szoka and A. Marcus (eds), *The Next Digital Decade – Essays on the Future of the Internet* (TechFreedom 2010) 419.

[54] See FairSearch Coalition (n. 49 above) 6ff.

business acumen and was a consequence of providing a better service. If Google is actually pointing users to its own services, it may really be better for users.[55]

These issues are often discussed under the concept of 'neutrality' of search engines, meaning that search engines should not discriminate among websites.[56] However, the search-neutrality concept causes more problems than it solves. Even the definition of the term 'neutrality' is controversial.[57] Should neutrality be understood to mean equality? Or should it focus more on the requirement of objectivity? Or does it mean that the algorithms used should be made transparent to the users? None of these concepts is the be-all and end-all solution. As shown above, certain judgements between the websites have to be made; furthermore, there are no generally accepted theories about objectivity or relevance, since these terms are confounded by subjective factors. Therefore, transparency is naturally limited by the risk of search engine manipulation through website editors.

In assessing a possible 'neutrality' concept the application of the net neutrality principles developed in telecommunications law could also be considered. However, this approach would not provide a satisfactory solution, since the concept of net neutrality varies among world regions and even the application of the 'net neutrality' principle to internet service providers itself is highly controversial.

3.2.5 Abuse through exclusion of index

In 2006, a lawsuit was filed against Google because it removed a website from its index which had used manipulation to get a better ranking in the search results. Since not appearing in Google's search results is like not existing in the internet, the website's traffic afterwards dropped by 70 per cent. This may lead to the question of whether – due to Google's dominant market position – undertakings are entitled to be indexed on Google's website. Furthermore, the question arises whether the exclusion from an index after manipulating websites goes too far, or whether the exclusion should be considered admissible. A right to be readmitted to the index could be based on the essential facilities doctrine as developed by the European Court of Justice.[58] By analogy, the inclusion in the index

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[55] See Grimmelmann (n. 51 above) 452.

[56] Ibid., 453.

[57] Ibid., 442ff.

[58] The first time this concept was applied was in the *Magill* decision. See Joined Cases C-241/91 P and C-242/91 P *RTE and ITP v Commission* ('*Magill*') [1995] ECR I-743.

must be indispensable for the applicant, the refusal is not objectively justified and the applicant does not have any alternative possibility for rendering its services. However, in practical terms this question does not seem very relevant, since it is in Google's own interest to index all websites.

3.2.6 Investigations in the European Union and the United States

On the basis of the complaints of different online undertakings, the FTC as well as the European Commission opened an antitrust investigation against Google. In the US, the investigation began in 2011; after 20 months of investigation, at the beginning of January 2013, the Federal Trade Commission (FTC) dropped the *Google* case with minimal consequences.[59] According to the FTC, no evidence was found to prove that Google used unfair techniques towards competing sites. Nevertheless, Google agreed to voluntarily change some of its practices to be more open to competitors.

In Europe, the competition authorities were far more successful in achieving concrete concessions from Google. Shortly after the announcement from the FTC that it would close the investigation without prosecution, EU's former Competition Commissioner Joaquín Almunia asked Google to put forward proposals on how to change the presentation of its search results.[60] In early April 2013, Google promised to clearly label the search results of its own vertical service providers and to show at least three results of rival services; the remedies proposed by Google were assessed through a market test, which was concluded by the end of June 2013.[61] According to Google's competitors, as well as to some voices from legal doctrine, the proposed measures were not sufficient and would have a minimal effect with respect to the affected markets.[62] Later Joaquín Almunia asked Google to improve its proposals since the remedies did not go far enough to overcome the existing competition

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[59] See E. Katz, 'FTC Drops Bias Charges Against Google' (17 January 2013) 249 No. 12 *N.Y. L.J.*

[60] See the statements made by J. Almunia in the Financial Times (11 January 2013), available at: http://ec.europa.eu/commission_2010-2014/almunia/headlines/articles/ft1_en.pdf (accessed 10 September 2014).

[61] Commission Communication of 26 April 2013, Case COMP/AT.39740 – *Google*, available at: http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013XC0426%2802%29&from=EN (accessed 10 September 2014).

[62] See T. Höppner and L.J. Davies, 'The EU Competition Investigation of Internet Search' (2013) 14 *Computer L. Rev. Int'l* 107; see also Haucap (n. 12 above).

concerns.[63] In February 2014, Commissioner Almunia announced that Google had realized significant improvements; he was optimistic to make Google's commitments legally binding within the next few months.[64] In an unexpected move, however, the Commissioner told Bloomberg TV on 7 September 2014 that following very negative responses from complainants the antitrust investigation is being reopened.[65] Consequently, Google has not yet escaped the watchful eyes of the European competition authorities. In April 2015, the European Commission issued a Statement of Objections alleging that Google abused its dominant position on the market of horizontal Internet search services to privilege its own vertical search engines. Furthermore, a separate antitrust investigation was initiated with regard to Google's mobile operating system Android.[66]

The reason for the harder line adopted by the European competition authorities may be that Google's market position is even stronger in Europe than in the United States. In Europe, Google has a search share of about 90 per cent compared to about 70 per cent in the United States.

3.3 Social Networks

Social networks are currently one of the most discussed internet phenomena. They constantly gain new market shares, and in 2012 as well as at the beginning of 2013, Facebook was the most visited website.[67]

As explained above, the primary problem with regard to social networks is their definition. Nevertheless, at the time of writing, the market leader in the social network industry is doubtlessly Facebook, a private network that enables users to build up a profile and to interact with friends and relatives.

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[63] See the statements made by J. Almunia at a news conference (17 July 2013), available at: http://in.reuters.com/article/2013/07/17/eu-google-idINL6N0FN1K120130717 (accessed 10 September 2014).

[64] See J. Almunia, 'Statement on the Google Investigation' (5 February 2014), available at: http://europa.eu/rapid/press-release_SPEECH-14-93_en.htm (accessed 10 September 2014).

[65] See C. Arthur, 'European Commission Reopens Google Antitrust Investigation' (8 September 2014), available at: http://www.theguardian.com/technology/2014/sep/08/european-commission-reopens-google-antitrust-investigation-after-political-storm-over-proposed-settlement (accessed 10 September 2014).

[66] Cf. European Commission Press Release, Memo/15/4781 (15 April 2015), available at: http://europa.eu/rapid/press-release_MEMO-15-4781_en.htm (accessed 29 June 2015).

[67] According to http://www.seomoz.org/top500 (accessed March 2014).

3.3.1 Economic elements and characteristics in the relevant market

What makes social networks special is the fact that they are pure online phenomena and have no brick-and-mortar analogue. Furthermore, social networks are platforms and, therefore, characterized by network effects. From the users' side, network effects of social networks are of a direct nature since the attractiveness of the network increases if more users are part of the same social network. Since the use of social networks is mostly free and funded through advertising, indirect network effects exist from advertisers. The more traffic there is on a social network website, the better is the visibility of an advertisement.

The market concentration level in social network markets is lower than in other online markets. The reasons for this certainly include the fact that markets are less homogeneous; even on the basis of a very narrow market definition, different types of social networks such as business or private networks may be distinguished. Principally, multi-homing is very easy, as setting up a profile in a social network does not entail major effort.[68] Multi-homing may even be necessary, as different networks such as private or business networks are used for different purposes.

3.3.2 Personal data as a cause of market dominance

To date, concerns related to social networks have arisen not only from the competition side, but also from the privacy perspective. Through their services, social networks have the possibility of acquiring a vast amount of personal data about their users. This information may be monetized in different ways.

The availability of personal data can lead to competition advantages. In general, internet service providers often derive substantial revenue from personal data. In particular, data may be used to improve one's own service, for example to better target the advertisements to users.[69] The possibility of targeting users/customers is a decisive advantage compared to other media, such as television advertising.[70] Targeting is an increasing issue of advertising, since advertising is only efficient if it is addressed to its relevant target group. The more information is gathered about a person, the better predictions can be made in view of which advertisements might appeal to the user.[71]

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[68] See Haucap and Heimeshoff (n. 3 above) 12.

[69] P.J. Harbour and T.I. Koslov, 'Section 2 in a Web 2.0 World: An Expanded Vision of Relevant Product Market' (2010) 76 *Antitrust L.J.* 769, 780.

[70] Geradin and Kuschewsky (n. 11 above) 4.

[71] Harbour and Koslov (n. 69 above) 793.

3.3.3 Abuse of dominance through preventing exportability of data

Some commentators have criticized Facebook's alleged exclusionary conduct leading to the creation of lock-in effects of customers.[72] The gathered personal data may be used to create barriers for potential competitors. In Europe, competition authorities were particularly concerned that Facebook prevented the portability of personal information. According to Joaquín Almunia, the right of data portability stated in the European Data Protection Directive 'goes to the heart of competition policy'.[73]

A particular anxiety with regard to Facebook may arise from the fact that it is very difficult to terminate a Facebook account, since the social network makes it almost impossible to delete the account. Normally, it is only possible to deactivate the account; all the information about the account remains preserved and even if one manages to delete the account completely, Facebook maintains ownership of all the information and images about the user.[74] Through this, users may be obliged to stay with Facebook. Furthermore, it is not possible to transfer data to a competing service. In addition, users will often be reluctant to change a social network, since such a move forces the individual to notify this change to his or her personal community. If users were able to take their former profile, including contacts, applications, pictures, etc. to the other network, switching costs would be reduced.[75] The lack of data portability may therefore constitute entry barriers for new competitors.[76]

If data portability is relatively easy, users might be more likely to switch to another service provider if they are not satisfied with the service offered, particularly in the light of the level of data protection offered by this service.[77] The portability of personal datasets provides strong incentives in terms of both switching costs and the possibility of multi-homing. In markets in which switching costs are low and the possibility of multi-homing is given, it is hard to achieve market

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[72] Cf. C.S. Yoo, 'When Antitrust Met Facebook' (2012) 19 *George Mason L. Rev.* 1147.

[73] See the speech delivered by J. Almunia, 'Competition and personal data protection', Speech of 26 November 2012, available at: http://europa.eu/rapid/press-release_SPEECH-12-860_en.htm (accessed March 2014).

[74] See Waller (n. 18 above) 17ff.

[75] Pasquale (n. 48 above) 153; R.H. Weber, 'Information at the Crossroads of Competition and Data Protection Law' (2014) 12 *ZWeR – J. Comp. L.* 169, 178 et seq.

[76] Yoo (n. 72 above) 1155; see also Geradin and Kuschewky (n. 11 above) 10.

[77] See Harbour and Koslov (n. 69 above) 796.

dominance and even harder to abuse this dominance. However, complete data portability could also raise privacy concerns, since personal data may be ported easily from one platform to another, which will perhaps not provide an equivalent level of data protection. The new platform may use the transferred personal data in an unjustified manner. For example, the singles site 'power.com' used login data provided by its users to scrap information from third-party websites such as Facebook or Gmail.[78]

4. LESSONS AND NEW APPROACHES FOR COMPETITION REGULATION

4.1 Definition of New Relevant Markets

4.1.1 One market for online advertising

As mentioned above, most internet services are free and sponsored by advertisers; therefore, internet markets are normally two-sided markets. This leads to the question of whether all providers of internet services may be part of the same 'online advertising' market. In general, all advertising is ultimately designed to promote the sale of a product or a service.[79]

Broadly speaking, multi-sided online platforms try to match different parties with contrasting needs. The higher the number of participants on both sides, the higher the likelihood of finding a suitable match.[80] Online platforms usually earn revenues from advertising. They try to attract a large number of users in order to then sell the advertiser the access to users. The content provided by the website is only a tool to attract the users: search engines provide search results to searchers; other websites may attract traffic through other means. Once a website generates enough traffic, the advertising inventory may be supplied to advertisers.[81] Apparently, advertisers are not primarily interested in what kind of content is provided, as long as their advertising seems promising.

Even if advertisements and the kind of advertising differ depending on the different types of platforms being used, they may be considered as substitutes, since advertisers are usually not bound by a certain form of

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[78] *Facebook Inc. v. Power Ventures*, 91 U.S.P.Q.2d 1430 (N.D. Cal. 2009); see also Yoo (n. 72 above) 1160.

[79] D.S. Evans, 'The Economics of the Online Advertising Industry' (2008) 7 *Rev. Netw. Econ.* 6.

[80] Ibid., 21.

[81] Ibid., 21.

advertisement, such as video or normal banner ads, or a certain kind of advertisement (e.g. search advertising). In most cases, advertisements may be designed for all kinds and forms of advertising; it is only a matter of design.

4.1.2 Influence of data issues

As shown with regard to Facebook, personal data are of great value for internet service providers. Personal data can be applied to a variety of commercial uses, most importantly for providing greater advertising effectiveness through better targeting possibilities. The likelihood that advertising is successful is highly dependent on whether the advertising reaches the relevant target group. Therefore, the more personal information about individuals is accumulated, the more interesting it is for advertisers. For that reason, data issues have a direct influence on online advertising markets.

The relationship between personal data and competition law was analysed by the European Commission in the merger control procedure related to *Google/DoubleClick*, in particular with regard to troubling consequences on competition of the combination of the companies' vast troves of personal data.[82] Ultimately, the Commission considered that this specific combination of gathered data would not result in a competitive advantage; but this fact should not lead to the conclusion that the possession of personal data is not an issue in competition investigations at all. Commissioner Almunia indicated that personal data may under certain circumstances – which were not given in the *Google/DoubleClick* case – be misused to weaken competition.[83]

However, online data protection is also of growing importance for many users who tend to pay more attention to privacy issues online. Therefore, incentives for internet service providers may arise to provide better data protection policies for users, be it through privacy policies or through underlying data protection technologies.[84]

Furthermore, competition can be influenced by the possibility of data portability.[85] If data is transferable from one service provider to another, users may tend to switch if they are not satisfied with the service provided, for instance with regard to the level of data protection. Nevertheless, full data portability can give rise to privacy concerns, since

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[82] See Geradin and Kuschewsky (n. 11 above) 12.
[83] Ibid., 13; see Almunia (n. 73 above).
[84] See Harbour and Koslov (n. 69 above) 793.
[85] See section 3.3.3 above.

the personal data may be misused by the service provider the data are transferred to.

4.1.3 Market for user attention

Going further, the relevant market is eventually not the market for online advertising but for user attention.[86] The value of advertising space highly depends on the traffic of a website. The more users visit a website and the more time they spend there, the greater its likelihood to be noticed. Undertakings therefore try to attract significant traffic on a website to increase their revenue.

Even if people in general spend more time online, time is naturally limited due to offline activities such as working or sleeping. The variety of internet services in the last years has increased dramatically, novel services appearing daily. These services all seek the attention of the users. The services provided, whether search engine services, social networking possibilities or blogs, are only tools for harvesting attention.[87] The internet players compete against each other across boundaries of product or services markets. Once a website loses traffic, it is not attractive for advertisers anymore and they will turn to another internet service provider with more traffic.

The theory of a market for user attention also applies to online providers that are not financed through advertisements but through other channels; user attention is important for strengthening the market presence (market awareness). Furthermore, in consequence of a widespread advertising fatigue, some undertakings are trying to implement other possibilities for awareness-raising and for financing. For example, WhatsApp, a messaging tool for smartphones, is financed through selling subscriptions to its service for 1 dollar a year and is completely advertising-free. Notwithstanding the fact that WhatsApp is mainly known in US and European markets, whereas other countries use different applications (e.g., Line, Kik, Viber etc.), this service could be considered as one of the largest competitors for Facebook. However, by acquiring the shares of WhatsApp in February 2014, Facebook has extended its business scope to a service that combines elements of text messaging and social networking, and has thereby eliminated a fierce competitor.

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[86] D.S. Evans, 'Attention Rivalry among Online Platforms and its Implication for Antitrust Analysis' (2013) 9 *J. Comp. L. & Econ.* 313.

[87] Ibid., 4.

4.2 Need of New Regulation or Legal Action?

With regard to the regulation issues, two main questions have to be clarified. The first question, in connection with sector-specific regulation, is whether such governmental intervention is justified, because the market suffers from a lack of workable competition and this deficiency cannot be solved with the existing antitrust instruments. Second, one may ask whether competition authorities should – with recourse to traditional competition law instruments – increasingly force the internet players to fulfil certain obligations or whether new approaches are required to provide for a competitive environment.

4.2.1 The Schumpeterian vision of competition

A remarkable factor in all the discussions about the internet and competition is the fact that the concept of the Austrian scholar Joseph Schumpeter, who established the theory that competition consists of one dominant firm being replaced by another dominant firm, seems to be proven again in the online world.[88] The past has shown that internet markets share much of the Schumpeterian vision of competition, as once dominant firms have disappeared from the market.

Furthermore, internet players normally do not restrict their business activities to their core business, but are willing to compete with others in their business area or in emerging business areas. A look at the mobile phone market shows how fast things change: some years ago, Apple's iPhone was the number one in the smartphone market; its software IOS was the state of the art for smartphone software. Now, Google's software Android, along with different mobile phone providers, has caught up and even overtaken Apple in some areas.

However, it should not be forgotten that internet markets are – due to network effects – prone to concentration. Furthermore, network effects may generate market entry barriers. Both facts, firstly that internet markets – up to now – were highly competitive markets in which big players fight each other and market shares may rise from zero to a decent level in only a few months, and secondly that network effects and concentration tendencies may have a positive impact on market foreclosure strategies, must be carefully assessed when analysing internet issues.

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[88] Weber (n. 20 above) 60; see also Devine (n. 47 above).

4.2.2 State intervention and specific regulation

As explained above, specific regulation is only feasible if a certain market does not have competitive structures, that is, normally, if one dominant undertaking is active in a market and this market is characterized by high and non-transitory entry barriers.

4.2.2.1 Legitimization of sector-specific regulation Regarding online markets, the question can be raised whether one of the internet giants has a dominant position in a certain market and whether the market barriers to enter this market are so high that the implementation of specific regulation is legitimate. As already mentioned, the main characteristics of internet markets are their strong dynamic and their continuous change. Notwithstanding the fact that network effects may cause high market entry barriers, they are neither insurmountable nor non-transitory. Furthermore, since a universal and generally accepted definition of the relevant product or service market has not been established yet, and since new approaches in this area (such as data portability, value of personal data, etc.) should be reflected, far-reaching specific regulations can hardly be legitimated.

Hence, sector-specific regulation will only be necessary under special circumstances; general competition law usually provides the competition authorities with sufficient powers to face the arising problems of online markets. Online business does not generate any entirely new form of anticompetitive behaviour that is not included in the existing legal framework. The need for a new legal framework would only be justified if the problems in the online world were materially different from the ones in offline business.[89]

Nonetheless, the lack of a convincingly established legitimacy for sector-specific regulation of online markets should not lead to the conclusion that traditional competition views can be 'transferred' to the online world in a one-to-one way. The emergence of the internet brought along many new difficulties with regard to competition matters. These special features of internet markets and their influence on the competition situation should not be underestimated.

Accordingly, legal and political theorists should acknowledge that the development of the internet is too fast to be regulated in a 'traditional' manner. Unlike in other sectors, when regulating bodies start to prepare rules for the internet, there is an almost simultaneous reaction from the (potentially) regulated environment. A further challenge lies in the

[89] Weber (n. 20 above) 46.

fragmentation of powers within the online world. This makes even 'responsive regulation' inadequate, since the cost of acquiring the relevant information might be very high.[90]

4.2.2.2 The special situation of ICANN When discussing competition issues in the online world, the special situation of the Internet Corporation for Assigned Names and Numbers (ICANN) should be mentioned. ICANN is a private non-profit organization with quasi-governmental power to set policies. It is responsible for implementing and supervising the internet's naming and numbering and has therefore the power to control the architecture of the internet. The role of ICANN in the internet world gave rise to different concerns about legitimacy, accountability and transparency;[91] in recent times, antitrust issues have also been brought up.[92]

Due to its unique character, ICANN was spared antitrust scrutiny. In connection with several lawsuits – mainly that filed by Manwin Licensing – the question of whether ICANN might be held liable under competition law had to be assessed. According to ICANN, its activities are not commercial and therefore competition law does not apply to its conduct. The judge, however, refused to dismiss the lawsuit and stated that ICANN in general can be sued for alleged antitrust violations.

4.2.2.3 Adaption of conventional competition approaches In view of the above assessment, a slight adaptation of conventional competition approaches seems inevitable, in particular with regard to market definitions and the assessment of market power. More importance should be attached to the temporal component, since the success of both alleged anticompetitive behaviour as well as reactions of competitors and consumers must be taken into account. Therefore, the main goal should be to analyse whether the monopoly power is a temporary or non-temporary phenomenon. As the past has shown, market shares in online markets can change very quickly.[93]

At any rate, excessive governmental intervention should be avoided, especially with regard to innovation incentives. It is unquestionable that a

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[90] R. Baldwin, M. Cave and M. Lodge, *Understanding Regulation: Theory, Strategy, and Practice* (2nd edn, OUP 2012) 278.

[91] For further details see Weber (n. 20 above) 60ff.

[92] J.T. Lepp, 'ICANN's Escape from Antitrust Liability' (2012) 89 Wash. U. L. Rev. 931.

[93] See J.T. Rosch (former Commissioner of the US FTC), 'Intel, Apple, Google, Microsoft, and Facebook: Observations on Antitrust and the High-Tech

certain amount of competition protection for undertakings is necessary to create incentives to invest time and money in innovation. Innovation has ultimately positive effects on consumer welfare.[94] The main question is how to balance competition and protection.

Consequently, competition authorities should focus more on competition for attention and user time, as well as on data and privacy issues, and less on particular services or products. For advertisers the different websites are substitutes; they are mostly interested in traffic and user attention. User attention may be influenced directly by the level of privacy provided by a certain internet service provider. Since customers' awareness of data protection issues is constantly growing, levels of data protection may constitute a competition parameter of increasing importance.

5. ASSESSMENT AND CONCLUSION

The analysis above shows that internet markets are very challenging for competition authorities. Even in traditional brick-and-mortar markets, the definition of the relevant product market normally creates complications, but internet markets with their special features are even more complex. The rapid technological change, the innovative players and the continuous spread of internet access makes the appreciation of future developments very difficult.

Further problems are posed by the two-sided characteristics of the markets, because the interdependence between the market sides has to be taken into account when assessing interchangeability. Likewise, the widespread lack of cost involvement in internet markets raises problems since conventional antitrust models that distinguish relevant markets are price-based. To put it simply: price is not the sole competition parameter in internet markets.

All these problems lead to the conclusion that traditional views on markets are not appropriate when assessing the relevant product markets. Internet players generate revenue via advertising and therefore try to be attractive for advertisers. As a consequence of multi-sided markets, attractiveness depends on the number of users visiting a website. Hence,

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Sector' (18 November 2010) 7, available at: https://www.ftc.gov/public-statements/2010/11/intel-apple-google-microsoft-and-facebook-observations-antitrust-and-high (accessed March 2014).

[94] Ibid., 19.

internet service providers endeavour to provide an attractive service with constantly new features to keep users on their website.

As shown above, the political pressure to regulate the internet was mainly based on 'old' sovereignty concepts and might lead to a fragmentation that could become detrimental to the internet markets and business. Consequently, it seems to be doubtful that national security and content norms are more suitable than the strict enforcement of competition by competition authorities. Furthermore, markets are not static but are subject to rapid and substantial changes, which will cause ever-changing competition conditions.

Competition authorities need to act prudently. In this context, one should bear in mind that the mere possession of dominant market power is not an antitrust concern. So far, dominant market players in internet markets have alternated. This means that market forces have solved the problem by themselves. However, to the extent to which dominant internet undertakings compete with other big players in adjacent markets, the competitive environment must be secured – in so far as competition law has the function to avoid anti-competitive behaviour – for example, lock-in situations or cross-subsidization are to be challenged by the competition authorities.