

# Monopolies on Social Network Services (SNS) Markets and Competition Law

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## Abstract

*Research questions:* (1) How can we explain the development of monopolies on SNS markets? (2) Are monopolies possibly temporarily limited? (3) What does this mean for competition (or antitrust) law?

*Results:* (1) Direct network effects (number of users) and indirect network effects (complementary products and advertising) facilitate the development of one standard and thus a quasi-monopoly. There is empirical evidence that there are indeed standards on SNS markets (Facebook in the U.S. and Germany, Vkontakte in Russia). (2) The standards seem to be temporary monopolies. Yet, no innovator survived as a standard. (3) The dominant market position of a standard on the SNS market alone is no problem for Article 102 of the Treaty on the Functioning of the European Union (TFEU). But if a dominant company tries to immunize its leading position (e.g. by mergers and acquisitions), such behavior can be scrutinized. On two-sided markets, it would be possible to define the relevant market much broader than the small SNS market. When we consider the whole online advertising market as relevant, many of Article 102's problems are avoided.

**Keywords:** Information markets; Social Network Services; Facebook; Competition law; Monopoly; Art. 102 TFEU; EC merger regulation

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## 1 Social media markets

On social media markets (or Web 2.0 markets) we find information services, in which information prosumers (information producers as well as information consumers) form a virtual community. Linde and Stock (2011: 261) distinguish between four submarkets of social media: 1. Sharing Services allow for depositing, online, of certain types of resources, thus sharing them with others; 2. Social Bookmarking Services serve the management of any (web) resources; 3. Knowledge Bases create collection of documents, which are made available to others; 4. Social Network Services (SNS) are platforms for communicating with other members of the community.

On specific submarkets, we are unfailingly able to locate precisely *one* information service which dominates the single submarket, in most cases on a global level, in a few cases only on country level. There is only one sharing service for images with a broad market share, namely Flickr<sup>1</sup>; the same holds true for video sharing services (YouTube<sup>2</sup>). Delicious<sup>3</sup> dominates the social bookmarking services just as Wikipedia<sup>4</sup> does in the knowledge bases submarket. Twitter<sup>5</sup> is dominant on the market of microblogging oriented SNS. Facebook<sup>6</sup> is the international market leader for SNS, but there are national commanding services such as Renren<sup>7</sup> in China (where Facebook is forbidden by law) or V Kontakte<sup>8</sup> in Russia and neighboring countries. Similar monopolies on information markets can be found for search engines (Google<sup>9</sup>), auctioning platforms (eBay<sup>10</sup>) and online bookselling (Amazon<sup>11</sup>). Is ABBA right to claim, “The Winner Takes It All, The Loser Standing Small”? Is this

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1 <https://www.flickr.com/>

2 <http://www.youtube.com/>

3 <https://delicious.com/>

4 <https://www.wikipedia.org/>

5 <https://twitter.com/>

6 <https://www.facebook.com/>

7 <http://www.renren-inc.com/zh/>

8 <https://vk.com/>

9 <https://www.google.com/>

10 <http://www.ebay.com/>

11 <http://www.amazon.com/>

an accidental phenomenon? Or does it follow a specific regularity or even an economic law? Does the World Wide Web indeed drive market monopolization (Haucap & Heimeshoff, 2014)?

In this article, we confine ourselves to the information market of social network services. We are going to show whether and, if yes, how monopolies on an information market will develop. If there are monopolies, are they consistent with competition law (Graef, 2013; Waller, 2012)? With Boyd and Ellison (2007: 211), we define Social Network Services as “web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. The nature and nomenclature of these connections may vary from site to site.” Facebook, one of the most popular SNSs nowadays, has a “mission”, “to give people the power to share and make the world more open and connected. People use Facebook to stay connected with friends and family, to discover that’s going on in the world, and to share and express what matters to them” (Facebook, 2014). Facebook was founded by Zuckerberg in 2004; its headquarters are in Menlo Park, CA; it has about 8,350 employees and more than 860 million daily active users all over the world (on average for September 2014). More than 1 million advertisers bank on Facebook, leading to revenues of about \$7.87 billion (in 2013).

In order to discuss monopolies on social network services (SNS) markets, we formulate three research questions (RQ):

- RQ 1: What is the role of network effects on SNS markets? Are we able to explain the monopolies by the application of network economics?
- RQ 2: Has the time of the market entry of an information service relevance for its success? Are monopolies possibly temporarily limited?
- RQ 3: If it is really true that there are regularities in the context of network economics explaining the phenomenon of monopolies, what does this mean for competition (or antitrust) law?

## 2 Network effects on social network services markets

Key characteristics of SNS suppliers are that “any pair of participants may interact with one another” (Aggarwal & Yu, 2012: 147) and that “the presence of a larger number of users increases the value of the site for all other users” (Aggarwal & Yu, 2012: 142). An SNS is not very useful if it only has a small number of users in relation to the amount of the SNS’s target group.

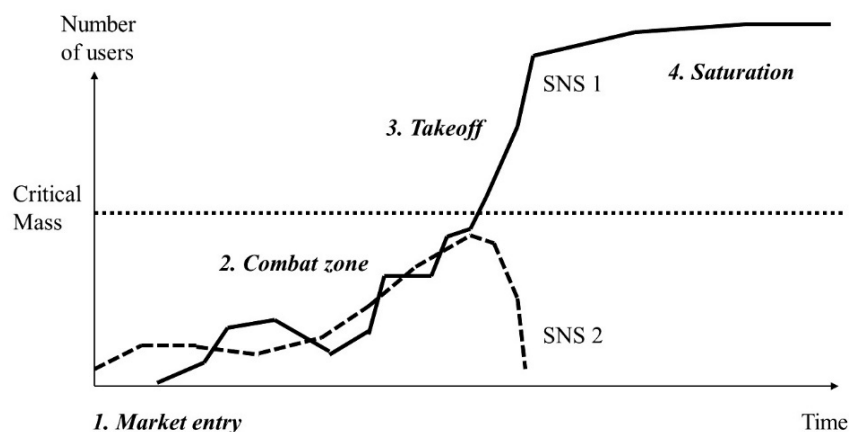


Figure 1. Typical Development on SNS Markets. *Source:* Following Dietl & Royer, 2000.

In the theoretical framework of network economics (Shapiro & Varian, 1998; Linde & Stock, 2011), direct and indirect network effects play important roles (fig. 1). After the market entry of one or more players and a combat zone, one service trespasses the critical mass of users. Here, network effects start. Direct network effects (Linde & Stock, 2011: 53–57) are given by the number of users: the more users the more valuable is the network. And the more valuable a network is the more will it attract further users. This feedback loop leads to a takeoff of the successful network and to a decline of the loosing network. Indirect network effects (Linde & Stock, 2011: 57–60) are user-independent effects, e.g. the number of complementary products (such as social games on SNS) or the amount of advertising. Direct as well as indirect network effects conduce the winning network toward a

“standard” and so to a quasi-monopoly (“the winner takes it all”) and the loosing rivals to niche markets or to market exit (“the loser standing small”).

Based on a literature study, Nadkarni and Hofmann (2012: 245) found out that the use of Facebook is primarily motivated by two basic social needs: “(1) the *need to belong*, and (2) the *need for self-presentation*. The *need to belong* refers to the intrinsic drive to affiliate with others and gain social acceptance, and the *need for self-presentation* to the continuous process of impression management.” The benefits of Facebook “friends” can be seen as the “social capital” of its users (Ellison, Steinfeld, & Lampe, 2007). In an empirical investigation, PwC (2012: 37) observed that 75 per cent of all (German) SNS users apply his or her SNS to keep in touch with friends. Around 67 per cent used the SNS to search for old acquaintance and to restore the contact. The more direct network effects an SNS has the more it will serve those main motivations to use SNSs.

eMarketer<sup>12</sup> (Winkels, 2013) found for the United States (2012), that 89 per cent of all SNS users are on Facebook (next is Google+ with 1 per cent). In Germany, there are 38.6 m unique visitors on Facebook, followed by Xing<sup>13</sup> with 4.2 m visitors. Regarding all social media platforms, PwC calculates Facebook’s visitors’ share in Germany with about 88 per cent (PwC, 2012: 11). In Russia (Winkels, 2013: 13), Vkontakte has 38.5 m unique visitors (with about 13.5 bn page views; second is Odnoklassniki<sup>14</sup> with 33.5 m unique visitors, but with only 3.7 bn page views. There are only around 19 m Facebook users in Russia (with 0.6 bn page views) (all data for September 2012). In the U.S. and in Germany, Facebook clearly dominates the SNS market; in Russia so does (to a lesser extend) Vkontakte. Indeed, ABBA is right: On SNS markets, the winner takes it all (Fjell, Foros, & Steen, 2010).

In a study on perceived quality and acceptance of Vkontakte as well as Facebook in Russia and Germany we found out that users are strongly influenced by “their” SNS. The Winner-takes-it-all situation makes its users “blind” to give an unbiased quality perception of their standard SNS and of other (perhaps even objectively better) SNS. So it is not quality, what leads to success. Network effects play the main roles.

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12 <http://www.emarketer.com/>

13 <https://www.xing.com/>

14 <http://www.odnoklassniki.ru/>

### 3 Innovators and imitators on SNS markets

After a pre-history with some SNS-like information services (e.g., in 1995, Classmates<sup>15</sup>, or, in 1996, Bolt<sup>16</sup>), the history of broadly successful SNSs started in the 2003 with the market entry of MySpace<sup>17</sup>. Few years later, national SNS such as Odnoklassniki in Russia or studiVZ<sup>18</sup> in Germany entered their markets. From a global view, MySpace was the innovator on the SNS market, and all other companies were imitators. But for the national markets of Russia and Germany, Odnoklassniki and studiVZ were innovators. No innovator survived as a standard. In the U.S., Facebook superseded MySpace, in Germany also Facebook superseded studiVZ, and in Russia Vkontakte prevailed over Odnoklassniki. In Russia, Facebook never had a chance to become standard. In no case, the (international or national) innovator became standard, but always an imitator (fig. 2).

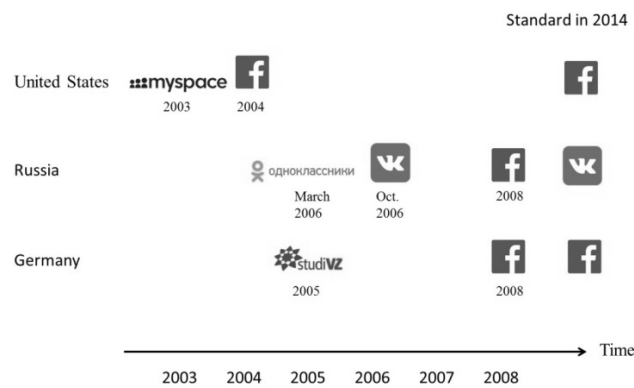


Figure 2. Markets Entries of SNS Players in the U.S., Russia and Germany.

15 <http://www.classmates.com/>

16 <http://bolt.com/> (1996–2007)

17 <https://myspace.com/>

18 <http://www.studivz.net/>

## 4 Monopolies on SNS markets and competition law

The tendency of monopolistic structures on information markets is thought-provoking concerning competition (or antitrust) law (Fatur, 2012). In Article 102 of the Treaty on the Functioning of the European Union we read, “Any abuse by one or more undertakings of a dominant position within the common market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States” (EC, 2008a, EC, 2012, Art. 102). In this definition, two aspects are crucial, namely “dominant position” and “abuse” (Einer & Damien, 2011; Whish & Bailey, 2012; O’Donoghue & Padilla, 2013). For the European Commission, companies with market shares above around 60 per cent are presumed to be “dominant” (Whish & Bailey, 2012: 182). E.g. the European Commission is investigating concerning Google’s business practices in terms of competition law (EC, 2014: 36). On the SNS market, in many countries (including the U.S. and Germany) Facebook is “dominant.” The fact that a monopoly on a certain information market (such as Facebook on the SNS market) exists, is – without the danger of abuse – no topic for competition law (or, in the terminology of the U.S., antitrust law). But if the monopoly leads (or may lead) to a situation, which is “harmful to consumers” (EC, 2009: 7), the European Commission will “direct its enforcement to ensuring that markets function properly and that consumers benefit from the efficiency and productivity which results from effective competition between undertakings” (EC, 2009: 7). The Commission recognizes the fact that there are network effects on certain markets, which lead to “barriers to expansion or entry” (EC, 2009: 9). In fact, European Competition Law is skeptical about monopolies both on classical and on information markets: “(I)n general, the stronger the dominant position, the higher the likelihood that conduct protecting that position leads to anti-competitive foreclosure” (EC, 2009: 10). On information markets, the network effects allow a dominant company – the standard – to tip “a market ... or to further entrench its position on such a market” (EC, 2009: 10). To sum up, for European Competition Law monopolies on information markets are dominant businesses like on other “classical” markets; and the European Commission will normally intervene under such circumstances. Here our question arises. Is it really arguable that monopolies on information markets (with ever appearing network effects

leading – as an economic regularity – to exactly one standard) are considered as “classical” companies just as car makers or chemical industry (without any network effects)? Or is Article 102 TFEU (ex Article 82 TEC) in need of “modernization” (Messina, 2006)?

A central aspect for the dominant position of an information company is the time span, in which it holds its outstanding position. If this time span of a monopoly is short (say, some years to few decades), this situation would probably not be harmful to consumers – on the contrary, consumers benefit from direct as well from indirect network effects. In the context of competition law, which is by nature economic law, often the famous economist Schumpeter is cited. For Schumpeter (1939: 94) it is clear, even “in the world of giant firms, new ones arise and others fall into the background.” Driving force on the capitalist market is innovation, defined by Schumpeter as “the setting up of a new production function” (Schumpeter, 1939: 84) which gives rise to “creative destruction” (Schumpeter, 1942, Ch. 7). Under such Schumpeterian conditions, every monopoly is only temporary (and not such a problem for competition policy) (Haucap & Heimeshoff, 2014). If we look back to figure 2, we recognize that the former innovators (MySpace in the U.S., Odnoklassniki in Russia, and studiVZ in Germany) are superseded by thoroughly innovative imitators (Facebook in the U.S. and in Germany, Vkontakte in Russia). MySpace in the United States and the family of VZ networks in Germany (meinVZ, studiVZ, schülerVZ) lost many active users over a very short time period, probably due to the success of Facebook (Haucap & Heimeshoff, 2014). The development of the SNS market seems to be far from over. An important issue is the market entry of Google+<sup>19</sup> in the year 2011. Additionally, we should consider the neighboring market of specialized SNSs for professional purposes (with players like LinkedIn<sup>20</sup>). Obviously, one “temporary monopoly is followed by another, with innovation as the driving competitive force” (Haucap & Heimeshoff, 2014: 50). There is no problem for users to consume different services together. Such multi-homing may include the application of Facebook, Vkontakte, Google+ and LinkedIn, to mention only some examples. These facts are indicative that a kind of neo-Schumpeterian *laissez-faire* would be suitable for monopolies on information markets – they are always threatened by new innovative players, and their monopolies are of limited length of time (Messina, 2006: 74). Therefore,

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19 <https://plus.google.com/>

20 <https://www.linkedin.com/>



Article 102 TFEU should not be applied in network markets concerning market shares.

It is helpful to have a second look into Schumpeter's oeuvre. He writes, "there are means available to the successful entrepreneur – patents, 'strategy', and so on – for prolonging the life of his monopolistic or quasi-monopolistic position and for rendering it more difficult for competitors to close up on him" (Schumpeter (1994 [1954]: 897 f.). Such immunization strategies may include acquisitions of and mergers with new innovative companies. "Consider Facebook's recent acquisitions of Instagram and WhatsApp," Waller and Sag (2015: 17) remind us. One could speculate that Facebook was willing to pay so much for Instagram<sup>21</sup> (close to \$ 1 billion) "simply to stop it from falling into the hands of rivals, especially Twitter and Google" (Waller & Sag, 2015: 18). And we can speculate on the WhatsApp acquisition in terms of strengthening the company's market position in instant messaging while combining the market power of WhatsApp<sup>22</sup> and of Facebook's chat function. Here we are confronted with the potential problem that a monopoly firm tries to foreclose its market through anticompetitive behavior (Haucap & Heimeshoff, 2014). Such immunization strategy of the existing standard can (or should) be scrutinized. It forms an argument to validate "much of current antitrust law" (Waller & Sag, 2015: 20). The acquisition of WhatsApp may not be only a matter of anticompetitive behavior in terms of Art. 102 TFEU, but also a case for the EC Merger Regulation (as an important part of the European competition law) (EC, 2010). Uncontrolled mergers and acquisitions of companies can change a distinct market into a monopoly or, equally problematic, oligopoly, and limit the competition. However, as the European Commission permitted the acquisition and did not question the problematic issue of users' privacy coming from the increased concentration of the user data in hands of Facebook, we again turn to the Article 102 TFEU.

A company, which has a dominant position, has this position on a certain market. What is the relevant market of SNS? On information markets, we see two kinds of business models: (1) On information-for-money-markets companies sell software or content and the customer has to pay for it (with money). Examples include Microsoft<sup>23</sup> (software) and STN International<sup>24</sup> (con-

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21 <http://instagram.com/>

22 <http://www.whatsapp.com/>

23 <http://www.microsoft.com/>

tent). (2) On information-for-attention-markets companies distribute their services for free. Customers pay with their attention, which in turn becomes sold to advertising companies. Examples are Web search engines and SNSs. On information-for-money-markets the boundaries are clear: in the case of Microsoft, it is the software market; in the case of STN International, it is the market of scientific and technological online information. In contrast, information-for-attention-markets are typical two-sided markets. One market side is the user; the other market side is the advertiser. "Advertising is the most common source of financing for Internet service providers" (Weber, 2013: 9). Advertising is an essential part of indirect network effects. Ads in their role of indirect network effects are positive for advertisers and the service providers (the more ads, the more value of the system – the more value, the more users, etc.) and at the same time negative for most of the users (many users are bothered about ads). The relevant market of SNSs (where indeed revenues are generated) is the market of online advertising and not the narrow SNS market (which is only a means to an end). In this sight, represented by Weber (2013), there is a huge market of all kinds of online advertising, including players such as Google, Twitter, Facebook, and all companies working with banner ads. On this market, there is no standard and no market-dominating player. In the light of this argumentation "and assuming that there is only one market for online advertising, user attention or user data and that, therefore, neither Google nor Facebook are dominant in any of those markets, strict legal intervention does not seem necessary at the moment," Weber (2013: 19) concludes. However, in spite of Facebook's attempts to strengthen and extend its position as (one of) the dominant players on the Internet through acquisitions of other companies (not necessarily direct competitors) like WhatsApp, we should also focus on the EC Merger Regulation. Even if we define Facebook's and WhatsApp's markets as different ones (online-advertising and app with no advertisements) and eliminate a classic horizontal merger (EC, 2004) (and in this case a vertical as well; EC, 2008b), we still should consider potential conglomerate effects such mergers may lead to. Such effects may strengthen problems concerning the accumulation of user data and data security. Eventually, due to such practices, the (potential) monopolies (or oligopolies) of the Internet giants may not be as ephemeral as Schumpeter predicted.

## 5 Conclusion

We have theoretical and empirical evidence, that in SNS markets direct as well as indirect network effects conduce the winning player toward a “standard” and monopoly. In the U.S. and in Germany, the standard SNS nowadays is Facebook; in Russia, it is Vkontakte. What does this mean for competition law (Article 102 TFEU)? One can argue with Schumpeter that such a monopoly is an economic regularity and only temporarily limited and a new player will supersede the old standard at some time (as Facebook superseded MySpace and studivZ). So Article 102 TFEU should be adjusted to network economics. Again with Schumpeter, we should watch the monopoly on an information market whether it forecloses its markets by immunization strategies (e.g., buying companies to strengthen the monopoly). In this case, Article 102 TFEU and the EC Merger Regulation would be useful. The crucial aspect is the definition of the relevant market. On two-sided markets, revenues are generated only by advertising. Users “pay” with their attention, but not with money. So the relevant market could be online advertising (with Google, Twitter and all banner advertisers). On such a market, no dominant company can be identified. Other aspects are the conglomerate effects resulting from acquisition of companies from different markets. In our opinion, the accumulation of user data and data security are crucial.

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