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Temporary face-to-face contact and the
ecologies of global and virtual buzz



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Abstract

This paper analyses the importance of temporary co-presence of global communities in establishing a particular information and communication ecology during international trade fairs, referred to as “global buzz”. We argue that international trade fairs have become important expressions of new geographies of circulation through which knowledge is created and exchanged at a distance. Within a specific institutional setting, participants not only acquire knowledge through face-to-face communication, they also obtain information by systematically monitoring other participants. This paper analyses the constituting components of global buzz, and aims to dismantle the complexity of this phenomenon in a multidimensional way. By using the same classification scheme, we further compare this buzz with computer-mediated “virtual buzz”, which is created through Internet trade fairs. This enables us to draw conclusions surrounding the specificities and limitations of virtual versus global buzz.

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Temporary face-to-face contact and the ecologies of global and virtual buzz

1 Introduction

In recent work, economic geographers have emphasized the importance of temporary face-to-face (F2F) contact in processes of knowledge creation and dissemination (e.g. Maskell and Malmberg 1999; Grabher 2002; Norcliffe and Rendace 2003; Maskell, Bathelt and Malmberg 2004; 2006; Storper and Venables 2004; Bathelt and Schuldt 2005). Despite the increasing integration of economic networks in global circuits, and the importance of information and communication technologies in everyday business routines, personal contact between people continues to be a decisive mechanism of communicating news, exchanging knowledge and solving problems. However, in the context of global production configurations or peripheral locations outside the industrial core areas, firms do not easily find adequate partners for transactions close-by. They have no choice but to establish linkages over space providing access to distant markets and technologies developed elsewhere. In this context, temporary face-to-face interaction and physical co-presence, as well as forms of virtual proximity and their ability to substitute for spatial proximity, have been the focus of some research in recent years (e.g. Rheingold 1993; Zhao 2003; Torre and Rallet 2005; Grabher and Maintz 2006).

International trade fairs, which enable physical co-presence of and personal contact between economic agents, have become important temporary platforms of knowledge exchange and networking by making connections regardless of spatial restrictions. Focusing on business-to-business (B2B) fairs, this paper argues that these events produce a rich communication and information ecology within a specific institutional setting, referred to as “global buzz”. These professional gatherings combine different knowledge pools from firm representatives, scientists and practitioners, and provide a microcosm for an industry for a limited time period (Rosson and Seringhaus 1995). Similar to the effects of Internet-thinking studios and transnational epistemic communities, international trade fairs are viewed as important expressions of new geographies of circulation through which knowledge can be created and exchanged at a distance (Amin and Cohendet 1999; 2004; Thrift 2000). Trade fairs are places for consultation between producers and users, providing a platform for producer-controlled participation in user-driven development processes (Grabher, Ibert and Flohr 2008).

Trade fairs have long been the focus of studies in business administration, investigating the importance of such events as a sales and marketing instrument to attract new buyers, establish brands and develop a particular image (e.g. Strothmann 1992; Meffert 1993; Backhaus and Zydorek 1997); but the goals behind the participation in leading international trade fairs are manifold (e.g. Kirchgeorg 2003; Jansson and Power 2008).¹ Only a few studies have, thus far, focused on the nature of communication and information flows during such events. Recently, conceptual and empirical studies have begun to analyze trade fairs as platforms for processes of knowledge creation and circulation, and as places where learning through interaction and by observation takes place (Prüser 1997; Borghini, Golfetto and Rinallo 2004; 2006; Maskell, Bathelt and Malmberg 2004; 2006; Bathelt and Schuldt 2005; 2008; Rinallo and Golfetto 2006; Entwistle and Rocamora 2006;

¹/. It is interesting to note in this respect that the sales function of trade fairs has seemingly become less important compared to other goals. Borghini, Golfetto and Rinallo (2006) found in their study of 11 European trade fairs in the areas of textile/apparel and wood/furniture that up to 50% of the visitors could be viewed as atypical (i.e. suppliers, competitors, firms from other sectors). Further, at the trade-related and industrial fairs studied on average only 22% and 34% of the typical visitors, respectively (i.e. traders, wholesalers and importers vs. industrial customers) actually made purchases.

Skov 2006; Bathelt and Zakrzewski 2007). This work has illustrated that leading international trade fairs, as temporary clusters, have become central nodes that connect the global political economy, and provide participating firms with access to new technologies, market trends and potential business partners.

One question that arises from this discussion is whether other settings exist which also enable wider processes of knowledge exchange and learning between a multitude of agents situated in different parts of the world. Given the technological advances associated with the Internet, one might ask whether virtual spaces of communication can create a similar information and communication ecology, or “virtual buzz”. In focusing on Internet trade fairs, we quickly come to realize, however, that this is not a question of substitution as both media of communication coexist. The goal of this paper is thus twofold: our main goal is to identify those components which make international trade fairs unique places for knowledge creation and dissemination, as well as network building. To respond to the inquiry concerning Internet fairs, and their ability to create a “virtual buzz” environment, we further aim to discuss the ways in which virtual and global buzz differ from one another and how they can complement one another. Although our arguments are conceptual in character, they draw from existing empirical research conducted during international trade fairs and other recent empirical studies about international trade fairs (e.g. Borghini, Golfetto and Rinaldo 2004; Rinaldo and Golfetto 2006; Entwistle and Rocamora 2006).²

This paper is structured as follows: section 2 explores the concept of global buzz and lays out its multiplex nature. Section 3 argues that these different practices are built upon a similar set of partly overlapping, interdependent components. Section 4 suggests that aspects of this buzz may also be transmitted through virtual spaces, such as Internet fairs, and discusses similarities and dissimilarities between virtual and global buzz. Section 5 summarizes the main findings and presents conclusions regarding interdependencies between global and virtual buzz.

2 International trade fairs and global buzz

This section begins by describing the phenomenon of global buzz at international trade fairs and relating it to other concepts, before analyzing the characteristics which help us to distinguish between different kinds of global buzz. Global buzz is presented as a complex information and communication ecology that differs according to the characteristics of the context studied and the perspective used. Our analysis also draws from a growing body of empirical work on trade fairs, related to this study.

International trade fairs are characterized by a unique information and communication ecology based on physical co-presence between agents of an industry, technology or value chain from all parts of the world. At these events, participants discuss and present new developments and exchange information and knowledge about products, markets, firms and leading individuals in their area of expertise. The co-presence of many

²/. The analysis presented draws from extensive evidence collected during more than 450 semi-structured interviews with trade fair exhibitors, which were conducted between 2004 and 2006 at one national and six international trade fairs in Frankfurt/Main, Nürnberg and Hannover, Germany (see, also, Bathelt and Schuldt 2005; 2008). To focus such a study on Germany is a useful starting point because it is the most important country hosting international flagship fairs (Ausstellungs- und Messe-Ausschuss der Deutschen Wirtschaft 2008). Four of the seven trade fairs investigated were in the area of investment goods (i.e. IFFA, EuroMold, HANNOVER MESSE, ELTEC) and three in the area of consumer goods (L+B, Tendence Lifestyle, Paperworld). All of these fairs were business-to-business (B2B) events where firms presented their exhibits to other firms, and not primarily to end customers. The questions asked focused on the ways in which existing and potential partners and competitors were contacted, when and where scheduled and accidental meetings took place, what kinds of interaction occurred and which purposes various interactions served. Another part of the guideline was to ask, how important are Internet tools for interfirm communication, how they can substitute trade fair participation and also, which advantages or disadvantages exist. Interviews took on average 15 minutes, with a range from 6 to 95 minutes.

agents does not only open up a vast range of possibilities for face-to-face interaction, it also enables participants to observe and experience new products, technologies and designs. The communication and information patterns that develop in these temporary clusters (Maskell, Bathelt and Malmberg 2004; 2006) are characteristic of international trade fairs and academic conventions. We refer to this professional information and communication ecology as “global buzz”. Recent research has shown that this buzz consists of news, strategic information, experience, rumours, recommendations and speculations about an industry or technology branch, all of which are exchanged in an extremely concentrated form over a limited time period of usually three to five days. Global buzz is associated with ongoing search processes and depends on reciprocal communication patterns between producers, users, suppliers and other experts of an industry (Bathelt and Schuldt 2008; Borghini, Golfetto and Rinallo 2006).³ During trade fairs, information flows travel back and forth through various channels and provide multiple feedbacks to the participating agents. Through this, global buzz generates a multitude of opportunities for learning processes both during and after trade fairs, and supports the generation and maintenance of business networks over large distances (Prüser 1997; 2003; Borghini, Golfetto and Rinallo 2004; Bathelt and Schuldt 2005; 2008).

This brief description of global buzz bears similarities with concepts such as “local buzz” (Storper and Venables 2004; Bathelt, Malmberg and Maskell 2004) and “white noise” (Grabher 2002).⁴ Global buzz also resembles the famous notion of “industrial atmosphere”, coined by Marshall (1927) as something that is automatic, almost as if it were “in the air”, limited to the people within a particular region or place. Although Marshall (1927) did not have trade fairs or other temporary settings in mind in his writings, the processes he described – how, for instance, representatives of merchants were attracted to the Lancashire region near Manchester to visit factories and select materials to be brought back to their home markets – have some elements in common with those processes which take place during international trade fairs.⁵ Examples of events which have similar effects are the large supplier fairs in East Asia, or the leading machinery and information technology fairs in Germany. It is well known that Marshall (1927: 284), in referring to the cutlery districts in Sheffield and Solingen, also argued that such places “have acquired industrial ‘atmospheres’ of their own; which yield *gratis* to the manufacturers of cutlery great advantages, that are not easily to be had elsewhere” (emphasis added). In a similar vein, we argue that participation in global buzz does not require specific investments, other than those related to the costs of attending a trade fair and taking part in its information and communication spheres.

Of course, global buzz is not the same at each international trade fair, in each industry or value chain. It unfolds in different practices and varies according to the purpose and business context of a trade fair. Depending on the perspective used and the context analyzed, different characteristics structure the practices of global buzz (for a detailed empirical study, see Schuldt and Bathelt 2008).

³/. We are aware that the term “buzz” is used in different ways in everyday language, often referred to as chatting, gossip or rumours. In using this term as a metaphor, our aim is to enable potential readers to quickly grasp the concept. However, what we refer to is the specific information and communication ecology in temporary clusters, and not general talk about everyday events.

⁴/. The term “global buzz” is related to the information and communication ecology that characterizes international trade fairs and similar types of temporary events which attract agents from all over the world to a local setting. In contrast, “local buzz” refers to the information and communication ecology which exists within a cluster of firms based on permanent co-location. Although we expect that similar effects can also be realized through regular business travelling, the resulting information and communication ecology would likely be less rich than that during international trade fairs.

⁵ While Marshall (1927) clearly had permanent industrial districts in his mind, the actual processes of producer–user interaction in Lancashire were seemingly set up similar to temporary clusters.

3 Constitutive components of global buzz

From the above discussion, it is clear that global buzz is a complex phenomenon which is difficult to measure. It cannot be easily condensed into a single variable, and its practices are heterogeneous. According to our argument, face-to-face contact is the dominant form of interaction, while technical means of communication serve only to complement personal conversations during trade fairs. In the following discussion, we argue that face-to-face contact is a particularly effective way to acquire and circulate knowledge because it involves direct interaction and immediate feedback (Ibert 2007). Even in complex contexts, global buzz does not just refer to a specific method of communication, such as an informal, group-based, self-generating exchange of information and knowledge outside the context of formal collaborations (e.g. Asheim, Coenen and Vang 2005, p. 8); it goes much beyond. In the context of this paper, global buzz denotes an all-embracing, yet specific constellation of different components generating a professional information and communication ecology. These components are related to the dedicated co-presence of global supply and demand, intensive temporary face-to-face interaction, different possibilities of observation, intersecting interpretative communities with overlapping visions, as well as multiplex meetings and relationships, all of which occur simultaneously and provide a variety of business opportunities for the participants at international trade fairs. We argue that a systematic discussion of these constitutive elements enables a better understanding of global buzz and its benefits.

The concept of global buzz presented in this paper does not confuse aspects of co-presence, face-to-face contact, information transfer, community formation and institution building. Rather, it aims to emphasize how different components of information and communication processes during international trade fairs support one another in mutually reflexive ways. For the purpose of clarity, we try to separate different components of global buzz in the discussion below, while being aware that these components are closely related to one another. Dedicated co-presence, for instance, is a pre-condition for, as well as a consequence of, both face-to-face interaction and observation practices at trade fairs. As will be discussed below, global buzz serves to create reference points for firms regarding their activities and strategies in an industry or technology branch. Ultimately, we are interested in the ways in which global buzz impacts information and knowledge flows between firms. Since this is based on communication between individuals, our argument first focuses on person-to-person communication and then draws conclusions about how this communication may effect interaction and competitiveness at the corporate level.

3.1 Dedicated co-presence of global supply and demand

Dedicated co-presence is a necessary precondition for global buzz. The fair grounds establish a spatial constellation through which specific ensembles of agents meet and interact both in sequence and simultaneously. International flagship fairs are events that bring together leading and less well-known agents from an industry or technological field. Suppliers, producers, users, retailers, interested experts, media representatives and other multipliers get together to exchange news about the present and future development of their industry, centred around the displays of existing products, prototypes and innovations. The co-presence of many specialized firms from a particular value chain, combined with constant face-to-face communication between specialists from these firms, generates a unique milieu for the exchange of state-of-the-art knowledge and experience. Studies indicate that the exchange within this field is much more intense and diversified than that which could be expected in an everyday work situation. Specific information about technologies, markets, strategies and solutions is discussed in a variety of ways in planned and unplanned meetings (Bathelt and Schuldt 2005; 2008). From the view of an exhibitor, this exchange might include discussions about business transactions with customers and suppliers, general conversations with interested agents about the character of

products and the development of the industry, specific possibilities for problem-solving or improvements, and negotiations with long-term customers from different parts of the world (Borghini, Golfetto and Rinallo 2004).

Although agents attend international trade fairs with different expectations and in different roles, they share a strong dedication to focusing on the activities that take place on the fair grounds for several days in a row (Blythe 2002; Bathelt and Zakrzewski 2007). To be away from the normal workplace creates time slots that are normally not blocked with particular tasks. These time slots allow for unique communication without interruptions, which would be impossible in day-to-day work. Our research indicates that the degree to which the schedules of firm representatives are filled with appointments during such events, and how much time the people can devote to the observation of other exhibits or unplanned meetings, directly depends on their functions and positions. While executives and leading managers often have dense schedules with many organized meetings during the fair days, other specialists in research, sales or planning are more flexible in terms of time.

Because of the specific atmosphere of these “get-togethers”, the exclusive focus on exploring an industry’s state of the art, and not having to deal with routine administrative issues, people are often more relaxed and open than in a regular work situation, yet also highly concentrated. They tend to be open to new ideas and are willing to critically compare their own industrial practices with those of others (see, also, Borghini, Golfetto and Rinallo 2006). Our empirical work suggests that this is conducive to the adaptation of different experiences and to processes of learning and knowledge dissemination. Especially representatives of small firms emphasize that they use their presence at trade fairs to collect ideas for new products and acquire an overview of global market needs and players (see, also, Rosson and Seringhaus 1995). In particular, they try to identify new trends that could be implemented in their production.⁶ Foreign firms use their presence at international trade fairs to prepare market entry in other regions or nations; firms from less developed countries aim to pick up ideas for designs which they can imitate or adapt to the needs of their home markets (Bathelt and Zakrzewski 2007). Media representatives and other multipliers, such as specialized user groups who are not usually in direct contact with the producers, also play an important role (e.g. Rinallo and Golfetto 2006; Entwistle and Rocamora 2006; Skov 2006).⁷ These agents have a substantial impact on the success of trade fairs and the wider image of the exhibitors because they serve to mediate their impressions and evaluations to a larger audience of potential buyers and users after the events.

3.2 Intensive temporary face-to-face interaction

Another constitutive component of global buzz is its reliance on face-to-face contact. As opposed to other means, modes and conditions of communication, attendance at international trade fairs automatically involves face-to-face contact⁸ with a multitude of agents of a particular industry, through which a diverse mix of information and knowledge can be sorted, classified and interpreted. It is well-known that face-to-face communication provides important opportunities for economic agents to disseminate knowledge and stimulate learn-

⁶/. More important than the city where a trade fair takes place are the exhibition halls, their interior design, and the way in which exhibition and communication spaces are set up. Trade fair organizers have a key function in arranging the exhibition spaces and providing infrastructure. When considering the connection to hotels and after-trade-fair meeting points and the accessibility of urban functions, of course, the city itself also becomes a significant factor.

⁷/. While our study primarily focuses on interaction patterns between suppliers, producers and users, the wider “field” of the industry which is represented at international trade fairs clearly influences dynamic processes and market success of the respective firms.

⁸/. It is important to emphasize face-to-face interaction here because other electronic or digital communication does not necessarily require physical co-presence.

ing. Storper and Venables (2004) have pointed out the importance of face-to-face interaction in transferring complex messages, getting immediate feedback, and responding further. They emphasize that “[c]ommunication in F2F context occurs on many levels at the same time – verbal, physical, contextual, intentional, and non-intentional. Such multi-dimensional communication is held by many to be essential to the transition of complex, tacit knowledge” (pp. 354-355).

Thus, face-to-face communication can be expected to limit information asymmetries, as there are many ways of inquiring about the reliability of new information and the trustworthiness of other agents. Our research shows that firm representatives grasp additional important input when talking to their peers by observing their facial expressions and gestures; this is a great aid when making judgements and sorting information. Overall, it helps to identify the mindsets and opinions of other agents, check their compatibility for future business relations, and reduce risks in interaction. This indicates that face-to-face communication reflects the nature of social relations between the agents and, by means of feedback and interpretation, serves to further shape existing relationships (Watzlawick, Beavin and Jackson 2000; Gallié and Guichard 2002).

But agents not only acquire knowledge when participating in face-to-face communication with others, information is also absorbed by observing and systematically monitoring the exhibitors and visitors. By “being there” and experiencing the exhibits, agents can grasp the symbolic character and emotional value of new products or designs (Schlink 2006). The unique combination of developing, discussing and exchanging arguments with others can readily be applied to one’s own production or product range, while at the same time being able to observe the effects on other agents. This provides instant insights that would be extremely difficult to acquire through other means (Sharland and Balogh 1996; Blythe 2002).

We also anticipate that firms do not necessarily have to be in direct contact with a specific source of information to have access to that information. This obviously makes participation in a trade fair particularly valuable. Participants might hear from other agents about new developments and decide themselves whether or not it would be useful to inspect these innovations personally. This implies that agents greatly benefit from the decentralized character of information flows and the multiplicity of channels that exist during international trade fairs.⁹

We do not suggest, however, that the effects of face-to-face contact are the same irrespective of the character of a trade fair and the products, technologies or fashion trends shown. In fact, we have evidence from ongoing research that substantial differences exist (Schuldt and Bathelt 2008). First, in design-intensive industries the symbolic and emotional value of exhibits might be particularly important requiring face-to-face contact to acquire knowledge, which is largely tacit and contextual, and explore the new products exhibited. Agents get a first impression of and a feeling for new products which are shown. Second, in investment goods fairs, interest in the actual exhibits might be limited as it is difficult to evaluate technical properties through visual inspection alone. Studies have shown that personal meetings are more important to maintain positive business contacts through face-to-face communication with customers and suppliers from other parts of the world (Backhaus 1992b; Rosson and Seringhaus 1995; Sharland and Balogh 1996; Prüser 1997; 2003).

⁹/. Of course, there are also many examples of how critical evaluations in media reports can negatively impact a firm’s commercial success. Furthermore, buzz can have negative effects, especially if consciously used to spread false information about products, markets and other agents. It could harm the reputation of third parties and lead a firm to focus on less prospective developments. However, since participants in trade fairs are in contact with a multitude of different agents, it is unlikely that misleading information spread by one person would have a substantial impact. Normally, individuals are constantly confronted with similar types of information during a trade fair and sort through the whole set of information and news (Bathelt and Schuldt 2005). In contrast, the effects of such negative gossip on firms, which have not attended the trade fair and do not have opportunities to compare, could be much greater.

3.3 Temporary possibilities for dense observation

Firm representatives attending international trade fairs do not just gain access to new information and knowledge through face-to-face communication; important insights also result from observing the exhibits, as well as the exhibitors and visitors. Through practices, such as close inspection of other exhibits, peer observation, “being part of the crowd”, and watching the reaction of other visitors, agents collect ideas and impressions that are used to revise or confirm existing strategies regarding the production program (e.g. Blythe 2002; Meffert 2003; Bathelt and Schuldt 2005; 2008; Schuldt and Bathelt 2008). International trade fairs are events that also attract leading, “unusual” and “exotic” agents from an industry or technology branch, providing plenty of opportunities for learning-by-observation or learning-by-inspection.

When considering structural and substantive characteristics of communication at trade fairs, our research indicates that small start-up firms with little market experience, and firms from less developed regions or countries, often present their products in joint exhibits, while innovative firms present their latest design ideas in large elaborate booths, sometimes set up as stages. Each firm clearly aims to attain market access with its products, discover new markets niches, or get an idea about market developments. Due to the diversity of agents, the products displayed cover a vast range of different materials, designs and technology paths, from lean environmentally friendly solutions to highly exclusive accessories. What is important for the process of acquiring information is to experience this microcosm of an industry’s products and problem solutions (Rosson and Seringhaus 1995; Backhaus and Zydorek 1997; Fuchslocher and Hochheimer 2000). In the area of consumer products, the possibility of directly experiencing, feeling or smelling the products exhibited is of great importance to the participants. Especially in creative industries, particular colour and design variations stimulate associations and help observers to imagine reconfigurations involving their own products and designs (Entwistle and Rocamora 2006). Discussions with peers further provide a stimulating arena for the development of new visions, uncoupled from corporate routines and pressures for homogeneity. In contrast, firms in technology-oriented fairs would likely be more interested in strategic information on system architecture which affects medium-/long-term policies (Bathelt and Schuldt 2005).

While examining the exhibits of competing or complementary firms, agents are also able to evaluate the goals of trade fair participation of other firms (Borghini, Golfetto and Rinallo 2004). This could be in line with the expectations one might have of a competitor or it might deviate from these, indicating that that firm might have begun to operate in a different market context. The latter might be a trigger to scan the firm more closely during and after the trade fair. Similar to gestures and facial expressions in face-to-face communication, the observation and experience of a competitor’s trade fair exhibit can be viewed as a visualization of this firm’s broader philosophy. Many of our interviewees at capital goods and consumer goods fairs pointed out that they also inspect other exhibits for aspects of uniqueness, creativity and design, and take notice of the frequency of visitors and their reactions.

Overall, this suggests that systematic and open-minded observation enables firms to become aware of important trends, and confirm or revise knowledge regarding markets and technologies. This may leave observers with a feeling of security or of “being in-the-know”. In other cases, agents may become aware that they should explore new paths, or that they need to readjust their strategies. In short, ongoing search processes during trade fairs can lead to unexpected knowledge, inspiration and reassurance (Borghini, Golfetto and Rinallo 2006). In any case, the observation and scanning of other firms and their exhibits in a spatially concentrated form clearly becomes a core component of global buzz.

3.4 Intersecting interpretative communities, shared understandings and overlapping visions

Another component of global buzz relates to the communities that meet during international trade fairs, the visions they share or create and, more generally, their institutional basis. Such focused events clearly attract different, yet closely interrelated communities which have in-depth knowledge surrounding many aspects of the products, technologies and value chain portrayed (e.g. Skov 2006; Entwistle and Rocamora 2006). The participants are experienced in producing, using and/or selling products and technologies and, through this, share a common language and expertise. In general, we can expect that both communities of practice (Brown and Duguid 1991; Wenger 1998) and epistemic communities (Knorr Cetina 1999) meet during international fairs, turning them into large conglomerates of similar or shared understandings, repertoires and visions about an industry or technological field.

First, communities of practice derive from day-to-day interaction and regular meetings. Empirical studies have shown that conventional or mutual trust may develop in this interaction as members continue to tell stories about their work to bridge the gap between theoretical and practical knowledge (Brown and Duguid 2000). This trust appears to enter a trade fair and stimulate communication patterns which are more open than in an everyday situation. Shared experience in solving the same sort of problems and/or similar expectations or qualifications support the development of mutual engagement, shared repertoire and negotiation of meaning (Wenger 1998). Communities of practice can develop within a firm but it has been suggested that they may also extend beyond a single organization to include other firms in a value chain (e.g. Gertler 2001). These communities provide a valuable source of knowledge that cuts across the strict boundaries of corporate structures (Lawrence, Payne and De Roure 2006). In our view, this may also encompass trade fairs. Overall, we assume that international trade fairs are important events where such communities meet regularly or periodically.

Second, epistemic communities are generally based on a similar specialization and learning experience acquired, for instance, during their formal training. This supports the development of shared technological views and the use of the same vocabulary. Members of epistemic communities, which can be quite widespread even across sectors, share some swift trust related to the norms and goals acquired through their training (e.g. Knorr Cetina 1999). It is important to note that these communities share a similar institutional basis, enabling them to efficiently exchange and interpret knowledge, generate new ideas, and develop competencies further in a collective manner. From extensive empirical evidence, we know that different partially related epistemic communities get together at leading trade fairs (e.g. Maskell, Bathelt and Malmberg 2004). We anticipate that these establish focused communities which play an important role in problem solving, strategy development and the diffusion of best practice.

By no means, however, do the participants of trade fairs share the same identical background, or are all part of the same community. Our research shows that their backgrounds are, in fact, often fairly heterogeneous, also reflecting differences in specialization and business focus (Bathelt and Schuldt 2008). Some participants who are experienced in production are, for instance, interested in discussing problems of product quality, design or technical failure, while others such as sales specialists mainly interact with customers and are eager to get to know more about demand changes and new trends. In sum, we typically encounter firms that are specialized in different segments of the value chain. Therefore, experts with somewhat different expertise and technological focus gather during international trade fairs, meeting their respective groups of peers with whom they share impressions, perceptions and expectations (Borghini, Golfetto and Rinaldo 2006). In addition, various groups of users and observers, who do not have direct contact with producers or the creatives in their day-to-day routines, attend trade fairs. Depending upon the type of information and knowledge, which

might substantially differ between creative and technology-based industries, global buzz can occur in different forms depending on the industry or firm context (Schuldt and Bathelt 2008). Regardless of its specific form, we argue that this buzz is a key ingredient of the trade fair experience and the attractiveness of these events.

The decisive point of the above argument is that the visitors and exhibitors at international trade fairs are characterized by some degree of common knowledge basis, or cognitive proximity (Nooteboom 2000). Despite their differences, the knowledge basis of many participating agents is likely sufficiently close to that of others, allowing for efficient transfers of information and knowledge. It also serves to stimulate joint interpretations of new information and extract those knowledge components that could be valuable in future applications. In addition, the existence of some degree of heterogeneity is important because it increases the chances that firms might discover something that is novel to them. Due to this unique mix of similar, overlapping and complementary knowledge, important learning processes are stimulated at international trade fairs (Borghini, Golfetto and Rinallo 2006; Bathelt and Zakrzewski 2007).

Overall, active participation in focused communities reduces uncertainties and the degree of complexity when making decisions regarding technological shifts. Many participants of international trade fairs consequently share similar technical traditions, educational backgrounds and views, which have developed over time based on similar day-to-day routines and problem-solving activities.¹⁰ Through this, it can be anticipated that new knowledge and technologies can be easily circulated and understood. Our research suggests that this mechanism enables agents at trade fairs to distinguish more valuable from less valuable knowledge, and to sort through innovations of others that could be worth exploring further. Not only do interaction processes benefit from a shared institutional basis – ongoing meetings, discussions, explorations and interpretations may also serve to reproduce this institutional basis and develop it further.

3.5 Multiplex meetings and relationships

The multitude of relationships and personal contacts that develop and are realized during international trade fairs stimulate tight networks of information and knowledge flows. Our analysis of the structural characteristics of communication shows that business partners, colleagues, peers or community members can meet at different places and in different ways – for example, in scheduled or accidental meetings, in a hallway, café or hotel lobby. We argue that this diversity of possibilities is necessary for the creation and dissemination of global buzz. Moreover, international trade fairs have become complex societal events which include leisure activities such as presentations of *avant garde* foods, arts performances, as well as after-fair evening events with a multicultural flavour (Blythe 2002; Bathelt and Schuldt 2008). This is not always directly related to the technology or industry focus but provides opportunities to get to know people in an informal way and in different roles. While there is usually not much time to attend such events, our empirical work exemplifies that these are often welcome interruptions from daily work routines.¹¹ This can be inspiring and open up conversations, be it with existing or new contacts, or random acquaintances.

¹⁰/. We have to keep in mind that basic technical standards are not homogenized on a global scale. Due to deviating standards, such as those in economic and technical metrics, different knowledge practices exist which involve different technological traditions and skill sets. Trade fairs are an ideal place where aspects of technology transfer and harmonization can be discussed and negotiated between specialized communities. This is also exemplified by a large number of seminars and specialty groups meetings which are organized during these events.

¹¹/. Not all participants, however, might enjoy these work interruptions in the same way. Executives, who participate in many trade fairs every year and attend these events for one or two days only, might find the performative character of these events more disruptive than anything else.

Within these networks of contacts, agents are linked in different ways with each other as business partners, colleagues, peers or community members. As a result, resources can likely be transferred from one type of relationship to another. Multiplex ties and the diverse possibilities for meetings at international trade fairs help agents to gain access to new information, accelerate the transfer of knowledge, and increase the firms' access to relevant knowledge pools (Boissevain 1974; Uzzi 1997). During a fair, information is constantly being transmitted from one agent to another. Our research clearly shows how this process is repeatedly interpreted, evaluated and enriched with additional relevant information and knowledge (Schuldt and Bathelt 2008). The decisive point is that while acquiring new knowledge, participants act simultaneously as both recipients and broadcasters of global buzz (see, also, Goffman 1969). The potential advantages and benefits of applying this knowledge become clearer as the trade fair evolves and interpretations are drawn from the variety of meetings.

When decision-makers and technical specialists, for instance, meet with peers for dinners, they also discuss issues related to each other's private life. While there is no doubt that most of these relationships are primarily geared towards business issues, trade fairs are much more than just arenas for professional talk and serious conversations. Similar to the discussion by Massey (2004), these events involve feelings and emotions, and participants generally expect to be "having a good time". While the development of conventional trust between business partners may take a long time, the existence of swift trust and repeated meetings during international trade fairs establish a favourable basis for the stimulation of new business relations.¹²

Often discussions do not stop at the end of the normal trade fair day but are continued through the evening over dinner and drinks. Sometimes, this involves important customers and helps strengthen existing relationships. At other times, this can be the first step in the establishment of a new partnership. Firms that aim to enter new markets and search for partners to support this move particularly benefit from such meetings, which are often spontaneous and not planned long in advance (Prüser 2003; Maskell, Bathelt and Malmberg 2004). These encounters also help check out the "chemistry" between two parties, establish some initial communication, or are simply reason enough to rule out further communication. In sum, trade fairs enable participants from firms to constantly switch from negotiations to observations, from straight business talks to private conversation after a few beers, and back – and all of this within a single day or two. In this sense, trade fairs provide unique opportunities for truly multiplex encounters on an international scale.

4 Virtual buzz in Internet trade fairs?

As conceptualized above, global buzz refers to the specific information and communication ecology which develops in the temporary settings of international trade fairs and similar professional events. Such meetings have become key events for future product and market developments. They support the diffusion of information and knowledge over large distances between different places, regions and nations around the globe – thus building real-time bridges across physical space (e.g. Walther, Loh and Granka 2005; Rothe 2006; Moriset and Malecki 2008). One question that arises is as to why these events, which rely on physical co-presence, are still so unique, or why they have not been substituted by virtual trade fairs, which became popular in the mid 1990s. Observers might expect, for instance, that conventional forms of face-to-face communication and observation are increasingly substituted by Internet trade fairs. Cyber spaces may then appear as an ultimate

¹²/. One has to keep in mind that the process of establishing business relationships is not related to a singular trade fair (e.g. Godard and O'Connor 2001; Jansson and Power 2007). Firms often participate in half a dozen or more such events per year. Their annual work routines are often structured according to these trade fairs. Processes of community building benefit from this as similar groups of actors come together and communicate repeatedly.

frontier of space–time compression, possibly enabling borderless communication between agents located around the globe (Harvey 1990; Dicken 2003). At the same time, it is obvious that personal contact, even in business relations, cannot always easily be substituted (Torre and Rallet 2005). This was motivation for us to investigate the relation between real-world trade fairs and virtual fairs by collecting information the role of Internet trade fairs and their advantages and disadvantages during our trade fair interviews.¹³

The following discussion draws from these interviews, as well as from a literature review about virtual trade fairs. Numerous papers, particularly found in the business literature, have discussed the effects of virtual trade fairs or similar configurations and their potential to replace physical co-presence in the context of trade fairs (Backhaus and Zydorek 1997; Fuchslocher and Hochheimer 2000; Heintz 2000; Moellenberg and Teichmann 2000). Despite this, there still exists a lack of broad systematic empirical studies. In the next subsections, we intend to contribute to this discussion by analyzing the degree to which the information and knowledge flows resemble those at real-world trade fairs.¹⁴

Before investigating the similarities and dissimilarities of virtual versus global buzz by distinguishing its components in much the same way as in the previous section, we would like to briefly differentiate three types of Internet fairs. They differ in terms of their organizational set-up: (i) A first type of virtual fair takes place parallel to physical trade fairs, organized by the organizations that are also responsible for the respective physical fair. Such virtual events are often permanent or quasi-permanent (for instance, over the period of a whole year) rather than temporary. (ii) A second type of Internet fair is independent from real-world fairs. These events are organized by media corporations such as publishers, web firms or graphics agencies, and are bound to a specific website. These are temporary events based on a pre-defined thematic, technology or industry focus. (iii) A third type of Internet fair is organized by large individual producers to present their products. These events are sometimes referred to as trade shows although they only accommodate one exhibitor. They are exclusive, and are often not much different from ordinary website presentations.

4.1 Co-presence of supply and demand

As emphasized above, co-presence of supply and demand is a key component of global buzz. Co-presence as “a form of human co-location in which individuals become accessible, available, and subject to one another” (Goffman 1969, p. 22) stimulates information and knowledge transfer between individuals. We argue here that web applications related to virtual fairs involve an element of universal presence in that the information provided by firms can be stored and made available to potential users at any point in time. Co-presence in the sense of Goffman (1969) can, however, only be created in parts through platforms, such as related chat rooms, which connect the participants in real time (Zhao 2003; von Hippel 2005; Lawrence, Payne and De Roure

¹³/. Our research on virtual fairs was more explorative than that on physical trade fairs and involved fewer interviews. In comparing interaction at trade fairs with virtual communication through the Internet, we also run into some methodological problems. As opposed to the former, the latter is related to a variety of Internet-based applications of different structure, rules of inclusion and exclusion, and different social practices and motivations for interaction. In short, our analysis only captures certain aspects of communication in virtual worlds while neglecting others. When generalizations are drawn, we would likely also find exceptions which are characterized by other structures and practices.

¹⁴/. We do not suggest that buzz is local when it is based on face-to-face contact and becomes global when it is transferred by means of electronic media. In contrast, our notion of global buzz refers to the global range of agents and information involved. When these agents come together at international trade fairs to exchange their experience and knowledge, global buzz develops in a highly localized setting. In a setting like New York City’s women’s wear industry, which forms a distinct cluster in the Garment District, local and global buzz almost converge. Here, the local communication ecology is constantly enriched by immigration and an inflow of talent from other parts of the world, producing and reproducing a global knowledge basis of practices, perceptions and ideas (Bathelt, Malmberg and Maskell 2004).

2006). These platforms, however, do not allow participants to evaluate individuals based on their body language and performance. As Zhao (2003, p. 8) states, "the face-to-face situation undoubtedly generates the most vivid sense of co-presence". According to our interviews, the participants of Internet fairs are not as exclusively focused on the exhibits, exhibitors and visitors. What distinguishes conventional trade fairs from Internet fairs is that the participants of the latter events are unlikely to share the same degree of dedication, patience and openness to new ideas. Participants on intentional trade fairs commit themselves to spending time for the sole purpose of interacting with their peers on all kinds of matters relevant to the industry. During this time, their attention is not distracted by issues that come up during their regular work routines (although some of this may change with the wide diffusion of Blackberries). Many of our interview partners said that it would be hard to attend a virtual fair during a regular business day because they would be constantly interrupted and drawn back into everyday work routines.

Further, only occasionally are specialized agents from different firms simultaneously online during such virtual events. Time-lags between different world regions provide a barrier for true global co-presence, especially for unplanned or spontaneous online meetings. It also appears that the mixture of agents in virtual fairs is likely not as specific and that relevant peers are more difficult to identify compared to a physical trade fair. This is supported by the fact that relatively few such events survived until today.

4.2 Virtual face-to-face interaction

A potential disadvantage of communication at a virtual trade fair is the lack of real face-to-face interaction, especially when dealing with new or potential future business partners (e.g. Fuchs 2003; Kromer von Baerle 2003). Although modern communication technologies and applications such as Skype and Netmeeting aim to reduce the disadvantages of a lack of bodily interaction, virtual fairs cannot fully replace physical contact (Hildreth, Kimble and Wright 2000; Zhao 2003; Ayaß 2005). According to Rothe (2006, p. 118), "[w]e see and hear the body and voice, but only through media such as screen and loudspeaker, respectively. What is missing is direct eye gaze. ... [C]omputer-mediated communication attempts to compensate for the lack of a bodily dimension, yet providing evidence how indispensable this dimension is in interpersonal communication" (translated from German). Sensible relations and imaginations are bound to direct interpersonal contact and cannot be easily compensated for through technical media. Our research shows how global buzz at trade fairs greatly benefits from direct contact in a spatially-concentrated professional environment within which a multitude of planned and unplanned face-to-face meetings occur. As such, it appears more difficult at Internet fairs to establish new contacts in the same systematic and spontaneous way as during international trade fairs.

Further, as emphasized in our interviews, the transfer of information and knowledge in virtual communication is handled very carefully. This is especially the case if the identity of the counterparts is not known in detail and if the true intentions of other agents are unclear. Potential problems can occur if, for instance, pseudonyms or usernames are common. In such context, it would be difficult to acquire information as cost-efficiently as through global buzz at trade fairs, or to readily develop initial trust (Borghini, Golfetto and Rinallo 2004). Overall, a high degree of uncertainty seems to stimulate interaction patterns that are less complex and leave out areas sensitive to competition. If the identities of potential partners are known, however, it is much easier to acquire additional information. In this case, the effects of social and organized proximity seem to replace the need for physical co-presence over time (e.g. Torre and Rallet 2005; Moriset and Malecki 2008).

4.3 Possibilities for observation

Another important component of global buzz is the possibility of observing, monitoring and experiencing other agents and their new products and technologies. In addition to the presentations on virtual-fair platforms, Internet applications also provide opportunities for scanning other firms. This can be done, for instance, by checking websites and other web-based activities.

Virtual scanning enables firms to make judgements about the production programs and market strategies of their counterparts. Our interviewees indicated, however, that there is a great difference when observing others in virtual space, as opposed to physical inspection (see, also, Fuchs and Hochheimer 2000; Deeter-Schmelz and Kennedy 2002). During international trade fairs, exhibits are put on stage in an artificial, yet associative way (Backhaus and Zydorek 1997; Meffert 1997; Borghini, Golfetto and Rinallo 2006). They can be experienced by others and stimulate immediate positive or negative responses which, in turn, serve as a feedback mechanism. At such events, firms can also observe how interested customers conduct themselves, how they are dressed and what kind of market segment they represent. During Internet trade fairs, in contrast, peculiarities of new designs are primarily accessible in codified form, and can only be imagined through distant observation rather than direct experience. As some managers described, even 3-D images do not solve this problem (see, also, Moellenberg and Teichmann 2000). In the case of virtual fairs the impressions firms receive are thus less direct and do not easily allow an interpretation of new developments or an evaluation of their relevance. This could be due to the fact that observation during such virtual events is a more isolated process that does not allow for an exchange of impressions and perceptions with third parties in the same way as during a real trade fair.

4.4 Establishing virtual communities and shared institutional settings

If it is possible to address the respective group of specialists in an industry and attract them to participate in a professional Internet fair, there is, of course, no reason to assume that an exchange of valuable knowledge and experience would be unlikely or impossible. Different types of networks and communities appear to exchange knowledge in the form of know how, know what and know who through various Internet tools and online channels. Such virtual locations can sometimes even be an attractive alternative to personal meetings if a quick response or feedback is needed or if it is too complicated to organize a face-to-face meeting as one manager pointed out, whose firm organizes its own virtual trade fair of packaging machines. Agents in relatively isolated locations, or in industries with short-term deadlines, might find participation in Internet fairs particularly valuable. In such cases, virtual communities during trade fairs may serve to compress the "distance" between economic and geographical centres and peripheries, especially if cultural and institutional settings are compatible.

Of course, there are certain preconditions that have to be met to guarantee valuable information and knowledge transfers during Internet fairs. These conditions are similar to those in a physical context (e.g. Hildreth 2004). They require, in particular, that the partners which get in contact through the Internet have a joint knowledge basis, or cognitive proximity (Nooteboom 2000), to be able to understand one another. During the process of communication, the agents can then likely relate their experience to one another and take on different roles similar to the interaction in global buzz (e.g. Hanisch and Churchman 2008). Many of our interviewees described the advantages of Internet tools. Some mentioned, however, that Internet fairs do not play an important role for them to realize these advantages. They prefer other virtual communication channels such as video conferencing or special discussion boards instead. Interview results indicate that it is more difficult during virtual fairs to get in contact with potential business partners compared to contexts where people are physically co-present. Firms often find it easier to make choices in the aftermath of a trade fair based on the

examination of other firms during this event (e.g. Prüser 2003). Overall, communication during virtual trade fairs likely complements face-to-face contact rather than replacing it.

4.5 Prospects of multiplex meetings

While co-presence is a key component of global buzz, the limitations to co-presence in virtual fairs have clear implications on the prospects for planned and unplanned meetings with other agents. As opposed to international trade fairs, where the variety of agents and opportunities to communicate are extremely high (Bathelt and Schuldt 2005), it is likely more difficult to establish dense contact networks through virtual communication alone. What is missing during Internet fairs is the opportunity to benefit from readily applicable information flows and to use direct feedback-mechanism. Our empirical work shows, especially in the area of investment goods, that it is even more difficult in virtual communication to filter information, distinguish between valuable and less valuable developments, and make sense of the identities of other agents. Information exchange is also likely less complex and less detailed due to uncertainties related to data security. We assume therefore that once contact is made, problems are often immediately discussed and communication is focused on the particular needs of the parties involved, while a great deal of background information may not be discussed or explored. As a consequence, virtual trade fairs do not provide the same sensible feedbacks as real-world trade fairs (Backhaus and Zydorek 1997; Fuchslocher and Hochheimer 2000; Heintz 2000; Kromer von Baerle 2003). Overall, there are many opportunities for unintended knowledge transfers and opportunistic behaviour.

5 Conclusions: buzz in physical and virtual context

This paper argues that global buzz at leading international trade fairs enables firms to systematically acquire information and gain new knowledge about competitors, suppliers, customers, and their technological and strategic choices – through many different routes and in a nearly simultaneous fashion. Only recently have scholars begun to study this phenomenon more intensively (Borghini, Golfetto and Rinallo 2004; 2006; Maskell, Bathelt and Malmberg 2004; 2006; Bathelt and Schuldt 2005; 2008; Rinallo and Golfetto 2006; Entwistle and Rocamora 2006; Skov 2006; Bathelt and Zakrzewski 2007; Schuldt and Bathelt 2008). On different occasions, and through different routes, global information concerning firms, their requirements, trends and ideas, as well as all sorts of news and gossip, flow back and forth between the participants who are temporarily clustered at these trade fairs. The argument developed in this paper is that a specific communication and information ecology, referred to as global buzz, exists which enables unique processes of knowledge dissemination and creation through interactive learning and learning by observation. We describe global buzz as a phenomenon that is found at international trade fairs and congresses; it is a complex multi-dimensional concept characterized by a specific architecture of different components. On the one hand, the constitutive components of this buzz are related to the dedicated co-presence of global supply and demand, intensive temporary face-to-face interaction, various possibilities for observation, intersecting interpretative communities with overlapping visions, as well as multiplex meetings and relationships. On the other hand, global buzz is highly contextual and results in different communication practices.

Using this conceptualization, we asked the question whether global buzz can be substituted by other types of virtual buzz, especially related to Internet trade fairs. Our enquiry indeed indicates that a similar form of virtual buzz exists in digital business worlds. This virtual buzz is, however, also very different from global buzz due to its structural characteristics. This is related to the fact that these Internet-based events are associated with different motivations compared to real-world fairs. Participation in Internet fairs is almost exclusively marketing-related and focussed on acquiring new customers. Such events are less important in maintaining or

building business networks or learning about new technologies. We should, however, not expect that there is competition between both forms of trade fairs. In fact, our interviews indicate that virtual and physical fairs complement one another, even though many Internet trade fairs that were started in the 1990s were not very successful and were thus discontinued. Depending on the communication needs and the products exhibited, of course, the potential of digital media to accommodate trade fairs might differ. In general, we can assume that co-presence in physical space is richer than interaction in Internet trade fairs, because the latter cannot transfer feelings and mediate associations in the same way as temporary clusters at real-world trade fairs. It is also more difficult to transmit meanings and symbols and explore informal levels of knowledge. Although virtual fairs can be very inspiring for creative processes related to production and research, there are clear restrictions and uncertainties. In particular, virtual buzz in Internet trade fairs is likely dominated by a strong goal orientation and therefore relatively structured, while global buzz might contain more elements of experimentation, creative differentiation and unexpected encounters.

In conclusion, we argue that face-to-face interaction is an extremely efficient form of communicating buzz (see, also, Zhao 2003), although it is by no means a necessary component of global information and knowledge exchange. Due to the enormous professional possibilities related to the unique combination of intensive and systematic interaction with unplanned and less dense face-to-face communication, international trade fairs will likely remain important – or become even more significant – focal intersections, or mandatory passage points, of globally operating firms that connect agents, resource locations and markets in the global political economy. It is unlikely that these events will be replaced by virtual meetings in the near future as global buzz needs real places to unfold. Having said this, we are, of course, aware that virtual buzz also supports incremental technology development and problem solving at a global level through professional Internet platforms and intrafirm or corporate software. Virtual spaces develop parallel to our material reality, shaping and reshaping it continuously. If these digital worlds combine virtual with face-to-face meetings as they develop over time, this will create new opportunities for knowledge circulation and penetration of global markets, beyond the rigid structures of corporate production networks. Research has shown that the organization of user-communities in the Internet can play a decisive role for the innovation process of different products (e.g. von Hippel 2001; Jeppesen and Molin 2003). Virtual spaces create opportunities to overcome limitations of spatial proximity in economic interaction and provide agents, which are lacking potential partners in their vicinity, with important networks for information and knowledge exchange. They could thus serve to renegotiate established core-periphery relations in substantial ways. This could open a range of new opportunities for small and medium sized firms. This might become visible in a number of ways as firms use trade fair participation and Internet communities more strategically to establish larger cross-regional and cross-national distribution, production and research networks.

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