3 Guidelines to Foster Interaction in Online Communities

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3.1 Introduction

This chapter focuses on the communities that arise within the confines of a Learning Network. As they are not preconfigured, members and all, but are thought to emerge spontaneously, out of their own volition as it were, the question arises how their continued existence may be safe-guarded. What measures and tools, or Learning Network Services, may foster the well-being of communities once they have emerged? How can one make sure that a community, which its members consider valuable, does not disappear because the costs of maintaining it become prohibitive?

As Learning Networks predominantly support non-formal learning in which mainly professional and lifelong learners will participate, the Learning Network Services should take into account their specific characteristics (Koper and Tattersall 2004), in particular in should ensure that learners:

1. are self-directed and take responsibility for their own learning process

2. can participate, at the same time, in formal and non-formal learning activities

3. are heterogeneous with respect to competences acquired and sought.

These characteristics imply that online communities for Learning Networks need to be equipped with Learning Network Services to facilitate professional and lifelong learners to create and manage themselves. As no institution controls the learning process, they are themselves responsible for their own learning process, and in that respect for organising and directing the network. The services provided by the Learning Network should therefore facilitate and encourage participants to manage the communities they participate in from a bottom-up perspective.

Furthermore, contrary to traditional class-based learning in which all participants more or less have the same level of knowledge, in online communities for Learning Networks the background, competence level and experience of the participants will vary from person to person. They might have different learning goals, working experience, and knowledge about the topic of study but, nevertheless, will have to interact in an online context to meet their individual goals.

To elaborate this further, we will refer back to the case of Eddy LeDuca, introduced in Chapter 2. Apart from being a motorcycle enthusiast, Eddy works as a policy analyst at TsA, *Tomorrow-s-Aqua*, an environmental consultancy firm specialising in water management. Eddy wants to develop his competences in Environmental Sciences, so he can improve his job position with TsA. To improve his competences he has been enrolled for some time in a Master in Environmental Science at the Open Universiteit Nederland, which he is about to finish. He is, therefore, a learner in the particular context of that Master. However, on the topic of water management, Eddy has a lot of knowledge, after all this is his work with TsA. So Eddy's role ranges from being a learner in the context of his Master studies to being an expert in water management in the context of his role as policy-analyst for TsA. Eddy thus participates in at least two different communities, which are part of the same Learning Network on environmental issues. And, needless to say, the opportunities socially to interact with other community members are what make it worthwhile to Eddy to spend time in them. Through social interaction, collaboration, for instance in the form of collaborative learning activities, may come about.

However, in online learning communities social interaction does not happen automatically (Kreijns 2004). For instance, in computer-supported collaborative learning environments the main pitfalls are to take social interaction for granted ('because the technology is available learning and social interaction will occur') or the psychological dimension of the act of interacting (because people interact, they will develop trust, a sense of belonging, etc.) (Kreijns et al. 2003). Second, participants who interact online do not have the same kinds of opportunities to learn to know each other as they do in face-to-face situations (e.g., incidental chats, meetings in the corridor, etc.). Consequently, much of the non-verbal signals are missing, impoverishing the communication.

These pitfalls apply generally to online communication. In computer-supported collaborative learning environments they are remedied to some extent by the presence of an institution which controls the learning process. Learning Networks, in contrast, harbour bottom-up, self-organised online learning communities only that

largely rely on the active participation of their members and their willingness to share knowledge. This implies that a third pitfall has to be added, which is mistakenly to assume that communities will flourish merely because participants are registered to the network; that they will be sustainable and prosper in the long term because a central authority (e.g., tutor, teacher, institution, university, etc.) will guarantee so. Such an authority is only available in the very limited sense of maintaining the infrastructure (and perhaps providing a few other services). Fourth, and also contrary to computer-supported collaborative learning environments, Learning Network participants, initially, are not acquainted with each other and do not have a common history. Therefore they do not know who is who in the network, what their specific expertise is and, as a consequence, to whom to turn to for help.

In summary, these four pitfalls make it difficult to build an infrastructure that obeys the necessary conditions for participants to develop their competences. Hence, affordances have to be provided that promote social interaction (Berlanga et al. 2007b) as well as facilitate interpersonal trust formation and an atmosphere of interpersonal trust (Rusman et al. 2007; Rusman et al. submitted). In the rest of this chapter, we will explain how to create the social conditions under which people in online learning communities, which are embedded in a larger Learning Network, will sustain their interactions. We will discuss a set of practical guidelines that foster interaction. We start off by describing an example of an informal learning situation: people from different disciplines and backgrounds with a need of developing their competences in the area of environmental sustainability. Just as does Eddy LeDuca.

3.2 The European Environmental Sustainability Community

The *European Environmental Sustainability* community (hereafter EES) seeks to foster a multicultural and multidisciplinary dialogue on sustainable development. This community is organised by a network of European institutions and citizens that share expertise in this area (Cörvers et al. 2007).

Every participant has a different purpose for participation in the EES community. Eddy, for instance, needs to develop his competences in current and new European laws regarding environmental sustainability, so he can get the job position he wants: senior consultant of environmental policies in TsA. Other participants will need to develop their competences on this topic too, but will all have their own reasons. Participants, furthermore, are from different European countries and have diverse backgrounds, such as biologists, chemists, policy-makers, academics; and they work in different companies, institutions, or universities.

This implies that EES participants need to collaborate with each other, find ways to learn together, and help each other. In doing so, they are confronted with different views on sustainability, and different types of expertise from the various disciplinary backgrounds of the participants.

3.3 Guidelines to Foster Sustainability of Online Communities

Sustainability in the context of online communities means tooling online communities in such a way that users may manage, organise, regulate and classify resources, participants and communities. Based on previous work, which analysed best practices in popular and frequently used social web applications (Berlanga et al. 2007b) and explored affordances for knowledge co-construction (Bitter-Rijpkema et al. 2005; Bitter-Rijpkema et al. 2002), we argue that sustainable online communities should offer services along four dimensions: self-management, self-organisation, self-categorisation, and self-regulation. Each dimension determines a guideline for providing the relevant functionality. Table 3.1 summarises them.

Table 3.1. Guidelines to foster sustainable online communities

Dimension	Guideline
Self-management	Facilitate participants with the creation and management of their own presence as well as their contributions within the community.
Self-organisation	Facilitate participants' interaction with others and support knowledge co-construction between them.
Self-categorisation	Help participants to classify and evaluate their own contributions but also those from others.
Self-regulation	Allow participants to control the level of privacy of (their) contributions, as well as to decide whether these are offensive or not.

1. **Facilitate participants with the creation and management of their own presence as well as their contributions within the community**

Social presence theory (Short et al. 1976) argues that the social impact of a communication medium depends on the social presence it allows communicators to have. Computer-mediated environments, such as online learning communities in Learning Networks, do not allow face-to-face communication, non verbal clues are missing and, as a consequence, social presence is weak (Rogers and Lea 2005). To remedy this, participants should be stimulated and enabled to project themselves socially and affectively, to manage their own presence (Rourke et al. 1999). Allowing setting up a profile for themselves and the contacts they gather will help them do so. Allowing them to assemble communities around a topic of their interest and to create learning activities will do so too.

To facilitate participants with the *creation of their profile*, a template should be available. Although developed in a context of formal education, a good example is the pEXPi profile template (abbreviation for ***p****ersonal **ex**pertise **i**nventory* or ***p****ersonal identity and **ex**pertise **p****rofile*) (Ogg et al. 2004; Rusman et al. submitted; Rutjens et al. 2003). It is an easy-to-use template that participants of an online community can use to introduce their expertise. The pEXPi template provides a format that allows members to give context information, communication style

preferences and learning ambitions. It serves as a means to start further interaction and enhance the chance of fruitful collaboration. It also provides a personal touch to the (re)presentation of oneself in the online community by offering information such as the participant's picture, name, interests, etc., enhancing a participant's recognisability to others in the community and indeed the Learning Network as a whole. Fig 3.1 shows, by way of example, how our Eddy LeDuca might present himself to the rest of EES participants using the pEXPi template.

It is important to point out that, in our view, *profiles* are not merely a collection of personal data but mainly a means to foster interaction (Berlanga et al. 2008a), encourage participation (Brouns et al. 2007), support initial trust formation between participants (Rusman 2004; Rusman et al. 2007; Rusman et al. submitted), and promote participants' visibility and awareness of others within the online community (Girgensohn and Lee 2002). The information that the profile should in the first instance contain depends on the goals the community members have. After all, communities in a Learning Network serve no higher order, collective goals; they are merely there to serve the interests of the individuals that make up the community. So, although the inclusion of information such as first name, surname, screen name, and email should be mandatory to guarantee interactions at the network level, participants should be allowed to decide themselves what optional information to display in their profile, as well as to determine the level of privacy attached to it (accessible to the Learning Network as a whole, to specific communities only, to specific people – 'friends' – only, etc). Optional information could comprise reasons for participating in the online community, preferences, interest, competences to be developed, favourite resources or contacts (Berlanga et al. 2008b).

To support the *creation of contacts* in online learning communities, the services should allow that contacts can include, for instance, peers, teachers, tutors, institutions or even true friends (boyd 2006). It is desirable, furthermore, to have graphical representations of connection between contacts, this supports awareness, social interaction and the exchange of reputational information (see also guideline 6). Having contacts stored using a common format, such as *Friend Of A Friend* (http://www.foaf-project.org/), not only makes it easier to create an overview of the members of the Learning Network (Vogten et al. 2008), but also facilitates the exchange and the use of common information about participants' contacts.

Supporting the *creation of online learning communities* in Learning Networks could be done at the level of creating online (sub)communities for formal or no-formal learning. For instance, imagine that Eddy LeDuca would like to create a new non-formal learning community, called '*EES courthouse*' so EES participants can exchange knowledge and experience about current and new European laws regarding environmental sustainability. It is important that participants can create this kind of (sub)communities, to foster interaction and knowledge sharing.

The last recommendation to be included in this guideline is to support the *creation of learning activities* incorporating, for instance, resources, courses, lessons, assessments, learning materials, and so on. Participants should be able to create

their own learning activities, modify existing ones, and distribute them for sharing with others. The functionality to share and distribute learning activities should support inputs from different sources such as, for instance, blogs, photos, maps, and devices as mobile phones, digital cameras, PDAs and the like. This includes on-the-spot contributions to the community, such as described by (De Jong et al. 2007), combining blog and mobile functionalities.

Sharing and distributing is but one step away from the next guideline, which marries sharing with actual interaction.

2. Facilitate participants' interaction with others and support knowledge co-construction between them

To facilitate interaction and reactions to contributions by others, participants should be able to comment on each other's resources and profiles, recommend a learning activities or a contact to someone else, or share a set of favourite learning activities. Eddy, for instance, has a collection of favourite links to electronic resources, articles he has written, figures, etc. which he considers relevant to environmental sustainability. He should be able easily to include them (or refer to them) in the online learning community, to share them with the other participants and recommend them to his colleagues. Moreover, Eddy needs mechanisms to find people, resources and communities and visualise and browse the relationship between them.

The next step up from informing is knowledge co-creation. To support this, participants should be able to develop a common ground first. This is not easy; to rethink one's own position and look for new arguments in the debate requires processing new ideas and adaptations of one's own ideas. Community members with interesting different perspectives on the topic under investigation can trigger fruitful discussions. However, divergent ideas sometimes lead to irritation and conflicts. Affordances and interventions are needed, therefore, to reduce miscommunication, trigger effective knowledge communication and facilitate shared understanding.

This kind of support can be provided using tools for discussion and knowledge representation such as *Knowledge Forum (Scardamalia and Bereiter 2006)*, *Belvédère* (Suthers 2001) or *TC3* (Text Composer, Computer supported & Collaborative tool) (Kanselaar et al. 2003). Another example of such a tool is the *Ideasticker* (see Figure 3.2). Developed at the Open Universiteit Nederland, the Ideasticker is a mediating tool that provides anchors for exchanging ideas, and ultimately, knowledge co-construction. It is a post-it like tool that can be activated any time by the learners in a community or can be programmed to automatically pop-up in a separate window. There are several other such tools available, for an overview see (Van Bruggen 2003). To explain what these tools are capable of, we delve a little deeper into Ideasticker.

pEXPi

Personal expertise page

Personal:

First name:	Eddy
Family name:	LeDuca
Gender:	Male
Birthday:	01/01/1970
Institution:	Open University of The Netherlands
City and country:	The Hague, The Netherlands
Contact information:	eddy.leduca@ gmail.com

Insert a picture

About me *Tell what you want to tell about yourself.*

I started my studies in Environmental and Natural Science at the OUNL almost two years ago. Now, I am starting with the Master. I considered myself as a highly motivated person, who always looks at the positive side of problems. Problems are opportunities to learn!

Interests and hobbies *Tell what you want to tell about your non-work related areas of interest and hobbies.*

- Motor cycle restoration and motorcycle touring
- Tutoring **web**-based photography courses about picturing nature life.

Expectations of EES Community *Insert what you expect of EES.*

I am looking forward to EES as a new experience. I am looking forward to meet new people from different cultures working in the same domain and acquiring new insights on environmental policy issues.

Expertise areas *Tell in what fields you have expertise and how your peer EES members can contact you on these subjects.*

I can provide help based on my expertise in business administration and policy analysis. I also have knowledge in sustainable agriculture, eco-design (the basics) and energy crops.

Fields of interest *EES issues you are interested in. Fields where you have no or not so much expertise, but in which you are interested and want to learn more.*
I would like to learn about European policies for sustainable development.

Learn and work experiences *Shortly describe your relevant prior learn and work experiences.*

Currently, I am working as a policy analyst at TsA (Tomorrow-s-Aqua), which is an environmental consultancy firm, specialized in water management. I've a master degree in management science in the University of Rotterdam, and I am currently enrolled in the Master in Environmental Science of the Open University of The Netherlands. I also took some courses about biochemistry, although I never got an official diploma in this area.

Suggestions *Present ideas and links to websites that are of interest to group members.*
http://www.sustainability.com and http://www.worldbank.org

Fig. 3.1. pEXPi profile template, a worked-out example.

Ideasticker provides a simple format to articulate the ideas (proposal field) and its underlying motivation (motivation field). The participant also specifies her position regarding the effects of her idea or proposal (position field), and can indicate what type of reaction she is looking for (expectation field asking, for example, elaboration of the idea, approval or rejection). The structuring options are available for posting new ideas as well as for replying to existing ones. In this way it becomes immediately clear on which aspect of the idea the other participant holds different views, to which aspect she agrees or for which aspect she wants additional information.

Fig. 3.2. Ideasticker screen

Furthermore, a social chat option with 'emoticons' is included in the Ideasticker form. Emoticons are used to communicate emotional content in written or message form (http://en.wikipedia.org/wiki/Emoticon); they might help to express nonverbal cues beyond what is found in the verbal text of a message, and may enhance the exchange of emotional information (Derks et al. 2007), which facilitates participants to express their feelings and fosters interpersonal trust formation (see also guideline number 5 below).

Ideasticker is a tool that can be used across different learning activities. For example, to exchange ideas between participants about climate change risks and the pertinent European regulations; or to facilitate teams to work collaboratively solving ill-structured problems, such as the development of a research plan or the definition of recommendations to tackle an environmental issue. Imagine that Eddy and five more participants decide to analyse a case about the impact of global warming in the Arctic. The team wants to investigate the problem, develop a collective solution, and report their findings including policy recommendations at European level, and their impact for stakeholders. Using Ideasticker this team can discuss ideas, solutions and policies in a structured way and avoid misunderstanding while collaborating.

Distributing materials to others and collaborating with others in knowledge co-construction activities, raises the issue of how to keep track of contributions, whether they are made by you or by others, either alone or in a collaborative effort. This issue, as well as the matter of the privacy arrangements to go with it, is addressed in the two guidelines to follow.

3. Help participants to classify and evaluate their own contributions but also those from others

Sustainable online communities need tagging functionalities, so participants can classify, explore, and organise not only their own contributions - such as learning activities, contacts and communities - but also those from other participants. To make tagging even more powerful, rating functionalities, should be included, allowing participants to rate their own learning activities, contacts and communities, but also those from others. Tagging and rating functionalities are part of the *self-categorisation dimension*.

To give an example, by tagging the informal online community 'EES courthouse' with tags like 'EU-law', 'sustainability', 'environmental', and so on, EES participants would be able to find the community more easily. Likewise, EES participants could find Eddy using tags such as 'policy-analysis' or 'energy-crops', so he could be identified and found as knowledgeable in these topics. Others could rate Eddy's contributions, once identified, as useful or helpful, but also as mistaken or confusing; or a numeric system could be used (1 to 5 points), which may be less likely to cause offense. Whichever, system is chosen, as much as labelling helps find resources, ranking them helps choosing between what has been found.

4. Allow participants to control the level of privacy of (their) contributions, as well as to decide whether these are offensive or not

The *self-regulation dimension* addresses participants' control of existing resources and communities. It covers functionalities to control the level of privacy of learning activities and communities; but also functionalities that allow participants to flag that a particular contribution is seen as offensive. For instance, when Eddy creates learning activities, he should be able to define who else can modify them; if they are available to anyone; perhaps even if others can rate them. Moreover, in

some instances it may be necessary to allow originators of online communities to define who can join the community, modify its characteristics, or add learning activities.

Regarding offensive behaviour, participants should have the possibility to condemn unacceptable learning activities or communities. Imagine that a participant of the 'EES courthouse' community includes a resource that applauds xenophobic views. This may constitute an offensive - the participant has put it there to circulate his own xenophobic opinions – or not – the participant uses it to exemplify a particular line of argument he does not necessarily endorse himself. Distinguishing between the two can be tricky. This is why a community preferably should deal with this kind of issues itself. However, as a last resort, it should always be possible to call the network administrators to the rescue and, for instance, have the offender banned from the Learning Network.

We have explained guidelines that foster sustainable online communities and related them to functionalities that should be present in online learning communities. In the next section, we will focus on how interpersonal trust formation processes amongst participants could be supported. This leads to the formulation of another four guidelines.

3.4 Guidelines to Support Interpersonal Trust Formation in Online Communities

Infrequent interactions, undesirable behaviour such as free-riding and sucker effects, personal and task-related conflicts and low-quality knowledge building (Häkkinen 2004), may all cause the absence of interpersonal trust in online collaboration (Furumo and Pearson 2006; Walther 2005). Here, interpersonal trust is defined as the positive expectation a participant has about the intentions and behaviour of another participant in the community (Mayer et al. 1995; Rousseau et al. 1998). Interpersonal trust is desirable as it improves willingness to interact, to share knowledge, and to participate in processes for knowledge co-construction, all covered in the previous section.

In face-to-face encounters, people form an impression of others based on the different types of signs and signals they acquire through their senses (e.g., a sound, a smell, a touch, a gaze) (Kandola 2006; Riegelsberger et al. 2004), either by firsthand experience or through other people (Hung et al. 2004). With the help of these signs and signals, they assess to what extent a person is reliable (Hardin 2002). This 'first' impression is not only grounded in these signs and signals gathered, but also coloured by one's existing cognitive schemata (e.g. stereotypes) and one's general trust propensity towards people (Bacharach and Gambetta 1997; Hung et al. 2004). For example, certain countenances are perceived to be more honest than others. This interpretation of information is part of everyone's implicit personality theory (Arnold et al. 1998).

In most online contexts, however, people have fewer and different types of signs and signals available. They lack information to form a first impression and to estimate the trustworthiness of other participants, on which they can start building their trust. This does not imply that it is impossible to form any level (either positive or negative) of interpersonal trust, it only means that it will be harder and take longer (Walther 1995, 2005).

Table 3.2 summarizes the guidelines to support interpersonal trust formation. In the remainder of this section, we discuss them in turn.

Table 3.2. Guidelines to support interpersonal trust formation in online communities

Route through which information is acquired in face-to-face situations	Guideline
First encounter	Promote the exchange of off-task personal information.
Indirect experience of others with a person ('word of mouth')	Show and exchange information about participants' reputation.
Direct personal experience with a person during collaboration	Show information about participants' presence, activities, and availability to the rest of the community.
Contextual information	Show information about community's characteristics.

5. Promote the exchange of off-task personal information

In such mediated settings as an online community, some signs (e.g. body stature, odours) as well as opportunities to collect these signs (e.g. a coffee break between meetings) are missing. Without this information, people might use their existing schemes as a principal means to form impressions and might sooner form stereotypical judgments (Hung et al. 2004).

Consequently, communities should promote other means to form a first impression and discover familiar, shared aspects, between each other. Kivimäki et al. (1998) found that if community members' conversations passed the point of short and discontinuous phrasing, they all followed the pattern of asking personal information, such as about gender, age, city of residence, daily professional and private activities. People, in fact, have a need to collect this type of information. Indeed, Jarvenpaa and Leidner (1998) found that the exchange of personal information between people in an online group positively influenced formation of trust.

Exchange of personal information can be facilitated in different ways. One method is to provide a template for a personal profile and invite people to write about themselves. Although we are still investigating what personal information is especially important to form a first impression, a first pilot with the above mentioned pEXPi template gave promising results (Rusman et al. submitted). Another method is to facilitate informal talks between community members, by creating a separate space ('coffee room') in which social communication is supported with,

for example, chat and email (Kandola 2006; Zheng et al. 2001). Members of the EES, for example, have a forum named *Coffee Room*, in which they can interact informally. Regularly, one of the participants posts a comment regarding some out-of-context topic (e.g., music, cartoon, movie, etc.), and asks other participants to react and share their thoughts about it.

Yet another approach is to design off-task activities, called 'icebreakers' (Salmon 2003), in which participants introduce themselves to the rest of the community in an informal way (see also (Cheak et al. 2006)). Several formats to do this are available, e.g. by asking participants to introduce their peer participants to the rest of the community, explaining their interests, posting a picture they would like to share, etc. This way, the presenter has to get in touch with the person she has to present to the rest of the community and discuss how this will be done (Berlanga et al. 2007a). For instance, imagine that Eddy LeDuca has to be presented to the rest of the community by other member, they might have to get in touch via e-mail or chat so Eddy can mention he would like to be presented as a motorcycle fan who has just bought a old Moto Guzzi V7, and maybe he would also like to share with the rest of the community a picture of his new motorcycle.

6. Show and exchange information on the reputation of participants

In face-to-face situations in which people do not know each other in advance, but have the opportunity to ask others about the characteristics and experience with the unfamiliar person in a context, they will certainly use this extra opportunity to gather information. The relation of the information gatherer with the information provider determines the weight and importance of the information gathered. Such *reputational information* is especially well spread and readily available within strongly knit communities: communities in which the closeness and interaction frequency is an indication of strong ties between members (Levin et al. 2004). In order to spread information, connections should exist between participants in a community and people should have the opportunity to build a reputation. This is not always the case. Reputations built within one context are not necessarily visible in other, context-similar communities. Communities then should provide ways to make connections between people visible, indicate the strength of their relations and provide space for recommendations of others, who becomes part of their 'online identity'. In order to make this work, an 'online identity' should be verifiable, stable and transferable from one community context to another (Kollock 1998; Riegelsberger et al. 2004). It is important to bear in mind, nonetheless, that privacy issues will arise when participants' online identity and reputation are transferred from one community to another.

Apart from the availability of reputational information, the fact that a participant is part of an existing social order will provide an incentive for more trustworthy behaviour (Riegelsberger et al. 2004). It will help people to behave 'nicer', i.e. be more inclined to collaborate. This not only works between two people, but also in a Learning Network. Between two people, the chance that a person misbehaves is reduced if there is a fair chance that they will meet in the future (and depend on

each other again), due to a higher chance on reciprocity of favours (or mischief). In a Learning Network, this works more or less the same, but the behaviour will then depend on the chance that the 'bad' or 'good' reputation will travel within the network. For instance, take for instance the Master in Environmental Science that Eddy is taking. Participants of this Master know they will, for sure, interact until the Master finishes. Afterwards, they are less likely to meet. Conversely, interactions in informal online communities, such as the EES, are not limited to a particular period; participants can never be sure that no interaction will occur in the future, so they might behave 'nicer'.

7. Show information about presence, activities, and availability of participants to the community

In face-to-face situations, the level of interpersonal trust formed at the initial stages of a relationship between people will evolve through time, based on the direct positive or negative experiences a person has with others while collaborating. It can range from more cognitively-based trust to more affectively-based trust (Kanawattanachai and Yoo 2005). Also the stability of the image formed will improve: whereas people are prone to change this image after their initial encounters, after a while it will become a relatively stable construct, not easily changeable. This 'final' image will mainly be based on the behaviour of the other, e.g. reactions during possible task or personal conflicts, timely and high-quality contributions to a project, communicative behaviour during personal, difficult times.

Based on this information a participant 'grows' a personal history with the other and fills existing gaps in their initial image and impression. This will also happen in online collaborative situations, although due to different communication channels and lacking contextual clues, this information may be more sensitive to misinterpretation. People often do not 'automatically' know or realise when the other experiences a 'busy' period, is available at a specific moment to do work on the project, or is working in a different time zone, and can easily misinterpret 'silence' (Kandola 2006; Walther 1995, 2005).

In addition, sometimes, it can be hard to keep an overview of all communication and to attribute achievements to the right persons: who contributed to what and what appointments were made with whom and were they really met? To help prevent this kind of misconceptions, information on the online presence of participants, their general availability for an activity over time and their contributions should be made visible. Online presence information will also help to increase the likelihood of informal talks (e.g. by means of chat), which also has a positive effect on interpersonal trust formation (see also guideline number 5).

8. Show information about the characteristics of the community

In face-to-face situations, people also derive information used for image formation of an individual from the characteristics of the group he or she belongs to. If, for example, a participant of the EES is an employee of the European Commission, people might attribute such properties as 'able', 'honest', or 'well informed',

based on their conceptualisation of the organisation at large. In order to do this, participants should have or be enabled to form an image of the groups characteristics (Riegelsberger et al. 2004). Therefore, information on the purpose and the overall community activity should be made visible upon entering a community, so people can judge right from the start what group membership of this group would imply: is it a community they could feel at home with because they have things in common with its inhabitants and the group is a lively one? Also, contributions that are highly valued within the community should be made visible, so that first-time visitors can judge the overall community quality and compare it with their own standards and expectations.

Lastly, general rules and policies of the community should be made visible so that in case of misbehaviour people know what to expect (Kollock 1998; Riegelsberger et al. 2004). A distinction should be made between rules and policies that pertain to the Learning Network as a whole and its individual communities. At the Learning Network level, rules apply as to refrain from xenophobic postings, discussed above. At the community level, rules and policies are particular to the community in question. The former rules need to be explicit; the latter will often stay implicit. In the latter case, it pays to make them explicit so that participants know what reprisals to face in case of malfunction. Offending rules at the network level may result in dismissal, offending rules at the community level typically has less severe consequences. Whatever the case, this type of consequences of mischievous behaviour will be an extra incentive for trustworthy behaviour within the group, but will also become part of the general trust model of a participant. It works as an extra guarantee.

3.5 Conclusion

In this chapter we have argued that interaction in online learning communities will not emerge automatically, so special affordances should be provided. We singled out community sustainability and interpersonal trust formation as important aspects to be considered in the set up of services for online learning communities.

We introduced guidelines to foster sustainable online communities. These claim that the Learning Network should offer participants functionalities in order to be able to (1) manage their own presence and contributions in communities, (2) to organise the community contributions and support knowledge co-construction, (3) to classify and evaluate participants' contributions, and (4) to regulate and control contributions. Furthermore, we also explained that in order to foster interpersonal trust formation in online communities, provisions have to be taken to counterbalance the lack of signals and signs normally perceived in face-to-face situations. To this end, a Learning Network should contain services that allow participants in online learning communities (5) to promote the exchange of off-task personal information, (6) to show and exchange information about participants' repu-

tation, (7) to show information about participants' presence, activities and availability to the rest of the community, and (8) to show information about community's characteristics.

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