















Figure 6: Community fusion

less converging (they merely *share a common interest*). It follows that, unlike in the previous use case, those people can usually not negotiate with each other individually; a moderator is responsible of making decisions, contacting the members, etc.

For instance, Hector is the moderator of a community of people interested in chocolate recipes, each of them contributing to their own instance of WIKITAAABLE (see Figure 6 where Hector is represented by the red face). Hector is in charge of integrating all the users' suggestions in a stable instance of WIKITAAABLE. While Hector is ultimately making the decisions alone, his situation is very different from Charles' in section 4.1, with respect to the amount of data to merge, and with respect to Hector's need to negotiate with the members of the community (or help them negotiate with each other).

As a moderator, Hector will typically use a dashboard to have a synthetic view of the community activity and manage the numerous changes pushed by the users. He has to decide which knowledge to validate, according to the information that he has on this knowledge. If he is not able to decide by himself, he has to identify which users to contact in order to find a solution to solve the conflict. A dedicated assistant can greatly help him in those tasks.

This third use case is concerned by the research issues developed in the previous section. There are also specific research issues.

- Which information to present to the moderator on a community management dashboard? The moderator needs warnings when there are conflicts with new knowledge imported in the wiki. In that case, the moderator should be able to access an analytical view with several kinds of information. For example, he should know who has imported which resource, how many people agree on it, etc. The dashboard should also reflect the way the community works. For example, the moderator could detect the most active users, the users that are "expert" on a subject.
- How to determine the level of trust in a member of the community? There are several possibilities. People can declare their level of expertise in their profile.

Other people can vote or rate other members. This rating can be explicit, or based on use traces (*e.g.* based on the fact that many people import from that user's wiki).

- In case of a conflict, which knowledge to validate? How to determine the level of trust in a piece of knowledge? For example, we can state that the majority is right. Another possibility is to trust the people deemed "expert" in their sub-domain. But what if the majority and the expert disagree? When the information is insufficient for the moderator to take a decision, it is necessary to assist him in putting the appropriate users in contact.

## 5. CONCLUSION

In this position paper, we have highlighted the importance of assisting users, in their collaboration to build knowledge using a distributed semantic wiki. We have illustrated the needs for assistance in three use cases, ranging from interpersonal interaction to communities of practice. We have identified the challenges raised by each of these use cases, what kind of assistant can help the user to overcome those challenges, and the sources of knowledge that such assistants will need to tap. In particular, we have shown the value of interaction traces for that purpose. This outlines a research agenda that will be followed in the course of the Kolflow project.

While those use cases are applied to WIKITAAABLE, they straightforwardly apply to any task involving a distributed wiki. We also trust that they can apply to other aspects of the social semantic web, as soon as they emphasize collaboration and consensus building between users.

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