Interactive comment on "Case-based formalization and reasoning method for knowledge in digital terrain analysis – Illustrated by determining the catchment area threshold for extracting drainage networks" *by* C.-Z. Qin et al.

M. Chen

Chenmin0902@cuhk.edu.hk

Received and published: 20 March 2016

The paper proposed a formalization and reasoning method for knowledge sharing during model reusing process. Although a little bit simply, the idea is very interesting, and may be extended to similar research on geographic modeling and model integration. Here, some comments for your considering. 1. In your paper, as determining the CA is a simple function related to DTA and DTA is also just a part of modeling method, how to deal with the complexity problem when conducting comprehensive research and analysis, i.e., how to formalized the complex knowledge about some complex problems, the

semantic problem, the structure to represent the knowledge, ect. Do you have some preliminary ideas? I think this is the key step to promote your idea into application in a broader field. 2. In page 2, you mentioned that "However, current DTA-assisted tools. . .provide very limited support during the DTA application modeling process". The conclusion is somewhat arbitrary, you may need to provide more arguments here. 3. page 3, line 6, "largely inaccurate" ïij§ 4. page 4, line 19, "is not necessary to participate", why? please explain it clearly. 5. Page 7, part 4.1, I think maybe you need to provide a table here to explain your quantitative attributes, not just some sentences. 6. Page 13, line 2, how to realize your "automatic program" to derive other attributes? Do you mean that these attributes have been processed into a dataset? Otherwise, I think it is hard to automatic match these attributes in their text manual. 7. Page 14, line23, 0.4->0.43. 8. Page 20, table 2, do you consider some other parameters? For example, I think the characteristics of study area are somewhat simple. 9. Page 23, the overall similarity, can it be calculated using weighting? 10. Figure 4, part b. is it right?

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2015-539, 2016.