Education of Valuers – Visual Explorations in Real Estate Market with Neural Networks

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Key words:

SUMMARY

Presentation demonstrates the work in National Land Survey of Finland published in co-operation with Helsinki University of Technology. Kohonen Map (Self-Organizing Map, SOM) is used to analyze and visualize the phenomena of real estate sales. The study has been released as an on-line publication of the Real Estate Studies for guaranteeing its most flexible utilisation in research and teaching. It has been performed by Eero Carlson, M.Sc. (Tech.).

In real estate market it is not always clear what is going on. Unique real properties are sold and the information about the wide diversity of things contributing in the sales price is not easily available. Transparency in real estate market is important. Sales price and the number of sales is not enough to understand what is happening.

Two proposals were made to improve the information in Finland. Two new grouping classes in the object oriented data model are *valuation* and *group*. Comparable sales are organized using Kohonen Map as *valuations* and these are available for all real properties. Neighbouring sales are organized using Kohonen Map as *groups* and these are available for fast local analysis. Two or three clicks are needed to look what is happening in a certain location. Ordered display of more or less exceptional cases gives insights to find diffuse regions in mental space, conceptual categories and features seen together.

This virtual learning environment will be linked from the web site of Commission 9 FIG.

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