Examining the Evolution and Distribution of Patent Classifications

In the United States, each patent gets assigned to one out of more than 450 classes covering broad application domains. An examination of the size and growth of patent classes provides insight about patenting trends.

Treemaps, a space filling technique developed in the HCI Lab at the University of Maryland, are used to communicate major results. Treemaps represent a tree structure as nested rectangles with each rectangle representing a node. A rectangular area is first allocated to hold the representation of the tree, and this area is then subdivided into a set of rectangles that represent the top level of the tree. This process continues recursively on the resulting rectangles to represent each lower level of the tree. The parent-child relationship is indicated by enclosing the child-rectangle by its parent-rectangle. Typically, the size of each rectangle corresponds to the size of the node. Additional information about a node, e.g., its age or value, can be represented by the color of the respective rectangle.

For more information, contact Katy Borner at kborner@indiana.edu.