

*The Three Patent Cultures:  
A Comparative Analysis of Utility, Design, and Plant Patent Citation Networks*

**Andrew Torrance**

Professor, University of Kansas School of Law  
Lawrence, KS

There are three distinct types of patent in United States patent law. While utility patents for useful inventions account for the lion's share, ornamental designs may be protected by design patents, and asexually-reproducing plants by plant patents. All three patent categories are examined in the United States Patent and Trademark Office, where decisions about patentability depend, at least in part, on the availability of relevant prior art references. Using a complete patent citation network of the United States patent system, consisting of approximately 13 million nodes and 100 million citations, we analyze relative and absolute citation ranks, as well as citation trends, for all nodes, both globally and for each of the lesser-included utility, design, and plant patent citation networks. We then compare the structure and dynamics of the individual utility, design, and plant patent citation networks to explore differences in their particular citation cultures.

**Email:** [torrance@ku.edu](mailto:torrance@ku.edu)

Torrance