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(zsuzsanna.szaniszlo@valpo.edu), Dept. of Mathematics and Computer Science, Valparaiso University, Valparaiso, IN 46383, and William Young. Local 3-colorings of complete graphs.

A local *k*-coloring of a graph G is a coloring of the edges of G such that each vertex is incident with at most k colors. We determine the size of the largest monochromatic connected subgraph in a local 3-coloring of  $K_n$ . (Received August 29, 2005)