The clinical practice of diagnostic imaging has been profoundly affected by the digital revolution. The Baltimore VA Medical Center has the longest experience with filmless radiology in the United States and has functioned as a demonstration site and clinical laboratory for the Department of Veterans Affairs in the evaluation of the impact of filmless radiology. The PACS has been used as a tool to redesign workflow, image acquisition, display, and processing. These changes have resulted in major improvements in patient care and have changed the practice of diagnostic imaging in a number of interesting and in many cases, unexpected ways.