Information and communication technologies (ICT) have become common place entities in all aspects of life. Across the past twenty years the use of ICT has fundamentally changed the practices and procedures of nearly all forms of endeavour within business and governance. Within education, ICT has begun to have a presence but the impact has not been as extensive as in other fields. In this study, the researcher sought to find out how the use of ICT in education lends itself to more student-centered learning settings. The study seeks to determine the various impacts of ICT on contemporary secondary education in Kenya as well as potential challenges. The study was conducted through survey method. The researcher sought permission from the Ministry of Education in Kenya to collect research data from the sampled schools since all of them were public secondary schools. The researcher constructed questionnaires which were used to collect data from various respondents in the sampled Nepad e-schools in Kenya. The researcher used three categories of respondents in each school namely; the administrators, the teachers and the students. The completed questionnaires were then coded, entered into the computer using Statistical Package for Social Scientists (SPSS) and then analysed. The study revealed that both students and teachers have developed a positive attitude towards the use ICTs and related accessories in the teaching/learning process. This was reflected by the frequency of use of the facilities and the interest as indicated by the respondents. The study also found out that the schools under study were already using educational management software for various processes undertaken in the schools. The study also revealed some challenges faced by the schools. Notable challenges included lack of funding to support the purchase of the technology to improve access, lack of training among teachers to adopt ICT as teaching tools and lack suitable e-content for various subjects.