The work deals with new trends in Web technologies closely related to (X) HTML. The theoretical part introduces the basic concepts of Web technologies, describes the historical development of technology (X) HTML in the context of the closest associated technologies, and introduces new opportunities for using HTML5 and CSS3 technology. The practical part describes the design, functionality and technical solutions of the specific examples that demonstrate the selected benefits of HTML5 and CSS3 technologies in the area of educational Web applications development.