Designing User Interfaces (UI) is generally considered a creative and human intensive task, preventing from adopting computer aiding tools in exploring alternative solutions. The process leading to the ideation of user interfaces can be long running, time and cost consuming, entailing many decisions and iterative in nature. Generative design, still keeping central the human imagination, represents a novel approach in assisting human creativity in finding effective and aesthetically convincing solutions. Meta-heuristics are the means to make generative design in practice. This is can be done for supporting many aspects of UI making process. The application of evolutionary techniques is investigated to approach two different problems: the arrangement of structural element of a interface such as interface layout and the optimization of non-structural features such as colors. In particular, starting from pages designed for desktop applications, genetic algorithms are aimed at optimizing web pages by adapting widgets and contents to different display screen sizes. In order to ensure an appropriate level of user-experience, particular attention is paid to designing those elements that gather information. When color usability aspects are not taken into account at the very beginning of color selection, or when it is necessary to optimize the interface for different user needs, Interactive Genetic Algorithms are adopted to explore palette space and to support the identification of color combination able to guarantee the compliance of aesthetics and accessibility requirements. Experimental results show that generative approach is feasible and can compete with design made by humans.