<https://electricalvoice.com/genetic-algorithm-advantages-disadvantages/>

Advantages of GA
•   Concepts are easy to understand
•   Genetic Algorithms are intrinsically parallel.
•   Always an answ...

Limitations of GA
• The population considered for the evolution should be moderate
  or suitable one for the problem (norm...

1. Hill climbing (HC)

This is considered a fast algorithm in relation to the other metaheuristic choices but, as with other local search algorithms, it has the risk of being restricted to local optima. The algorithm may “peak” at a less optimal solution (akin to reaching a peak after climbing a hill).

1. Simulated annealing (SA)

Simulated annealing (SA) is a modification of the local search algorithm, used to address the problem of being trapped with a locally optimum solution. It allows the process to explore different areas of the search space, giving extra options for optimization that would otherwise be unavailable. Although the SA process may come up with a better solution compared to the HC process, HC is a lot more reliable as the SA process may struggle to settle on a solution.

1. Genetic algorithms (Gas)

Genetic algorithms (GAs) are a class of evolutionary algorithms (EAs) that, much like SA, mimic a process used elsewhere in science, namely the reproduction and mutation processes in genetics and natural selection.

The study indicates that other areas of activities in software engineering are starting to receive significant attention: Requirements, Project Management, Design, Maintenance and Reverse Engineering. The paper shows the comparison between the search techniques Genetic algorithm, simulated annealing and hill climbing. Genetic Algorithm is proved to be the best algorithm because it focuses on solutions and fitness. They can be easily implemented and understandable in comparison to hill climbing and simulated annealing. Genetic Algorithms are best for combinatorial problems.