

Modelos descriptivos

Agrupamento

descobrir categorias

Função alvo
 $f : x \rightarrow y$

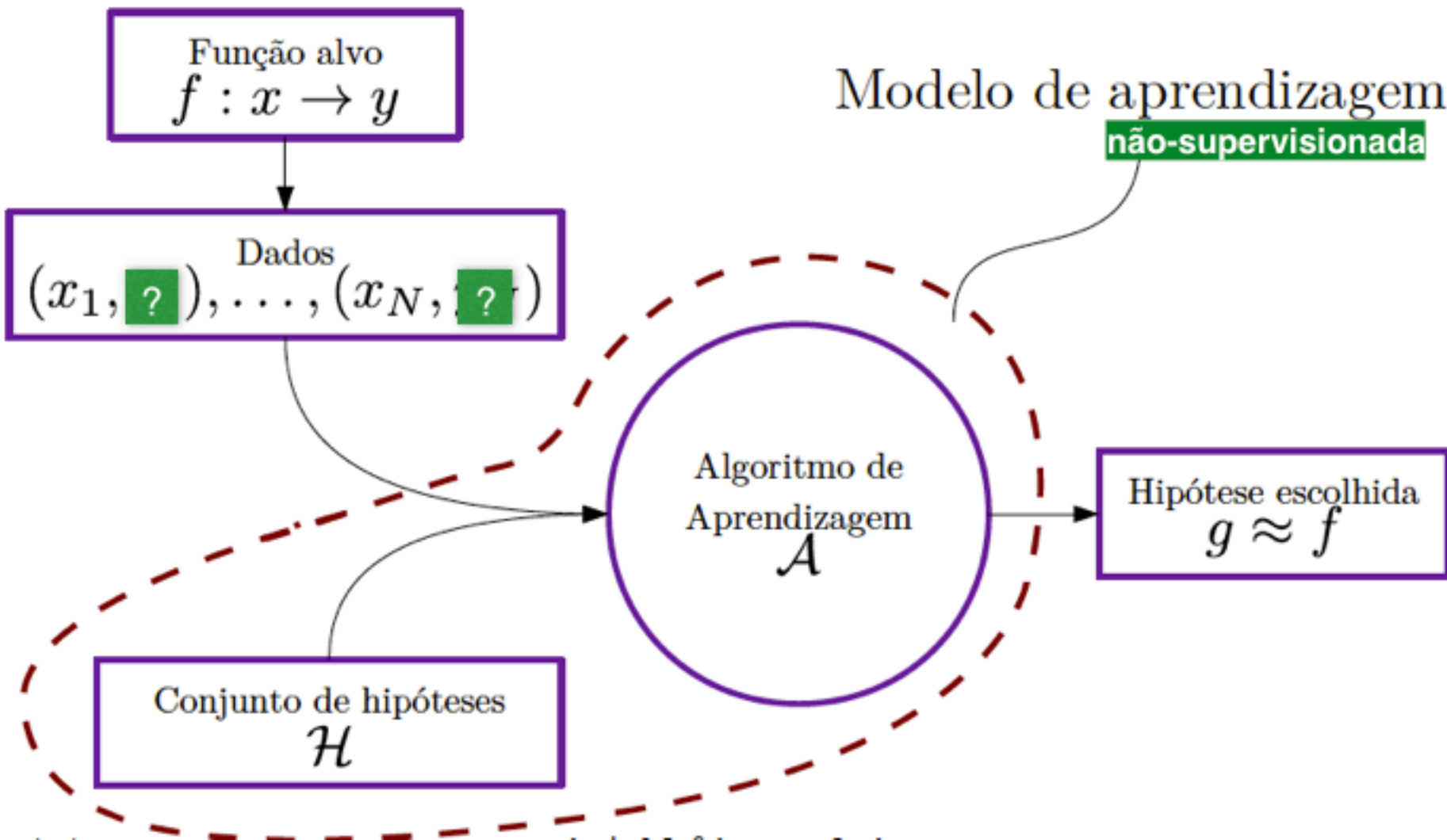
Modelo de aprendizagem
não-supervisionada

Dados
 $(x_1, ?), \dots, (x_N, ?)$

Algoritmo de
Aprendizagem
 \mathcal{A}

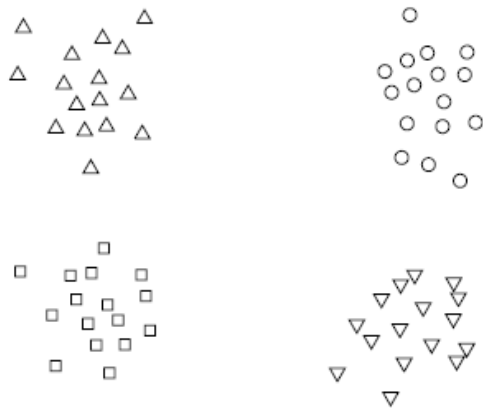
Hipótese escolhida
 $g \approx f$

Conjunto de hipóteses
 \mathcal{H}

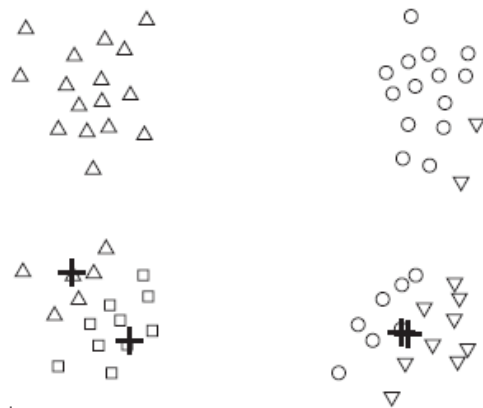


Algoritmos **particionais**

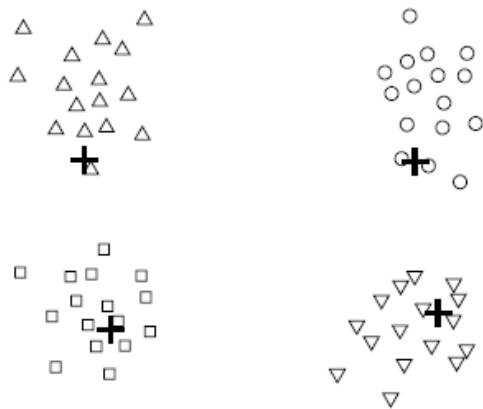
K-Means



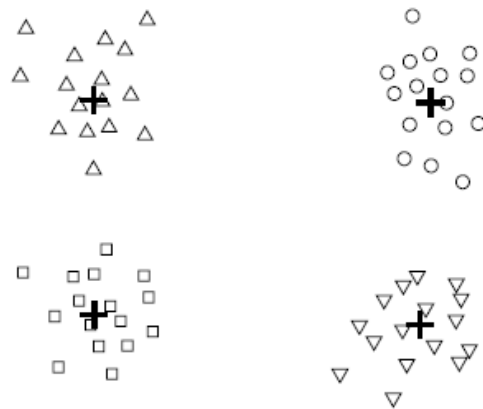
(a) Initial points.



(b) Iteration 1.

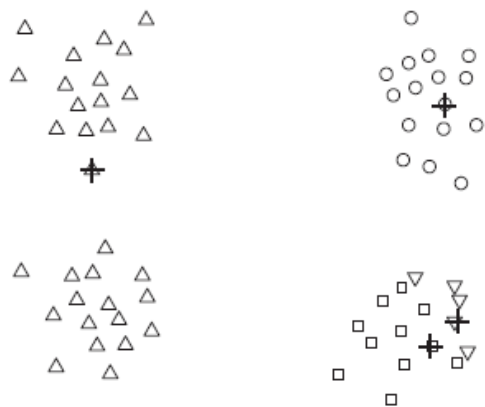


(c) Iteration 2.

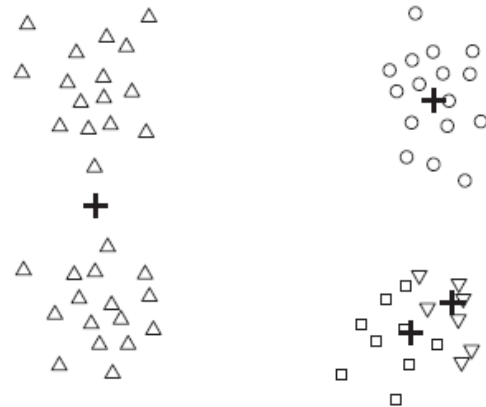


(d) Iteration 3.

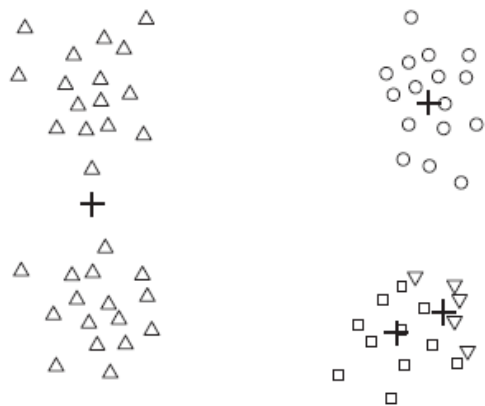
K-Means



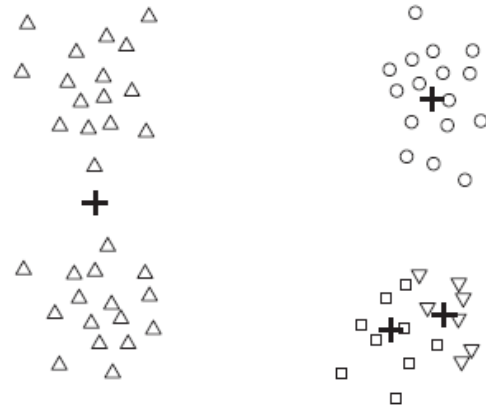
(a) Iteration 1.



(b) Iteration 2.

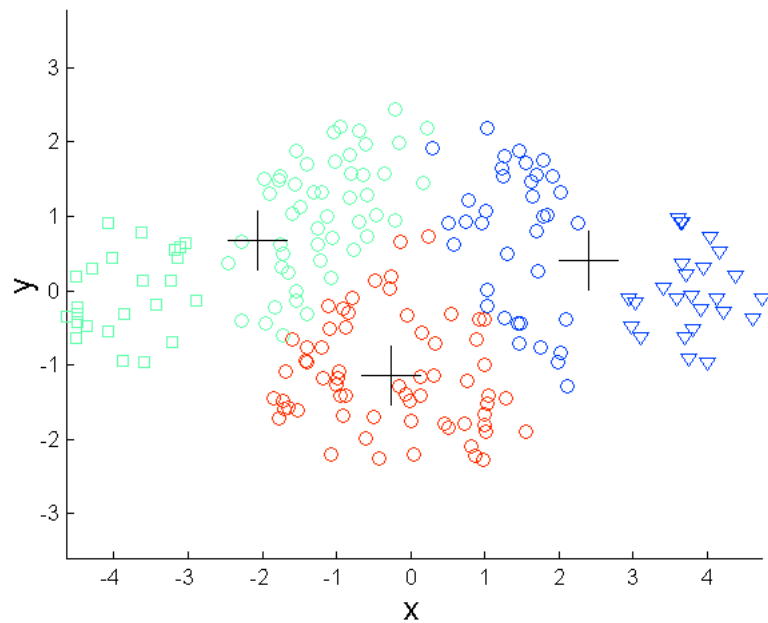
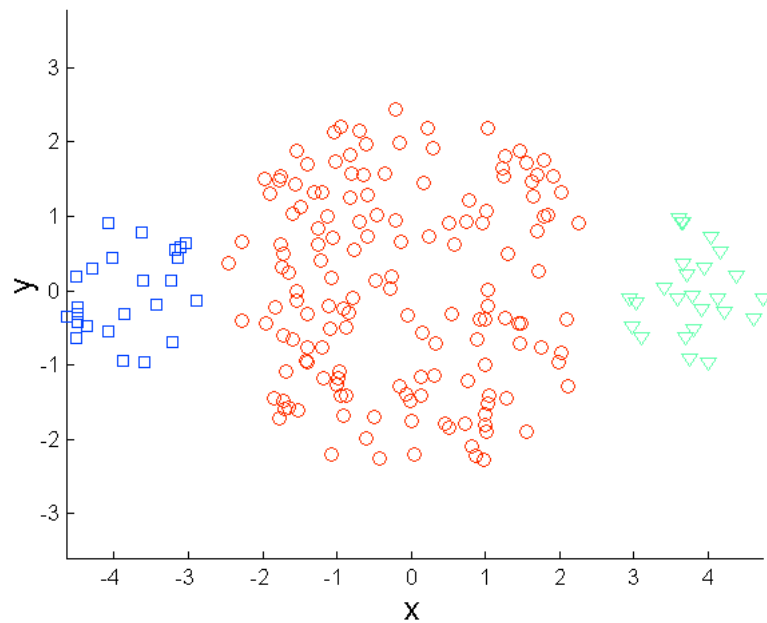


(c) Iteration 3.

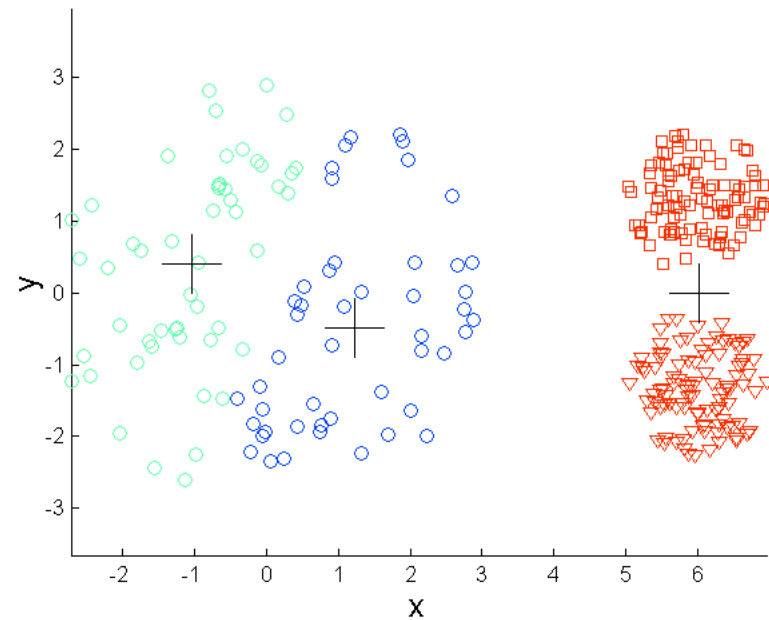
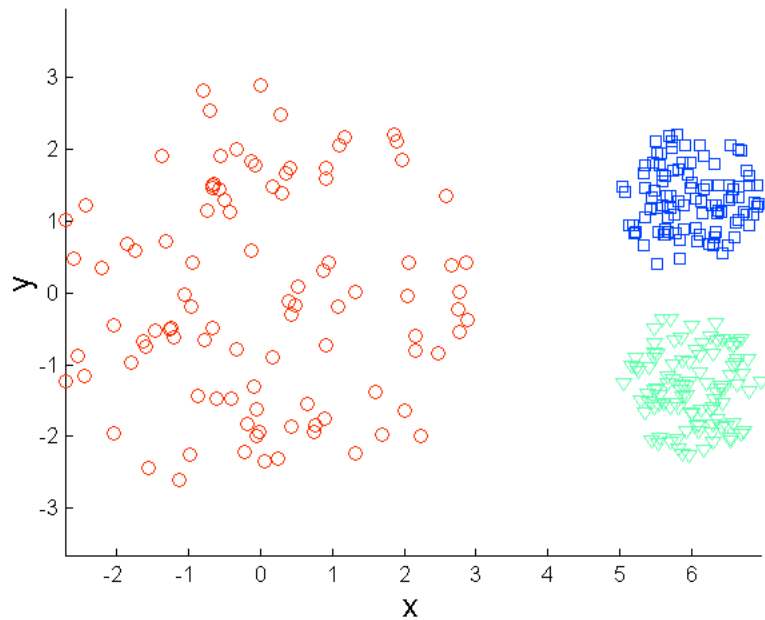


(d) Iteration 4.

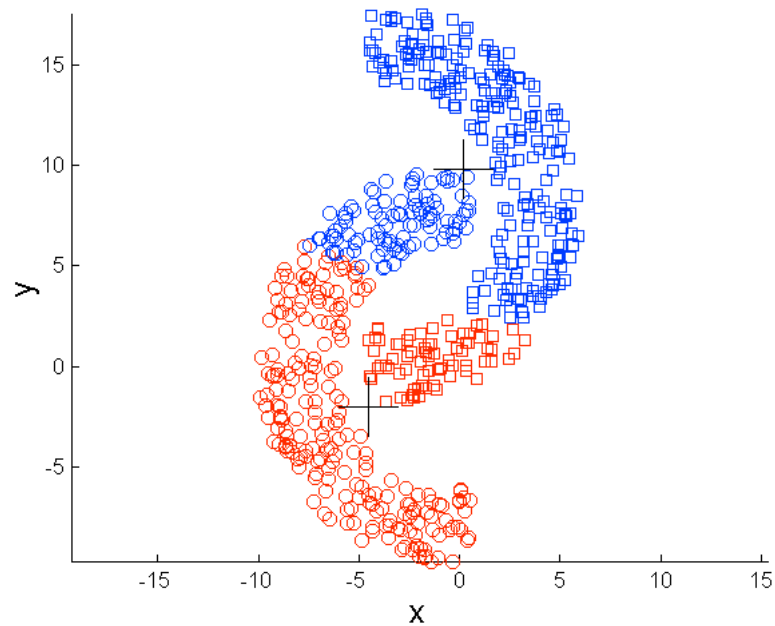
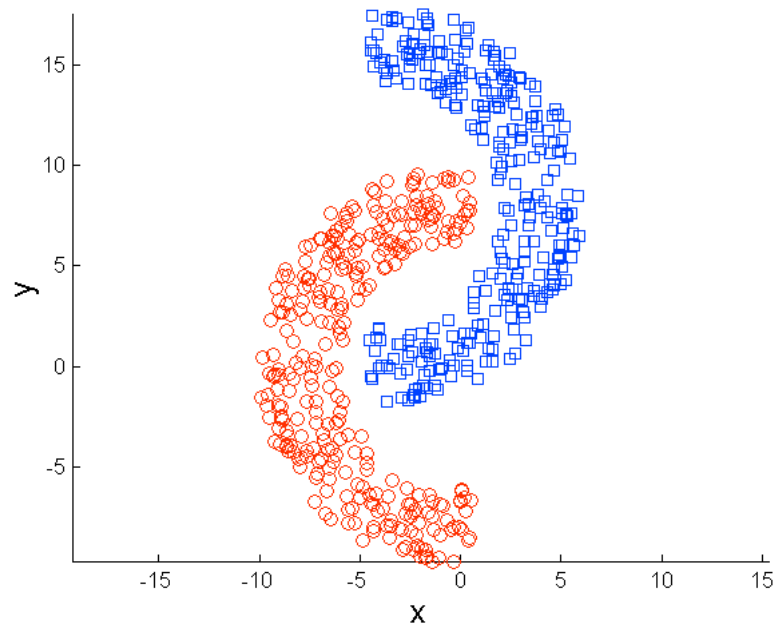
K-Means



K-Means



K-Means

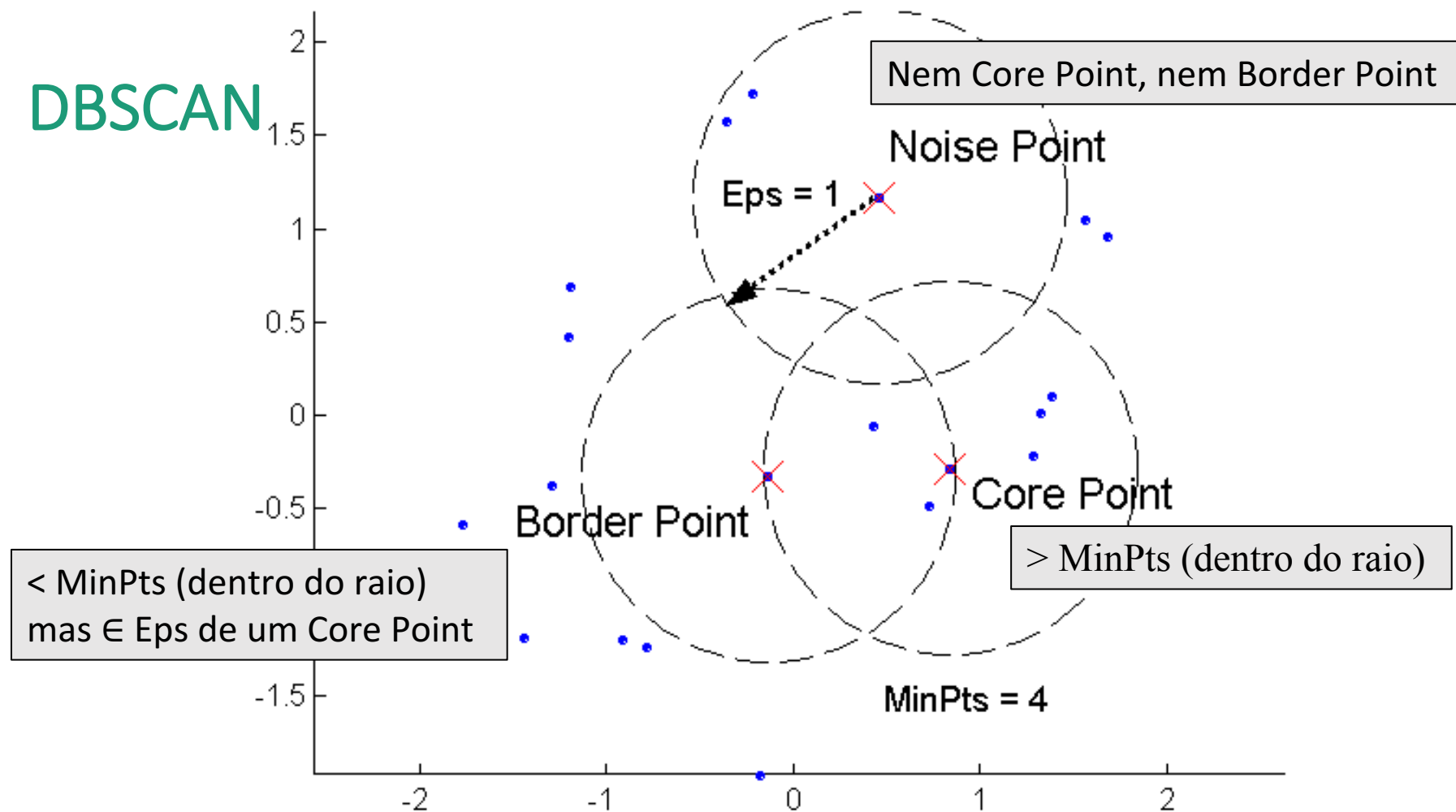


Algoritmos baseados em **densidade**

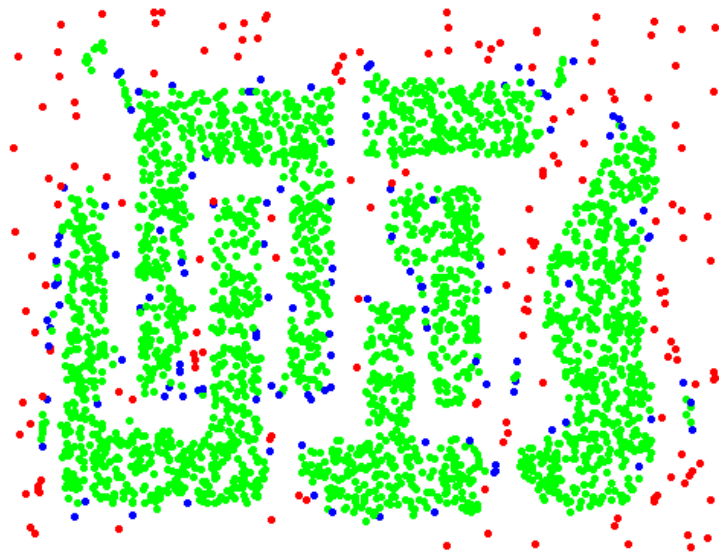
DBSCAN

- Parâmetros
 - Raio: ϵ
 - Número mínimo de pontos: MinPts
- Definição de densidade: número de pontos dentro de um raio (ϵ) especificado

DBSCAN

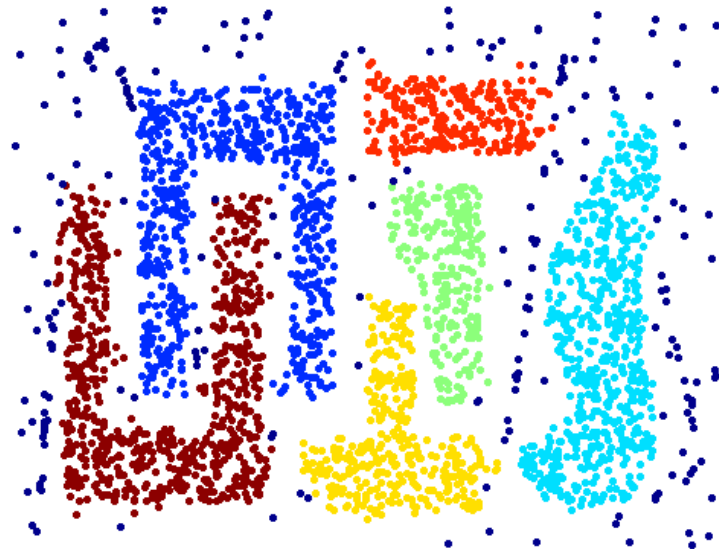
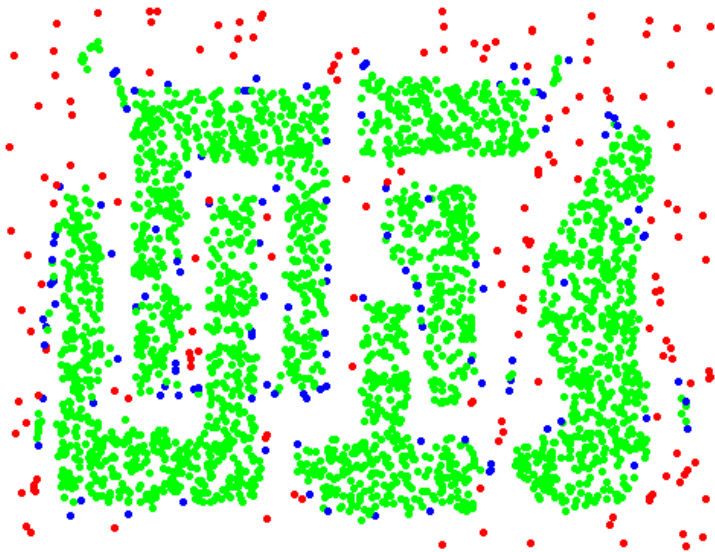


DBSCAN



$$Eps = 10 \quad MinPts = 4$$

DBSCAN





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Escreve sobre Inteligência Artificial no Saense.

<http://www.saense.com.br/autores/artigos-publicados-por-hendrik-macedo/>