**Artificial Intelligence**: mimicking of human thought and cognitive processes to solve complex problems automatically.

**Action-based Planning**   
The goal of action-based planning is to determine how to decompose a high level action into a network of sub actions that perform the requisite task.

**Case-based Reasoning**   
Case-based reasoning (CBR) solves a current problem by retrieving the solution to previous similar problems and altering those solutions to meet the current needs.

**Clustering**   
Clustering is an approach to learning that seeks to place objects into meaningful groups automatically based on their similarity.

**Cognitive Science**   
Artificial intelligence can be defined as the mimicking of human thought to perform useful tasks, such as solving complex problems.

**Data Mining** The non-trivial process of uncovering interesting and useful relationships and patterns in very large databases to guide better business and technical decisions. Data mining is becoming increasingly important due to the fact that all types of commercial and government institutions are now logging huge volumes of data and now require the means to optimize the use of these vast resources.

**Fuzzy Logic**   
Traditional Western logic systems assume that things are either in one category or another. Yet in everyday life, we know this is often not precisely so. People aren't just short or tall, they can be fairly short or fairly tall, and besides we differ in our opinions of what height actually corresponds to tall, anyway.

**Heterogeneous Databases**   
Databases that contain different kinds of data, e.g., text and numerical data.

**Information Filtering**   
An information filtering system sorts through large volumes of dynamically generated information to present to the user those nuggets of information which are likely to satisfy his or her immediate needs

**Prototyping**   
An AI software prototype is usually a working piece of software that performs a limited set of the functions that the software designer envisages will be required by the user. It is used to convey to the users a clear picture of what is being developed to ensure that the software will serve the intended picture.

12 نوفمبر 2012

الإسم: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

بدأ قسم هندسة الحاسبات كفرع تخصصى داخل قسم الإلكترونيات والاتصالات الكهربية منذ عام 1975 في مرحلة البكالوريوس بينما يكون منفصلا في الدراسات العليا - ماجستير في الإلكترونيات والاتصالات للحاسبات وتقنية المعلومات - ومع تطور الحاسبات وانتشار استخدامها في مجالات التطبيق المختلفة والنمو الهائل لعدد الشركات والمؤسسات العاملة في هذا النطاق تحول إلى قسم منفصل.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**الذكاء الاصطناعي**, هو سلوك وخاصيات معينة تتسم بها البرامج الحاسوبية تجعلها تحاكي القدرات الذهنية البشرية وأنماط عملها. من أهم هذه الخاصيات القدرة على التعلم والاستنتاج ورد الفعل على أوضاع لم تبرمج في الآلة. إلا أن هذا المصطلح إشكالي نظرا لعدم توفر تعريف محدد للذكاء.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ الذكاء الاصطناعي فرع من [علم الحاسوب](http://ar.wikipedia.org/wiki/%D8%B9%D9%84%D9%85_%D8%A7%D9%84%D8%AD%D8%A7%D8%B3%D9%88%D8%A8).كما تعرف الكثير من الكتب الذكاء الاصطناعي على انه " دراسة وتصميم العملاء الأذكياء" [والعميل الذكي](http://ar.wikipedia.org/w/index.php?title=%D8%A7%D9%84%D8%B9%D9%85%D9%8A%D9%84_%D8%A7%D9%84%D8%B0%D9%83%D9%8A&action=edit&redlink=1) هو نظام يستوعب بيئته ويتخذ المواقف التي تزيد من فرصته في النجاح في تحقيق مهمته أو مهمة فريقه. [جون ماكارثي](http://ar.wikipedia.org/w/index.php?title=%D8%AC%D9%88%D9%86_%D9%85%D8%A7%D9%83%D8%A7%D8%B1%D8%AB%D9%8A&action=edit&redlink=1)، الذي صاغ هذا المصطلح في عام 1956، عرفه بأنه "علم وهندسه صنع آلات ذكيه".

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

اسس هذا المجال علي افتراض أن ملكة الذكاء يمكن وصفها بدقة بدرجة تمكن الآله من محاكاتها. هذا يثير جدل فلسفي حول طبيعة العقل البشري وحدود المناهج العلميه، وهى قضايا تم تناولها أسطوريا وخياليا وفلسفيا منذ القدم، كما يدور جدل عن ماهية الذكاء وأنواع الذكاء التي يمتلكها الإنسان وكيفية محاكاتها من الآلة.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

في منتصف القرن العشرين، بدأ عدد قليل من العلماء استكشاف نهج جديد لبناء آلات ذكية، بناء على الاكتشافات الحديثة في علم الأعصاب، والنظريات الرياضية الحديثة، وتطور علم التحكم الآلي، وقبل كل ذلك، عن طريق اختراع الحاسوب الرقمي، فتم اختراع آله يمكنها محاكاة عملية التفكير الحسابى الإنسانية.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

في التسعينات وأوائل القرن الواحد والعشرين، حقق الذكاء الاصطناعي نجاحات أكبر، وإن كان ذلك إلى حد ما وراء الكواليس. يستخدم الذكاء الاصطناعي في اللوجستية، واستخراج البيانات، والتشخيص الطبي والعديد من المجالات الأخرى في جميع أنحاء صناعة تكنولوجيا ويرجع ذلك النجاح إلى عدة عوامل.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_