















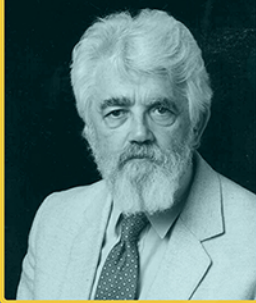
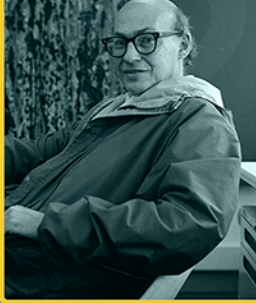

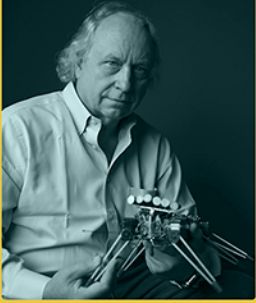





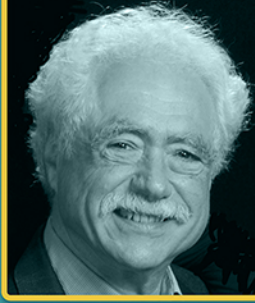


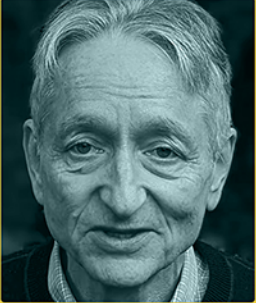





365 WHEN, WHAT, WHY OF AI

	RULE-BASED AI				STATISTICAL AI			
WHEN <small>it became popular</small>	SYMBOLIC REASONING	ROBOTICS	MACHINE LEARNING	REINFORCEMENT LEARNING	NLP	COMPUTER VISION	DEEP LEARNING	SPEECH RECOGNITION
	1960-1970		1990-2000		2000-2010		2010-2020	
WHAT <small>does this AI do</small>	Solve complex problems using logical rules 	Build machines to augment human capabilities 	Discover hidden patterns in data 	Maximize outcomes through trial and error learning 	Understand, interpret, generate human language 	Understand, interpret, generate visual data 	Complex pattern recognition through neural networks 	Transform spoken language to written text 
WHICH <small>are the main models</small>	<ul style="list-style-type: none">• First-order logic• Resolution Refutation• Rule-based Systems	<ul style="list-style-type: none">• RRT• SLAM	<ul style="list-style-type: none">• Supervised ML• Unsupervised ML• Semi-supervised ML	<ul style="list-style-type: none">• Q-Learning• DQN• Policy Gradients• Actor-Critic Method	<ul style="list-style-type: none">• n-gram models• HMMs• Word2Vec• GloVe• Transformer networks	<ul style="list-style-type: none">• HOG• SIFT• Neural models	<ul style="list-style-type: none">• CNNs• RNNs• GRU• Transformer networks	<ul style="list-style-type: none">• GNNs• RNNs• CTC
WHY <small>what are some of the major applications</small>	EXPERT SYSTEMS AUTOMATED THEOREM PROVING GAME AI	INDUSTRIAL AUTOMATION MEDICAL ROBOTICS SELF-DRIVING VEHICLES	PREDICTIVE ANALYTICS RECOMMENDER SYSTEMS FRAUD DETECTION	GAME AI RESOURCE MANAGEMENT ROBOTICS	SENTIMENT ANALYSIS CHATBOTS	MEDICAL IMAGING SELF-DRIVING VEHICLES VISUAL RECOGNITION	IMAGE AND SPEECH RECOGNITION ANOMALY DETECTION	VOICE-DRIVEN VIRTUAL ASSISTANTS TRANSCRIPTION SERVICES ACCESSIBILITY TECHNOLOGY
WHERE <small>in which products was the AI used</small>								
WHO <small>who are some of the pioneers of AI</small>	 John McCarthy <i>(father of AI)</i>  Marvin Minsky	 Joseph Engelberger <i>(father of robotics)</i>  Rodney Brooks	 Arthur Samuel <i>(coined the term "machine learning")</i>  Tom Mitchell	 Richard Sutton  Andrew Barto	 Noam Chomsky  Terry Winograd	 Takeo Kanade  David Marr	 Geoffrey Hinton <i>(Godfather of deep learning)</i>  Yann LeCun	 James Baker  Alex Waibel