

Gervigreind/Gagnavísindi 101

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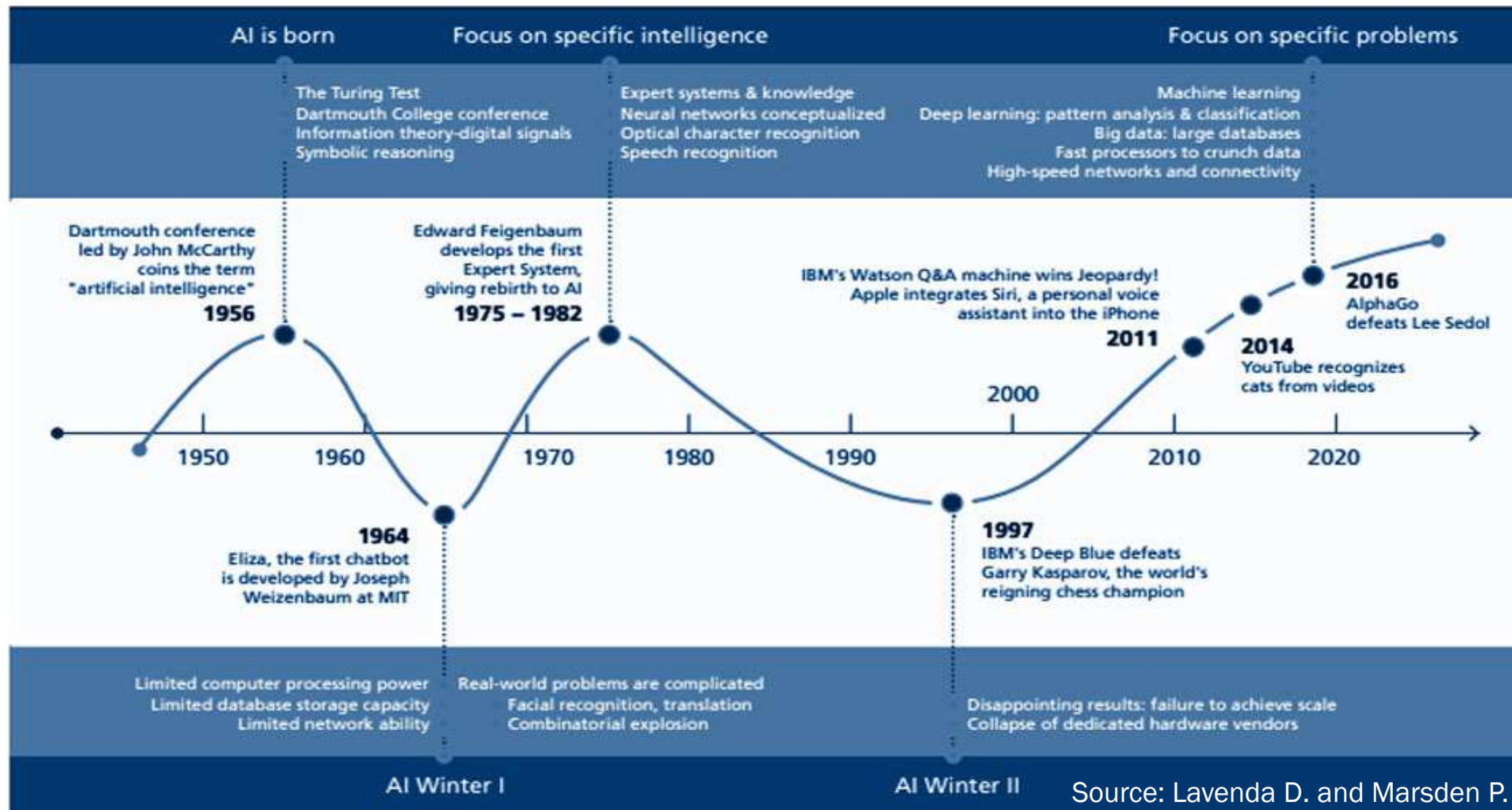
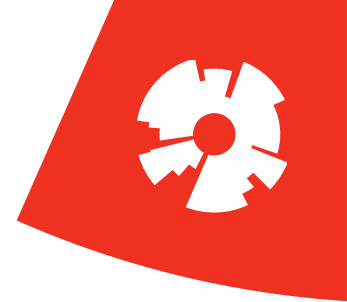


Hvað er gervigreind?

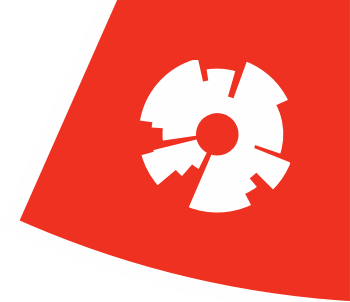


- Fræðin og tæknin við að útbúa tölvukerfi sem geta framkvæmt **verk** sem að jafnaði krefjast **mannlegrar greindar**.
- Felur m.a. í sér að geta
 - **skynjað** / **skilið** umhverfi sitt
 - tekið **sjálfstæðar** ákvarðanir
 - **lært** af reynslu

Saga gervigreindarsviðsins

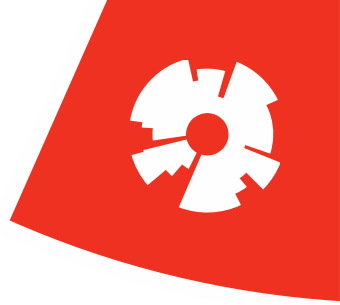


Dæmi: Sjálfkeyrandi bílar



<http://www.betanews.com>

Skynja umhverfi sitt



Look – no driver

Video camera

Detects traffic lights, oncoming vehicles and other obstacles

Lidar

A rotating sensor on the roof scans 200ft in all directions to create a 3D map of its surroundings

Radar

Three sensors at the front and one at the back work out the positions of nearby objects



Position estimator

A sensor on the left rear wheel measures the car's movements so that its position can be mapped with accuracy

Skila hvað þeir sjá

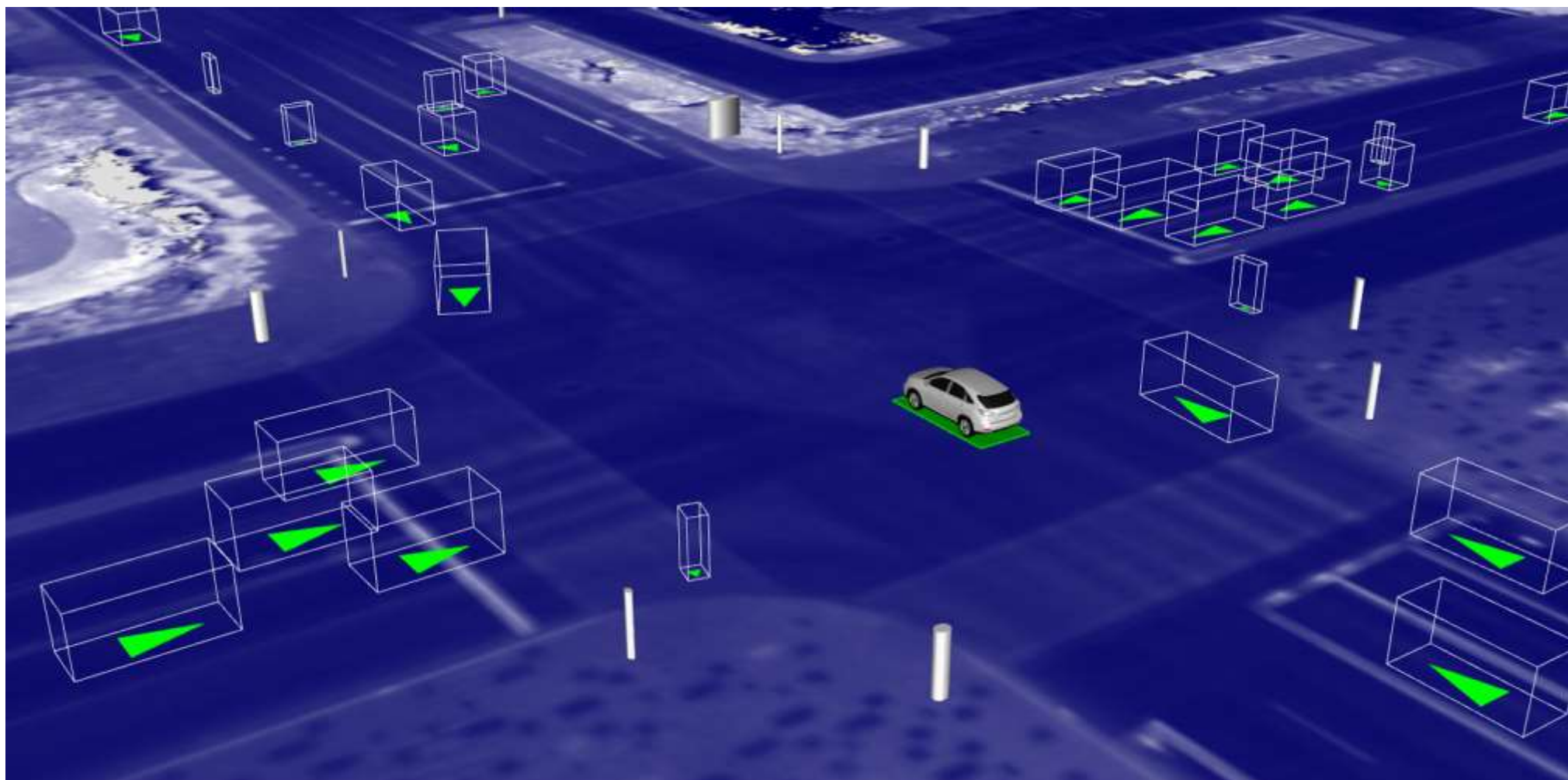


Taka sjálfstæðar ákvarðanir



<http://www.waymo.com>

Læra af reynslu

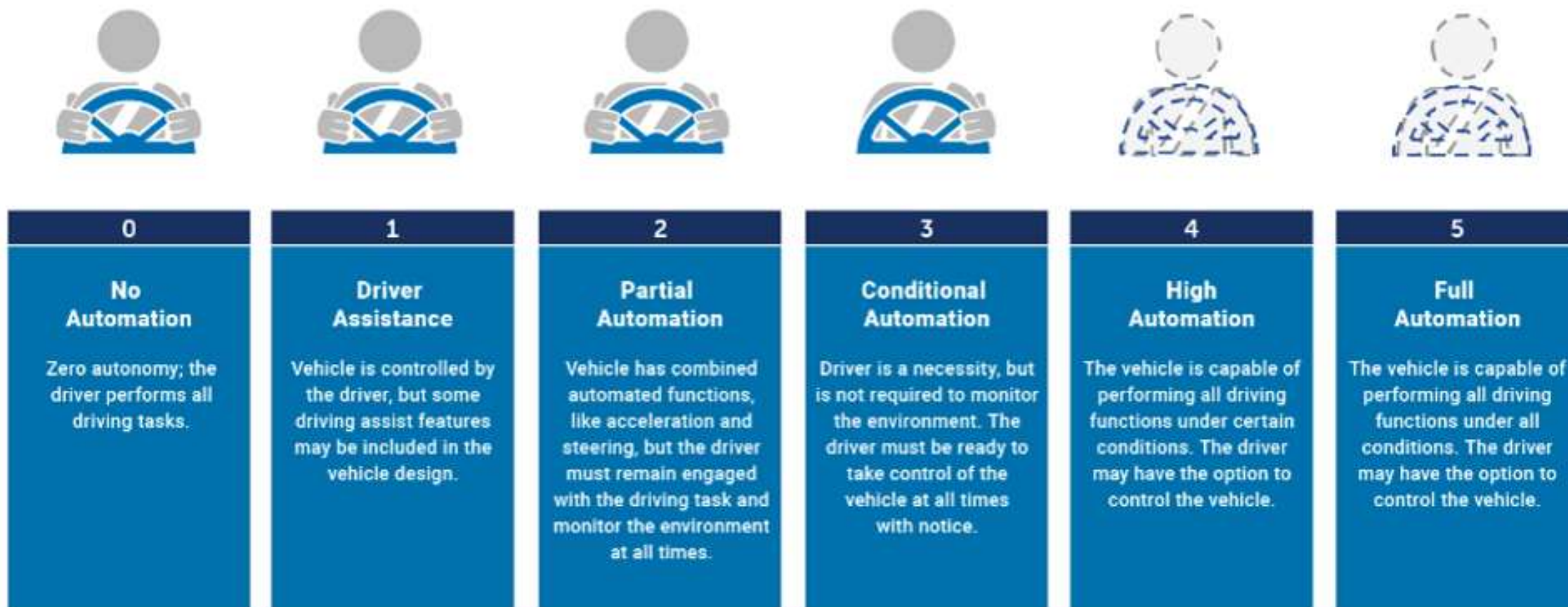


Hvenær komið á það stig að vera nothæft?




SOCIETY OF AUTOMOTIVE ENGINEERS (SAE) AUTOMATION LEVELS

Full Automation

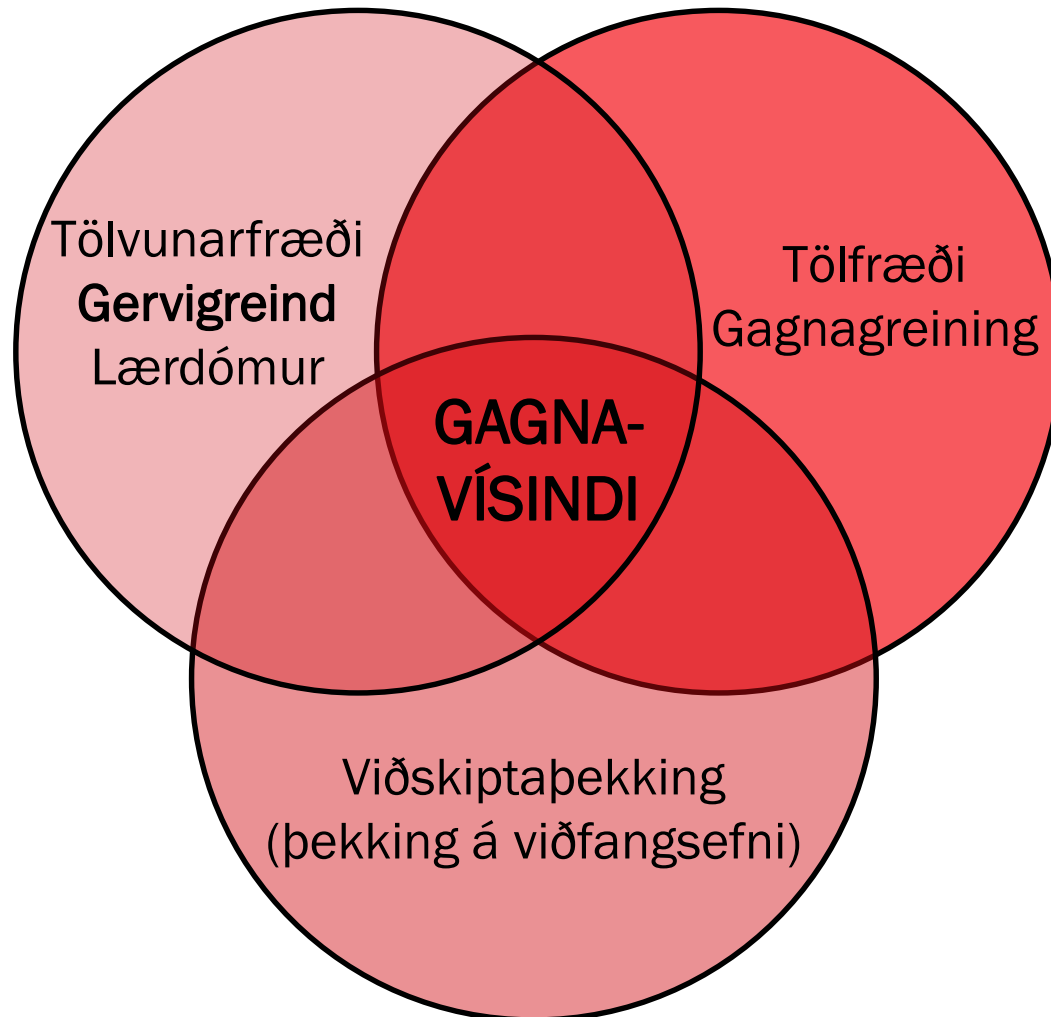
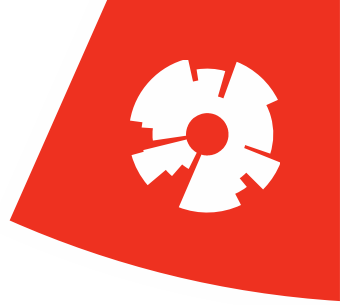


Hvenær komið á það stig að vera nothæft?



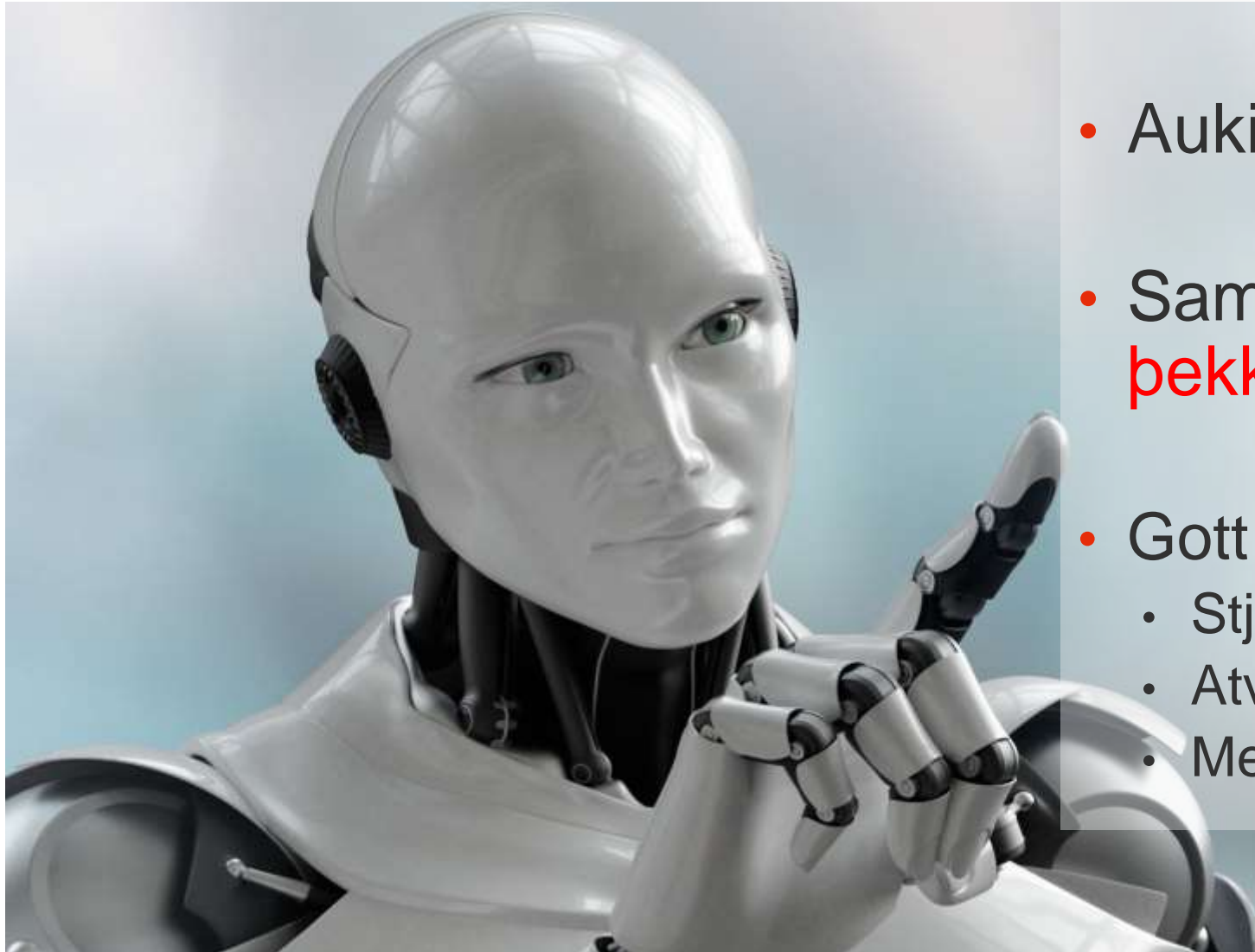
Since early October, autonomous trucks have been hauling Frigidaire refrigerators along the I-10 freeway, from a El Paso, Texas, to Palm Springs, California.  EMBARK

Gagnavísindi



- Breyta gögnum í verðmætar upplýsingar
 - Finna áhugaverð mynstur í (sögulegum) gögnum
- Dæmi:
 - Þekkja viðskiptavini betur
 - Markaðssetning
 - Útbúa spálíkön

Tækifæri



- Aukin framleiðni
- Samkeppni á forsendum **þekkingar**, ekki mannafla
- Gott fyrir litla þjóð!
 - Stjórnvöld
 - Atvinnulífið
 - Menntakerfið



“Machines will be capable, within 20 years, of doing any work a man can do”

- Herbert A. Simon, 1956