The Machine Intelligence Landscape: A Venture Capital Perspective

AMPLIFY PARTNERS

An Explosion of Data

2002

5 Exabytes

Growing by a factor of 7,040x

2020

35,200 Exabytes

Source: EMC, Forbes estimates

What is Enabling This Transition?

- Open Source: It's now cheap enough to store ALL the data vs. being selective
- AWS: infrastructure/scale for the masses
- Big Data laying groundwork for Machine Intelligence—the "so what?"

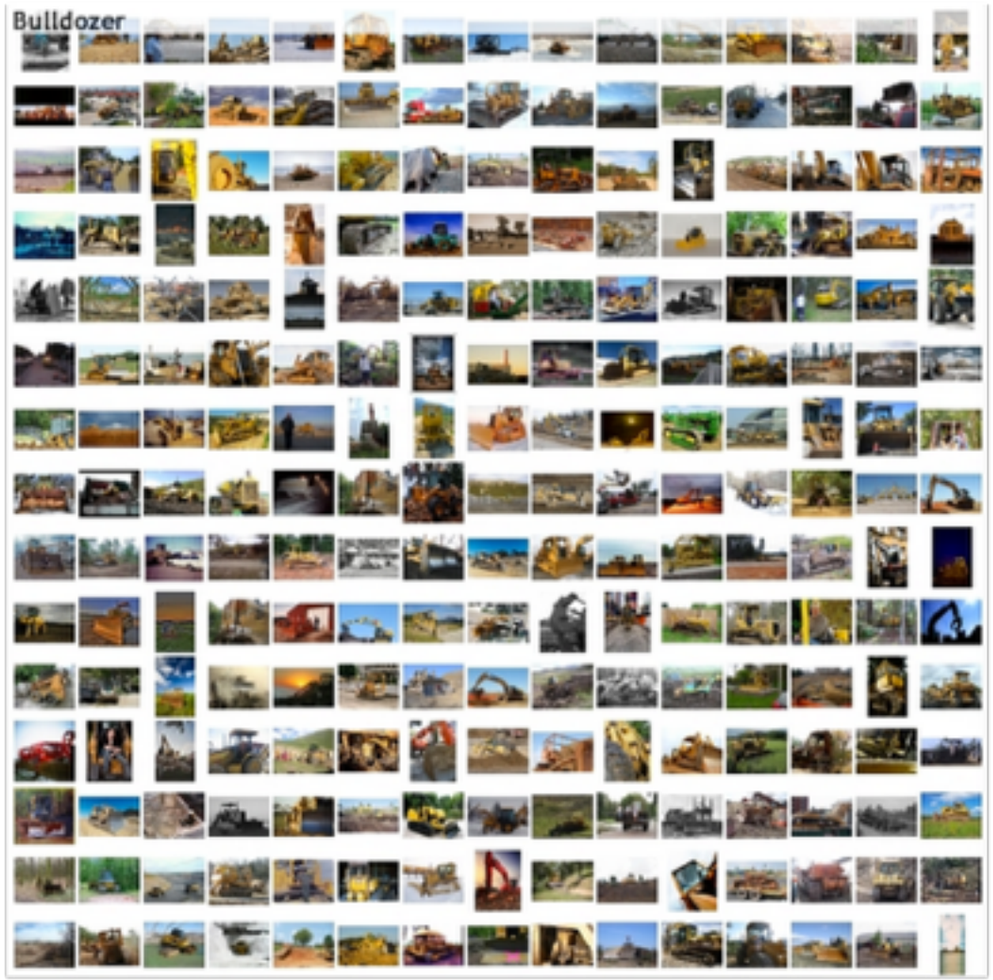
What is Machine Learning?

"A computer program is said to learn from experience E with respect to some class of tasks T and performance measure P, if its performance at tasks in T, as measured by P, improves with experience E."

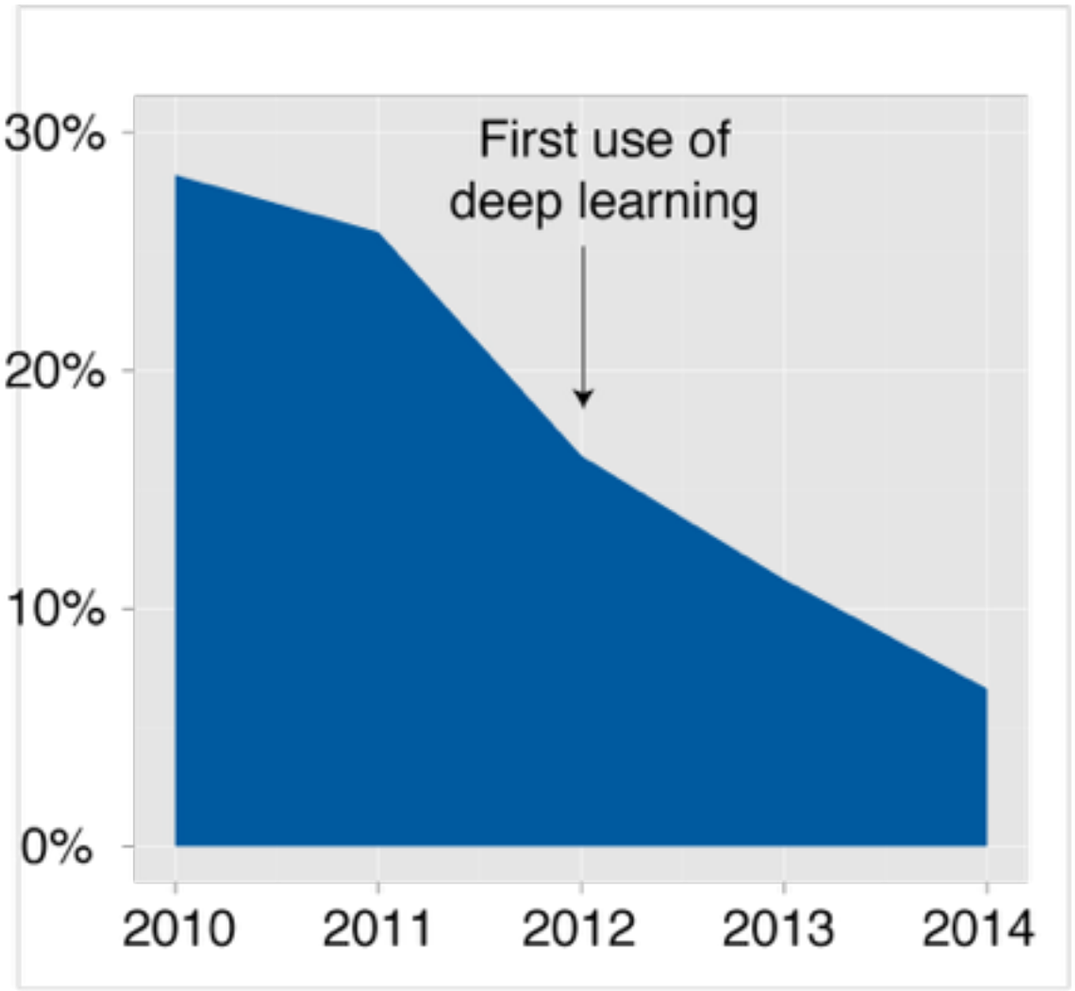
- Tom Mitchell

Deep Learning Becomes Very, Very Good

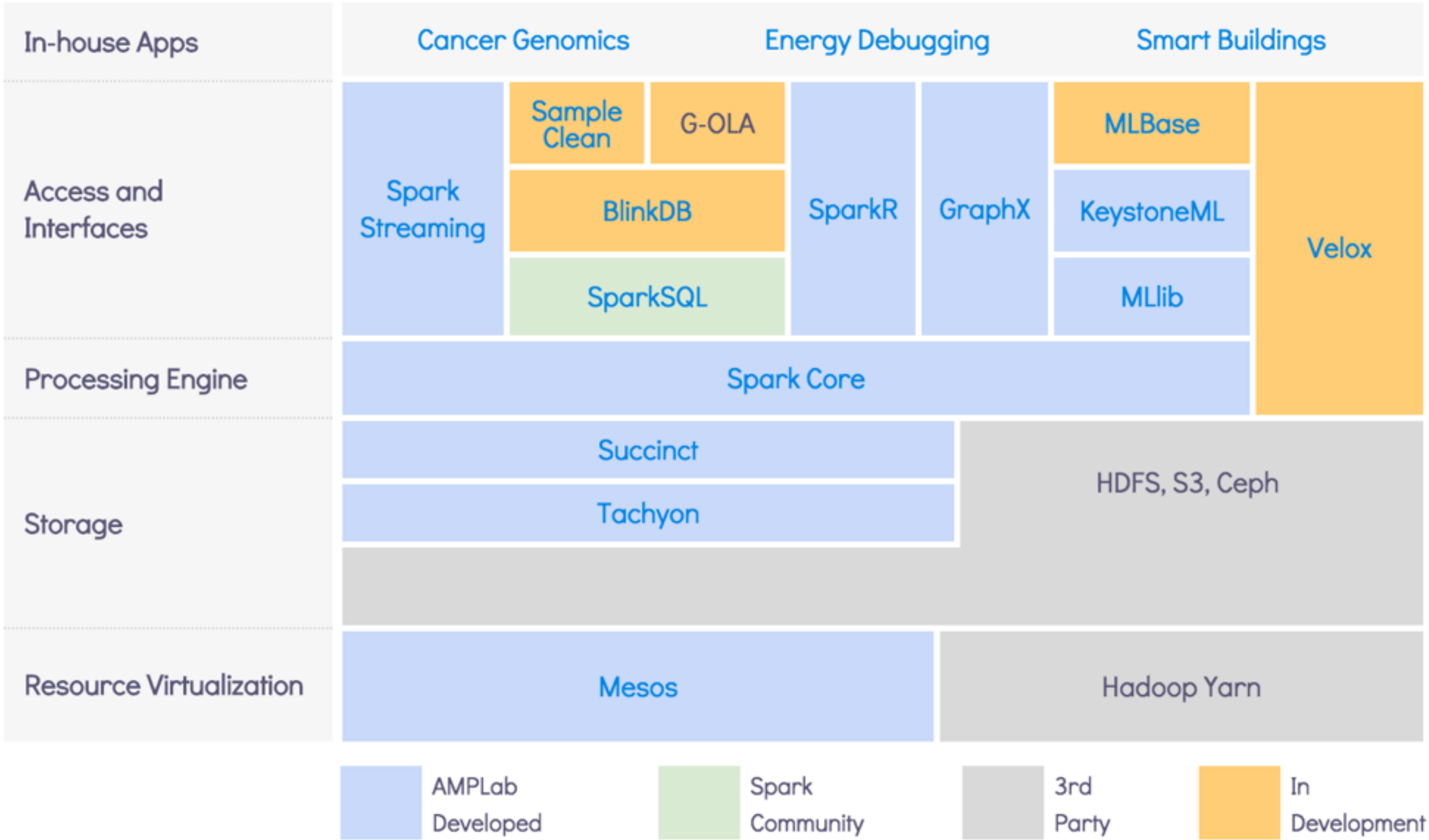
ImageNet examples



Objection classification error rate

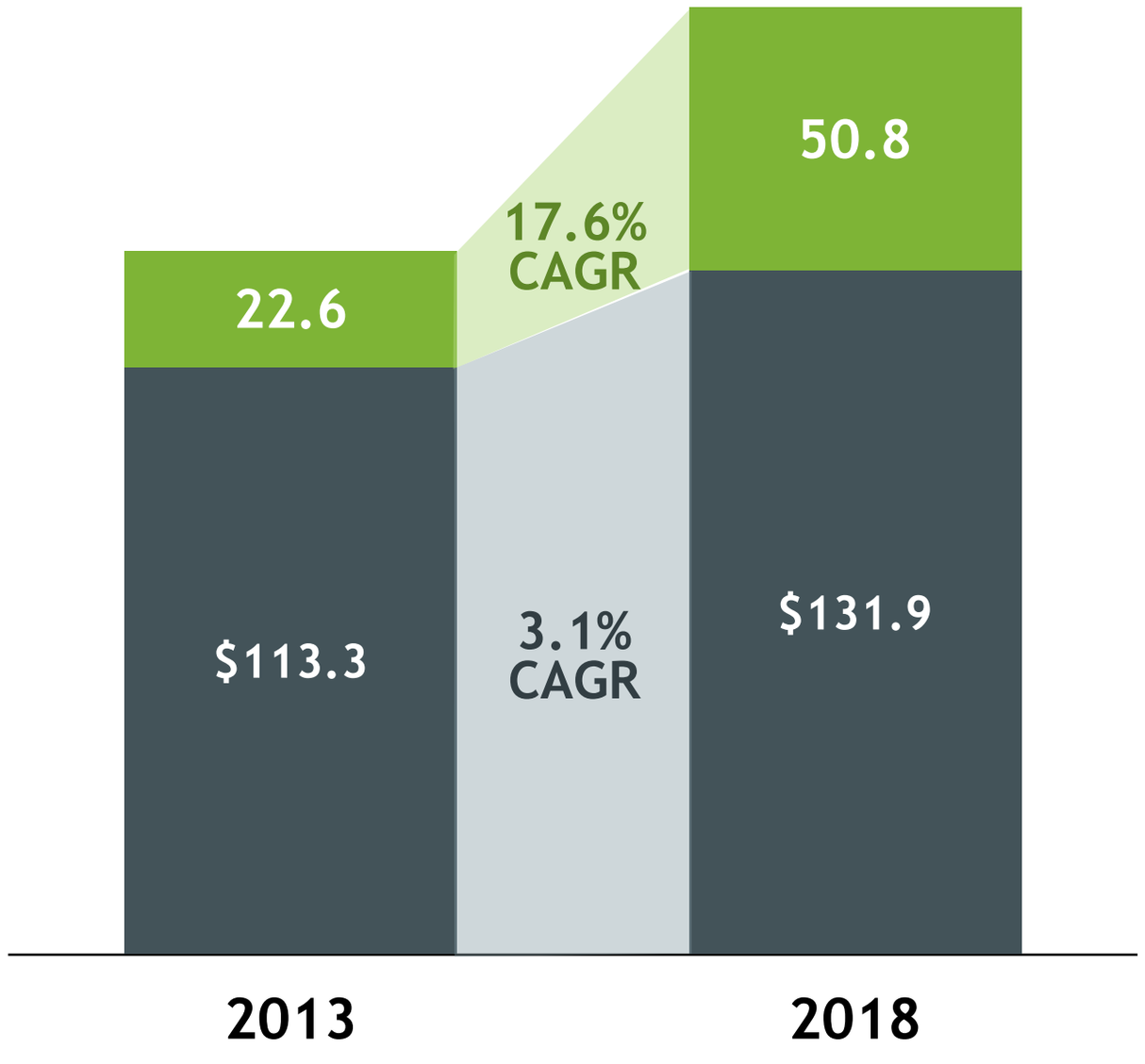


Recent Innovations in Distributed Computing



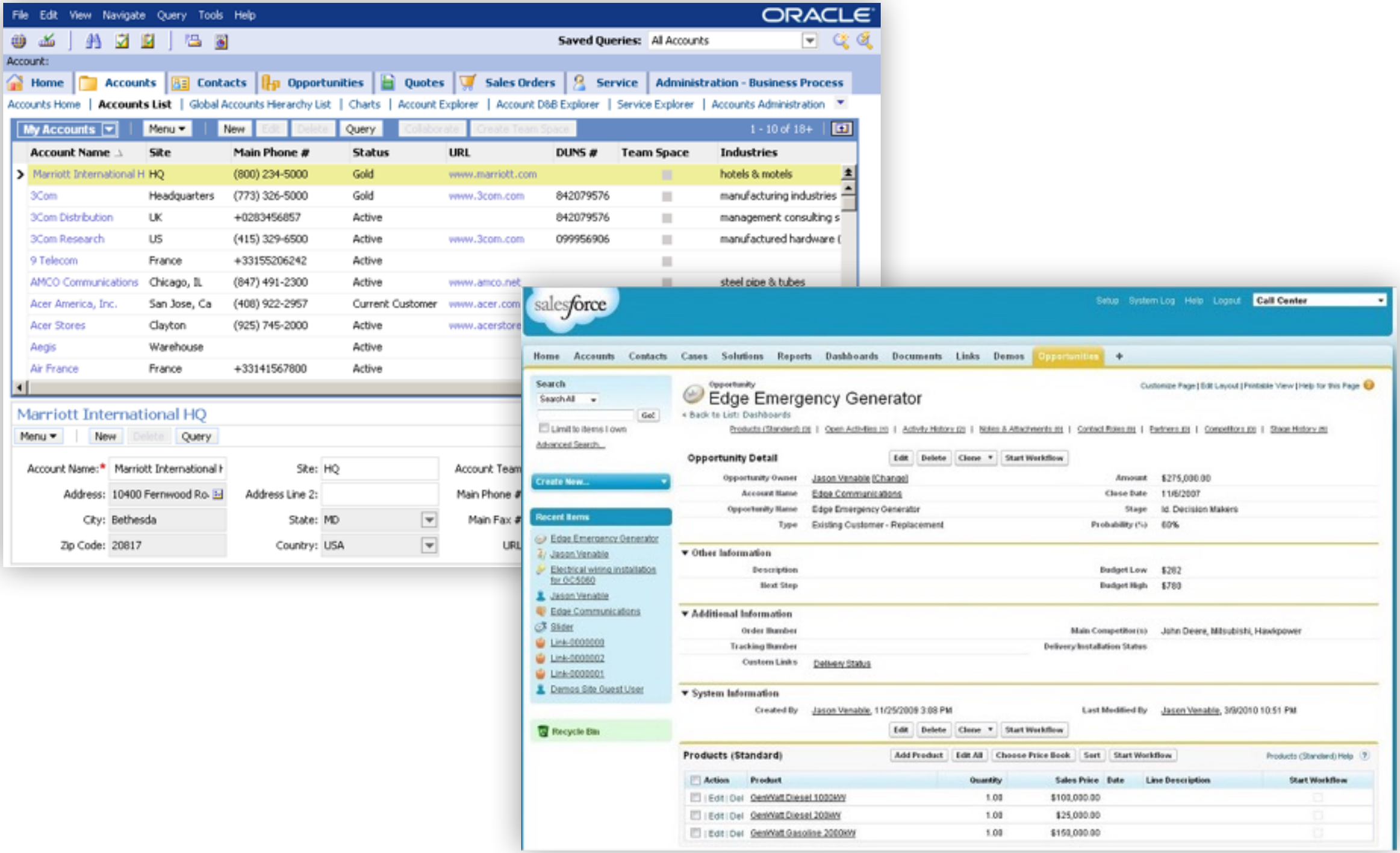
SaaS is Crushing Traditional Enterprise SW

World Wide Enterprise Applications Market* ($B)

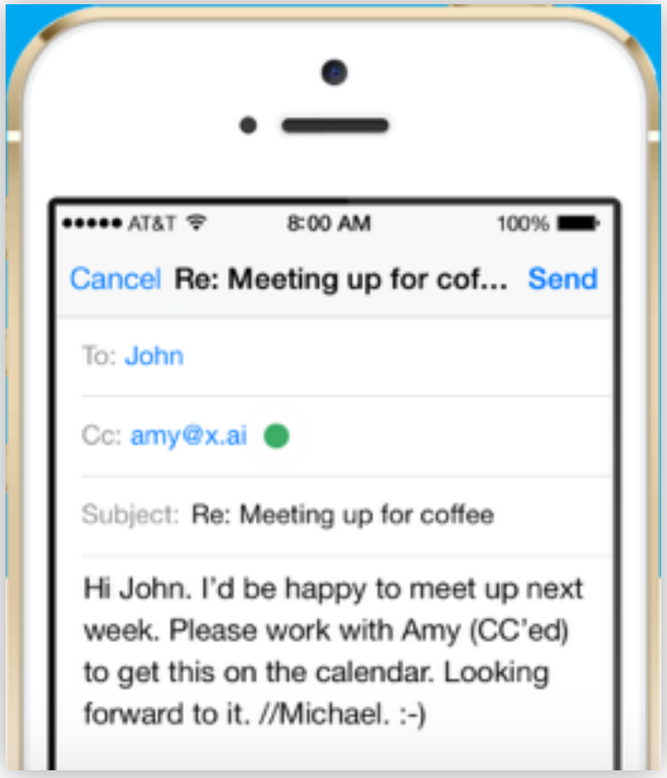


*according to IDC estimates

Not Much has Changed In 15 Years



Samantha (Her) vs. Amy (x.ai)



Machine Intelligence LANDSCAPE

CORE TECHNOLOGIES

ARTIFICIAL INTELLIGENCE
IBM WATSON, MetaMind, Numenta, ai-one, Cycorp, Research, nara, Reactor, SI Scaled Inference

DEEP LEARNING
vicarious, Vision Factory, facebook, Google, BaiDL, ersatz, SKYMIND, SignalSense

MACHINE LEARNING
rapidminer, context, Oxdata H2O, DATARPM, Liftigniter, Azure ML, yhat, Sense, GrachLab, Alpine, Ultonian

NLP PLATFORMS
cortical.io, idibon, LUMINOSO, wit.ai, Maluuba

PREDICTIVE APIS
AlchemyAPI, MINDOPS, Google, bigml, indico, ALGORITHMIA, Expect Labs, PredictionIO

IMAGE RECOGNITION
clarifai, MADBITS, DNNresearch, DEXTRO, VISENZE, lookflow

SPEECH RECOGNITION
GRIDSPACE, popup archive, NUANCE

RETHINKING ENTERPRISE

SALES
Preact, AVISO, RelateIQ, NGDATA, FRAMED, infer, ATTENTIVITY, causata

SECURITY / AUTHENTICATION
CROSSMATCH, conjur, EYEVERIFY, BITSIGHT, CYLANCE, bionym

FRAUD DETECTION
sift science, SOCURE, ThreatMetrix, feedzai, Brighterion, verafin

HR / RECRUITING
TalentBin, entelo, predikt, Connectifier, gild, hiQ

MARKETING
brightfunnel, bloomreach, CommandIQ, AIRPR, RADIUS, TellApart, people pattern

PERSONAL ASSISTANT
Siri, Google now, Cortana, cleversense, tempo, Robinlabs, KASISTO, fuse|machines, VIV, CLARA LABS

INTELLIGENCE TOOLS
ADATAO, Palantir, Quid, Digital Reasoning, FirstRain

RETHINKING INDUSTRIES

ADTECH
METAMARKETS, dstillery, rocketfuel, YieldMo, ADBRAIN

AGRICULTURE
BLUE RIVER, TerrAvion, ceresimaging, THE CLIMATE CORPORATION, tule

EDUCATION
declara, coursera, KNEWTON, kidaptive

FINANCE
Bloomberg, FinGenius, alphasense, KENSHO, Dataminr, minettabrook, BINATIX

LEGAL
Lex Machina, brightleaf, COUNSELYTICS, RAVEL, JUDICATA, Brevia, DiligenceEngine

MANUFACTURING
SIGHT MACHINE, MICROSCAN, IVISYS, BOULDER IMAGING

MEDICAL
Parzival, transcriptic, ZEPHYR HEALTH, Genescient, grand round table, bina, TUTE

OIL AND GAS
kaggle, AYASDI, TACHYUS, biota, Flutura

MEDIA / CONTENT
Outbrain, newsle, ARRIA, SAILTHRU, wavii, Owlin, NarrativeScience, yscap, Summly, Prismatic

CONSUMER FINANCE
affirm, inVenture, nextfinance, BILLGUARD, LendUp, LendingClub, Kabbage

PHILANTHROPIES
DataKind, thorn, DATA GUILD

AUTOMOTIVE
Google, Continental, CRUISE

DIAGNOSTICS
enlitic, 3SCAN, lumiata, ENTOPIS

RETAIL
BAY SENSORS, PRISM SKYLABS, celect, euclid

RETHINKING HUMANS / HCI

AUGMENTED REALITY
APX, blippar, META, layar

GESTURAL COMPUTING
THALMICLABS, omek, AUTTER, LEAP, eyeSight, 3Gear, GestureTek, nod

ROBOTICS
intel, LIQUID ROBOTICS, SoftBank, iRobot, Boston Dynamics, jibo, anki

EMOTIONAL RECOGNITION
affectiva, BEYONDVERBAL, EMOTIENT, cogito

SUPPORTING TECHNOLOGIES

HARDWARE
NVIDIA, XILINX, QUALCOMM, NERVANA, TENDEEP, rigetti

DATA PREP
TRIFACTA, Paxata, tamr, Alation

DATA COLLECTION
diffbot, kimono, CrowdFlower, Connotate, WorkFusion, import.io

www.shivonzilis.com/machineintelligence

Bloomberg BETA