

STORMWatch:

Commercial Cognitive Computing

An Emerging Market Report

V1.0 February 2015

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- Draft -

Edited by

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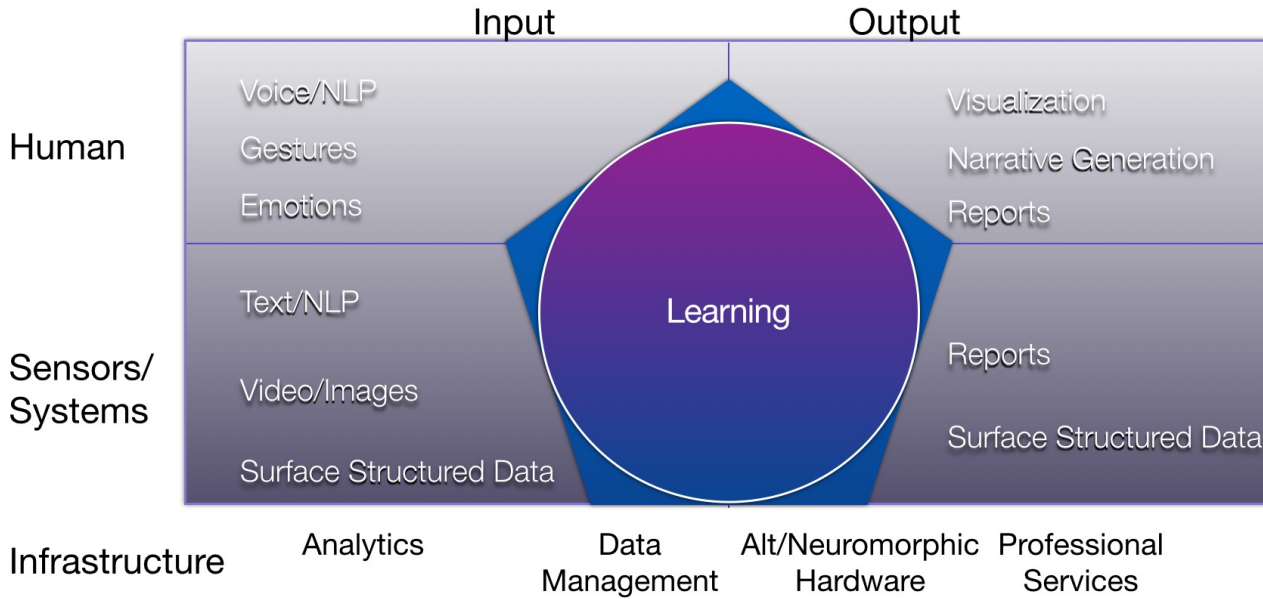
- I. Overview of the commercial cognitive computing ecosystem
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NOTE. This document provides an overview of the material to be provided in the Commercial Cognitive Computing Emerging Market Report series, published by STORM Insights, Inc. for annual subscribers. The actual reports, to be published in February, April, June, August, October and December of 2015, are expected to each be 30-100 pages, delivered as PDF documents. The February edition will feature profiles of the key learning vendors (~20), the April edition will add ~30 I/O and infrastructure vendors, and each subsequent edition will add 20-30 vendors. In each edition, we will also include profiles of the investors supporting each of these vendors.

Throughout this document text boxes in **BROWN** will highlight features and explain the form of the reports.

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I. Overview of the commercial cognitive computing ecosystem



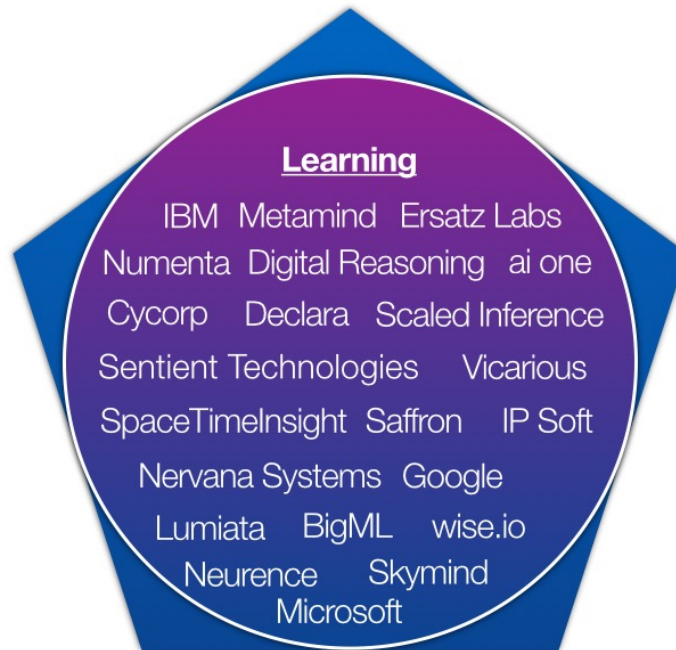
The Cognitive Computing Technology Ecosystem

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Our goal is to make the document easy to navigate, so each section will start with a graphic showing the market in context of the overall ecosystem and provide a narrative describing the key issues. That will be followed by profiles/analyses of the vendors with technologies, products, and services in this specific market.

The actual report will be available for download as a PDF document with navigation hyperlinks. For example, clicking on Text/NLP in a figure like this will take a reader to the page describing the market for Natural Language Processing/Text technologies, with links to relevant vendor profiles.

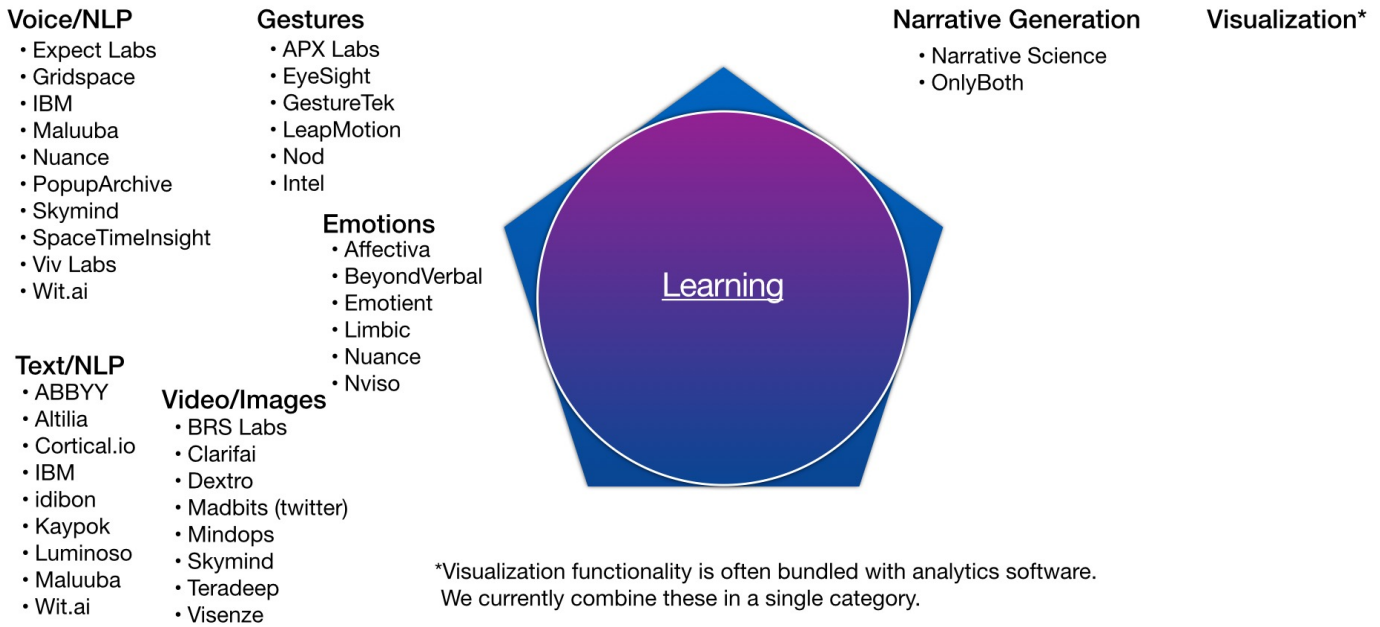
II. Continuous learning technology vendors



Core Learning Technology Providers

At the center of our model is technology for continuous and deep learning solutions. In this overview graphic, established firms like IBM, which has committed to over \$1B in cognitive computing investments and Google, which has made several acquisitions in this space, are not distinguished from early stage vendors with a single product line. The actual report series will provide a variety of segmentation/ranking graphics based on revenue, product maturity, capabilities, ecosystems, market share, etc.

III. I/O technology vendors



The Cognitive Computing Technology Ecosystem: I/O Technologies

In this graphic, we show firms with technologies or products in each of the critical I/O markets. Some are already established in the cognitive computing space, others are expected to be used in the next generation of cognitive computing projects. Profiles will cover their current and anticipated usage.

IV. Infrastructure vendors

Analytics/Visualization

- 1010data
- Actuate
- Adatao
- Alpine Data Labs
- Alteryx
- Altilia
- Angoss
- Attivio
- Birst
- Civis Analytics
- ClearStoryData
- Connotate
- Context Relevant
- Dataiku
- Datameer
- Emerald Logic
- First Rain
- ForeSee
- Fractal Analytics
- Guavus
- IBM
- indico
- Inkiru (Walmart)
- KNIME
- KXEN (SAP)
- LiftIgniter
- Loop AI Labs
- MathWorks (Matlab)
- Microsoft
- Mu Sigma
- Nara Logics
- NuTonian
- Opera Solutions
- Oracle
- Oxdata (H2O)
- Palantir
- Pentaho
- Prediction IO
- Predixion
- Qliktech
- Quid
- Rapid Miner
- Revolution Analytics
- Salford Systems
- SAP
- SAS Institute
- SiSense
- Spark Beyond
- Spotfire (Tibco)
- StatSoft (Dell)
- Synthos Technologies
- Teradeep
- ThinkBig Analytics (Teradata)
- Versium
- Wolfram Mathematica
- Yhat



Data Management

- Actian
- Aerospike
- Alation
- AlchemyAPI
- Altilia
- Basho
- Caspio
- Cognitive Scale
- Cognizant Technology
- Couchbase
- CrowdFlower
- CumuLogic
- Data Bricks
- DataRPM
- DataStax
- DataWeb, Inc.
- DDN
- diffbot
- GigaSpaces
- Giraph
- Grappa
- GridGain
- Hortonworks
- HP Vertica
- IBM
- import io
- kimono
- MapR

- MarkLogic
- MongoDB
- NeoTechnology
- Oracle
- Paxata
- RainStor
- Reactor
- SAP
- Space Curve
- Viv Labs

Alt/Neuromorphic Hardware

- Artificial Learning
- DWave
- HRL Laboratories
- IBM
- Nervana Systems
- Qualcomm
- Teradeep

Professional Services

- Accenture
- Cognitive Scale
- Deloitte
- Hitachi Data Systems
- IBM
- Xerox

The Cognitive Computing Technology Ecosystem: Infrastructure

In this graphic, we list many of the key players providing products and services to support the development of cognitive computing. Firms that appear in multiple categories have multiple product offerings, each of which will be listed in the profile.

V. Complete ecosystem listing

In the actual reports, vendor names will be linked to their profile page(s). We will also provide a linked listing by product name.

Alphabetical Listing

- 1010data
- 3Gear Systems(Oculus)
- ABBYY
- Accenture
- Actian
- Actuate
- Adatao
- Aerospike
- Affectiva
- ai one
- Alation
- AlchemyAPI
- Alpine Data Labs
- Alteryx
- Altilia
- Amazon
- Angoss
- Apple
- APX Labs
- Artificial Learning
- Attivio
- Ayasdi
- Azure ML (Microsoft)
- Basho
- BeyondVerbal
- BigML
- Birst
- blippar
- Boston Dynamics (Google)
- BRSLabs
- CA Technologies
- Caspio
- Cisco Systems
- Civis Analytics
- Clarifai
- ClearStoryData
- Cognitive Scale
- Cognizant Technology
- Coherent Knowledge Systems
- Connotate
- Context Relevant
- Cortical.io
- Couchbase
- CrowdFlower
- CumuLogic
- Cycorp
- Datameer
- DataStax
- DataWeb, Inc.
- Dark Blue Labs (Google/deepmind)
- DeepMind (google)
- Data Bricks
- Dataiku
- DataRPM
- Dato
- DDN
- Declara
- Dell
- Deloitte
- Dextro
- diffbot
- Digital Reasoning
- DNN Research (Google)
- DWave
- EMC/Greenplum
- Emerald Logic
- Emotient
- enStratius (DELL)
- Ersatz Labs
- Expect Labs
- EyeSight
- Facebook
- First Rain
- Flutter(Google)
- ForeSee
- Fractal Analytics
- GestureTek
- GigaSpaces
- Giraph
- Google
- Grappa
- GridGain
- Gridspace
- Guavus
- Hitachi Data Systems
- Hortonworks

- HP Vertica
- HRL Laboratories
- IBM
- idibon
- import io
- indico
- Inkiru (Walmart)
- Intel
- IPSoft
- Kaypok
- Kimono
- KNIME (Konztanz)
- KXEN (SAP)
- Leap Motion
- LiftIgniter
- Limbic
- Loop AI Labs
- Lumiata
- Luminoso
- Madbits (twitter)
- Maluuba
- MapR
- MarkLogic
- MathWorks Matlab
- MetaMind
- Microsoft
- Mindops
- MongoDB
- Mu Sigma
- Nara Logics
- Narrative Science
- NeoTechnology
- Nervana Systems
- Neurala
- Neurence
- Neven Vision (google)
- Nod
- Nuance
- Numenta
- NuTonian
- Nviso
- Omek Interactive (Intel)
- OnlyBoth
- Opera Solutions
- Oracle
- Oxdata (H2O)
- Palantir
- Paxata
- Pentaho
- PittPatt (google)
- PopupArchive
- Prediction IO
- Predixion
- Pregel (Google)
- Qliktech
- Qualcomm
- Quid
- RainStor
- Rapid Miner
- Reactor
- Revolution Analytics (MSFT)
- Saffron
- Salford Systems
- SAP
- SAS Institute
- Scaled Inference
- Sentient Technologies, LLC
- SiSense
- SkyMind
- Space Curve
- SpaceTimeInsight
- Spark Beyond
- StatSoft (Dell)
- Synthos Technologies
- Teradeep
- Tibco JasperSoft
- TIBCO - Spotfire
- Versium
- Vicarious
- Visenze
- Viv Labs
- Wise.io
- wit.ai
- Wolfram Mathematica
- Xerox
- Yhat

In this graphic, we list key players providing products and services to support the development of cognitive computing. The list, and the profiles of the corresponding vendors, will be updated as new firms enter, and as existing firms merge, acquire, and expire or otherwise exit these markets.

VI. Investors

- A Grade Ventures
- Accenture
- Access Industries
- Alchemist Accelerator
- Allen & Co.
- Altman, Sam
- AME Ventures
- Amplify Partners
- Andreessen Horowitz
- Atlantic Bridge
- Atlas Venture
- Azure Capital Partners
- BAE
- Battery Ventures
- Benioff, Marc
- Bessemer Venture Partners
- Bezos, Jeff
- Bloomberg Beta
- BlueCross BlueShield Venture Partners
- Boldstart Ventures
- Catamount Ventures
- Citi Ventures
- Citrix Startup Accelerator
- Clearsky
- Constance
- Contour Venture Partners
- Credit Suisse
- Crunchfund
- Data Collective
- DFJ Growth
- Draper Fisher Jurvetson
- Dyson, Esther
- Earlybird Venture Capital
- EMC
- EnerTech Capital
- Felicis Ventures
- Formation 8
- Founders Fund
- Frost Venture Partners
- Fuel Capital
- GE Ventures
- Genesis Partners
- Goldman Sachs
- Good Ventures
- Google Ventures
- Greylock Partners
- GSV Capital
- Haystack Fund
- Highland Capital Partners
- Horizon Ventures
- IBM
- IDG Ventures
- In-Q-Tel
- indico
- Innovation Works
- Insights Venture Partners
- Intel Capital
- Investor Growth Capital
- Ironfire Ventures
- IVP
- Jump Capital
- kbs+
- KEC Ventures
- Kima Ventures
- Khosla Ventures
- KPCB
- KPG Ventures
- Kutcher, Ashton
- LDV Capital
- Lear Corporation
- Levie, Aaron
- Liberty Global
- Lux Capital
- Madrona Venture Group
- Menlo Ventures
- Miramar Venture Partners
- Mission Ventures
- Moskovitz, Dustin
- Nashville Capital Network
- Northbridge Venture Partners
- Northwest Venture Partners
- Northwestern University
- Novus Energy Partners
- NVIDIA
- Open Ocean Capital
- Open Field Capital
- Opus Capital
- OS Fund
- Palomar Ventures
- Principia SGR
- Qualcomm Ventures
- Quest Venture Partners
- Reventon
- Robert Bosch Venture Capital
- RRE Ventures
- Samsung
- Sandbox Industries
- Sapphire Ventures
- Sequoia Capital
- Sierra Ventures
- SOS Ventures International
- Startup Farms International
- StartX
- Susa Ventures
- SV Angels
- Tata Communications
- Telefonica
- Tencent
- Thiel, Peter
- TIE Angels Group
- Toba Capital
- Two Sigma Ventures
- UMC Capital
- Udata Partners
- USAA
- Voyager Capital
- Walden-Riverwood
- XG Ventures
- Yale
- Yang, Jerry
- Zarco Group
- Zouk
- Zuckerberg, Mark

New technology markets require capital. The firms listed in this table have already invested in the cognitive computing ecosystem (some have single investments, some as many as 10 investments). They will be profiled in this report series, along with others as they enter this market.

Author Bio: Adrian Bowles

Adrian Bowles is the Founder of STORM Insights, Inc, a research and market intelligence firm focused on the role of emerging technologies in business transformation. Adrian has over 25 years of experience as an analyst, practitioner and academic in IT strategy and management.



Previously, Adrian founded the Governance, Risk Management & Compliance Roundtable for the Object Management Group, the IT Compliance Institute with 101 Communications, and Atelier Research. He has held executive positions at Ovum (Datamonitor), Giga Information Group, New Science Associates, and Yourdon, Inc. Adrian also held academic appointments in computer science at the State University of New York at Binghamton and Drexel University, and adjunct faculty positions in the business schools at NYU and Boston College. He began his career with research and application development roles at GTE Laboratories and IBM.

Adrian earned his BA in Psychology and MS in Computer Science from the State University of New York at Binghamton and his Ph.D. in Computer Science from Northwestern University.

Adrian also...

- ✔ Wrote his first AI application - a natural language simulation program - at SUNY Binghamton for his MS project (With B. Merritt). It was published in the proceedings of Cybersoft 80, the International Symposium on Cybernetics and Software. 1978-1980
- ✔ Studied AI, symbolic logic and mechanical theorem proving at Northwestern as part of his PhD studies (Computer Science). 1981-1982
- ✔ Taught AI at Drexel University, frequently bringing the computer center to a standstill with his popular class competition for a 2-person, zero sum, perfect information game. 1983-1986
- ✔ Evaluated AI tools for RCA Labs and led their design submission for the US DoD Air Land Battle Management System (a collection of coordinated expert systems for advising field operations). 1987
- ✔ Developed and analyzed software engineering tools and advised early adopters on strategy. 1988-2008
- ✔ Taught MBA classes in IT strategy/management and e-commerce in the business schools at NYU and Boston College. His classes focused on analytics and developing business plans and strategies to leverage emerging technologies. 1999-2009
- ✔ Provided advisory services to the IBM Watson ecosystem team, developing an assessment tool for potential application ecosystem partners 2013-2014
- ✔ Launched a YouTube series on Cognitive Computing (2014)
- ✔ Co-authored *Cognitive Computing & Big Data Analytics* with J. Hurwitz & M. Kaufman, available from John Wiley & Sons March 2015.