MONTHLY SECTOR UPDATE

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Technology

"The great growling engine of change – technology."

Alvin Toffler

in Primus Partners India

🐦 @partners_primus

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Our Take

Top 3 takeaways of the month

Research and development to facilitate implementation of AI especially in BFSI, Healthcare & Manufacturing	Trends of downsizing & streamlining of workforce in IT industry to increase efficiencies and improve cash flows	Need to build digital capabilities will lead to faster consolidation among the mid-tier information technology companies

Sector performance

IT industry in recovery mode; new deals offset budget cuts by clients

Data collated by global IT consultancy major Everest Group shows that IT industry is seeing a recovery due to the new outsourcing spends by clients across sectors barring the severely distressed ones. The managements of TCS and Tech Mahindra have indicated that green shoots will start to appear by September, meaning that the balance sheet should (for the larger IT companies) start reflecting a turnaround by the quarter ending March 31, 2021.

Mid size IT companies investing in digital initiatives owing to client demands

Many Mid sized IT companies in the country have seen an improvement in their free cash flows & margins in the quarter ended June mainly on account of strict cost cutting measures. Hence, they are now looking to invest in digital initiatives as clients take their businesses to virtual platforms and faster growth is expected in this segment as more sectors recover from the lockdown slump.

India Inc goes slow on salary increments

According to TeamLease Jobs & Salaries Primer Report 2020, salary growth for Indian professionals may range from a marginally positive to stagnant or even negative, given the dire situation created by COVID-19, but increment for some of the "super-specialized" profiles can go beyond 15 per cent. As per the report, the profiles that will see an increment in their salaries this year are Hadoop developer in BFSI, animators working in educational services, collection officer in industrial manufacturing and allied and digital marketing head in Information Technology and knowledge services.

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Latest in Technology

Generative Pre-training Transformer-3 (GPT-3) can be a game changer for the AI industry

Innovative technologists have long explored the human-machine boundary, but 2020 is likely to go down as the widespread beginning of co-created art, content and science. OpenAI's new language generator, GPT-3 is making it possible and thus, has been grabbing eyeballs in several tech circles.

The GPT-3 API provides a "text in, text out" interface, allowing users to try it on any English language task. It analyzes a series of words, text, and other information, then focuses on those examples to deliver a unique output as an article or a picture. With 175 billion parameters, it is the most powerful language model ever created so far and can perform specific tasks by providing it with fewer than ten training examples. This is unlike other language models that require an elaborate fine-tuning step with thousands of examples to train it. GPT-3's applications seem endless and possibilities are only limited by the human imagination.

GPT-3 is currently in private beta, with its computing prowess being demonstrated on social media. The eventual uses of GPT-3 are tough to ascertain, but it has a huge untapped potential. GPT-3 can query a SQL database in plain English, translate languages, compose fiction, make business memos, answer emails, perform programming tasks, and assist in medical diagnosis. While the language model may not be perfect in its current iteration, the prophesized use-cases would have a positive impact in the areas of software development, journalism, accountancy, creative and writers, as well as in the field of law.

There is no doubt that GPT-3 has significantly advanced the state of natural language processing and has given us a peak into the future. Yet a realistic view of GPT's limitations is essential to make the most of the model. It is ultimately a correlative tool and lacks the ability to reason abstractly or understand the language it generates. GPT-3 is susceptible to basic errors that an average human wouldn't commit. As a general philosophical principle, GPT-3 accepts that being weird sometimes is a necessary part of being smart. OpenAI wants developers to further explore the possibilities of GPT-3, before rolling out a commercial version later. It is still unclear how much it would cost, but it holds a significantly high potential takeaway to become a business enabler in the near future.

Potential Use Cases in Healthcare and Education sector in India
- It could answer medical queries for patients researching more information about their disease.
- It could help decipher healthcare jargon and summarize the relevant data while also prescribing medication.
- Physicians currently have to write a lot and it is one of the main causes of physician burnout. GPT-3 could potentially make this process simpler and help physicians with administrative tasks.
- Another possibility is Clinical decision-support tools that gives plain text explanations and can elaborate on the usual evidence-based protocol for a given disease
- With the employment of hyper-personalization through machine learning, GPT-3 can help design customized training materials and learning profiles for each student, considering the student's preferred mode of learning, their abilities and experience on an individual basis.
- Voice assistants, like Alexa, Siri, etc., could leverage GPT-3 to allow students to engage with educational materials without involving a teacher.
- It could also assist educators in administrative tasks, including grading of exams, managing classroom materials or facilitating feedback and interactions with parents.

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In the Spotlight

India remains in Top 100 for the second successive time in UN e-Government Survey 2020

India has been **ranked 100th** in the latest UN e-Government Survey 2020 released recently. India is also **among the 54 countries** with a '**Very High**' OSI score (>0.75). The UN e-Government Survey is generally conducted every 2 years by United Nations Department of Economic and Social Affairs (UNDESA). It ranks countries and releases the eGovernment Development Index (EGDI) score (between 0 and 1) based on 3 parameters, which have one-third weightage each. The parameters are **Online Service Index** (OSI): based on online services questionnaire; **Telecommunication Infrastructure Index** (TII): based on data provided by ITU and **Human Capital Index** (HCI): based on data provided by UNESCO

Top 5 countries

Rank	Country	EGDI	Online Service Index	Telecom Infrastructure Index	Human Capital Index
1	Denmark	0.9758	0.9706	0.9979	0.9588
2	Republic of Korea	0.956	1	0.9684	0.8997
3	Estonia	0.9473	0.9941	0.9212	0.9266
4	Finland	0.9452	0.9706	0.9101	0.9549
5	Australia	0.9432	0.9471	0.8825	1

BRICS countries

Rank	Country	EGDI	Online Service Index	Telecom Infrastructure Index	Human Capital Index
54	Brazil	0.7677	0.8706	0.6522	0.7803
36	Russian Federation	0.8244	0.8176	0.7723	0.8833
100	India	0.5964	0.8529	0.3515	0.5848
45	China	0.7948	0.9059	0.7388	0.7396
78	South Africa	0.6891	0.7471	0.5832	0.7371

South Asian countries

Rank	Country	EGDI	Online Service Index	Telecom Infrastructure Index	Human Capital Index
169	Afghanistan	0.3203	0.4118	0.1762	0.3728
119	Bangladesh	0.5189	0.6118	0.3717	0.5731
103	Bhutan	0.5777	0.6824	0.5367	0.5139
100	India	0.5964	0.8529	0.3515	0.5848
105	Maldives	0.574	0.4353	0.5981	0.6886
132	Nepal	0.4699	0.4	0.4691	0.5405
153	Pakistan	0.4183	0.6294	0.2437	0.3818
85	Srilanka	0.6708	0.7176	0.5289	0.766

- India has done significantly well in OSI and is ranked in the 'Very High' category (Score >0.75). Therefore the country is on right track in providing online services through the Digital India program
- The country needs to improve in TII and HCI. The adoption of the NEP 2020 may aid in improvement in HCI in the coming years.

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Reports in Review

Artificial Intelligence could add $450-$500 billion to GDP by 2025 | NASSCOM

- Countries are actively promoting data utilization and AI by driving initiatives across 5 building blocks: strategy, data, technology stack, talent and execution. Coordinated efforts across all 5 building blocks is required to capture and capitalize on this opportunity.
- Data and AI could add $450-500bn to India's GDP by 2025, representing ~10% of the $5 Trillion aspiration pre-COVID-19.Nearly 45% of this value is likely to be delivered by 3 sectors: Consumer goods and Retail, Agriculture and Banking and Insurance.
- AI could play a crucial role in realizing India's vision of inclusive development especially in 3 areas – contributing to effective COVID-19 response & economic recovery, supporting social initiatives & equitable growth and enhancing talent & capabilities to position India as global hub for data & AI services.

Recommendations:
- Launch a National Program for AI and create a central, apex body to steer its execution, in collaboration with various ministries, industry groups and other stakeholders
- Finalizing India's Data & AI Action Plan by conducting workshops with ministries
- Identify datasets of national importance based on selected initiatives
- Kick-off work on 3-5 programs of socio-economic importance across ministries & gradually Increase data utilization by facilitating access to "data sets of national importance"
- Create schemes to engage the AI ecosystem (industry, startups, civil society, and academia)

Shaping the Future of the Internet of Bodies | World Economic Forum

- Wearable technologies such as health and location trackers have been thrust into the public spotlight – spurring not only excitement about their potential benefits but also debate over their potential risks.
- IoB technologies are deployed not only in medical scenarios but also across different sectors, from fitness and health management to employment settings and entertainment.
- Accelerating convergence of consumer devices and health/medical devices also shows that the line between medical and non-medical IoB devices is blurring. Hence, new strategies of governance are needed for IoB devices, which are traditionally subject to different regulatory agencies and rules.
- Governance of data generated from IoB, particularly from health and wellness IoB devices raises new challenges for regulators especially with the rapidly shifting ecosystem, like the wide adoption of big data algorithms.

Recommendations:
- Building a robust and consistent system of governance around the internet of bodies
- Data protection policies should also assess the outcomes of data inferences and analytics apart from the input data to the IoB devices.
- Building up a repertoire of privacy-enhancing technology, and developing a framework of decision-making

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News & Announcements

Top 5 News on the sector

Aarogya Setu introduces new feature to help businesses resume operations

Open API service launched by Aarogya Setu which shall allow organisations to check real-time updates and the health status of their employees or any other Aarogya Setu user, who has given consent for sharing information. Read More

TCS slapped punishment of INR1,000 Cr. as employees steal trade secrets from client

TCS was found guilty by the US courts for stealing Intellectual property & trade secrets of Epic Systems Corp while assisting them in setting up their systems at a medical facility in Portland. Read More

Indian Seller Association Knocks CCI Doors Against Amazon

The case against Amazon India accuses it of anti-competitive practices by preferential treatment of seller entities like Cloudtail, Amazon Retail and Amazon Wholesale. Read More

Reliance Jio launches Jio Wi-Fi Mesh Router

Reliance Jio has launched a Wi-Fi mesh router for its FTTH JioFiber service that will enable users to extend the default Wi-Fi coverage to around 1,000 sq. feet across a floor. Read More

Google launches certificate courses – shall treat them equivalent to 4-year degree

Google has launched online professional courses - 'Google Career Certificates' which are designed to be completed in 6 months. Further, Google shall treat these new courses equivalent to a four-year degree when hiring. Read More

Top 5 sector player news

Apple reaches $2 Trillion valuation

On August 18, 2020, Apple became the first U.S. company to hit a $2 trillion valuation when its shares climbed 1.4 percent to $468.65 in midday trading. Read More

Reliance Jio gets nod for sub-sea cable gateway in Bengal

Jio would be coming up with a cable landing station in West Bengal with an aim to increase the state's connectivity with European and Asian countries and attract investment in the State. Read More

Facebook to introduce 'Facebook News' feature in India by next year

Facebook introduced News feature for US users in June and shall be extending it to users of Facebook app in other countries including India to help publishers reach-out to a wider audience. Read More

Cognizant on the hunt for new boss in India

Cognizant is on the lookout for a new Chairman & Managing Director (CMD) in India, following the resignation of Ramakumar Ramamoorthy from the helm last month. Read More

Accenture to fire 5 pc of its workforce globally

Accenture is all set to fire 5% of its workforce globally, which means that around 10,000 employees in India will lose their jobs due to the economic crisis caused by the coronavirus pandemic. Read More

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Industry Activities

Key movements in the Industry

#	Name	From	To	
1	Venu Lambu	Global Head of Markets, **Cognizant**	President of Global Markets, **Mindtree**	[Read More](#)
2	Kevin Mayer	CEO, **TikTok**	Not known	[Read More](#)
3	Krish Seshadri	CEO APAC & Middle East, **Monster**	CEO, **OnMobile**	[Read More](#)
4	Nirav Patel	Senior Vice President, **Cognizant**	President and CEO, **Bristlecone**	[Read More](#)
5	Charlie Nicholson	CFO, **Premier Research**	Global CFO, **Softbox**	[Read More](#)
6	Paolo Leutenegger	Group R&D Director, **Duplomatic MS**	General Manager, **Duplomatic MS**	[Read More](#)
7	Nora Toure	President, **Women in 3D Printing**	Director of sales, **Fast Radius**	[Read More](#)
8	Fritz Morgan	Advisor, **DEKA Research & Development**	COO, **Alert Innovation**	[Read More](#)

Key mergers and acquisitions across the Industry

#	Acquirer	Target	Value	
1	Reliance India Ltd	TikTok India (*) - *Likely*	$5 Billion	[Read More](#)
2	Wipro	IVIA Servios	$22.4 Million	[Read More](#)
3	Reliance India Ltd	Netmeds	INR62 Million	[Read More](#)

(*) – This is based on reports in the media as a possibility, and the actual deal has not yet taken place. Neither can it be independently confirmed if the deal is being considered or whether it will take place or not.

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Looking Forward

Listed below are the trends and opportunities which we feel shall define the Indian technology sector going forward.

Gaining traction for contactless payments

The demand for contact-less payment methods in this pandemic-hit economy is expected to create new opportunities for digital wallet operators. Such payment methods are gaining widespread popularity since they offer a much safer option for transactions as compared to physical payment methods such as cash, debit and credit cards in terms of reducing the physical contact between parties. Further, these digitally linked transaction shall help the industry in collecting data which can be used to offer new services, hence creating new revenue streams for businesses to grow.

Push for faster adoption of 5G and Wi-Fi 6

With COVID-19 forcing majority of the workforce out of their well-connected office spaces to at-home offices, the demand for better and faster home networks has increased rapidly. Due to this situation, many telcos across the world are set to exceed their 5G implementation goals. Along with Wi-Fi 6 which is expected to offer 3x download speeds that are achievable through Wi-Fi 5, 5G networks shall create the perfect end-to-end combination of ultra-fast connectivity for home and office.

Increased adoption of Robotic Process Automation (RPA)

Even as coronavirus passes, more and more companies are looking to offload as many mundane tasks as they can to ensure that business runs smoothly in the event of the next global disruption. This shall aid the growth of RPA market with reports predicting a compound annual growth rate of nearly 30 percent for this market in the next few years. Further, enterprises are boosting up their automation efforts by combining RPA with advanced technologies such as Machine Learning (ML), Natural Language Processing (NLP) and speech recognition in order to automate high-order tasks that required humans to perceive and judge the situation or task.

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About Primus Partners

Primus Partners has been set up to partner with clients in 'navigating' India, by experts with decades of experience in doing so for large global firms. Set up on the principle of 'Idea Realization', it brings to bear 'experience in action'.

'Idea Realization'— a unique approach to examine futuristic ideas required for the growth of an organization or a sector or geography, from the perspective of assured on ground implementability.

India is and will continue to be a complex opportunity. Private and Public sector need trusted advisory partners in order to tap into this opportunity. Primus Partners is your go-to trusted Advisory for both public and private sector organizations involved intricately with nation building, and the creation and growth of robust corporations as engines of progress.

Our core strength comes from our founding partners, who are goal-oriented, with extensive hands-on experience and subject-matter expertise, which is well recognized in the industry. Our core founders form a diverse cohort of leaders from both genders with experience across industries (Public Sector, Healthcare, Transport, Education, etc), and with varied specialization (engineers, lawyers, tax professionals, management, etc).

Primus Partners brings experience of working in more than 30 countries with private and public sector, including working with Government of India, building and leading large consulting teams at the leadership level, and creating one of the largest public sector consulting practice in India. They also represent 200 person years of experience in leading global and Indian consulting firms and the public sector.

The founding team is supported by a distinguished advisory board that includes experts with leadership experience across government, large corporate and notable civil society organisations.

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