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**Artificial Intelligence**

Artificial Intelligence is an evolving field of technology that has quickly made its way into mainstream media and the realm of big business. According to Bloomberg Intelligence, it is positioned to expand massively, as it could grow to $1.3 trillion over the next 10 years at a CAGR of up to 42%. As AI continues to disrupt and reshape industries, societies, and economies, a massive transformation is underway and is paving the way for a clear set of winners and losers.

The biggest winners include data centers, semiconductor / chip makers, cloud providers, and those who take advantage of the emergence of Large Language Models (LLMs). Compute-intensive AI applications require massive amounts of data to be stored and processed, creating a substantial market for companies that specialize in these data centers. This requires a large investment in updating existing data centers and developing brand new ones. Spending in the global AI infrastructure market, with a focus on data centers that support the use of AI applications, is expected to reach $422.55 billion by 2029 at a CAGR of 44%. Semiconductor / chip makers are another winner in this AI surge. Most AI development is done on highly specialized data center GPUs. Nvidia has a significant stranglehold on the market, with recent estimates putting the firm's market share at 90% for these GPUs. OpenAI, the company behind ChatGPT, uses numerous Nvidia A100-series GPUs to develop its models. Taiwan Semiconductor Manufacturing Company (TSMC) is one of the three main players in the foundry business, alongside Samsung and GlobalFoundries. They are at an advantage with regards to this AI boom as TSMC is the only company that can produce chips at the scale Nvidia requires, which is likely to spell success for them. Finally, for the cloud providers, it is an opportunity to use generative AI to boost demand for core cloud services. Google’s cloud-computing unit recently reported $8 billion in revenue, up 28% from a year earlier. Amazon followed suit with its announcement of Bedrock AI, and the market for cloud providers that implement Generative AI is hotter than ever as it needs massive computational power and massive datasets, making the cloud an ideal platform for these applications.

Although we see several winners, there are also a hefty number of losers in the emergence of AI applications. One major category of companies that fall under this is the Business Process Outsourcing / Call Center group. Many tasks currently carried out by call center agents and BPO workers could potentially be automated as AI's capabilities in areas like voice and language can lower the demand for these services. Legal tech platforms could also be in trouble as AI-powered assistants could automate many of the services that these companies provide such as creating legal documents using templates, which can be replaced by generative AI relatively easily. Education and publishing companies such as Chegg and Pearson are likely to struggle as there would be severely reduced need for traditional textbooks and study aids that are behind a paywall. A few unexpected losers are Shutterstock and Getty Images as the adoption of Midjourney and Stable Diffusion is all but certain to take over the stock photo industry. Finally, we can look at project management tools from companies such as Monday.com and Asana to face some headwinds as AI could automate several tasks these softwares accomplish including assigning tasks and keeping track of progress across various lines of business.

**GLP-1s**

In the health & wellness world there is one treatment that has been growing increasingly popular. Known as GLP-1s (glucagon-like peptide-1), they were originally medicines that help people with diabetes control their blood sugar levels but have recently become popular in helping people lose weight. They work by copying the effects of a natural hormone called GLP-1, which helps regulate blood sugar and appetite. Studies have found that people using the drug and making lifestyle changes lost almost 6 times as much weight as the people who did not use the drug.

This emerging market provides an opportunity for pharmaceutical companies to establish rich new revenue streams. Analysts from J.P. Morgan estimates that the market will reach $71 billion in the next 10 years. Pfizer has been even more ambitious with their estimate forecasting that the market will reach $90 billion in the same timeframe. This is a tremendous increase from the $12 billion valuation it is currently at. Right now, the market is dominated by a company called Novo Nordisk (followed by Eli Lilly), the producer of Wegovy which is the most popular GLP-1 on the market. The demand is so strong for the drug that the only limitation on sales – in the short term – seems to be their ability to produce them. Novo Nordisk may have the first mover advantage but their position is not set in stone, with the incredible profit potential many competitors started to release similar treatments (including: PegBio Co., Ltd., Innovent Biologics, Sun Pharmaceutical Industries Ltd., Sanofi, AstraZeneca, Pfizer Inc., Amgen, Inc., Boehringer Ingelheim International GmbH, and Eli Lilly and Company, Inc.). A shakeout is likely to happen in the coming years that will determine who will be able to seize market share and milk the rewards.

WeightWatchers is a company that’s seeing massive tailwinds from second-order effects of GLP-1s. Less than a year ago, WeightWatchers was trading as if bankruptcy was imminent with downgrades from major ratings agencies. All of a sudden, the outlook for WeightWatchers has vastly improved as their mailing list might become increasingly valuable for pharmaceutical companies looking to market their weight loss drugs. On top of that, Blue Cross Blue Shield recently announced that members will be required to make lifestyle modifications for at least six months before being approved for weight loss drugs. One of these approved lifestyle modifications is being enrolled in WeightWatchers for six months.

But this development has not been good for everyone, companies that make medical devices like glucose-monitoring systems and sleep-apnea machines plunged in value. Developers of drugs for fatty liver disease, which is linked to obesity, have also fallen sharply. Healthcare stocks have fallen significantly this year, making it one of the worst sectors YTD. On September 21st, the front page of Baron’s had an article titled “How Ozempic and Wegovy Could Break the Health Care System “which explains an impending “healthcare crisis that could come as spending on the drugs threatens to overwhelm the insurers, employers, and government programs that buy the country’s medicines”. This would explain why Blue Cross Blue Shield has started to make stipulations on who can receive insurance money for these drugs that are currently priced fairly expensive. The second-order effects don’t stop there, some analysts are even starting to project that reduced cravings could moderately curb demand for fast-food restaurants and packaged snacks.

