EffectUal Services

Intelligence That Matters

Monthly Newsletter from Effectual Services

Dear Readers,

Welcome to NewsEffect – June 2023

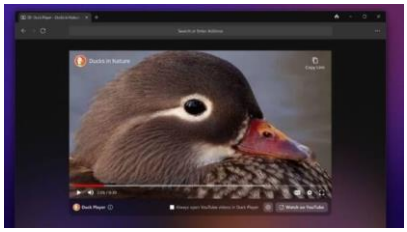
Newsletter Contents

- Emotional AI
- Disruptive Technology Leads
- Advancement in AI
- IP News

Emotional AI

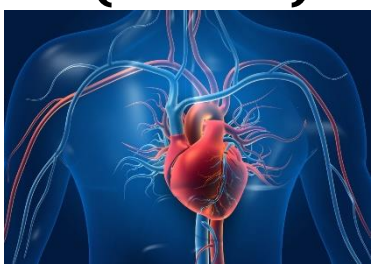
- Disney Content can be Enhanced with AI Technologies. Emerge, a company developing a multi-sensory communication platform, has signed a multi-year strategic partnership with The Walt Disney Company. A significant step forward in its objective to develop a new paradigm for emotional connection in a world facing unprecedented levels of disconnection. Emerge develops a multi-sensory communication platform powered by emotion AI that includes sight, touch, sound, and brain activity. The AI communications company will also allow users to digitize and communicate their emotions in real-time, aiming to establish a new standard for personal interaction.
- Bringing emotional intelligence to artificial intelligence. As AI is moving towards connecting humans together, it's important that the empathetic aspect is now being taken into consideration. As a result, an empathy-based chatbot made by UCI alumni siblings is the embodiment of AI for use in the medical field. With the help of this chatbot, patients suffering from depression, anxiety or other mental health challenges might be able to talk with the chatbot that's empathetic.
- The gaming industry has always been at the forefront of new technology adoption, pushing the limits of what is possible in terms of visuals, storyline, and gameplay. Emotion AI, a subclass of artificial intelligence that focuses on recognizing, interpreting, and responding to human emotions, is one of the most recent advances to create waves in the gaming world. Developers are revolutionizing the gaming experience through the integration of Emotion AI into video games, producing more immersive, engaging, and emotionally powerful experiences for gamers. Emotion AI analyses multiple inputs, such as facial expressions, speech tones, and even physiological reactions, to assess a person's emotional state using complex algorithms and machine learning techniques.
- MIT researchers developed a computational model to predict human desires inspired from a game show: Referring to the British game show Golden balls which operates on the principles of the prisoner's dilemma game theory, this model predicts humans' emotions based on their desires, expectations and whether their actions are being observed. Giving insight into possible humans' reactions based on fear, guilt, fury, this mode seeks to establish just by seeing a bit of someone's behavior, whether it is possible to infer things expected and wanted by other individuals.
- Emotional branding in the era of generative AI. Generative AI is revolutionizing marketing by enabling brands to create more personalized and emotionally resonant campaigns. Large language models (LLMs) such as ChatGPT push the boundaries of marketing beyond anything that's come before. A newly GPT-4's multimodal capabilities means that marketers can utilize it not only for personalized text messages but also for creating multimedia assets tailored to specific campaigns with respect to palette, theme, and tonality. This requires an in-depth understanding of the industry that their brand operates within and what emotions readers resonate with the most, and whether or not the copy/creative aligns with this emotion.
- An emotion recognition tool- developed by University of the West of Scotland (UWS) academics - could help people with neurodiverse conditions including autism. With recent advancements in vision processing and low-cost devices, such as wearable electroencephalogram (EEG) and electrocardiogram (ECG) sensors, UWS academics have collaborated to create artificial intelligence(AI) which can accurately read emotion-related signals from brain and facial analysis.

Disruptive Technology Leads



- Microsoft vs FTC: What the trial is about and what happened in court Microsoft is facing a five-day hearing after the US Federal Trade Commission (FTC) sought to temporarily block its $69 billion planned acquisition of the videogame maker Activision Blizzard that could change the gaming industry forever. One of the most important trials in Microsoft's history, the hearing began in a San Francisco court on June 22 and will conclude on June 29.
- DuckDuckGo, the privacy focused browser is now available on Windows DuckDuckGo, the privacy-focused search engine, has launched the first open beta version of its browser on Windows. Similar to the Android, iOS and Mac versions, DuckDuckGo for Windows brings several privacy-focused features like link tracking protection, Google AMP protection and 3rd party tracker loading protection. In a blog post, the developers said that the 'DuckDuckGo for Windows' comes with its own password manager, with users able to import their saved passwords and bookmarks from other browsers. The company also added that the functionality will be useful when it rolls out private syncing across devices. The Windows version is also getting the company's alternative to ad-blockers, which works by blocking trackers before they load and removing whitespace left by ads for a clean look..
- Titan submersible tragedy puts spotlight on gaming controllers: They aren't all that bad, here's why. It was recently revealed that the Titan submersible was controlled by a repurposed Logitech G F710 Wireless Gamepad, sparking speculation about whether the controller had anything to do with the disaster. Shortly after this news came out, the Amazon page for the controller was bombarded with troll reviews. Yet despite the flak the Logitech G F710 received, using video game hardware for purposes like these makes perfect sense. Gaming controllers are already being widely used across various fields in different applications, such as robots, laser weapons, drones, and even medtech.
- Tesla To Acquire Wireless Charging Startup Wiferion, Inductive Charging Rumored Again Recently, wireless charging solutions for mobile phones have become widespread, and the auto industry has adopted them as an elegant way to charge the phone without fiddling with cables. Still, inductive charging could play a bigger role, thanks to electric vehicles becoming popular. A year ago, we learned about WiTricity, a startup trying to pitch the wireless charging idea to carmakers. After it made no headways with its first partner Toyota, WiTricity tried to sell automotive inductive charging as an aftermarket solution. Witricity modified a Tesla Model 3 to include a power receiver and showed that charging your EV simply by parking it on top of a corresponding charging pad is super convenient.
- Solid-State Batteries One Step Closer to Reality Thanks to Significant Breakthrough Solid-state batteries promise unprecedented energy density and safety but have serious drawbacks that must be overcome. Scientists at Osaka Metropolitan University announced a significant breakthrough discovery that can speed up the adoption of solid-state batteries.
- Rivian Removes Driver Monitoring Camera From Its Vehicles for a Bizarre Reason Hidden inside the release notes of the recent 2023.22.00 update, there was a surprising mention of the driver monitoring camera being deactivated. Rivian explained the decision and said it would build future vehicles without this safety feature, at least for a while.

Disruptive Technology Leads (Contd.)



- bit.bio is Industrialising Human Cell Manufacturing, Unleashing the Potential of Synthetic Biology for Reproducible Research and Affordable Regenerative Medicines. (15 June, 2023) Data presented at International Society for Stem Cell Research conference shows unparalleled level of consistency across manufacturing of multiple human cell products World leading stem cell biologists call the technology "a watershed moment for biology" and "a true disruptive innovation in stem cell biology, much as CRISPR has been for genetics. bit.bio's ioCells are already being used and enable large-scale experiments that underpin preclinical research and drug development. bit.bio, a synthetic biology company focused on human cells, has achieved a milestone in the manufacture of human cells. Based on their opti-oxTM 1- based transcription factor reprogramming technology, bit.bio has reached a new level of precision and consistency of their induced pluripotent stem cells (iPSC)-derived cell products.
- Gold Layer Substitute Unlocks Affordable Perovskite Market Potential. (22 June, 2023) The perovskite solar cells with the new layer achieved a 21% laboratory efficiency. A discovery by a team of researchers at the U.S. Department of Energy's National Renewable Energy Laboratory (NREL) and Northern Illinois University has developed a layer made of nickel-doped graphite combined with a bismuth-indium alloy as a cost-effective alternative to the gold layer used on perovskite solar cells. Our team has identified a potentially disruptive technology that could help reduce the cost of highly promising perovskite solar cells in solar panels. By replacing the expensive layer of gold with affordable materials, we can make perovskite solar panels more accessible and affordable for the general population
- Ballard announces plan to scale production & reduce costs of next generation bipolar plates (12 June, 2023) Ballard Power Systems (NASDAQ: BLDP) (TSX: BLDP) announced today its plan to materially reduce the costs and scale production capacity of next generation, proprietary graphite bipolar plates, including the introduction of disruptive manufacturing technology. This project is the logical progression after Ballard completed two important milestones – the development of next generation, thin flexible graphite bipolar plates, and an expansion of membrane electrode assembly (MEA) manufacturing capacity in Canada as part of Ballard's "3 by 3" stack cost reduction program.
- CorWave secures €61m in second round of Series C funding (20 June, 2023) BPifrance leads investment for industrial development and clinical trials of the wave membrane pump. The medical device company has developed a heart pump based on patented technology inspired by the serpent-like movement of marine animals. The pumps polymer membrane recreate this movement in reverse propelling the movement of blood. These investments are the result of demanding selection processes that demonstrate the relevance of our disruptive product and the seriousness of the work carried out by our teams. These funds will enable us to pursue our mission with the aim of improving the lives of advanced heart failure patients around the world.

Advancement in AI





- AI Brings New Capabilities to Bin Picking. Advancements in AI enable the random bin picking of objects that were difficult for traditional vision solutions to pick up, such as shiny metal parts. Courtesy of FPE Automation. Recent AI advancements allow for machine learning to be applied to bin picking. These implementations depend on artificial neural nets that consist of layers of connected software neurons. Feedforward and feedback mechanisms adjust the relative weight of the neurons during training to create a model that takes an input, such as the image of an object, and produces an output, such as a classification of whether the object is a potato or not.
- The Future of Call Centre Outsourcing: Embracing Artificial Intelligence and Human Collaboration. Call centre outsourcing is experiencing a transformative shift, spurred by advancements in artificial intelligence (AI) and the evolving expectations of customers. In this article, we delve into the future of call centre outsourcing, with a keen focus on the seamless integration of AI technologies and human collaboration. By melding the capabilities of AI with the unique qualities of human agents, businesses can deliver superior customer experiences while optimising operational efficiency.
- Study reveals AI may transform the way we understand emotion. With recent advancements in vision processing, and low-cost devices, such as wearable electroencephalogram (EEG) and electrocardiogram (ECG) sensors, UWS academics have collaborated to harness the power of these technologies to create artificial intelligence which can accurately read emotion-related signals from brain and facial analysis. An emotion identification technology created by scholars at the University of the West of Scotland (UWS) might benefit people with neurodiverse diseases such as autism.
- Seattle startup uses generative AI to create presentation outlines. Tech companies of all sizes are using recent advancements in generative artificial intelligence to launch a steady stream of new products, targeting the automation of mundane tasks traditionally performed by office workers and content creators. These tools tackle a wide range of jobs, including drafting marketing content, scouring financial documents, note-taking during meetings, creating storyboards, interview preparation, and much more. Seattle startup Plus Docs is getting in on the action with the release of its own AI tool that drafts slide deck outlines out of natural language prompts.
- AI in medical care. Promising future avenues for AI include new opportunities to enhance medical care, including medical education and research. AI offers potential to simulate patient scenarios, synthesize large quantities of information, and provide recommendations for diagrams, references, and other learning tools.2 Medical researchers have begun using ChatGPT and other forms of AI to analyze large quantities of data including unstructured text from articles, and even generate research hypotheses.
- Artificial Intelligence Could Enable Life-Saving Early Diagnosis and Advance the Treatment of Pulmonary Hypertension. Thirona, a global company specialized in advanced analysis of thoracic CT images with artificial intelligence, announces its new AI-based algorithm for pulmonary artery-vein phenotyping, LungQ AVX. The promising results from multiple validation studies were presented at the ATS 2023 International Conference, 19-24 May 2023 in Washington. AVX is a new addition to Thirona's AI-based lung quantification platform LungQ, allowing for objective and sensitive quantification of vascular abnormalities from non-contrast CT, with high precision.

IP News

- Google ordered by jury to pay Personal Audio $15.1 mn for patent infringement. (June 21, 2023) Google has been ordered by a Delaware federal jury to pay patent holding company Personal Audio LLC $15.1 million for infringing two patents related to audio software. In a lawsuit, Personal Audio had argued that Google's music app Google Play Music featured playlist downloading, navigation and editing features that violated its patent rights.
- BeiGene to Vigorously Defend Patent Infringement Allegations by Pharmacyclics. (June 15, 2023) BeiGene (NASDAQ: BGNE; HKEX: 06160; SSE: 688235), a global biotechnology company, is aware that Pharmacyclics LLC has filed a complaint against BeiGene, Ltd. and BeiGene USA, Inc., alleging that BeiGene's BRUKINSA® infringes a Pharmacyclics patent issued on June 13, 2023. BeiGene's work is original, and we will vigorously defend against all allegations of patent infringement. It is an unfortunate but rather regular occurrence that companies make allegations that a competitive product potentially infringes their intellectual property rights, even more so in response to a clearly differentiated medicine for cancer patients as BRUKINSA.
- dsm-firmenich has initiated legal action in China against Shandong Haineng Bioengineering Co Ltd for a reported patent infringement. (June 20, 2023) The Swiss-Dutch company, dsm-firmenich, has initiated legal action in China for patent infringement against Shandong Haineng Bioengineering Co. Firm says Shandong Haineng swine compound premixes contain 25-hydroxyvitamin D3, which constitutes unlawful use of the of dsm-firmenich patented technology.
- Promosome LLC Sues Moderna, Pfizer, and BioNTech for COVID-19 Vaccine Patent Infringement (June 7, 2023) Promosome LLC, represented by Susman Godfrey, has filed major patent infringement actions against pharmaceutical behemoths Moderna, Pfizer, and BioNTech. The suits allege that the mRNA-based COVID-19 vaccines produced by these companies violate patented technology owned by Promosome. While these pharma giants are embroiled in their own legal battle over more than $100 billion in collective vaccine revenue, the suits filed Tuesday allege that a small biotech company helped pioneer the transformative technology used in the defendants' mRNA vaccines over a decade before the COVID-19 pandemic.
- REGENXBIO and University of Pennsylvania File NAV® Technology Patent Infringement Lawsuit, (June 20, 2023) ROCKVILLE, Md., June 20, 2023 /PRNewswire/ -- REGENXBIO Inc. (Nasdaq: RGNX) today announced that it has filed a second complaint for patent infringement against Sarepta Therapeutics, Inc. (Sarepta) arising from Sarepta's manufacture, use and imminent commercial launch of SRP-9001 for the treatment of Duchenne muscular dystrophy. The complaint asserted U.S. Patent No. 11,680,274, which covers Sarepta's AAVrh74-based gene therapy vector products, including SRP-9001. REGENXBIO exclusively licensed the newly issued patent from the University of Pennsylvania (Penn), which is a joint plaintiff in the lawsuit. The term of the patent-in-suit extends to October 2027 and damages are being sought to compensate REGENXBIO and its licensor, Penn, which originated the adeno-associated virus (AAV) gene therapy technology

IP News (Contd.)

- Tesla Patents Remote-Controlled Power Tailgate for Cybertruck. Tesla applied to patent a power tailgate for the Cybertruck, with advantages in complexity, weight, and reliability over similar features in competing pickup trucks. The Cybertruck owners might be able to open and close the tailgate remotely using the smartphone app or the key fob. The bad news is that this doesn't leave space inside the gate for the advertised modular ramp.
- The Comments Keep Rolling In: More Insight on the USPTO's ANPRM and Side-by-Side Comparison with PREVAIL Act. Public comments on the United States Patent and Trademark Office's (USPTO) Advanced Notice of Proposed Rulemaking (ANPRM) on Patent Trial and Appeal Board (PTAB) practices continued to be posted this week, following the June 20 deadline. The USPTO is currently processing the 14,000+ comments, many of which are duplicative, and periodically publishing them online. The Office announced the ANPRM in April. Broadly, the ANPRM is part of a strategy from the USPTO to restructure patent proceedings in an effort to curb abusive actions. A host of stakeholders, including IP law firms, academics, and advocacy groups, have weighed in on the various proposals in the rulemaking package, offering a mix of praise and criticism. We have covered several in two previous posts; here are some more.
- Skechers Sues Steve Madden Over Sneaker Logo Trademarks Shoe maker Skechers sued fashion company Steve Madden in Los Angeles federal court on Tuesday, claiming its "Kennie" line of sneakers violate Skechers' trademark rights in its "S" logos. The Steve Madden sneakers feature an "S" design that is likely to mislead consumers into thinking Skechers made or endorsed them, the lawsuit said.
- Google Hit With $15 Million Verdict in US Trial Over Audio Patents Alphabet's Google must pay patent holding company Personal Audio LLC $15.1 million for infringing two patents related to audio software, a Delaware federal jury said in a verdict made public on Wednesday. Personal Audio had argued that Google's music app Google Play Music featured playlist downloading, navigation and editing features that violated its patent rights. The jury also said that Google infringed the patents willfully, which could lead to a judge increasing the award by up to three times the verdict amount.
- US Supreme Court Revives Toy Inventor's Lawsuit Over Disney 'Toy Story 3' Bear. The U.S. Supreme Court ruled on Tuesday that Disney must face a New Jersey toy creator's lawsuit that claimed the company violated her trademark rights with its character Lots-o'-Huggin' Bear from the blockbuster 2010 film "Toy Story 3." The justices threw out a lower court's ruling that Disney was protected against the lawsuit from Randice-Lisa Altschul's Diece-Lisa Industries by the U.S. Constitution's First Amendment protections for freedom of speech. The Supreme Court most recently addressed the intersection of trademark law and free speech in its June 8 ruling for Jack Daniel's in a dispute over a dog chew toy fashioned to resemble the company's distinctive whiskey bottles.
- Whirlpool Settles Trade Secrets Case Against Exec Who Joined Rival Haier Appliance maker Whirlpool on Thursday agreed to drop a U.S. lawsuit against its former Italian executive Davide Cabri that accused him of stealing trade secrets for a move to its competitor Haier. Whirlpool and Cabri told a Delaware federal court they would dismiss the case with prejudice, which means it cannot be refiled. Whirpool said in a statement on Friday that the dispute had been resolved and that it was satisfied with the settlement..

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