exbody Co., Ltd: Pioneering the Digital Frontier With a Revolutionary Al-Based Therapeutic Exercise Platform

By combining digital technologies with its historical expertise in musculoskeletal analysis devices, exbody is transforming physiotherapy and physical training into a global, interactive experience that redefines health and wellness practices.

Imagine a world where your physiotherapy and physical training sessions feel like an interactive journey into a digital wonderland. After spending a long day at work taking busy phone calls and answering polite emails hunched over your office computer, you finally reach the comfortable confines of your home only to feel the usual back pain and stiff neck that has been plaquing you for the past two weeks. As your doctor accurately diagnosed, the pain comes from your poor posture, which he recommended you to treat by following a series of therapeutic exercises. To begin, you turn on your exbody *platform*, a posture analyzer for in-home use that will track your movements and recommend live corrections. You then select your digital twin avatar, and immerse vourself into a relaxing metaverse that takes you to a calm, relaxing

beach. After stretching for a few minutes, your physical trainer joins you in this digital environment and you begin your daily exercises in a comfortable setting under the supervision of a medical professional. Who said that physical training can't be fun?

While this description may sound like an opening chapter of a science fiction novel, the technologies necessary to make this dream-like scenario a reality are not only commercialized, but also endorsed by over 2000 medical institutions from across the world. This new wellness model, which combines the engagement of an AI-based training platform with the clinical benefits of physiotherapy, has been created by an innovative company that is transcending the boundaries of the medical field: exbody Co., Ltd. Founded by Kevin Bhang, Eunice Park and Michelle Kim in



exbody's co-founders and next leader

2011, this Seoul-based venture began by launching South Korea's first posture and gait analysis program. After successfully commercializing its product to medical institutions, exbody went on to develop a series of motion recognition technologies that it utilized to create posture analysis and evaluation systems, now forming the bedrock of its technological prowess. On top of accurately identifying issues in posture, motion, and gait, the company's devices also recommend targeted exercises to overcome and correct musculoskeletal deficiencies.

"Our devices utilize our core joint recognition technology, supplemented by our proprietary range of motion (ROM) analysis and heart rate monitoring technologies. This enhancement greatly improves the efficiency and accuracy of the evaluations and the exercises recommended by the device," explains Michelle Kim.

Just 10 short years after its inception, the firm has already grown into the world's leading developer of musculoskeletal analysis devices and posture analysis systems, with various of its products considered to be the de facto global standard.

"Today, over 2000 hospitals in South Korea are utilizing our products. Internationally, our solutions are being used in several countries, including the US, Japan, China, Vietnam, Azerbaijan, and Qatar," explains Mrs. Eunice park, CMO and Co-founder of exbody.

The company's growing popularity in the global market has allowed exbody to become a registered partner of influential trade organizations, including the Korea Trade-Investment Promotion Agency (KOTRA) and the Korea Institute of Industrial Technology (KITECH), whose mission is to select and support the development of innovative Korean enterprises.

Furthermore, exbody was recently chosen by the South Korean Presidential Economic Envoy. On top of being assigned a dedicated team from the envoy's SME Venture Department, the company's representatives have been invited to participate in international delegations.

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Michelle Kim, President, exbody Co., Ltd.

"In January 2023, during President Yoon Suk Yeol's visit to the United Arab Emirates, we were invited as part of a presidential economic envoy. As a result, we were able to display our products, and hospitals in the UAE have now committed to utilizing our technology," recalls Keylie, Exbody's COO. "This exposure led to considerable interest from neighboring countries such as Egypt and Saudi Arabia."

While exbody has received numerous accolades from hospitals and healthcare centers across the world, the company's solutions are not limited to the medical realm. "We operate on two distinct platforms: Metagym and Metacare," explains the co-founder. "Metagym caters to fitness, while Metacare focuses on medical aspects." On top of helping to prevent sport-related injuries, musculoskeletal analysis devices can shorten recovery times and have also been found to help improve athletic performance.

By designing custom-made solutions and adapting its posture analyzers to the specific demands of the sports, athletic, and fitness world, exbody has made a decisive entry into this growing market segment. Examples of the company's product include the Gait Fit, an analysis and training system It is, therefore, no surprise to find that exbody's solutions have encountered high demand from premium fitness centers and gyms, and have also been utilized by professional sports organizations, including South Korea's national training centers.

As awareness about the benefits of musculoskeletal analysis increases, the client base of exbody will inevitably grow more diverse. Because of their user-friendliness, accuracy, and embedded support system, the company's products are already making forays into the enterprise, education, and consumer markets.

"Currently, our growth is evenly split between the medical and fitness sectors, each accounting for 50%. However, I anticipate a shift in this balance as schools are now allocating budgets for our products. Major corporations like Samsung and Hyundai have also started utilizing our products for employee health assessments, which signals the potential for significant growth coming from corporate demand," shares Eunice. "As more customers experience our products, they may want to integrate these experiences into their home environments. This provides an opportunity to expand our B2C business, enabling direct sales to individual consumers."

If exbody's products can easily be utilized by such a wide variety of clients, ranging from the medical and fitness world to the consumer segment, it is because the company's strategy has been to focus on the development of a comprehensive platform. Instead of focusing on hardware development alone, exbody's engineers have harnessed the power of digital communication technologies and data analysis to enable personalized solutions that target specific market needs.

"exbody has consistently identified and addressed consumer needs and has integrated these elements into our products and services. This consumer-centric approach has largely contributed to our company's growth," details Keylie. For instance, if you're someone suffering from back pain and have a history of slipped discs, you can utilize our Metagym platform. This platform doesn't just assess your health status; it also recommends specific exercises to enhance your well-being. Essentially, it's a bespoke service that's tailored to meet the unique needs of each individual customer."

Proof of this customer-centric philosophy can be found in the

management, tailored specifically for each individual," proudly details CEO, Michelle Kim.

With more than a decade of user information at its disposal, exbody has integrated AI technologies in its management platform to interpret information and to facilitate the development of new, practical applications. Furthermore, the company is utilizing large language models to optimize the interaction between users and machines.



exbody system: exbody 9100 and exbody 6100



KIMES (Korean International Medical & Hospital Equipment Show)

exbody 9100, a posture analyzer that provides whole-body musculoskeletal analysis reports in a minute. Because the device maintains individualized records for every customer, it can more easily identify bodily issues and more accurately recommend appropriate solutions.

"This seamless transition from diagnosis to treatment, combined with the capability to track their progress at each stage, provides an unparalleled experience to users. In essence, the device offers a continuum of analysis, from pre-exercise to real-time exercise

However, AI technology is not the only digital solution that the company is utilizing to enhance the interactivity and engagement of its programs. Inspired by a new brand of more digitallysavvy consumers, exbody embarked on an ambitious project to gamify its training programs. "The COVID-19 pandemic, which required staying at home, led to the government launching a project titled 'home training and gamification.' This project, backed by an investment of KRW 3.6 billion, attracted significant competition," recalls Keylie Seo.

For this competition, exbody pioneered a home training gamification platform entitled Metagym. Located within a 3D online setting, users can attend coaching programs directed by medical professionals and interact with others while using their own digital twin. To make the exercise as rewarding as possible both from a medical and engagement standpoint, the platform uses an adaptive AI that adjusts in real-time to the user's capability level. Unlike traditional exercises, which rely on a set of controllers for character movement, users must move their entire body to play and interact.

"One of the challenges that our technology aims to address is the impersonal nature of remote interactions." explains Kevin Bhang. To overcome this issue. the company has integrated haptic feedback and sensors that enable players to feel interactions with others located thousands of kilometers away. "For instance, if you are in Seoul working out with a friend in New York who wants to give you a fist bump after an impressive set of squats, our 3D online built-in systems and haptic feedback can make you feel that fist bump. This level of interaction significantly enhances user immersion in the platform."

exbody's innovative journey in revolutionizing physiotherapy and wellness presents a captivating blend of technology, personalization, and global reach. From the intuitive design of its platforms to its pioneering role in therapeutic exercise and international expansion, exbody stands as a testament to the transformative power of technology in healthcare. "Our goal is to cater to the holistic health of users, both physical and mental, effectively creating a platform that serves as an adult wellness playground and that will become a global standard in the realm of real-time interactive healthcare platforms" concludes Keylie, the next leader of the company.

In exbody's world and global healthcare platform, physiotherapy isn't just a path to recovery; it's an engaging, interactive journey to better health – a journey that's just as exciting as the destination.



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