

Powering AI Data Centers with Human Kinetic and Thermal Energy

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ABSTRACT

The goal of this research is to posit on future roles for humans in an Artificial Intelligence dominated world. While simultaneously solving the Data Centre Energy problem. Harris, J (2026) Due to ever increasing worries about Ai replacing people in the workplace. Fore P (2026) Scenarios will be presented offering different roles for people in an AI world where human employment has become defunct. Instead of challenging or trying to compete with technology, humans could offer a more symbiotic role.

1. Introduction

There have been many developments in technology and industry over the years. The Industrial Revolutions of the past led to vast changes in commerce and employment. There is a lot of speculation on how humankind can compete with or challenge AI in the workplace. Humans can use AI or even integrate with it. But the advent of A.I. (the Fourth Industrial Revolution) we may see the creation of a new profession, that of a Human Energy Generator; through the use of Human Kinetic or Thermal energy. This leads to a symbiotic relationship. AI needs energy and Humans need to keep fit and healthy while inactive.

2. Literature Review

Examined articles about AI and its need for energy. Harris, J (2026) which discusses aspects around Data Centers for AI and its energy demands. There are also issues around employment in the AI world. Fore P. (2026) Research on treadmills shows that they can be adapted to generate electricity through kinetic energy Agrawal G.H, Thakre V, Motghare S et al. (2025). There is already a system for generating energy from human thermal energy Tabaie Z, Omidvar A (2023) and some governments offer grants for generating extra electricity at home Citizen's information (2025)

3. Methodology

Examine issues around AI and Employment and the need for energy for data centers. Posit on how humans displaced by the 'Fourth Industrial Revolution' could be given a symbiotic role helping generate energy for AI. Look at current technology around kinetic and thermal energy as well as electricity pay-back structures already in place for households.

4. Findings

Human Energy Generator (HEG) or Human Energy Resource Professional (HEGP) could be new careers in the A.I. world. Jennings J (2024) With Customer Service, Accounting, Data Entry, Vehicle Drivers and other professions being consigned to A.I. Brodsky S (2026), the previous holders of these jobs will need work or at the very least have something to do. But how would this work? A.I. and computer systems require a lot of energy. This is for data centers and processors.

The role of HEG would be to generate kinetic energy. This is energy created by movement. This is the scenario: Humans love to run and exercise, so this isn't really a difficult task. Everyone would be fitted with a device that could be charged up by their movements when they are running or doing exercise. Then when they arrive home, the wearer just connects it into an energy station with a USB (or some sort of futuristic electric air connector) and it collects the energy. This energy could either be returned to the grid, in return for credits, or the HEG could use it in their abode. Research done on treadmills shows that they can be adapted to generate electricity. According to Agrawal G.H, Thakre V Motghare S et al. (2025) Electrical power can be generated on a treadmill through the use of the following techniques:

- Runners using a Mechanical stride
- Adding a generator
- Power Controller for regulation

Agrawal G.H, Thakre V, Motghare s et al. (2025)

While current treadmills produce very low wattage. In this scenario perhaps they could be adapted on a mass scale to produce more energy. Of course, kinetic energy isn't the only energy created by the body. There is also thermal energy, this is the heat the body gives off during the day. The HEG could wear a body suit, and the thermal energy could be collected through specialized fibers or generators in the suit and then back to the energy station. According to Tabaie Z, Omidvar A (2023) Humans can wear generators to convert energy from their skin to electricity Wearable thermoelectric generators convert passive thermal energy from skin into electrical power using the Seebeck and Peltier effects. This is utilizing temperature differences to generate electricity and vice versa. Forrister T (2018).

There are already Micro Generation support Schemes for Solar Panels, Micro-wind, Micro-hydro and Micro-renewable combined heat and power that allows participants to sell excess renewable energy back to the grid. There are even grants. Citizens Information (2025) So really it isn't that big a leap to use Human Energy too.

5. Conclusion and Recommendations

There are two different methods of engaging with AI symbiotically. Humans can generate energy for the system kinetically or thermal. Technology already exists; however, it may only produce small amounts of electricity for data centers. However, if it is produced on a large scale, to all the people who will be made redundant by AI, then it is possible there will be enough energy to offset increased energy consumption. Also, on a societal level there are already schemes to reimburse or donate energy, so it may not be a disagreeable proposition.

5.1 Moving forward

These future roles are important as a lot of previously highly skilled professionals will find themselves with no commercial skills in the new economy. However, people need to feel they are part of the system, they need to feel they are contributing to society and its needs. Even if they are just generating kinetic and thermal energy. When they are part of the A.I system they will become invested in it psychologically and emotionally and are less likely to resent it. With the different systems outlined above, humans can easily form a comfortable symbiotic relationship with AI. With this new technology, the HEG's are free to enjoy their lives, get plenty of exercise and pursue their hobbies and interests, e.g. academics, music etc. it would be quite pleasant. Everyone would be doing what they like. However, humans are a competitive lot, so there could be challenges or rewards. If a participant generates a lot of energy and gives it back to the system, they could be rewarded with civic honors or access to a new recreation area. There are of course, people who for various reasons will be unable to be HEG's. A certain amount of the overall energy could be used to provide for them, or the participants may have the option to donate some of their energy credits to the less active. In the future A.I. will take over a lot of roles currently held by white collar professionals. However, this doesn't mean that people will have no role in the new economy. With the integration of new technologies into the abode and some adapted Internet of the Bodies devices everyone can have an integral role to play and contribute positively to the future of A.I. Humanity.

References

- [1] U Agrawal G.H, Thakre V ,Motghare s et al. (2025) Review paper on Treadmill to Generate Electricity by Human Power. Retrieved from <https://www.ijcrt.org/papers/IJCRT25A4514.pdf> Accessed 20/08/2026
- [2] Brodsky S (2026) AI robots want office jobs. Retrieved from <https://www.ibm.com/think/news/ai-robots-office-jobs> Accessed 20/08/2026
- [3] Citizens Information (2025) Micro-generation. Retrieved from: <https://www.citizensinformation.ie/en/environment/environmental-grants-and-schemes-for-your-home/micro-generation/> Accessed 20/08/2026
- [4] Fore P (2026) 'Godfather of AI' says billionaires like Elon Musk are right about the future of work—but he predicts mass unemployment is on its way 2026 Retrieved from <https://fortune.com/article/godfather-of-ai-geoffrey-hinton-massive-unemployment-warning-big-tech-replacing-workers/> Accessed 20/08/2026
- [5] Forrister T (2018) Studying the Peltier and Seebeck Effects in Thermoelectric Devices. Retrieved from <https://www.comsol.com/blogs/studying-the-peltier-and-seebeck-effects-in-thermoelectric-devices> Accessed 20/08/2026
- [6] Harris, J (2026) As AI guzzles water and energy, we are already facing a choice: datacenters or homes? 2026 Retrieved from <https://www.theguardian.com/commentisfree/2026/aug/09/slough-famous-the-office-datacentres-locals-hub-europe> Accessed 20/08/2026
- [7] Jennings J (2024) Future Careers in A.I. Human Energy Generator. Retrieved from: <https://www.linkedin.com/pulse/future-careers-ai-human-energy-generator-dr-john-jennings-tesol--e3rve/> Accessed 20/08/2026
- [8] Tabaie Z, Omidvar A (2023) Human body heat-driven thermoelectric generators as a sustainable power supply for wearable electronic devices: Recent advances, challenges, and future perspectives Retrieved from: <https://pmc.ncbi.nlm.nih.gov/articles/PMC10070544/se> Accessed 20/08/2026