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Bending the Consciousnesses: Uncovering Environmental Issues Through Circuit Bending

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Abstract : The growing pile of hazardous e-waste produced especially by those developed and wealthy countries gets relentlessly bigger, composed of the EEDs (Electric and Electronic Device) that are often thrown away although still well functioning, mainly due to (programmed) obsolescence. As a consequence, e-waste has taken, over the last years, the shape of a frightful, uncontrollable, and unstoppable phenomenon, mainly fuelled by market policies aiming to maximize sales—and thus profits—at any cost. Against it, governments and organizations put some efforts in developing ambitious frameworks and policies aiming to regulate, in some cases, the whole lifecycle of EEDs—from the design to the recycling. Incidentally, however, such regulations sometimes make the disposal of the devices economically unprofitable, which often translates into growing illegal e-waste trafficking—an activity usually undertaken by criminal organizations. It seems that nothing, at least in the near future, can stop the phenomenon of e-waste production and accumulation. But while, from a practical standpoint, a solution seems hard to find, much can be done regarding people's education, which translates into informing and promoting good practices such as reusing and repurposing. This research argues that circuit bending—an activity rooted in neo-materialist philosophy and post-digital aesthetic, and based on repurposing EEDs into novel music instruments and sound generators—could have a great potential in this. In particular, it asserts that circuit bending could expose ecological, environmental, and social criticalities related to the current market policies and economic model. Not only thanks to its practical side (e.g., sourcing and repurposing devices) but also to the artistic one (e.g., employing bent instruments for ecological-aware installations, performances). Currently, relevant literature and debate lack interest and information about the ecological aspects and implications of the practical and artistic sides of circuit bending. This research, therefore, although still at an early stage, aims to fill in this gap by investigating, on the one side, the ecologic potential of circuit bending and, on the other side, its capacity of sensitizing people, through artistic practice, about e-waste-related issues. The methodology will articulate in three main steps. Firstly, field research will be undertaken—with the purpose of understanding where and how to source, in an ecologic and sustainable way, (discarded) EEDs for circuit bending. Secondly, artistic installations and performances will be organized—to sensitize the audience about environmental concerns through sound art and music derived from bent instruments. Data, such as audiences' feedback, will be collected at this stage. The last step will consist in realising workshops to spread an ecologically-aware circuit bending practice. Additionally, all the data and findings collected will be made available and disseminated as resources.

Keywords : circuit bending, ecology, sound art, sustainability
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