# Karl Marx, Rosa Luxemburg, and Deep Brain Stimulation: is there a connection? Marwan Hariz, Paul Krack, Andrew Lees Umeå (Sweden), Bern (Switzerland), London (UK)

## **BACKGROUND**

It has become increasingly evident that DBS is not "reversible" in the long term: sudden arrest of chronic DBS may provoke a rebound of symptoms that may be fatal, due to medication-refractory malignant Parkinsonian crisis, or dystonic crisis ("DBS withdrawal syndrome").

Hence, patients may become "addicted" to DBS and will need regular neuro-pacemaker replacements, and, with the decreased battery capacity of the newer brands, the financial and clinical consequences are but obvious. Rechargeable batteries may not be suitable to many patients.

In a global survey of movement disorders DBS clinicians (neurosurgeons and neurologists), >80% answered that the latest neuro-pacemaker of the dominating DBS company has a shorter battery capacity than the previous one.

To date, seven scientific reports and one Editorial have been published from experienced DBS centers in Seoul, Kiel, Berlin, Birmingham, Tel Aviv, Grenoble and Clermont-Ferrand, establishing that the older brands of neuro-pacemakers had a battery lasting up to twice as long as the newer ones! (see References at the bottom)

# **Does this ring a bell?**

Seminal December 29, 2017

# Apple s'excuse et réduit le coût de remplacement de ses batteries

Visé par plusieurs procédures judiciaires, Apple a présenté des excuses, jeudi, quelques jours après avoir admis avoir volontairement ralenti le fonctionnement d'anciens modèles de téléphones.

Par Jérôme Marin 🔹 Publié le 29 décembre 2017 à 08h53 - Mis à jour le 30 décembre 2017 à 06h29

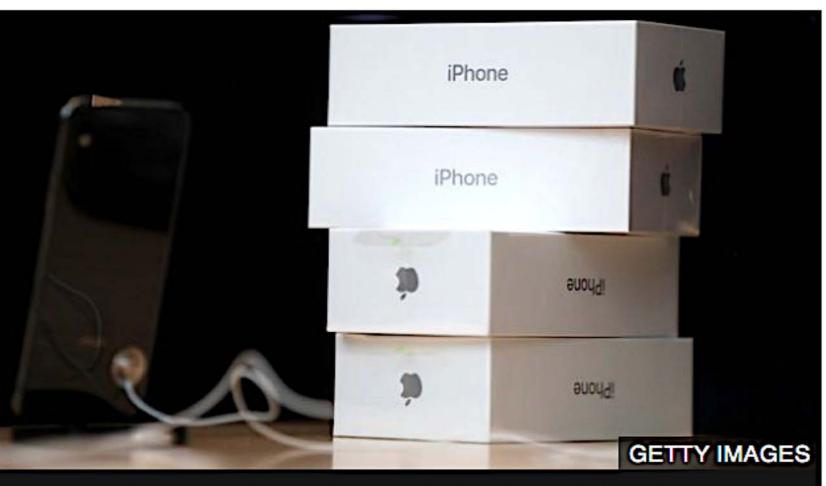


**January 8, 2018,** 

#### Apple investigated by France for 'planned obsolescence'

<sup>O</sup> 8 January 2018

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Consumer advocates claim a deliberate slowing down of older devices is signed to drive sales of newer models

French prosecutors have launched a probe over allegations of "planned obsolescence" in Apple's iPhone.

Under French law it is a crime to intentionally shorten lifespan of a product with the aim of making customers replace it.

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#### News

Phones and washing machines must be made to last, MPs say as Government launches inquiry into 'Tsunami' of e-waste

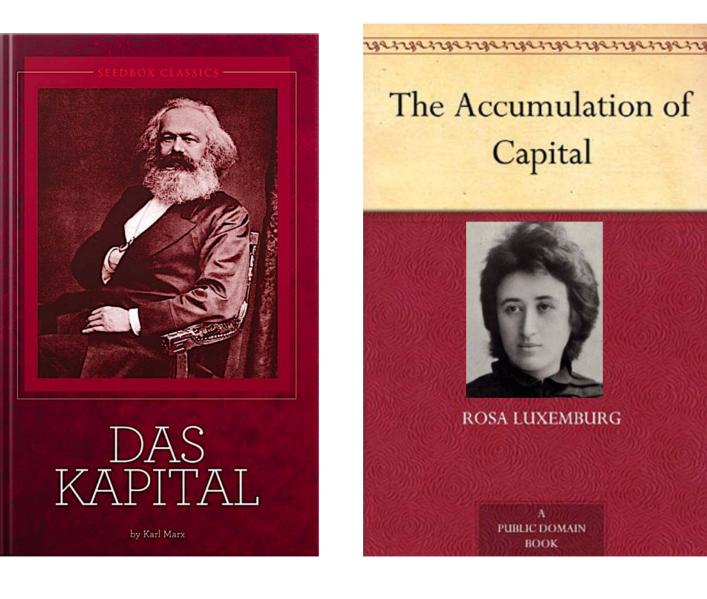


Mary Creagh has warned that tech is often designed to become obsolete Picture: John Taylor

Mary Creagh, who is launching the enquiry, has said that while in the past technology was built to last, now it is built to degrade in order to produce profit for tech companies.



# Is there a pattern here? and if so, what are the possible reasons?



Both Karl Marx "Das Kapital" (published 1867), and Rosa Luxemburg's work "The Accumulation of Capital" (published 1913) have established that the ultimate aim of Capital is to accumulate itself by steadily increasing profit. Interestingly, at the occasion of the centenary of Rosa Luxemburg's assassination, The Lancet published in January 2019 an Editorial praising her work and discussing globalisation and the health crisis.

THUS one may be entitled to ask: Could the pattern of obsolescence -or programmed "apoptosis" – of electronic hardware and their batteries be also valid for the batteries of DBS hardware? Could Capital's inherent need to increase profit at any cost explain that pattern?

#### Offline: Rosa Luxemburg and the struggle for health



The Lancet Vol 393, January 12, 2019

# **CONCLUSION**

When the drive to steadily increase profit concerns only iPhones or other electronic gadgets, one may or may not cope or forgive. However, if it is established that a pursuit of an ever-increasing profit affects important healthcare products such as DBS, this may become a relevant clinical and ethical issue: infection risk increases at each battery replacement, healthcare budgets are depleted, and in countries where DBS is not reimbursed by social security, patients financial situation can be heavily affected and their lives may be put at risk. These aspects need to be discussed more in depth. To paraphrase the Editorial of *Brain Stimulation* referenced below: "It behooves us to report these issues to our government approval bodies, as part of post-marketing surveillance".

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<u>Disclosures / conflict of interest:</u> In the last 5 years, MH has received travel expenses and / or honoraria from: Medtronic, St-Jude/Abbott and Boston Scientific, for speaking at meetings.