E-waste

What is electronic waste (e-waste) and its global problems

15 November, 2017 – WTIS – balde@vie.unu.edu
What is e-waste

- Temp. Exchange
- Screens
- Lamps
- Large Equipment
- Small Equipment
- Small IT
Overview of global e-waste statistics

41.8 Mt
Of e-waste generated in 2014

6.5 Mt are collected by official take-back systems

0.7 Mt end up in waste bins

4500 Eiffel Towers

34.6 Mt Unknown!
Traded, then “recycled” or dumped
E-waste global problems

Only 41 countries in the world collect international statistics on recycling of e-waste
Statistics on recycling of e-waste

- **Waste Statistics (waste collection points: UNSD and OECD)**
  - 41 countries

- **Big data**

- **Household statistics (representative sample of households)**
  - Discard behavior of households
Household statistics

Example of an household survey template

1a. Did you dispose of a “E-WASTE CAT” during the last year?

If YES:

1b. How did you dispose of the product?
   1. Returned it to the shop
   2. A retailer picked it up at home
   3. Took it to municipal collection point
   4. Municipality picked it up at home
   5. Sold it or gave it to family, friends for free
   6. Moved it to my old/other house
   7. Sold it to a refurbisher
   8. Threw it into a waste bin
   9. Threw it away with plastic waste
  10. Warranty substitution
  11. Do not Know/Do not Remember

1c. How many items.

Temperature exchange equipment
More commonly referred to as cooling and freezing equipment.
Typical equipment includes refrigerators, freezers, air conditioners, heat pumps.

Screens, monitors
Typical equipment includes televisions, monitors, laptops, notebooks, and tablets

Lamps
Typical equipment includes fluorescent lamps, high intensity discharge lamps, and LED lamps

Large equipment
Typical equipment includes washing machines, clothes dryers, dishwashing machines, electric stoves, large printing machines, copying equipment, and photovoltaic panels

Small equipment
Typical equipment includes vacuum cleaners, microwaves, ventilation equipment, toasters, electric kettles, electric shavers, scales, calculators, radio sets, video cameras, electrical and electronic toys, small electrical and electronic tools, small medical devices, small monitoring and control instruments

Small IT
Typical equipment includes mobile phones, Global Positioning Systems (GPS), pocket calculators, routers, personal computers, printers, telephones
Big data idea: Utilize Mobile Phones to Facilitate Electronics Collection

SMS 50505 for pickup!
Big data idea: Utilize Mobile Phones to Facilitate Electronics Collection

SMS System

50505: Old TV at 400 Main Street!
Big data idea: Utilize Mobile Phones to Facilitate Electronics Collection

SMS System

50505: Old TV at 400 Main Street!

50505: I will pick it up! - Carlos
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SMS System

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Bad funding
Bad or no policies
Bad data
Bad information
Good funding

Good data

Better policies

Good information
Join the Global Partnership for e-Waste Statistics!

- Improve the world through data and evidence based policies
- Raise awareness
- Global workshops + e-learning
- Measure impact on SDG + Connect2020 agenda

Thank you for your attention!

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