

IEVC 2017

--Overview of Technology Progress for Drone Applications--

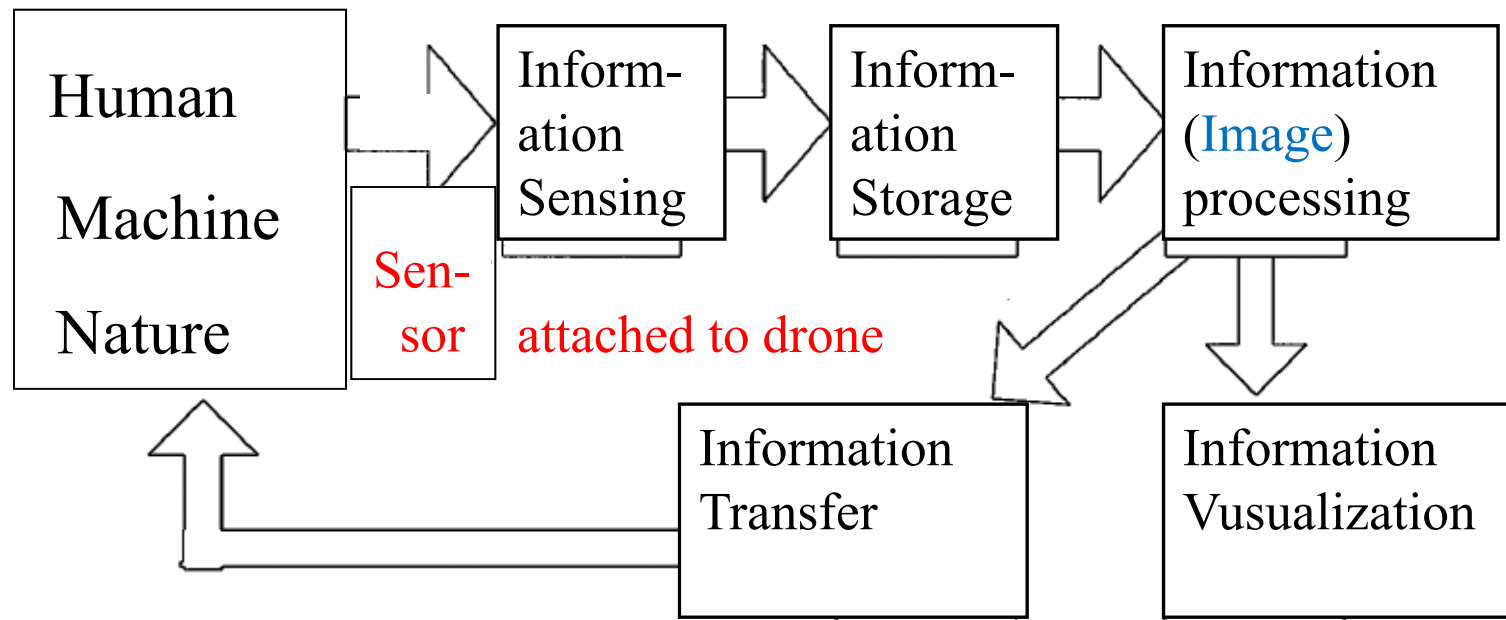
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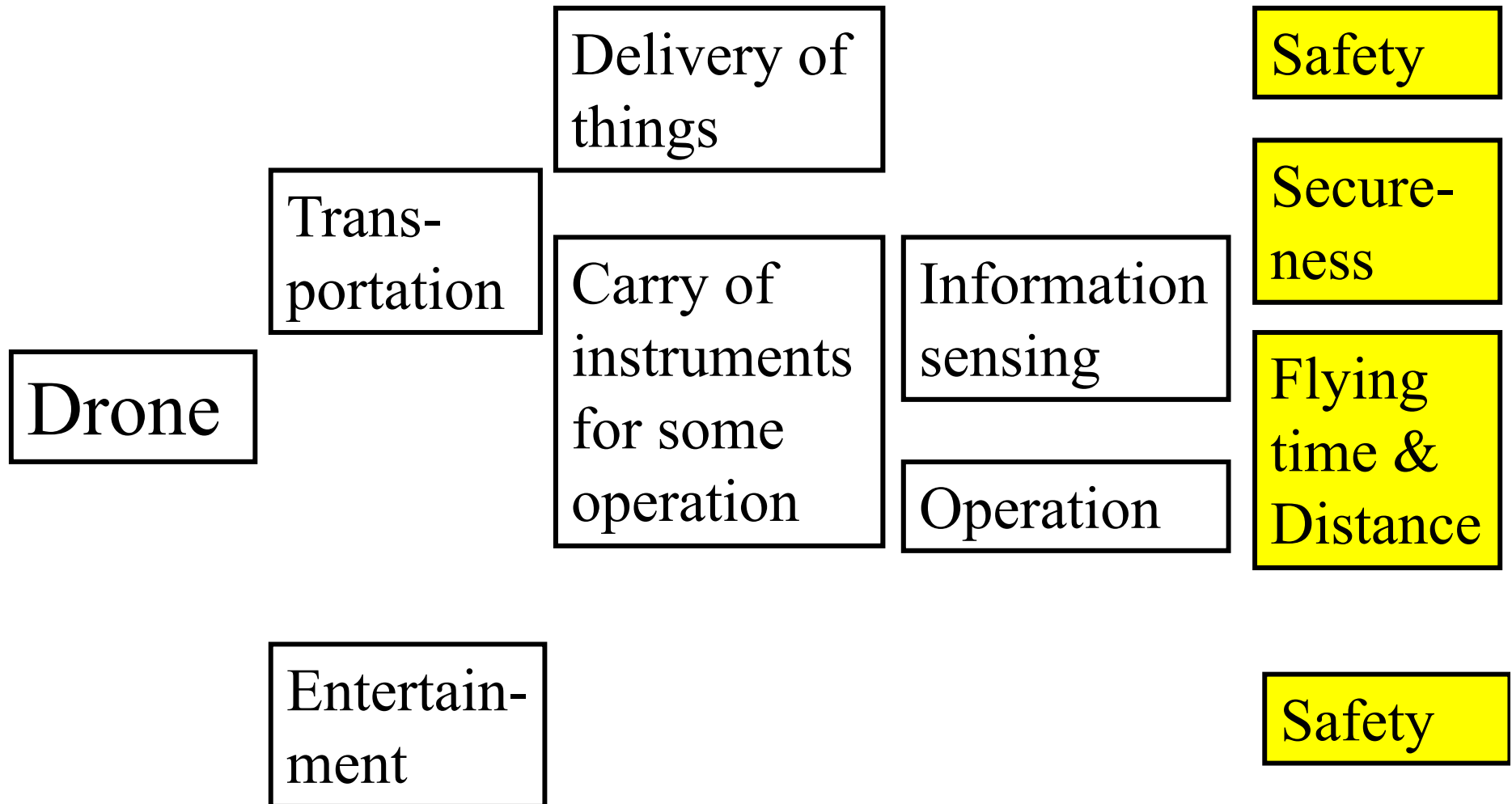
ICT: Infrastructure that connects human society, things and nature

ICT System Structure

Internet of Things, Big Data,
Machine to Machine, Man to Man, etc.



Drone Application



Successful Experiment of Long Distance Delivery of Things by Fully Self –Controlled Drone along the seashore of Fukushima.

1. Japan NEDO Project

To develop a performance evaluation method for the delivery of things by drones.

2. 12 km flying was achieved by using the existing drone of ACSL—PF1

3. Hot drinks were delivered to the surfers of the seashore of Fukushima.



ACSL—PF1

<http://www.acsl.co.jp/vision/>

<http://response.jp/article/img/2017/01/10/288077/1136515.html>

Oversea Delivery of Things by Drone ---NTTDocomo Succeeded---

1. To verify longer distance delivery of things by a self control of drone using mobile communication network.
2. Use of new version of drone of the TENKUU of Rakuten attached with parachute and anti-drop of water mechanism.
2. Succeeded in things delivery by a smart phone order.

DHL's Parcelcopter shows that automated drone delivery is real



<http://www.pcworld.com/article/3082649/tech-events-dupe/dhls-parcelcopter-is-automated-drone-delivery-in-action.html>

DHL's Parcelcopter shows that automated drone delivery is real

1. Medicine delivery to a dedicated rocker by using 1st generation Parcelcopter between shores across the river of Rhine.
2. 3rd generation Parcelcopter enables heavier things delivery up to 2 kg and higher height fly in mountain area..

<http://www.pcworld.com/article/3082649/tech-events-dupe/dhls-parcelcopter-is-automated-drone-delivery-in-action.html>

Intel started to sell Drone Development Kit " Aero Ready to Fly Drone"


1. Quadcopter Drone, 3D Real Sense Camera,
Aero Compute Board, Software
2. Distance measurement by 3D Real Sense Camera
3. Enabling Self-control fly by programing
adequately

Intel started to sell Drone Development Kit " Aero Ready to Fly Drone"

1. Quadcopter of Drone, Real sense 3D camera, Aero Computer Board
2. 3rd generation Parcelcopter enables to carry heavier things up to 2 kg and to fly higher in mountain areas.
 - 1) quad-core Atom X7-Z8700 CPU
 - 2) LTE, 802.11ac Wi-Fi
 - 3) 4GB of LPDDR3 RAM, 16GB of flash storage, micro-SD slot, micro-HDMI port, and wide set of connectors for adapters and breakout boards.
3. To work with the Airmap software development kit for navigation

<http://www.pcworld.com/article/3140103/consumer-electronics/intels-build-from-scratch-drone-kits-to-take-off-next-month.html>

Intel® Aero Platform Developer Kits

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Intel® Aero Ready to Fly Drone

Pre Order

Price: \$1,099.00



Intel® Aero Compute Board

Price: \$399.00



Intel® Aero Vision Accessory Kit

Price: \$149.00

<http://click.intel.com/intel-aero-platform-developer-kits.html>

Conclusion

1. Some experimental activities were introduced toward enabling real business use of drones.
2. Also, new development kit was introduced which would enhance applications of drones by using image processing.
3. More developmental activities are necessary to realize business use of drones.