Date Data

Mobile online devices are the source of many types of information. E.g. they can continuously send their local position. This location data is not necessarily about the device's owner. Somebody else might carry the device.

One day a data analysis concludes that the same twelve mobile online devices meet from time to time and stay for about two hours at a remote hut in a park.

Question

Which interpretation of this location data is impossible?

- A) A music band gives free open air concerts using their mobile online devices as musical instruments.
- B) A criminal gang has secret meetings in the hut to exchange sensitive data among their mobile online devices.
- C) A flock of biologist is searching in the park for rare mushrooms to take pictures of them with their mobile online devices.
- D) One colleague stays with all the mobile online devices and other things at the hut, while the workmates go running around a nearby lake.

Solution

The correct answer is C:

Interpretations A and D are typical "group in the park"-frames and thus doubtless possible. Interpretation B is not so typical for the behaviour of a gang, but still possible.

Interpretation C implies a group movement pattern, where all members are scattered over a larger area and all move more or less in the same direction for a longer time. It is impossible that the biologists do not individually move from place to place while searching for the rare mushrooms.

It's Informatics!

Where a mobile online device was located at a certain time, is a very sensible information type. The analysis options reach from global massive data approaches to the fine grained pattern analysis of small groups' behaviour. Matched patterns can be interpreted widely. Not any group of sports friends is a terrorist cell because the group movement pattern of their smartphones is similar. Informatics is responsible for a careful use of "analysis tools with integrated paranoia" and of "supervising systems capable of automatic decisions".

Interactivity

shuffle-4-Alternatives

Three keywords

data analysis, movement pattern, mobile online device

Relevant websites

http://www.win.tue.nl/~selzen/paper/NetMob2013.pdf Massive mobile phone data analysis (last checked 2014-04-29)

http://www.datacenterjournal.com/it/security-privacy-metadata/ security, privacy, metadata (last checked 2014-04-29)

Terminology

mobile online device, information type, local position, location data, data analysis, data interpretation

Attributes

Content-Category: [INF]

Age Group-Difficulty: [I-easy I-medium I-hard

II-easy II-medium II-hard III-easy III-medium III-hard IV-easy IV-medium IV-hard

primary-school] (select one or more)

mandatory-for: [none I II III IV ALL] (select one)

selective-for: [none I II III IV] (select one)

colour-blind-proof: yes ["no pictures"]

