

Mobile Big Data

1. Mobile data inherits 5V features of generic big data and is characteristic in its unique features.
 2. Mobile big data have advantages in personal and public service applications.
 3. The human mobility is predictable by using mobile big data.
 4. Mobile data will facilitate better targeted services by using data analytics.
 5. High performance computing is required for mobile big data analytics due to the latency issues.
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1. **The Call and Detail Records (CDRs) record a huge amount of private information of each user.**
 2. **Hashing and mapping can be used for the protection in privacy and the usability in data.**
 3. **Markov decision process was used to present a probabilistic model to characterize observed user behavior.**
 4. **Software Defined Networking (SDN) may improve network performance with specific network application deployed on the centralized control panel.**
 5. **Cloud Radio Access Networks is useful for balancing the load, managing interference, coordinating with multicell, etc.**
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1. Scalable Computing tends to store high volume mobile big data to cloud.
 2. Fog computing enhanced computing resources through the cooperation in mobile device.
 3. Scalable computing could allow the large computing work to be divided into different small work and to be computed independently at each node.
 4. The large-scale computing system is allowed to efficiently make a use of distributed computing resources via Scalable computing.
 5. User privacy can be protected by storing data in the cloud and using it without retrieving and decrypting the data.

Survey on Prediction Algorithms in Smart Homes

1. **One potential way of defining smart home is made up by three main components: internal network, intelligent control and home automation.**
 2. **Prediction algorithms is used to make better decisions for a more automated smart home.**
 3. **Statistical Models helps prediction algorithms to better predict future event.**
 4. **System Data can be get from Activities of Daily Living and location.**
 5. **Being modified or improved from an existing algorithm is very common for a prediction algorithm.**
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1. Two mostly used and basic statistical models are Markov model and Bayesian networks (BNs) to represent the probability of an event occurring based on previous observations.
 2. Time-varyingLeZi enhanced Active Lezi for a periodic basis.
 3. A good clustering could be developed as the adapted flocking algorithm will part large clusters into smaller, more similar clusters.
 4. Modified SPEED algorithm was developed by taking the time of events into consideration.
 5. Nash H-learning technique helps the smart home to get a better management of its resources.
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1. **The way how Apriori algorithm load the database transactions into a matric structure in the memory is a similar idea with scalable computing.**
 2. **What the order that those models are determined on is as changeable as scalable computing.**
 3. **Scalable computing can be used for Episode discovery to search for behavior patterns.**
 4. **13 temporal relations included in Temporal logic and scalable computing could enhance the prediction algorithm.**
 5. **Reducing exhaustive and making a more accurate prediction is achievable with scalable computing in SPEED algorithm.**