

panel session

research directions beyond 5G and vertical applications for 5G

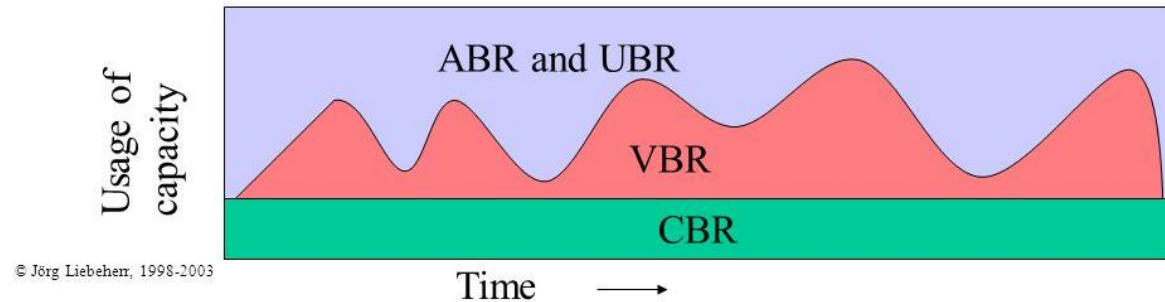


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slicing will keep us busy for a longer time

- we have seen similar problem and approaches before (ATM in the 90s)



- difference is
 - dynamic wireless is in the loop
 - significantly **heterogeneous** objectives (rate, latency, reliability)
 - relation to the **network neutrality** discourse

the other interfaces will sit and wait

- LTE, LPWA, WiFi cannot be ignored
- integration of multiple interfaces in order to support specific use case
- virtualized connection that defines common control information for multiple interfaces
- integration with satellite communications



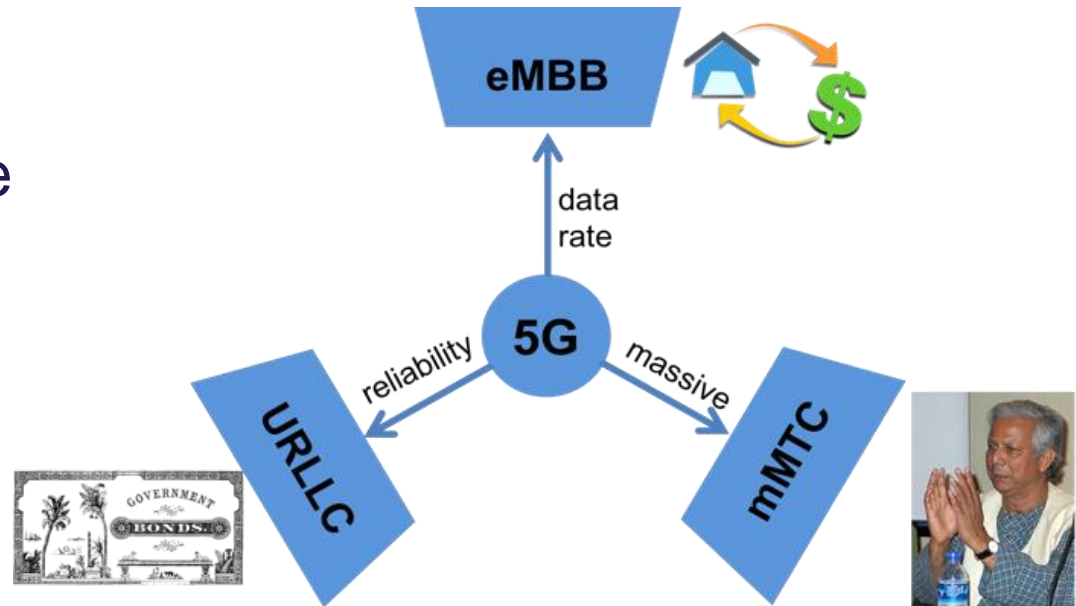
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new unanticipated services

- eMBB, mMTC and URLLC and our best guesses for **eigenvalues** of the communication modes

- analogy with finance



- many new communication modes will be built by combining the three modes and different interfaces

other remarks

most of the data generated by the billions of the connected devices (e.g. mMTC) will be irrelevant

- integration of communication and data analytics

verifiably high reliability only based on historical data and machine learning

the nature of the traffic to be significantly affected by blockchain and smart contracts

Pietro Danzi, Anders Ellersgaard Kalør, Čedomir Stefanović, Petar Popovski, "Analysis of the Communication Traffic for Blockchain Synchronization of IoT Devices", available at ArXiv.