Four Features New in Today's Clouds

I.   Massive scale.

II.   On-demand access: Pay-as-you-go, no upfront commitment.
   – And anyone can access it

III.   Data-intensive Nature: What was MBs has now become TBs, PBs and XBs.
   – Daily logs, forensics, Web data, etc.
   – Humans have data numbness: Wikipedia (large) compressed is only about 10 GB!

IV.   New Cloud Programming Paradigms: MapReduce/Hadoop, NoSQL/Cassandra/MongoDB and many others.
   – High in accessibility and ease of programmability
   – Lots of open-source

Combination of one or more of these gives rise to novel and unsolved distributed computing problems in cloud computing.