Magnetic hard disk drives have evolved from using fifty 24” platters to store 5 megabytes in 1956 to storing over one terabyte on four 3.5” disks today. This represents an area density increase of $10^8$ from 2000 bits/in$^2$ to over 200 Gbit/in$^2$. This huge increase in area density has resulted in disk drives no longer only being used for computing, but increasingly in consumer applications, such as PVR’s, GPS systems, MP3 players, games, and cameras. Moreover, recently, in order to overcome the loss of data from stolen laptops, full disk encryption has been introduced. In this talk future changes in technology that are expected to enable the industry to grow area density by yet another couple orders of magnitude while further enhancing performance will be discussed.

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