



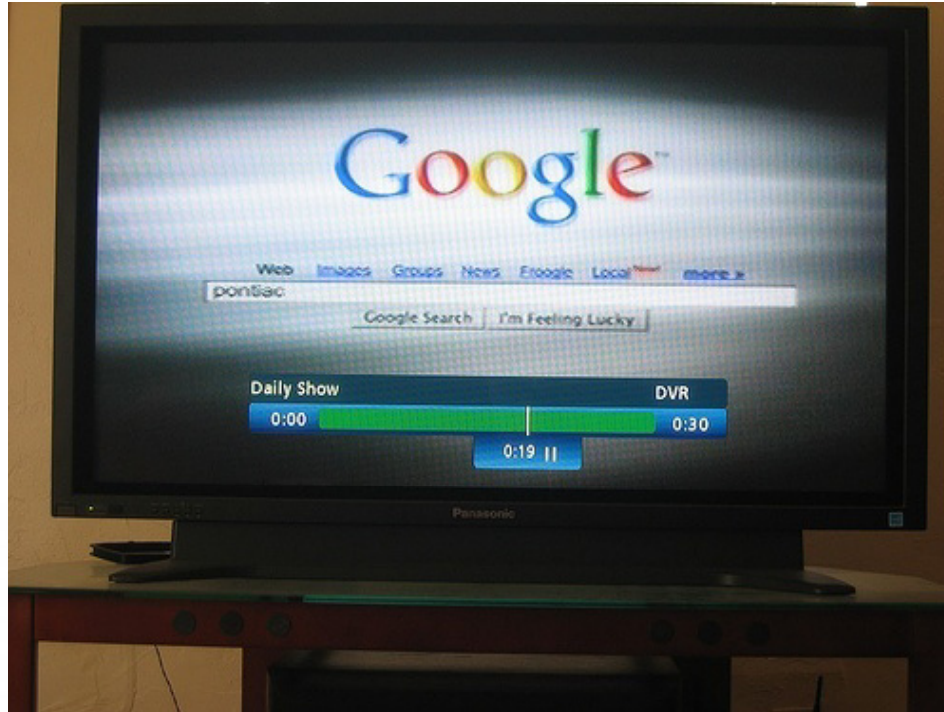
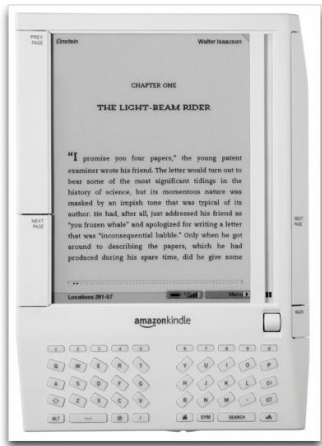
Inflection Point

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NAND Enabling New Applications



Santa Clara, CA USA
August 2010





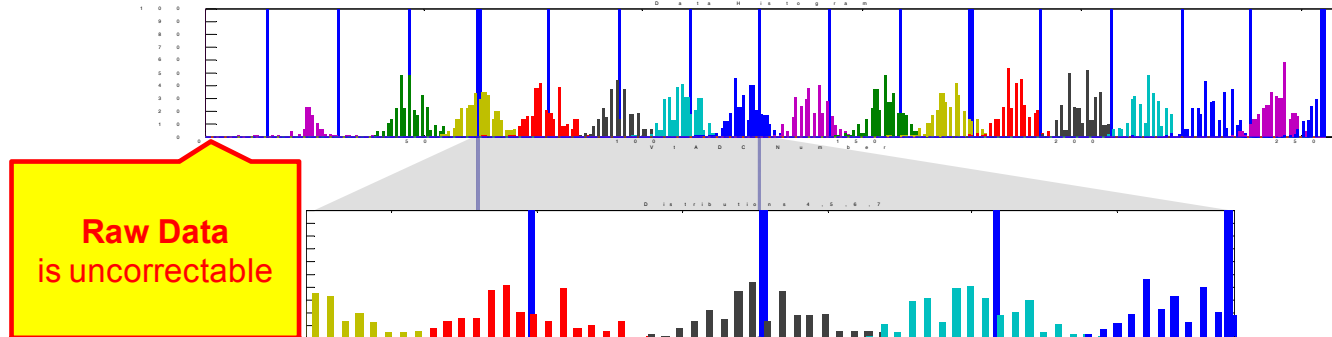
The Challenge

- Number of bits per cell ↑
- Design complexity ↑
- Process complexity ↑
- Performance ↓
- Reliability ↓
- Endurance ↓

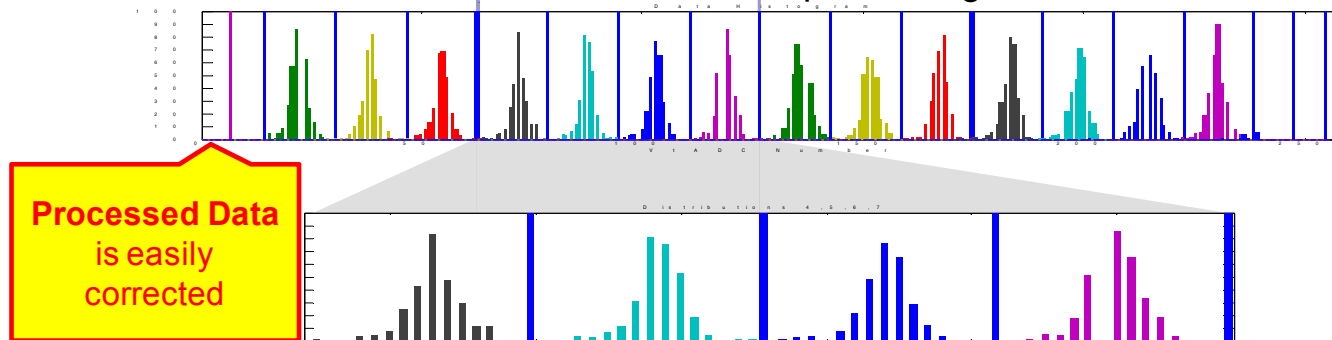


Key Technology

2k bytes of 4-bits / cell raw data from Flash



Same data after processing

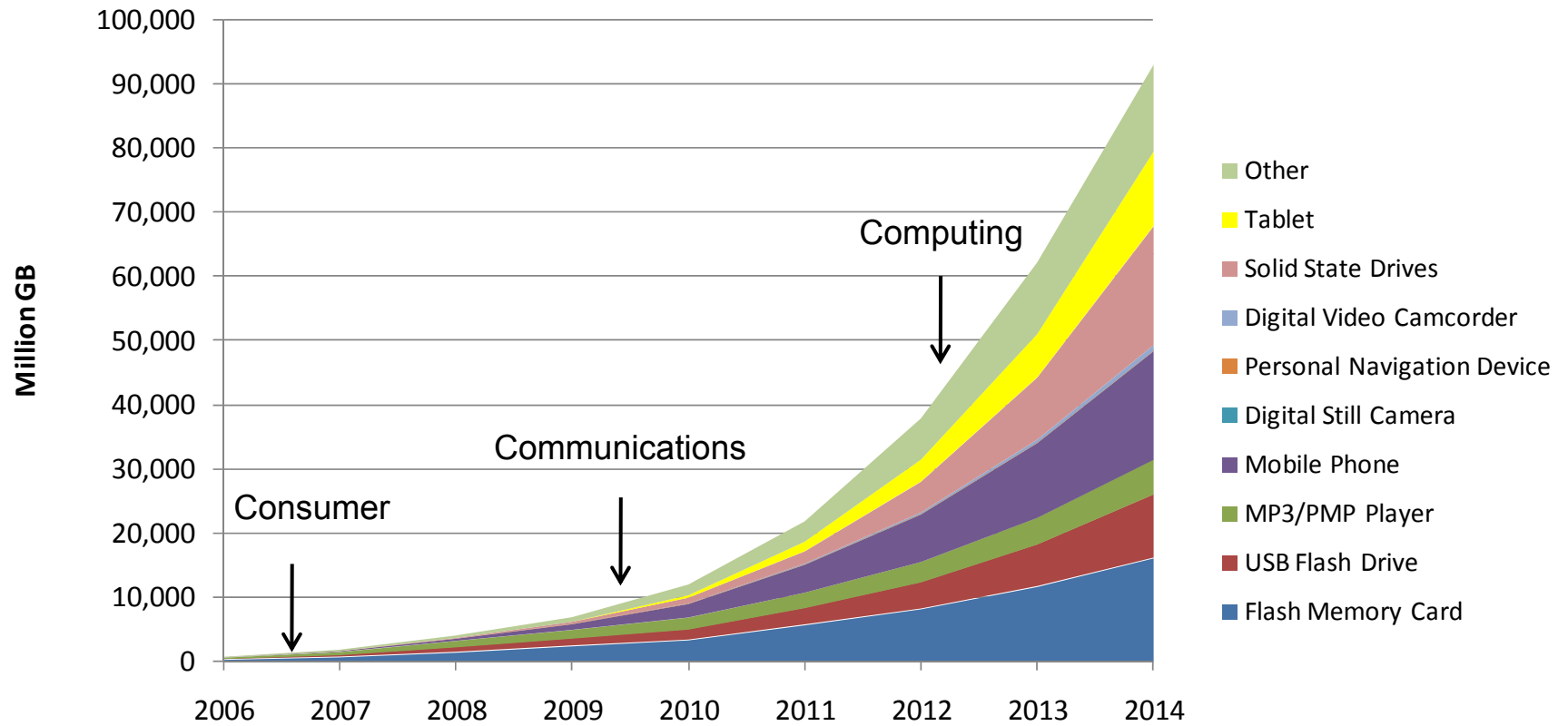


Source: Storage Genetics, Inc.



Continued Growth

NAND Flash Applications Demand



Note: Flash memory card includes all formats for all applications, DSC, mobile embedded only



Florian Beug
Emerging Memories



Luca Crippa
NVM Circuit Design



Luca De Ambroggi
NVM & SSD Architectures

Market Intelligence and Technology and Design Services for Semiconductor Memories, Emerging Memory Technologies and Solid State Storage



Francesco Petruzziello
NVM & SSD Firmware



Roberto Ravasio
ECC, DSP, Algorithms

FORWARD INSIGHTS

ECC and Signal Processing
Technology for Solid State
Drives and Multi-bit per
cell NAND Flash Memories

Report No. FI-NFL-FSP-0110

By:
Vikas Agrawal, Roberto Ravasio &
Gregory Wong

January 2010

FORWARD INSIGHTS

SSD Innovations

Report No. FI-NFL-SSDI-0410

By:
Luca De Ambroggi & Francesco Petruzziello

April 2010



Andrea Silvagni
NVM Design & Test



Josef Willer
Process Technology



Gregory Wong
Markets & Applications

Santa Clara, CA USA
August 2010



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