

Next Generation Technology Enablers, Challenges and Business Opportunities

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- YOW! Australia Conferences

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Outline

- Act I – A Tour of Galaxy Future Tech
- Act II – Challenges and Opportunities
- Back Stage Discussion on Earth



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Part I – A Tour Galaxy Future Tech

- At Forward edge of the future 2030 – 2050
- Every Thing Loosely Connected and Mobile
- Immersed in the Clouds
- Lost on BigData
- The many moons of NoSQL
- Web Next Force versus App Empire
- Alien Languages
- Productive planets with very thin process atmosphere
- Planet XU end users thrive without developers
- Outsourcing to Cyborgs and Robots



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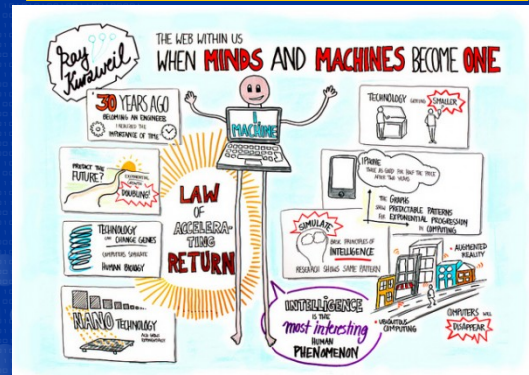
Seeing Future Tech == Science + Fiction

Things we built before which failed due to intrinsic design, current technology or market readiness

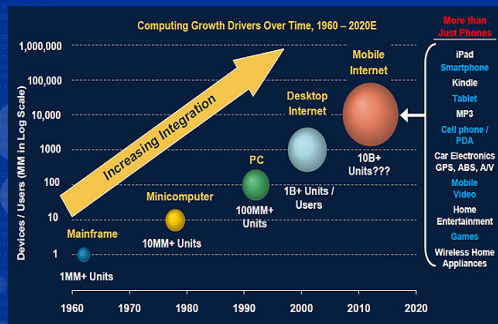
+
Inspiration for Science

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Sometime in 20xx?!

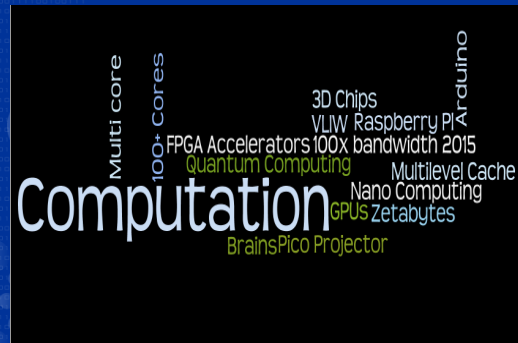


Every Thing Loosely Connected and Mobile

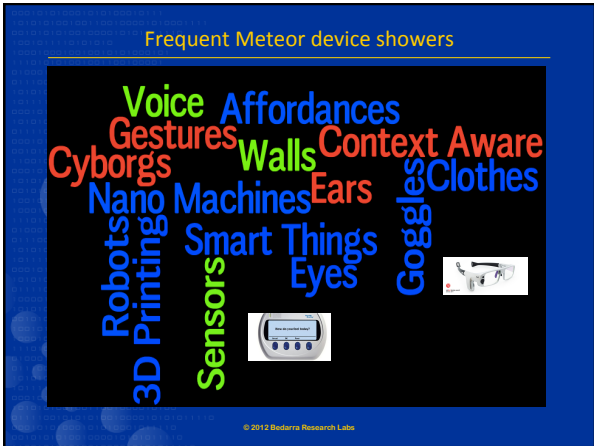
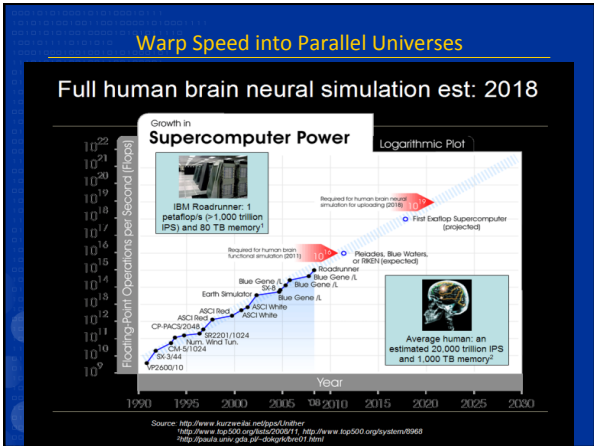
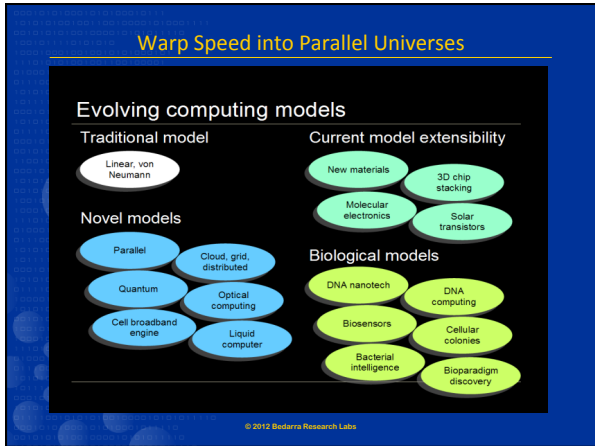


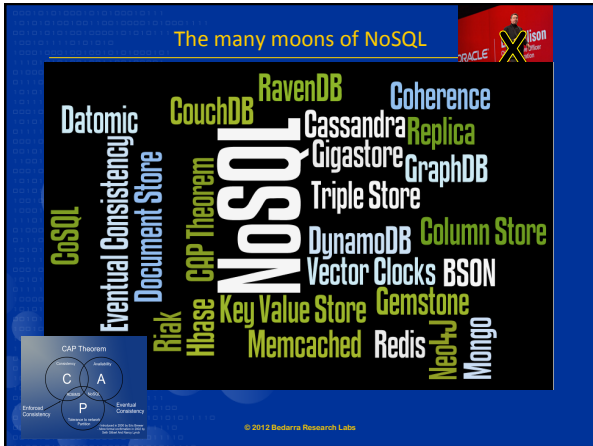
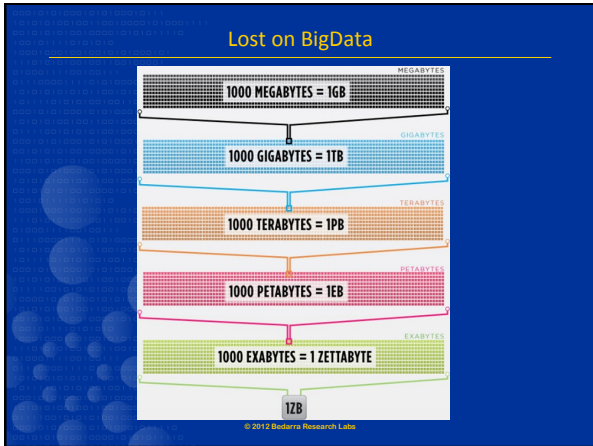
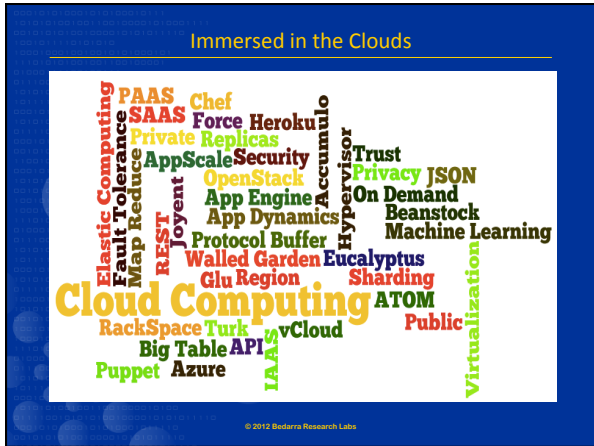
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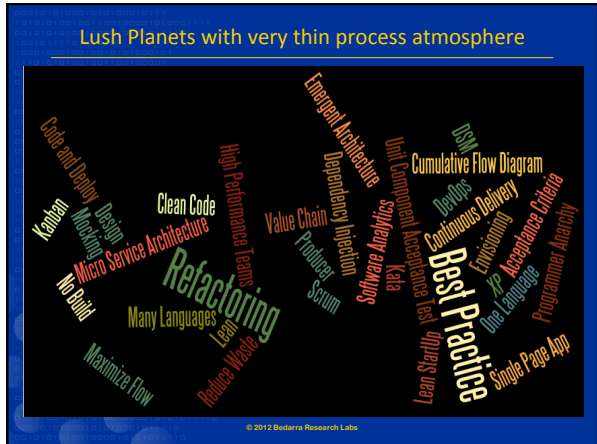
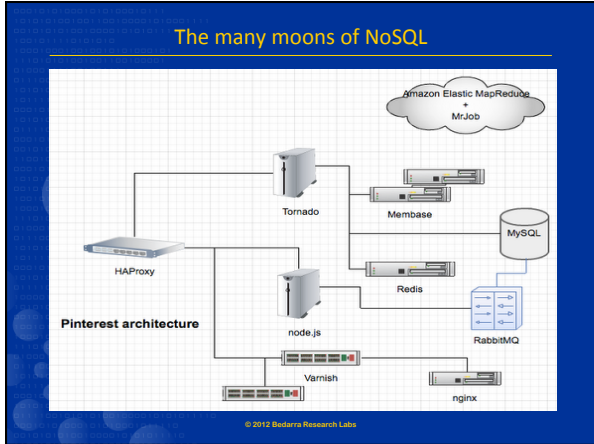
Warp Speed in Parallel Universes



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Planet XU end users thrive without developers



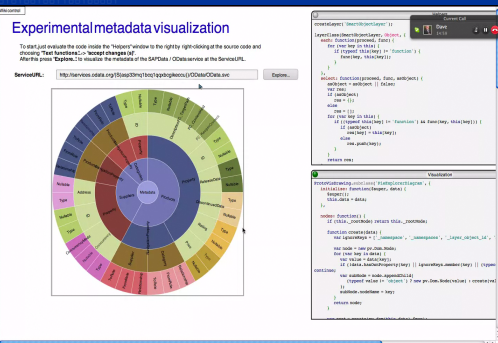
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Planet XU end users thrive without developers



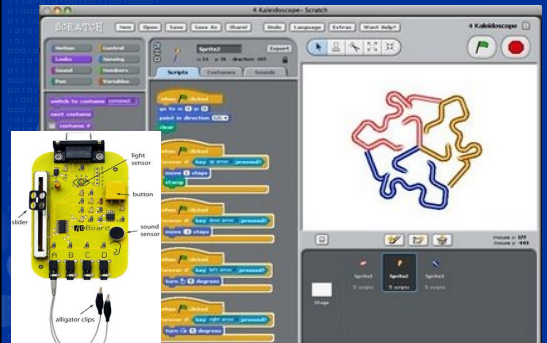
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Planet XU end users thrive without developers



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Planet XU end users thrive without developers



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Outsourcing and Robots



Kiva Robots



Autonomous Flying Robots

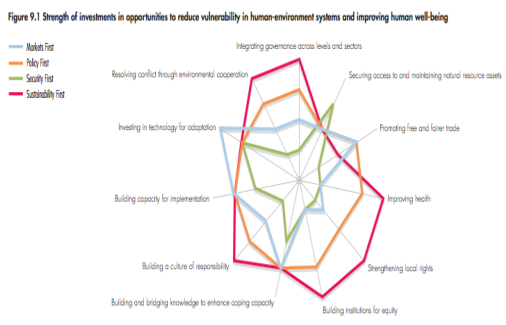
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Part II – Challenges and Opportunities

- All in a Global Context
- Faster!!! Cheaper!! Better! Opportunities
- Demand Customization
- Future Ready?
- Business Models
- Hey! I have an idea ...
- Tech Opportunity | Business Opportunity
- Wrap

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All in an evolving global context



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Faster!!! Cheaper!! Better!



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Demand Customization

Exactly the Same and Completely Unique for You

Additive Manufacturing (3D Printing)

3D Printing fun for hackers and artists

Additive manufacturing:
"The process of joining materials to make objects from 3D model data, usually layer upon layer."



Printing file size approx. 1 MB

Subtractive manufacturing
includes methodologies such as traditional machining



Source: Strategy, 2011

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Demand Customization

3D Printing: What About Us?

Developed technique to print human cells using modified inkjet printer



March 2011: Dr. Alata prints a kidney mold on stage at TED

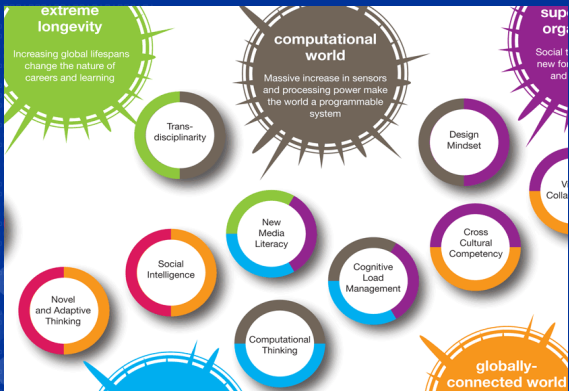


(Proof of principle only)

Source: Wake Forest Institute for Regenerative Medicine, 2011; TED Conferences, LLC

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Future Ready?



extreme longevity
Increasing global lifespans change the nature of careers and learning


computational world
Massive increase in sensors and processing power make the world a programmable system

globally-connected world

Other nodes include: Trans-disciplinarity, Design Mindset, Social Intelligence, Novel and Adaptive Thinking, Computational Thinking, Cognitive Load Management, Cross Cultural Competency, New Media Literacy, Social Innovation, and Innovation Inside.

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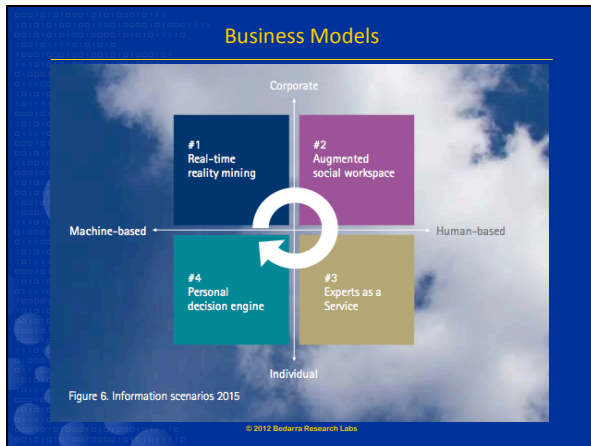
Business Models



Business Models

Other models include: Fewer IPOs, IP Licensing, Lower StartUp Costs, Conventional, Innovation Inside, Virtual Accelerators, Short Lived Virtual Corp, Crowdsourcing, IdeaEngineering, Micro Payments, KickStarter.com, and IdeaGeneration.

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Crowdsourcing

Project	Creator	Location	Funding %	Amount	Count	Button
Turkish Soundtrack Anthology	Chris Huebner	Pasadena, CA	56%	\$42,029	45	DAVE LEFT
Pebbles E-Paper Watch for iPhone and Android	Benjamin Technology	Palo Alto, CA	4,645%	\$4,845,344	28	DAVE LEFT
Ogre Designer Edition	Steve Jackson Games	Austin, TX	1,085%	\$210,515	22	DAVE LEFT
Light Table	Shah Prasad	San Francisco, CA	0%	\$60,268	43	DAVE LEFT
The Tube Open Movie	Open Source	Northampton, MA	80%	\$13,261	27	DAVE LEFT
Wolftonecraft	Alving Anderson	Madison, WI	1,064%	\$60,000	11	DAVE LEFT

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Hey! – I have a couple of ideas ...

Input -> Compute -> Output

Communicating with a machine
still sucks!

This pain is an opportunity!

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Most Opportunities are so close we miss them

Input -> Compute -> Output

Need Input!

- For aging professors and their friends
- To save our wrists and backs
- To increase accessibility and mobility
- To improve our performance

Need Output!

- For aging professors and their friends
- To save our eyes
- To increase accessibility and mobility
- To improve our performance

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Value through synergy of design, hardware and software

Input ->

Need Input!

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Output our second Opportunity

-> Output

Need Output!

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Tech Opportunity - Business Opportunity?

Must be Leader or Early Adopter

The Future

NEXT EXIT

Domain Expertise Essential

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Legacy Space Junk?

Processing Limitations

Complex APIs

OO Middleware

Objects

Patterns

Query Languages

Project Managers

Systems Programmers

Out of power

Exceptions

Application Programming

Management Pyramids

Knowledge

BE2 Cockpit IDEs

Agile Storage

Relational Tables

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Skills, Practices and Tools – Something Completely Different?

What do you think?



Are you ready to move to the future?

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Thank You!

"The future has already arrived. It's just not evenly distributed yet."

William Gibson

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