Big data is one of many disruptive technologies

The source of information in this Mind Map comes from http://www.mckinsey.com/insights/business_technology/disruptive_technologies
Laboratories like CERN provide for inventions and innovations:

- Founded 1954
- 22 member states (2015)
- Site: Meyrin at Geneva, CH
- 2524 staff (2014)
- 12503 visiting scientists
- Budget 2015: 1027.7 M €

Innovation Driver:
- Frontier Research
  - Particle detectors
  - Computer technology
  - WWW (WWW, VR, WWG)
  - Superconductivity
  - Antimatter ("Illuminati")
The digital age has made information widely available.

Global Information Storage Capacity

- 2007: 19 exabytes
  - Paper, film, audiotape, and vinyl: 6%
  - Analog videotapes (VHS, etc.): 94%
  - Portable media, flash drives: 2%
  - Portable hard disks: 2.4%
  - CD and minidisk: 8.8%
  - Computer servers and mainframes: 8.0%
  - Digital tape: 11.8%
  - DVD/Blu-ray: 22.8%
  - PC hard disks: 44.5%
  - Others: < 1% (incl. flash cards, memory cards, floppy disks, mobile phones, PDAs, cameras/camcorders, videogames)

- 2002: “beginning of the digital age”
  - Digital: 25%
  - Analog: 75%

% digital:
- 1%
- 3%
- 25%
- 94%

Can space help to bridge the "Digital Divide"?

The Digital Opportunity Index Worldwide, 2005

For more information about the Digital Opportunity Index, please see www.itu.int/doi.

This map is a part of the World Information Society Report 2006, available at www.itu.int/wsis.
Global IoT, M2M and the Industry 4.0 Vision – Blessing or Curse?

In a global-interlinked industry scenario, Cybersecurity becomes a GLOBAL threat!

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<thead>
<tr>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
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<tbody>
<tr>
<td>Mechanization, water power, steam power</td>
<td>Mass production, assembly line, electricity</td>
<td>Computer and automation</td>
<td>Cyber Physical Systems</td>
</tr>
</tbody>
</table>

In a global-interlinked industry scenario, Cybersecurity becomes a GLOBAL threat!
The 3 classical natural sciences form the basis for progress...

Physics

Energy

Information

Chemistry

Biotechnology

Biology

The 3 classical natural sciences form the basis for progress...
... and for a landscape of emerging risks