The challenges of Digital Transformation

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<table>
<thead>
<tr>
<th>Rank</th>
<th>Company</th>
<th>Industry</th>
<th>Market capitalization (billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Apple Inc.</td>
<td>Digital</td>
<td>$623.78</td>
</tr>
<tr>
<td>2</td>
<td>Exxon Mobil</td>
<td>Oil and gas</td>
<td>$427.64</td>
</tr>
<tr>
<td>3</td>
<td>Microsoft</td>
<td>Digital</td>
<td>$250.01</td>
</tr>
<tr>
<td>4</td>
<td>Wal-Mart</td>
<td>Retailing</td>
<td>$249.71</td>
</tr>
<tr>
<td>5</td>
<td>Google</td>
<td>Digital</td>
<td>$245.97</td>
</tr>
<tr>
<td>6</td>
<td>General Electric</td>
<td>Conglomerate</td>
<td>$240.44</td>
</tr>
<tr>
<td>7</td>
<td>IBM</td>
<td>Digital</td>
<td>$239.29</td>
</tr>
<tr>
<td>8</td>
<td>PetroChina</td>
<td>Oil and gas</td>
<td>$236.36</td>
</tr>
<tr>
<td>9</td>
<td>Chevron Corporation</td>
<td>Oil and gas</td>
<td>$229.93</td>
</tr>
<tr>
<td>10</td>
<td>Royal Dutch Shell</td>
<td>Oil and gas</td>
<td>$223.16</td>
</tr>
</tbody>
</table>

This Yahoo Finance based list is up to date as of October 02, 2012. The « 100 »: 1966 to 2006
- 19 still in the 100
- 15 still exist but not in the 100
- 66 do not exist anymore

From a hardware vendor to an integrated Customer Solutions. Revenue from $1.3M in 2006 to $26MM in 2011.
What is Digital Transformation?
To deliver a Product to the Client, the Enterprise must Operate

Operation Actions
- Produce
- Distribute
- Manage Resources
- Control
Operations are executed by Resources following a Model.

- **Operation Resources**
  - Human Actors
  - IT Actors

- **Information**
  - Human Actor Model
  - IT Actor Model
  - Action Model
  - Information Model

- **Operation Actions**

- **Product Model**
  - Software and Process Models

Employees, customers, partners executing human Actions

IT infrastructure (network, servers, devices) executing automated Actions

Roles, rights, duties, organization

IT configurations
Transformation changes Model and adapts Operation Resources

**Transformation Actions**
- Decide strategy
- Build new Model
- Deploy new Model

**Operation Actions**

- Adapt Resources
- New Model

**Operation Resources**

**Product Model**

**Operations Model**

**Client**
Transformation is executed by Resources following a Model

Transformation Resources

Operation Resources

Transformation Actions

Operation Actions

Transformation Model

Operation Model

Product Model

Transformation Actions -> Adapt Resources -> Operation Actions

Transformation Model -> New Model

Human Actors

IT Actors

Information

Client

Operations Model

Product Model
Digital Transformation

Transformation Resources
- New Transformation Organization

Transformation Actions
- Transformation Model
  - New Transformation Approach
  - New Governance

Operation Resources
- Operation Actions
  - Operations Model
    - More complex Processes: how to reduce complexity to become Agile

Product Resources
- Product Model
  - New Digital Offer
    - Product Model + Distribution Model + Usage Model.
  - Customer oriented.

New Digital devices: «BYOD».
Extended Enterprise.
New Transformation Approach
New Governance
More complex Processes: how to reduce complexity to become Agile
New Digital Offer
Product Model
Why is it so difficult?
Any Transformation is difficult: Standish Group 2012

**Digital Transformation: even more difficult**

- **SPEED**
- **SCOPE EXTENSION**
  The Enterprise and its eco-system
- **NEW VALUE PROPOSITION**
  Not only Product, but also Distribution Model and Usage Model

**IT** was a technology to **implement** business changes, **Digital** is an opportunity to **change** the business
The new Value Proposal and customer management.
Music example

- The «Value» is not only listening to music on a new media
- New **distribution model**
  - Immediate buy through Internet,
  - Only buy a song and not a full album
  - Get informed on comments by other customers
- Simplicity and power of the **usage Model**
  - Bring all its music library in his car, in the country house…
  - Fast search
  - Small volume

### Model change

- **Support evolution**
- **Producers and Distributors of medias disappear**

### IPOD + iTunes

- **78s**
- **Vinyl**
- **Tape**
- **CD**
# A new Value Proposal

<table>
<thead>
<tr>
<th>Difficulties</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>More complex products: how to imagine a new Value Proposal combining Goods,</td>
<td>Improving existing products is not anymore sufficient: imagine how to offer a</td>
</tr>
<tr>
<td>Services and information.</td>
<td>better Value with a completely different Offer which includes not only the</td>
</tr>
<tr>
<td></td>
<td>Product but also</td>
</tr>
<tr>
<td></td>
<td>• The Distribution Model</td>
</tr>
<tr>
<td></td>
<td>• The Usage Model</td>
</tr>
<tr>
<td></td>
<td><strong>Reduce</strong> the number of Products.</td>
</tr>
<tr>
<td></td>
<td>Invest in usage simplicity</td>
</tr>
<tr>
<td></td>
<td>Also sell <em>Models</em> (such as Amazon, Franchise…).</td>
</tr>
<tr>
<td></td>
<td>Use <em>Social network</em></td>
</tr>
<tr>
<td></td>
<td>• <strong>Transformation</strong>: understand the expectations and reactions of customers</td>
</tr>
<tr>
<td></td>
<td>• <strong>Opérations</strong>: communicate on Product and Enterprise</td>
</tr>
<tr>
<td></td>
<td>Build a specific <em>Customer Model</em> with dedicated transformation teams, and</td>
</tr>
<tr>
<td></td>
<td>Operation team for customer data management..</td>
</tr>
<tr>
<td></td>
<td><strong>Big Data analysis</strong></td>
</tr>
</tbody>
</table>

*Note: The table content is extracted and formatted for clarity and readability.*
The new Value chain
## The extended Enterprise

<table>
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<tbody>
<tr>
<td>The Enterprise must be connected to many <strong>Operational Actors</strong> (Partners, customers…). The Enterprise must be accessible by different digital tools (PC, smartphones, tablets…). <strong>Organisation</strong> must often adapt to new Actors.</td>
<td>Design <strong>end to end Processes</strong>. Include partners in Transformation projects. Build <strong>interface libraries</strong> to reduce complexity. Respect <strong>business standards</strong> Design Business Processes which allow <strong>different organizations</strong></td>
</tr>
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Avoid complexity of the Enterprise Model
## Reduce complexity of the Enterprise Model

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<tbody>
<tr>
<td>Difficult to reach agility if the model is <strong>too complex</strong>.</td>
<td>Reduce number of products</td>
</tr>
<tr>
<td></td>
<td>Architecture and Governance are key to avoid a patchwork of Models: <strong>isolate local specificities</strong> to build global offers.</td>
</tr>
<tr>
<td></td>
<td>Reduce the number of software applications, which means <strong>larger scope applications</strong>.</td>
</tr>
<tr>
<td></td>
<td>Each time you listen « my activity is <strong>very specific</strong> », check.</td>
</tr>
</tbody>
</table>
Operation Model Architecture: Exchange Architecture and Building Architecture

Map of Solutions

- Respect standards

Built with

- Security
- Ergonomics
- Compute price

Exchange Architecture

Building Architecture

HR Solution

Accounting Solution
A new Transformation Approach
## Agile Approach

<table>
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<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present Approach does not allow <strong>agility</strong>.</td>
<td>Change the <strong>Transformation Model</strong>: agile approach, tools, POC, fast results…</td>
</tr>
<tr>
<td></td>
<td>Favor solution customization by <strong>configuration</strong> (PLM, product factory, rule engine, workflow engine, dynamic data…) and not specific developments. Cloud evolution will help.</td>
</tr>
<tr>
<td></td>
<td>Fight against <strong>bureaucracy</strong>.</td>
</tr>
<tr>
<td><strong>Change management</strong>: higher steps and faster. How old generations can accept the new world?</td>
<td><strong>Simplicity and consistency of user interface and Processes</strong>.</td>
</tr>
<tr>
<td></td>
<td>Higher <strong>change mgt efforts</strong>: explain the meaning of the Transformation, training, support, …</td>
</tr>
</tbody>
</table>
Interdisciplinarity of Transformation

- A Global Approach
- +
- A single Transformation Language

- Enterprise Modeling
- Marketing
- New models for new Enterprises
- Change Mgt
- Strategy
- Project Mgt
- IT
- Organization
- Process Modeling
- Behaviour of Transformation Actors
Organization and Enterprise Culture
## Difficulties

**Present organization** does not allow fast Transformation.

**Digital culture** (Y generation): not comfortable with timing, mobiles, overactive, transparent, knowledge sharing. Controls based on results and not timesheet.

## Recommendations

**Split** Operation and Transformation teams.

Select the **best** for Transformation: they can access to highest positions in the enterprise.

Mix Business, IT, Marketing… in same teams

Accept **risks** and failures.

Create **Start-Ups** inside the enterprise (« intrapreneurs ») or acquire innovative companies.

Define **expected delivery** for each team and each actor.

Collaborative work.

Build teams with people from different ages.
Cultural change

Present Enterprise

Transformation

Operations
(Hierarchy, authority, employee value based on position and status)

Future Enterprise

Transformation
(Creativity, teamwork, employee value based on competency)

Operations
Governance
### Difficulties

*Transformation decisions* are more complex. How to decide fast Transformation projects which impact several Business Units: end to end processes, common architecture, propagation of best practices and products inside all subsidiaries.

### Recommendations

End to end processes, Global Solutions and products, unicity of architecture require a strong enterprise governance and not a business unit governance.

Some governance rules:

- Top mgt must be involved not only in taking decisions but also in **permanent support of common good**
- Top mgt must **understand the Enterprise offers**
- Finance the common good: in 3 steps (initialization, build up, maturity)
- Approve conformity of new Solutions with Architecture **before** approval of Solutions.
- Identify and formalize the goal of each transformation.
Conclusion
Conclusion

Enterprises must transform Products and Processes to take advantage of Digital opportunities.

The 3 major difficulties are:

• How to transform itself fast and often?
• Which new value proposition?
• How to take advantage of the full ecosystem?

Consequences are huge on:

• Enterprise Organization
• Product offers
• Evolution of transformation approach
• HR Practices
• Transformation culture

Be Transformers and be iconoclast for the good of your Enterprise.
Questions?