Disruptive Initiative to drive Education transformation in Lebanon.

Presented by:

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Agenda

Lebanon – Country Snap Shot

Building the Architecture of the Program

Anticipated Social and Economical Impact

Implementation and Rollout

Success and Failure factors outside and inside the classroom
Lebanon – Country Snap Shot

- 4+ Million population
- 1,281 Public Schools, 300+ Private Schools
- Computer Literacy is addressed in basic education

Challenges

- Limited Internet Access for Public Schools (Budget, Infrastructure)
- 3G is available but data packages are expensive
- Internet @ Home is expensive and also limited in rural areas
- PC pricing could be a high barrier for households
- Limited budgets for ICT transformation @ Public Schools

Opportunities

- Mobile Networks have wide national coverage
- Established Publishers base for Educational content
- Vibrant developers community
- Well established Mobile Operators that are 100% owned by the government
How can we provide our young students (k-12) with a low cost access to Internet and Educational Content (safe and secure)?

Key Inputs

✓ PC vs. Tablets?

✓ Inside the School ? Outside the School?

✓ What type of content?

✓ Price range? Reaching all students (70 Cents Per day)

✓ Sustainable
Building the Architecture of the Program

- Use the 3G network (Better coverage than the fixed lines)

- Outside the class room with pilot inside the class room, Educational transformation takes a long time

- Giving access to our kids will create a disruptive initiative to Education in the country (access to high quality content and knowledge) – Bottom Up model

- Drive for an Ecosystem of developers and content providers to benefit from the mass deployment (create the market for them)

- Innovative pricing to make it accessible to all (free is not a solution) with creative financing

- Leverage the size to negotiate a better deal for the country
### Open Your Tomorrow - Program Blue Prints

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td><strong>Central Bank + Local Banks</strong></td>
<td>Subsidized small loans for the program. Giving access to all citizens whom might not have access to loans in the past.</td>
</tr>
<tr>
<td><strong>2 Mobile Operators (Alfa and touch)</strong></td>
<td>Create a &quot;Student Bundle&quot; 3G + Tablet + Content at a reduced price (government subsidy). Lowering the barriers for entry for all, utilizing the new 3G network (coverage + price).</td>
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<tr>
<td><strong>Liban Post</strong></td>
<td>National coverage - Point of Sales to receive applications and deliver the bundled solution. Simplified logistics for students and parents, single point for application and delivery.</td>
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<td><strong>Content Providers</strong></td>
<td>Provide Free content acquiring a wide range of customer base for future content purchase. Content is key (educational and non educational).</td>
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<tr>
<td><strong>Management</strong></td>
<td>Centralized management of devices @ the operators. block bad Internet and content, push updates and future content.</td>
</tr>
<tr>
<td><strong>Ministry of Education and Higher Education</strong></td>
<td>Pilot project at selected schools integrating the devices in the delivery of knowledge, including teachers training. Learn then scale using the installed base.</td>
</tr>
<tr>
<td><strong>Selected Vendor</strong></td>
<td>Investment in the model through allocated budgets for Marketing, and training content providers and developers. Share the vision, commitment to success through investing in the ecosystem needed for success.</td>
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</table>
Key Learning

- **Lower the barriers for access** for our students utilizing a subsidized infrastructure services

- **Educators makes it or breaks it**
  (Oscars for teachers, documenting best practices, Overhauling Teaching Diploma)

- Find an **Economical entry** to drive local business (not only ICT), drive long term interest in the transformation process

- **Mindset Shift**, we need to stop mapping the way we learn and force it on our kids, they learn differently

- **Phased roll out**, learn, adjust, then scale (we can make mistakes…its ok)
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## A Holistic Approach

### Implementation and Rollout

<table>
<thead>
<tr>
<th>Vendors</th>
<th>Hardware</th>
<th>Software</th>
<th>Technical</th>
<th>Logistics</th>
<th>Finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaming up with the Vendors (Hardware &amp; Software)</td>
<td>Choice of the device</td>
<td>Choice of the Operating System, Device management, Internet browsing safety, Educational Content.</td>
<td>Technical Team readiness</td>
<td>Delivery and Warehouse capacity</td>
<td>Pricing and project financing capabilities</td>
</tr>
<tr>
<td>Prepare purchase orders, shipment, clearance</td>
<td>Products testing and fine tuning</td>
<td>Tablet image testing and approvals. Install local clouds for Device management and Parental Control</td>
<td>Training for the Technical team Tablets Quality Control</td>
<td>Package design, packaging, Labelling, Distribution and Documentation</td>
<td>Contracts and Financing documents</td>
</tr>
<tr>
<td>Warranty</td>
<td>Spare Parts Availability</td>
<td>Updates and current Apps Push new Applications</td>
<td>Dedicated technical team For after sales support</td>
<td>Implement a reparation procedure</td>
<td>Secure more funds to Upscale the project</td>
</tr>
</tbody>
</table>

### Planning/Participation | Award/execution | After Sales Support
A manageable educational device with fast and secure 3G connection for every Student
### Success and failure factors

| **Government Support** | ✓ Active participation and coaching from the Minister of Telecom and Minister’s Advisors  
| | ✓ Price subsidy and credit facilities  
| | ✓ Cooperation and coordination with the Minister of Education. |

| **Project Management** | ✓ Coordination between different stakeholders.  
| | ✓ Integrate Different vendors solutions into one valuable and complete solution.  
| | ✓ Time Management is a major key to success. |

| **Team Work between stakeholders** | ✓ **Technical**: more than 200 Engineers  
| | ✓ **Marketing/Logistics/Finance/Administration**: more than 50 persons  
| | ✓ **E-mails**: more than 150000 e-mails exchanged  
| | ✓ **Phone / Conference calls**: more than 1000 hours  
| | ✓ **Web EX**: more than 100  
| | ✓ **Travels**: more than 50 trips and delegations |

| **Experience and Know How** | _This project needs high qualified technical team having long expertise in the IT systems integration field_  
| | ✓ Initial technical Evaluation  
| | ✓ Integration and configuration  
| | ✓ After sales support |

| **Marketing** | ✓ Marketing Campaigns (Launching events, Billboards, Social Media...)  
| | ✓ Display and try before buy |
## Success and failure factors

### Hardware

* **Intel inside Educational tablet**
  - Multi-touch panel
  - Integrated 3G
  - Wifi support latest standards: 802.11 a/b/g/n
  - Shock, drop, dust, and water resilient.
  - Up to 1 Meter drop
  - Fully integrated 8mm active stylus

### Safety and Security Management

* **Security and device management were two main key requirements in the tender.**
  - Tablets are totally secured and managed by the operators
  - Parental Control, kids are not allowed to access harmful sites
  - Antivirus

### Content

* **Provide the right content is a major key to success**
  - Intel Learning Series software (Skool, Khan Academy, British Council)
  - Application stores at both operators sites
  - Encourage publishers to digitize their books
  - Encourage local and International developers to provide educational games and applications.
  - Enable kids to become future developers

### Logistics

* Timely delivery and Quality Assurance
<table>
<thead>
<tr>
<th>Challenges</th>
<th>Inside The School</th>
<th>Solutions</th>
</tr>
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<tbody>
<tr>
<td>School Infrastructure</td>
<td></td>
<td></td>
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<tr>
<td>Content</td>
<td>Digitized Curriculum, Develop Supportive applications</td>
<td></td>
</tr>
<tr>
<td><strong>Publishers</strong></td>
<td></td>
<td>Laws and Regulations to protect the Intellectual Property rights</td>
</tr>
<tr>
<td><strong>Developers</strong></td>
<td></td>
<td>Workshops to enable developers to make educational games and applications</td>
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<tr>
<td>Schools’ Principles and Teachers readiness</td>
<td></td>
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<tr>
<td>Manageability and Security</td>
<td></td>
<td>Implement a proper Device management, application management and Internet browsing safety solutions</td>
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**Budget and Funding Sources**

**Pilot Project for Nine Public Schools in Lebanon**

Part of Open Your Tomorrow Initiative
Education Transformation !!!

Public Sector

Private Sector

Together we can

Thank You