Software Engineering and Software Development in Thailand

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Agenda

- Software business in Thailand
- Software industry promotion
- Software process improvement
- Software research directions
- Conclusion
Software Business in Thailand

- Software industry is considered an important strategy of the country
- Each year we have to spend a lot of money purchasing software licenses
- However, there seems to be a lot of software piracy as criticized by BSA
Thai Software Business

- Started at least 30 years ago
- Still not yet firmly established
- Mostly work on application packages
- Some work on software package installation
- Only few work for exports
Problems in SW industry development

- Computerization rate is not high enough
- Lack of good Thai software packages
- Lack of confidence in Thai software products
- Lack of capable graduates
- Lack of effective Policy Chain
- Lack of true supports from the Government
National IT Plan — IT2000

Emphasized in three missions

- Investment in IT Infrastructure
- Investment in IT Education
- Development of IT for improving Government services
Graduates in Computer Related Fields

<table>
<thead>
<tr>
<th>Degree programs</th>
<th>2538</th>
<th>2540</th>
<th>2541</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor</td>
<td>1,413</td>
<td>1,747</td>
<td>2,815</td>
</tr>
<tr>
<td>Masters</td>
<td>242</td>
<td>401</td>
<td>461</td>
</tr>
</tbody>
</table>

Not included Rajabhat and Raja Mangkala Institutes
Vocational Graduates

Vocational education has two majors

<table>
<thead>
<tr>
<th></th>
<th>2539</th>
<th>2540</th>
<th>2541</th>
<th>2542</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Comp</td>
<td>4,384</td>
<td>5,206</td>
<td>5,645</td>
<td>7,036</td>
</tr>
<tr>
<td>Electronics</td>
<td>3,938</td>
<td>4,040</td>
<td>4,543</td>
<td>4,993</td>
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</tbody>
</table>
## Salary VS HW Expenditures

<table>
<thead>
<tr>
<th>Budget Year</th>
<th>2540</th>
<th>2541</th>
<th>2542</th>
<th>2543</th>
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</thead>
<tbody>
<tr>
<td>Salary</td>
<td>232,457</td>
<td>244,982</td>
<td>257,908</td>
<td>268,548</td>
</tr>
<tr>
<td>HW</td>
<td>4,337</td>
<td>3,756</td>
<td>1,383</td>
<td>1,618</td>
</tr>
<tr>
<td>%</td>
<td>1.87</td>
<td>1.53</td>
<td>0.54</td>
<td>0.60</td>
</tr>
</tbody>
</table>
IT2000 Assessment

- Not understood by all sectors
- Lack of supports
- Crippled by economic recession
- No Champion

Now a new IT Strategies have been developed and all departments are required to submit a new ICT plan
Some Developments

- Software Park has been approved by the Cabinet and started within the umbrella of NSTDA
- Not fully supported as planned
- Struggled to survive and become SW leader
- Future? Not certain because no commitment is obtained from the Government
Software Park Thailand, a government agency under National Science and Technology Development Agency was established to stimulate the development of Thai software industry, push it towards a sustainable level and provide it the means to survive in rapidly changing global digital economy.

Software Park Thailand and its four integrated departments has officially taken up itself the earnest endeavors

- to offer state-of-the-art infrastructures and investor-friendly environment that nurture young software entrepreneurs during the start-up period;
- to broaden knowledge and enhance skills of Thai IT professionals through various kind of educational activities and;
- to establish a business-to-business exchange from both national and international basis.
SOFTWARE PARK

Software Park Thailand has divided its operation into four integrated departments striving towards an establishment of unique cutting edge that gradually allows an additional acceleration of a development in the entire Thai software industry.
Ministry of ICT

- Approved by Cabinet and enacted
- Started to function in October 2545
- Directions?
  - We are waiting to see.
- Actions?
  - Hope that they will be significant.
IT Education

- Restructuring state universities
- Development of IT graduate degree programs
- Popularizing IT jobs
- Expanding scope and fields
- Problems — quality and attitude towards programming
Software Directions

- Common software for government sectors
- Educational software for schools
- Software packages for SME
- Multimedia software
- Internet and Web services
- Distributed databases and systems
Software Process Improvements

- Urgently need
  - Software standards
  - Software process standards
  - Data standards
  - Education about these standards
  - National acceptance
Capability Maturity Model

- Developed by SME
- SW Park encouraged SW companies to adopt
- Six CMM authorized trainers
- Three CMM authorized Lead Assessor
- Four more to be authorized
Where shall we go?

- Close participation among Thai lecturers
- Development of Standards
- Brainstorm on SW Practice directions
- Brainstorm on SW research directions
- Dissemination of research results
Conclusion

- Software engineering and software practice in Thailand are still lag behind other countries
- Need to strengthen through education programs
- Need to develop more capable lecturers
- Need to work with ICT Ministry
- Need to consider standards and certification
- Need to have private sector participation