“This Technology is Not What You’re Looking For”

How to Better Use Technology to Educate for the Unknown.

KCIS, 13 – 15 June 2016
Transformation and Network Centric Warfare

What We Imagined
Insurgencies, Guerrillas and Hybrid threats

What We Got

Russian humanitarian convoy
What we observe?

“Years of persistent conflict, adaptive enemies, decentralized operations that push both responsibility and risk to the edge of our operational formations, decreased resources, increased mission requirements and exponential technological change”

New challenges

- Think
- Educate
- Train
- Exercise

Create Leaders
Technology is a given

Higher Education in distress

« Y and Z » generation
- The military is **not immune** to these debates
- PME is an **outcome-based system**: mission is to educate the personnel to **better understand** an ever challenging and fast-evolving environment, in a **comprehensive manner** and with the necessary **intellectual agility** to act decisively
- However, PME has to contribute to **cuts in the defence expenditures**

In a money-driven environment, how can we identify the right educational tools – apart from the fashionable trends?
“Although no military can claim to be modern and capable in today’s environment without the human capital investment required to use it effectively, education is often a step child in budget drills and does not receive the sustained investment, recapitalization, growth and refresh rate that is required to keep pace with the changes in how education is delivered and the pace of changes in science and technology that underlie military preparedness”

Grant Hammond, 2015
Good (and not so good) reasons to use technology

- **Advanced Distance Learning** ensures access to high-quality education, training, and job support, tailored to individual needs and delivered on-demand anytime and anywhere.

- **Building a large community of e-learners**, through huge enrollments (MOOC median= 33,000 students).

- **Cost-effectiveness**: reducing time and money spent on education.
Investment in ADL

- Investment in ADL require a significant resource commitment
- ADL = “One size fits all” Vs. learner-centric approach
- Quality of the programme
- Maintenance, investment, updating = closer link to academia and research

Case Study: UCL London

<table>
<thead>
<tr>
<th>Year</th>
<th>Development</th>
<th>Staff / teachers</th>
<th>Total cost</th>
<th>Income</th>
<th>Balance each year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>26,133</td>
<td>1,600</td>
<td>27,733</td>
<td>4,000</td>
<td>-23,733</td>
</tr>
<tr>
<td>Year 2</td>
<td>2,091</td>
<td>1,600</td>
<td>3,691</td>
<td>4,000</td>
<td>309</td>
</tr>
<tr>
<td>Year 3</td>
<td>1,045</td>
<td>1,600</td>
<td>2,645</td>
<td>4,000</td>
<td>1,355</td>
</tr>
<tr>
<td>Year 4</td>
<td>523</td>
<td>1,600</td>
<td>2,123</td>
<td>4,000</td>
<td>1,877</td>
</tr>
<tr>
<td>Year 5</td>
<td>261</td>
<td>1,600</td>
<td>1,861</td>
<td>4,000</td>
<td>2,139</td>
</tr>
</tbody>
</table>

Total (£) 38,053 20,000 -18,053

The projections on the right are designed to provide an overview of the costs for developing e-learning. Providing a cost for this area is tricky, so you may want to review the costs as you enter the numbers, and adjust them accordingly until you feel comfortable with the projected costs/development hours and then matching this up to the income and projections of the course’s potential profits during future years.
So, what do we do?

- Focus on the « how » rather than on the « what »
  - Intelligent Tutoring Systems
  - Encourage and empower social learning

- Develop new innovative ways to learn:
  - « Serious » games
  - Virtual Worlds
  - Online Gaming
Adaptation means:

- Changing the way we see the world…
- … and changing our organizations in return