Effectiveness of Learning Methodologies and Platforms

Moderator
Elaine Lawrence
Head: School of Computing and Communications
Faculty of Engineering and Information Technology at
University of Technology, Sydney, Australia

Guest Panelists

- **Kristen DiCerbo, Ph.D**. is an evaluation specialist focusing on teaching and learning research at the Cisco Learning Institute.
- **Professor Luvai F. Motiwalla** is currently a *Professor and Chair* of Operations and Information Systems Department in the College of Management at the University of Massachusetts, Lowell

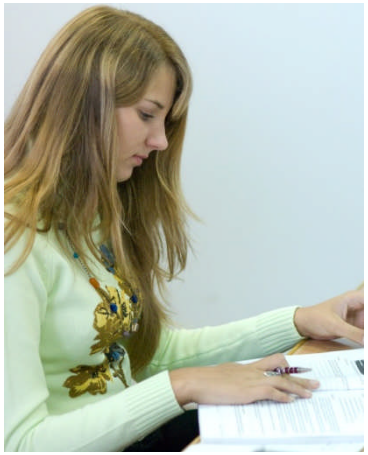
Guest Panelists

- **Dr. Harry Wang**, (1st Honours B.Sc, Grad Dip in IT, PhD, CCAI) is the Quality Assurance Manager (QAM) for Cisco Networking Academy programs in Australia and Pacific Islands (AUPI).
- **Jozef Janitor** Currently he is employed at the Centre of Computers at the Technical University of Kosice.His research areas include VoIP and IP Telephony fields, mobility and migration in IP data networks and Quality of Service in data networks

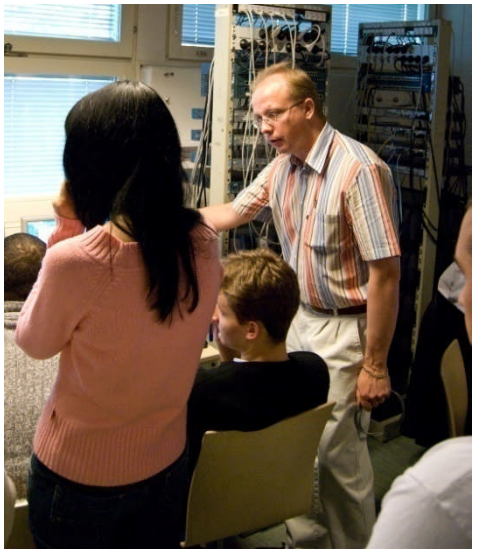
Guest Panelists

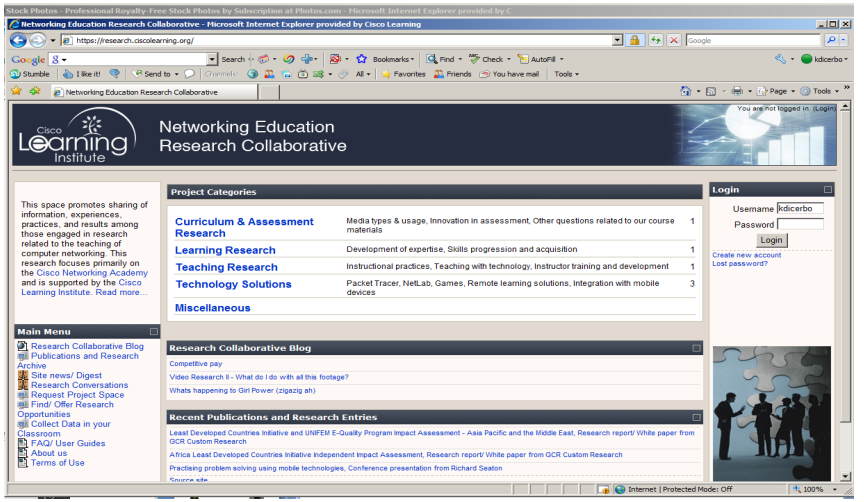
- Professor Eugenijus Kurilovas
- Ministry of Education and Science of the Republic of Lithuania
- Professor Tomeu Serra

Measuring the Effectiveness…Kristen



- **Asking Questions**
- **Designing Research**
- **Sharing Results**
- **Benefits**





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Simplifying Outcomes Assessment Through Web-based Systems

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Funded by the Davis Education Foundation, Maine, USA

eOutcomes Project Overview

- Design and develop an web-based outcomes assessment system
  - e-capture the course activities info (e.g., assignments, discussions, or exams) from a learning management systems (LMS) and
  - e-categorize activities relative to the business admin program's stated learning objectives
- Facilitate institutes for course development and assessment portfolios.
- Enhance reporting quality for administration and accreditation
- Reduce overall administrative costs through digital assessment, reporting, & tracking processes

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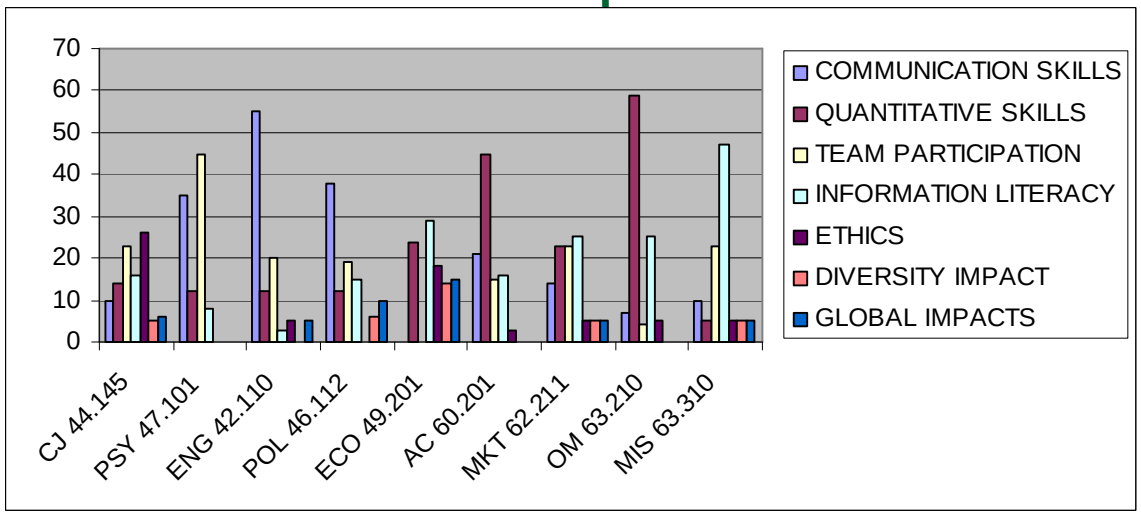
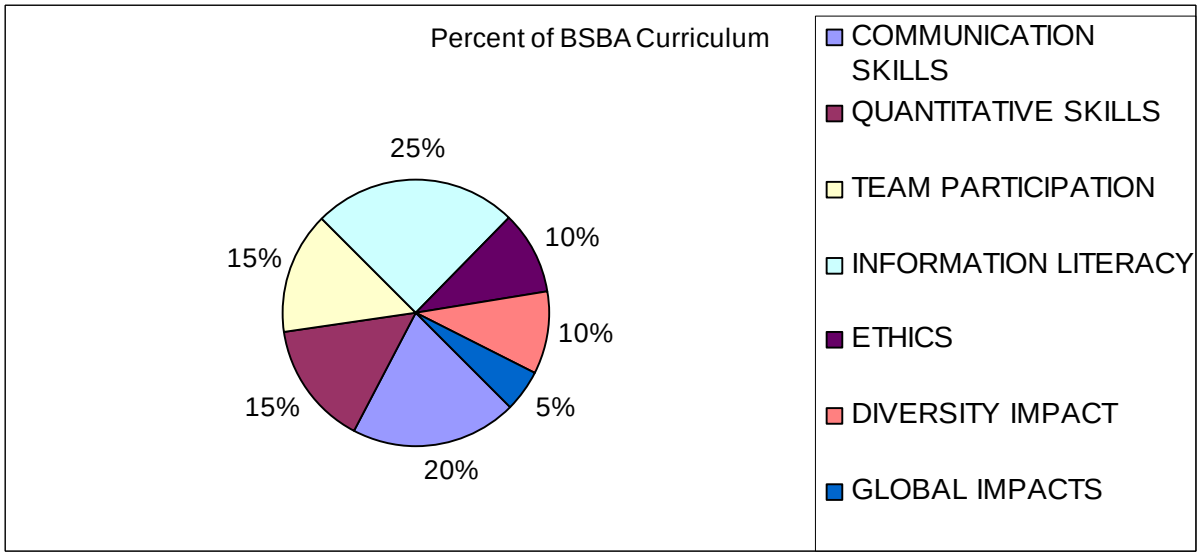
Example of eOutcomes Reports

Digital Dashboard





- ✓ **15 online courses**
- ✓ **13 faculty**
- ✓ **4 colleges,** and
- ✓ **1094 students**

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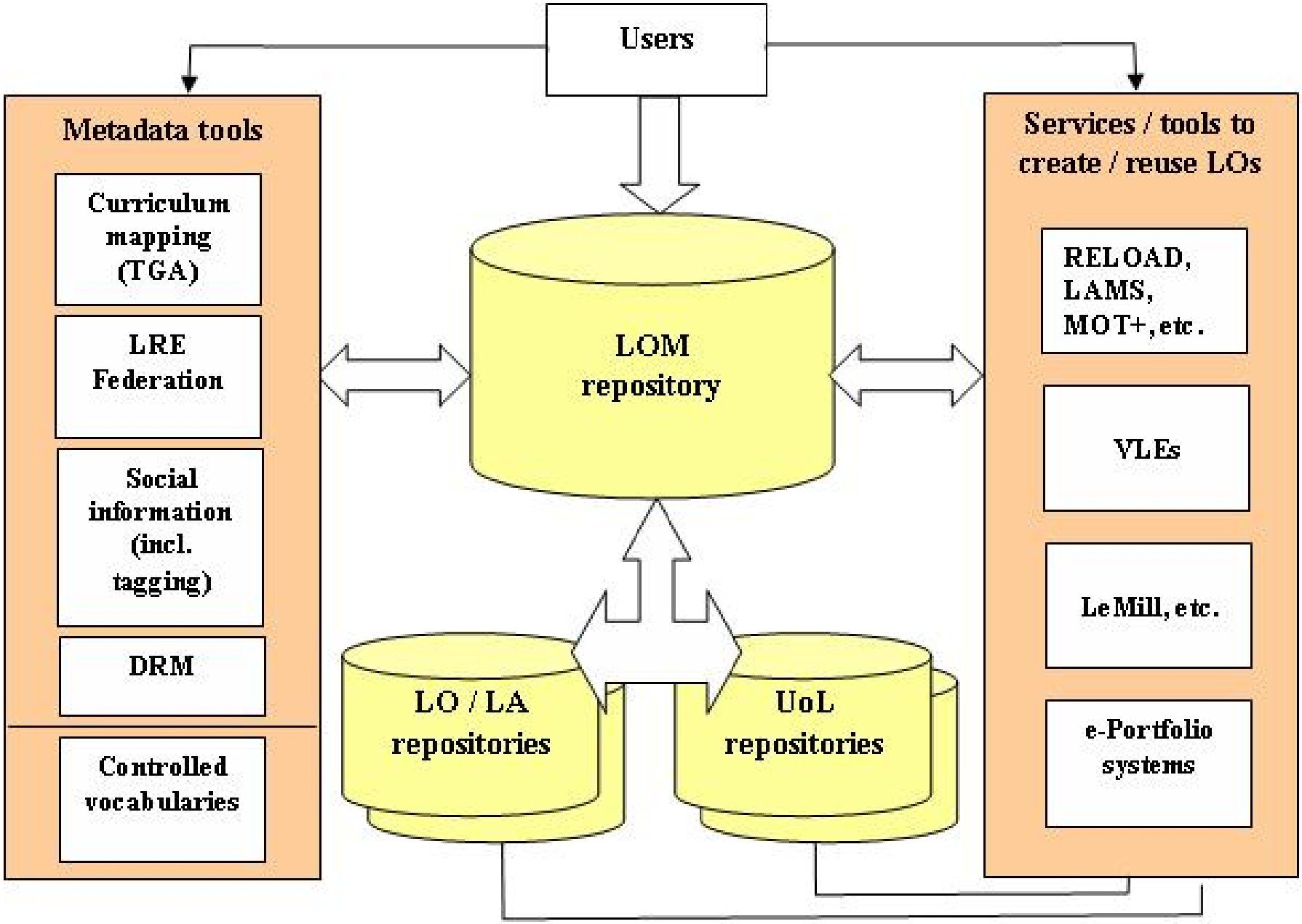
Best Practices: Outcomes Assessment

A successful outcomes assessment project requires

- Sustainable commitment from senior administration (Provost, Dean, …)
- Ongoing technical support for faculty
- Full support & involvement from LMS & IT support staff
- Commitment & support from faculty
- Sustainable incentives for faculty

Architecture of Lithuanian e-Learning system: Professor Eugenijus Kurilovas



System components quality evaluation and optimisation

Learning components:

- Learners prerequisites / requests (p)
- Goals (competencies) (c)
- Learning objects / content (o)
- Teaching / Learning methods / Units of Learning (m)
- Assessment methods / objects (a)

e-Learning system (environment) components:

- LO repositories (r)
- Virtual learning environments / Web 2.0 tools (e)

Optimisation (utility) function (with components quality evaluation criteria weights):

$$f(X) = \sum_{i=1}^{m} a_i f_i(X)$$

- *i = {components quality evaluation criteria}*
- X *= {alternatives (p, c, o, m, a, r, e)}*

BDL Discussion

ICNS – LMPCNAP, 2009

Valencia, Spain

Harry Wang

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BDL Model and Implementation in AsiaPac

- Opportunities
  - Cost effective solution
  - Accessibility and flexibility
- Challenges
  - Geographic distance
  - Language and culture diversity
  - Mutual recognition
  - Assessment
- Possible solutions
  - Collaboration with other academies
  - E-learning environment – tools

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CATC Spain

Valencia, 23th april 2009

Dr. Bartomeu J. Serra

Presentation

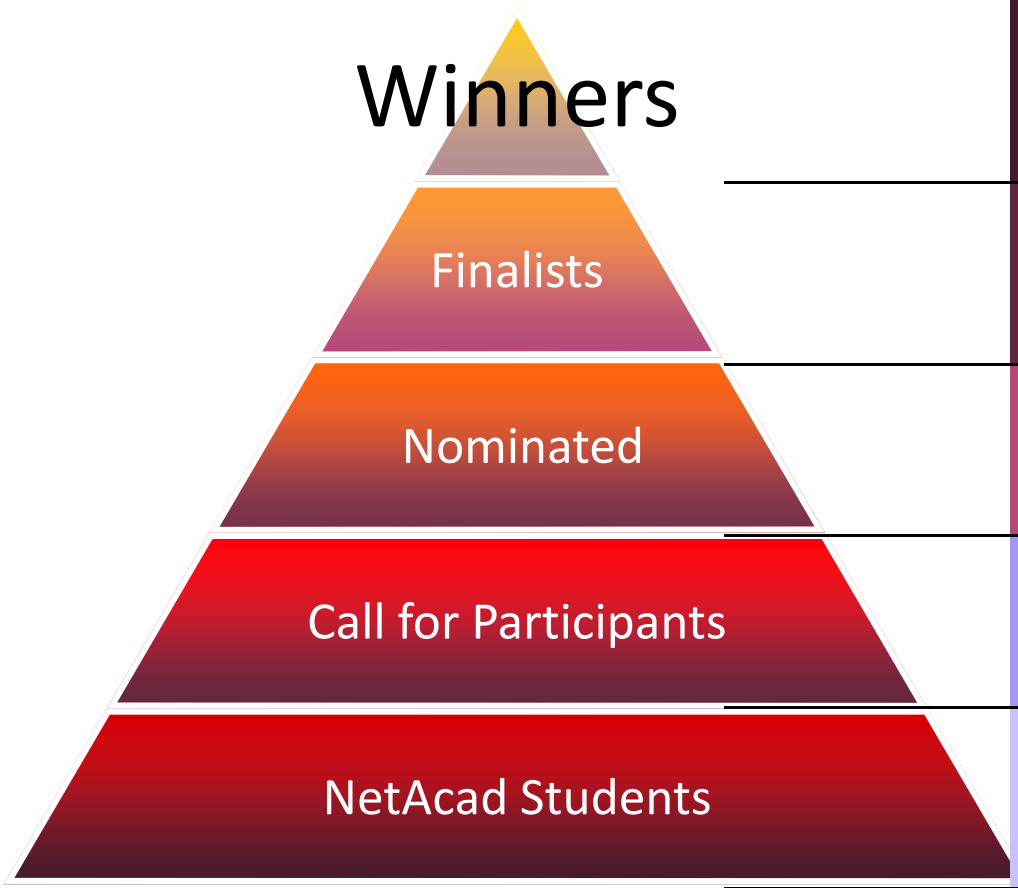
	Students	Academies
Spain	18.667	305
Portugal	3.933	92
Greece	1.023	73
Israel	3.933	77
Malta	755	5
Cyprus	617	24
Andorra	21	1

Networking Academy

Fundació Universitat Empresa de les Illes Balears

linktoStart
your own business

CATC Spain



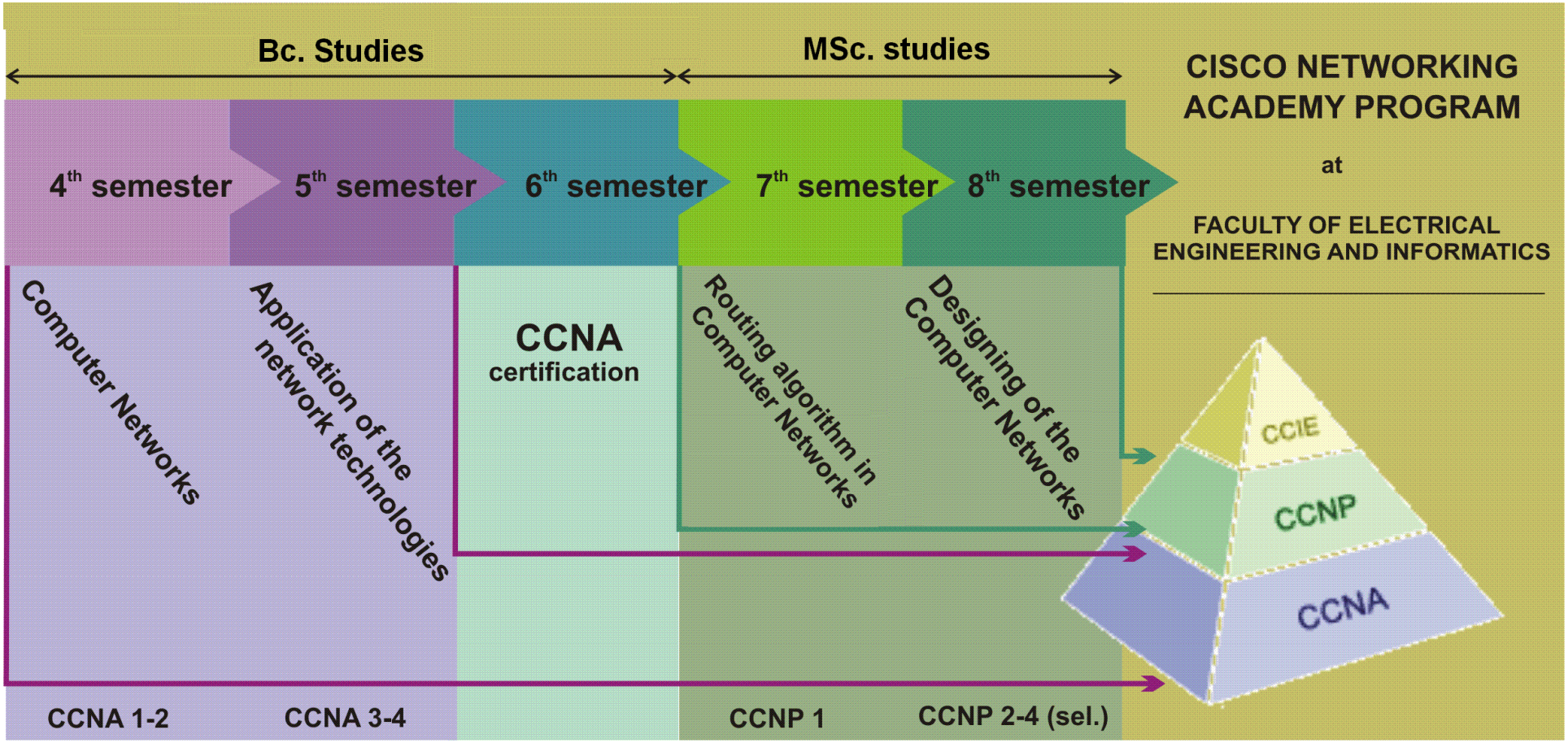
	Laptop + Financial Monitoring+ Access to finance	NOV
	1.000€ / Test Idea	JUL
	Business Plan Practical Training	JUN - APR
	Feedback + Nomination	JUN - APR
	INFORMATION + PROMOTION	JUN - MAR

- Audience: Persons in NetAcad Spain
  - 13,963 students
  - Entrepreneurs(45%): 6,283
  - Target Group (4%): 251 projects/year
  - # Possible projects: 25
  - Test Academies NetAcad: 5% students are entrepreneurs

CNA Implementation @ FEEI, TUKE

www.cnl.tuke.sk

- Study program at FEEI, TUKE



Issues that we face(d)

- Exams
  - Cheating
  - Language issues
- Can we grade students with the CNA Gradebook?
  - G1 = 20+P+(1-P/20)((WP-80)/2+(SBA-70)/3)
  - G2 = Few questions exam ;-)
  - Grade = G1+G2
- Direct Lab Access

Lessons Learned

- Improve creativity
  - Avoid step-by-step manuals when possible
  - Challenge labs
  - Homeworks
  - Projects
- Module exams are better when not graded
- Add additional information to the lectures
- Motivate students with lectures and presentations from Networking Professionals (Cisco SE, Cisco parners, etc.)