ICT 2009-10 Work Programme
Objective 4.2

Technology Enhanced Learning

European Commission, DG Information Society and Media
Unit E3 – Cultural Heritage and Technology Enhanced Learning

Challenge 4: Digital Libraries and Content	ICT 2009.4.2 Technology-Enhanced Learning	CP, NoE, CSA
	ICT 2009.4.3 Intelligent information management	CP, NoE, CSA

Key Elements of the Workprogramme

1. Learning in the 21st century – the classroom of tomorrow (new)
2. Embedding learning experiences in organisational processes and practices (cont. Call 1/3)
3. Combining creative, cognitive and computational processes for workplace learning (new)
4. Adaptive and intuitive systems, - affective and emotional approaches (cont. Call 1/3)
5. Learning appliances and cognitive tutors (new)
6. Focused interdisciplinary networks (new)
7. Awareness building, roadmapping, evaluation, showcases (new)

49 MEur – IP/STREP 35 MEUR; NoE/CSA 10 MEUR

Outcome a) new

Learning in the 21st Century:

- large-scale pilots for the design of the future classroom

- Research addressing innovation in learning and teaching including assessment

- supporting individualisation of learning, collaborations between peers, stimulating creativity

- supporting the active participation of a wider community, including parents

- (Instrument: IP)

Outcome b) cont. Call 1/3

Reinforce the links between individual and organisational learning, and creativity

- embedding learning experiences in daily working life

- Research covers effectiveness of learning content, new forms of collective intelligence and deeper understanding of the role of ICT for creativity, informal learning and collaborations (Instrument: IP)

- Research should also address new ways of combining creative, cognitive and computational processes. (Instrument: STREP)

Outcome c) cont call 1-3

Innovative **adaptive and intuitive systems for learning** that demonstrably improve motivation, engagement and outcomes.

- Work may related to serious games and immersive environments and include advances in the combination of simulation, story telling, and collaborative learning

- (Instrument: STREP)

Outcome d) new

Revolutionary learning appliances (eg toys)

- able to promote specific cognitive processing or abilities
- addressing specific social and learning problems for science, technology and maths, or other tasks that impose high cognitive demands

- (Instrument: STREP)

Outcome e)

- Focused **interdisciplinary networks** on specific emerging trends (e.g. serious games/mobility and learning),
- limited set of established excellences and clear cross-fertilisation between disciplines
- (Instrument: NoE)

Outcome f)

- Awareness building and knowledge management on the results of EU RTD projects in the field; Exploratory/roadmapping, identification of Grand Challenges; Socio-economic evaluations;
- Pan-European network of living schools for validations, demonstrations and showcases. (Insturment: CSA)

The problems the WP addresses & where we look for impact

General elements

- Meeting the demands of education in 21st century - personalisation, new skills, assessment, information society…
- Contributing to fight disengagement in particular subjects (science, math)
- Learning and innovation, creativity, productivity at workplace
- Competitiveness of European players

Specific to research

- Mobilising a more extended research community
- Strengthening research capacity around emerging trends
- Supporting technology transfer and take-up – from research to innovation – with validation, showcasing, best practices

Proposals MUST show how they will deliver impacts

Don't forget

- There is an established baseline in the various research components – the proposed research must relate to these boundaries

What we do not want

- Yet another solution (eg training for engineers) with no new work on how people acquire skills and competences, in different contexts
- Mainstream eLearning products
- Replications of ongoing work, recycled ideas that do not match the current WP, "we can do it all" proposals

Stakeholders

- research (computer science – artificial intelligence, games, visualisation and knowledge management),
- educational and pedagogy experts,
- businesses and the learning technology industry

Contacts and further information

INFSO/E3

- Cultural Heritage and Technology Enhanced Learning

FP7: http://cordis.europa.eu/fp7/ict/telearn-digicult/contacts_en.htm

Technology Enhanced learning:

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Send an email to join the mailing list

European Commission
Information Society and Media

SEVENTH FRAMEWORK PROGRAMME

ICT 2009-10 Work Programme
Objective 4.3

Intelligent Information Management

European Commission, DG Information Society and Media
Unit E2 – Technologies for Information Management
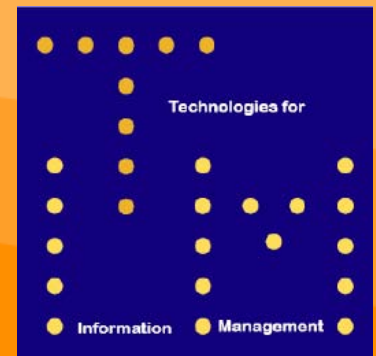
SO 4.3

Intelligent Information Management

Key work programme themes:

- – **Capturing tractable Information (NoE, IP, STREP)**

- – **Delivering pertinent information (IP, STREP)**

- – **Collaboration and decision support (IP, STREP)**
- - **Personal sphere (STREP)**

- – **Impact and S&T leadership (CSA, NoE)**

Key dimensions: any kind of <u>large data sets + real time</u>

Budget: <u>70 MEur - IP/STREP 62 MEUR; NoE/CSA: 8 MEUR</u>

SO 4.3: Keeping up with the data

- **Problem**: data grows faster than we can understand/use them

- **Solution**: build IT tools to process enormous amounts of data in near real time

- **Background info**: ftp://ftp.cordis.europa.eu/pub/fp7/ict/docs/content-knowledge/event-20090122-technical-background_en.pdf

SO 4.3: What are we looking for?

- **Scale**: terabytes of text, images, 3D, data streams

- **Engineering**: robust systems that start running 24/7 asap and are refined, extended, optimised as the project goes on

- **Impact**: ease of deployment (e.g. cloud, standardised software components) and use; solves somebody's existing problem

SO 4.3: What do we <u>not</u> want?

- Teams of researchers with great ideas but no data

- Brittle prototypes that prove a principle but don't survive or perform outside the lab

- Dissemination primarily publication based and addressed to fellow researchers

SO 4.3: Who are the leading players?

- **Researchers** (too numerous/diffuse to mention)
- **Large** bioinformatics **operations**
- **Experts in:**
  - **Web analytics**
  - **Linked Open Data**
  - **Geospatial, urban computing**

SO 4.3: Is this new or has it been called before?

- It is **new** because of **sharp focus** on
  - **Extreme scale**
  - **Real time performance**

- Expected application/reuse of previous results in
  - Large scale reasoning
  - Identity management
  - P2P cooperation
  - Text analytics
  - Database integration

Further info

- **ICT under FP7**

  http://cordis.europa.eu/fp7/ict/

- **Experts database:**

  https://cordis.europa.eu/emmfp7/

- Unit E2 – Technologies for Information Management.

  URL: **http://cordis.europa.eu/info-management/**

  mailto: infso-e2@ec.europa.eu