

Workshop

Aim

- raise awareness of a new conceptual framework for computing broader than that provided by computational thinking [SBR - Google misconception?]
- launch an open source initiative to disseminate well-established principles and tools relating to "constructivist computing" that have been developed and deployed in Computer Science at Warwick over many years
- transform CS405 into an embryonic "MOOC"
- key ideas: hermeneutic computing / essential link between software development and learning / construction

[Careful re endorsement of TEL as opposed to CS agenda - though consider to be related
Also complex issue as to whether
we are introducing a new educational technology
OR promoting a new vision for computing

perhaps should focus on a central computer-related topic,
such as putting programming in a new context
]

Precedents

- Ant in Thai schools 2012
- Paris Constructionism 2010
- The Sudoku Experience 2008
- Chris Roe [Birmingham], Open Day presentations, ACE - schools events
- CaS presentations (inc CaS conferences)
- International summer schools with students at Rostock and Kiaoshung
- Erkki Sutinen, Ilkka Jormanainen in Africa / robotics

Related initiatives

- GeoGebra / Scratch / spreadsheets in education / Google docs?

Resources

- Education-related PhDs: Chris Roe and Ant Harfield
- Models - such as Seb Sidbury's ICE

Activities

- Prepare tools ("EM instruments") and web resources for wider deployment with schools in mind
- Integrate EM with the interaction lab activities
- [Integrate JS-EDEN with the EM website? restore WiiMote interface - integrate with website Ant]

Publications

- Splash essay
- EM paper #114
- Constructivist computer science (cf. Ben Ari)
- ITALICS paper
- ... in need of a radical new conception
- ...

Local links:

- JS-EDEN google group
- Web EDEN Myers
- IGGY

Contacts - possible workshop participants

- CaS - Simon Humphreys
- Erkki Sutinen, Ilkka Jormanainen
- Taiwan NTNU- perhaps also Taiwan Chinese university
- Dave Catlin, Roamer
- Piet Kommers
- Bev Woolf, Boston
- Martina Rau (CMU) fractions / fluency
- Dave West
- Vik Nuckchady Nokia / Daria Antonova
inbox.12.04.10 message 2091 Head of Projects Toijala Center. Nokia, Finland
- Bret Victor?
- Samia Meziani
- Ashley Ward
- ? Chris Roe
- ? Antony Harfield
- Zoe Burgess - home educator