CONSTRUIT!

Draft materials towards an online course on 'making construals'.

Materials considered

Meurig sent (15th Jan) six files of resources for the course. One of them (an html file 'Notes …') included two further resources : one was the timetable and links for C5, the other was the Moodle-based outline version of 'the course' consisting of 9 sessions most of which were divided into 'Objectives' and 'Activities' with associated links.

Feedback from Hamish and Jen (19th Jan): my summary

(a) Need to identify target audience

(b) Best for on-line course to be 'born digital'

(c) Tutor support or self-study?

(d) Observations
      1. need for introductory material centred on learner
      2. use only one tool to start with, others later
      3. sessions or sections?
      4. examples are very complex – progression is stepped not linear,
         need to separate concerns where possible – e.g. system model/graphics
      5. remove local references
      6. more helpful communications

(e) Proposal : that we do a total redesign of 'session 1' with target audience of upper primary / middle school teachers with no maths/computing expertise.

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Overall perception:
(para on Audience): that the material (content) requires, 'high levels of computing domain knowledge and experience'.
(penultimate para): The focus on middle school teachers will, 'give us some hope to grasp what is going on … such a target would [still] confront us with a very challenging task of clarification and simplification …'

[Subsequent dialogue on extent of engagement includes: "… the scripts are not comprehensible to me in any meaningful way. So any discussion of what might be going on is lost on me." (Hamish)]

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Response to feedback

This feedback is invaluable to us and to the Project. CONSTRUIT! depends on our methods being accessible to a wide range of people. This means *engagement* with the tools and environments we are building. Over the past many years many hundreds of students have engaged successfully with the module CS405 at Warwick, but these have been highly motivated and (largely) very able cohorts of final year students or post-graduates in Computer Science. Never before have we opened the methods up in a large way to wider audiences as CONSTRUIT! requires us to do. I think we can do so successfully but it will be a lot of work and this feedback helps to direct where that effort needs to go.

For a long time now we have sought feedback from students and each other on the JS-EDEN environment. This has driven successive versions. With CONSTRUIT! we have to think more about the 'packaging' and communication of the facilities afforded by JS-EDEN. I had for some time been thinking in terms of JS-EDEN as an 'engine' (for dependency maintenance, script management, visual display etc) and the surrounding input / output windows and other supporting features as 'interface' components. They are not really separate – the menus in JS-EDEN are, of course, interface components. It's these 'surroundings' that clearly need the big effort now - not (so much) the engine.

Computers and their software are still largely being used to do things that we did before computers emerged but with other means: writing, making slides, storing and displaying images and sounds, pattern-matching (searching say), control and communication etc. In such things the use follows the pattern: **think** then **act**. Games and simulations, recognition systems, are perhaps offering activities we really could not do before in any way – in terms of scale, speed, multi-user etc. Here the thinking and the action (by the user) begin to occur together. But there has been a lot of thinking by the creator before the use by the user. With making construals – in some contrast to programming - there is a different pattern of working and activity. Thinking and doing, creating and using, are conflated. In fact conflation is natural with construals, separation is needed when – in the right context - functionality is identified and optimised, perhaps in a program.

If we think of computing as offering a new *medium* - one which has to do with negotiating, crafting and constructing meanings, rather than implementing functions based on given meanings – then we are getting into the sphere of making construals. The difficulty in communicating about MC is that it is not simply another 'application', it is a different way of working – or playing - with computing. This is hard to appreciate without practical engagement. A 'new' medium takes some years to become fluent with (cf. child with paper and pencil, a student with film.)

It is a worry for CONSTRUIT! that we have little or no evidence of real practical engagement with the the MC agenda from our partners, so far through C1/C5. I am delighted that even if it has been hard to engage with the scripts, you are so ready to engage with us!

Your feedback is entirely welcome. Point (b) I find very instructive but not surprising, point (d) 4 is more surprising and even more instructive! Point (e) is very welcome but raises some problems needing discussion. All other specific points I expected and need to be worked on. You will appreciate that this ramble does not devalue your point (a), for example, but puts a different perspective upon it. (It is indeed essential.) See email for next steps!

Steve Russ 27th Jan 2015