Costing multimedia

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Why use cost modelling?

➢ Target setting
  - a second opinion

➢ Negotiating changes

➢ What-if games and teaching
Deriving new estimation equations

- Identify characteristics
- Collect data
- Formulate equations and test
- Start again

Multimedia compared to software

What is quality?

"Quality is the totality of characteristics of an entity that bear on its ability to satisfy stated or implied needs" [from ISO 8402]

- functional needs
- non-functional personal needs
- cultural needs
Multimedia compared to software

Users

- Don’t know what they want - make selective comparisons
- Supermarket mentality
- Demand intangible things:
  - entertainment
  - novelty
  - fantasy instead of reality
Multimedia compared to software

Process maturity

- Size, complexity and consistent quality
- Optimisation
- Engineering
- Magic
- Gaft working
- Time (years)

Contract types

- Legalistic
  (especially for multimedia systems)
  - uses requirements specification and quality evaluation

- Trust
  (especially for consumer titles)
  - see previous products of developer
  - uses demonstrations and prototypes
Coping with uncertainty

Managing quality
Equation #1
Activity cost

\[ \text{Activity cost} = \text{function of (size drivers, quality drivers, urgency)} \times \text{staff unit cost} \]

Equation #2
Total labour cost

Multimedia (digital) type of information

- text
- audio
- still images
- moving images
- raw formatted
- voice
- music
- pictures
- graphics
- video
- 2-D graphic
- animation
- 3-D graphic
- animation

Labour costs for development = development of digital assets + legal costs + programming costs
Asset acquisition costs

Sources:
- owner (e.g. author of a book)
- libraries (pictures, video, sound, graphics)
- subcontract creation of new assets (e.g. for background music)

Extra costs (labour):
- copyright acquisition (lawyers)
- digitisation
- reworking digital form
Size drivers  
(including complexity)

➢ Some common drivers, e.g.
  Vector graphics: number (#)
  Photographs: # of pictures, # to retouch
  Animation: minutes, resolution, objects
  Video and audio: minutes, # of actors
  Software: # of transitions, # of functions

➢ Others to be identified

Quality drivers

[Diagram of Quality drivers]

➢ Learning
   Understanding
   Experience
   Access
   Be...
Urgency

➢ Labour inefficiencies:
  • *extra* parallel working reducing productivity
  • risks of unnecessary rework!

➢ Other costs:
  • overtime charges
  • delayed work on other projects
  • risks of purchasing assets that are not needed

The MultiSpace Network

http://members.aol.com/aceurope/multispace.html

➢ MultiSpace public documents
➢ Special interest groups *including estimation!*
➢ The MULTI-Q News
Joining the MultiSpace Network

➢ Full contact details

➢ What information do you want?
   E.g. "estimation group, including MIME-encapsulated Word 6 files"

➢ Benefits to European Union:
   "Creation of cost model for use in international negotiations."

CIT Y

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