Vision meeting GATE Education

Waag Society & HKU

30 mei

Education today

- **Still traditional**
  - Disregarding new technologies
  - Central position teacher
  - Pupils are consumers
  - Classroom is static

- **Implementation serious games**
  - Only on ad hoc basis
  - Out of context curriculum
  - Only when part of proven method
  - Associated with (too much) technical complexity

Game research
for training and
entertainment

Potential strong points serious games

- Independent of time and place
- Physical interfacing (kinect/ Wii)
- Sensor based input & real time data
- User generated content and/or game mechanics (consumers – producers)
- Exploring social interaction

Bottlenecks serious game implementation

- School system
  - Central position of (traditional) publishers
  - Computers and materials in the school
  - Not supported by teachers and/or managers
  - Serious games are developed separate from the didactical methods used
  - Curriculum is static
  - No criteria to base choice upon
- Money
  - High costs of development; national market is small
  - Schools are not accustomed to pay for seperate games
- Teachers and managers
  - Not trained to work with games
  - Not convinced of educational value

Changing context for gaming in education

- Technological changes going faster and faster (five years ago we didn't have facebook, twitter, ipads, iphones….)
- Technology getting smaller, always available
- Due to the aging population of teachers and managers we need to get more efficient…
- Pupils getting more skilled than teachers and parents
- Changing role of teacher (coach)
- More special needs (dyslexia, autism, etc)

Challenge 1

- Envision the educational system as a holistic game system
  - Explore using levels, roles and game mechanics throughout the whole learning life cycle
  - Create adaptive learning systems and personal learning routes
  - Incorporate physical game play
  - Blend outdoor and informal learning
  - Focus on motivational and challenging aspects of gaming (not everything needs to be fun, nor digital)
  - Address multiple intelligences and senses

Challenge 2

- ## Connect better to society
  - Create an open, adaptive system that can incorporate new technological developments (so you don't miss the next facebook or hyves)
  - Let pupils create their own games as a driver for learning questions (create a 'need to know' basis)
  - Use real time open data in educational games to reflect real life
  - Make games a tool with which pupils can work independently

Game research for training and entertainment

Challenge 3

- Create more awareness of added value of games
  - Involve all stakeholders in game development (teachers, onderwijsinspektie, politics)
  - Measure actual learning effects in relation to classroom setting
  - Translate results of game research and educational pilots (better) to other fields (find new ways of telling the story)
  - Develop teacher training and peer-to-peer learning systems

Challenge 4

- Explore new business and distribution models
    - New stakeholders vs traditional publishers
    - Demand driven development
    - Other?