2nd Annual IGDA Academic Day
- Proceedings -

August 29, 2003
Game Developers Conference Europe
London, England

About these Proceedings

These proceedings were compiled in "note-taking" fashion during the Academic Day by Education Committee member Robin Hunicke. For the group work sections, group leaders were asked to send in their notes – not everyone did. Please note that these proceedings are not 100% complete or accurate… Apologies in advance for any errors or omissions.

- 10:00 **Introduction: Jason Della Rocca**
    - **Thank You**: Jason started the proceedings by thanking our sponsors – including Microsoft Research – visit them at http://research.microsoft.com!
    - **Mailing List Announcement**: participants were asked to sign up for the summit mailing list so as to receive updates on notes and so forth. Please contact Jason (jason@igda.org) for details on this list.
    - **A Quick Survey**: By show of hands, the conference was roughly 50% educators. There were about 10 researchers and 10 developers in attendance, and one student (based in the UK). With the exception of a few Americans and a few attendees overlapping with our Academic Summit at GDC, most of the attendees were European first-timers.
    - **Notes and Information**: Any speakers or attendees with notes or information regarding the day's events should contact talented stenographer and dedicated committee member Robin Hunicke (hunicke@cs.northwestern.edu)
    - **Education Committee Intro**: Jason introduces the Education Committee, members of steering committee, its strengths as a group (facilitation, communication and publicity) and its various efforts:
        - **Curriculum Framework**: Currently posted at http://www.igda.org/academia/curriculum_framework.php
        - **Bibliography Website**: In process – an index of available literature on games and game development – as well as comments and reviews.
        - **Ivory Tower Column**: Monthly column where academics communicate w/ industry veterans, edited by DiGRA available at http://www.igda.org/columns/ivorytower/
        - **Events**: Jason explains the Committee's involvement with various academic conferences & events. In addition, Jason announces that there will be no separate Academic Summit at this year's GDC in San Jose. In an effort to distribute pricing and integrate academic panels

with the main conference proceedings, the IGDA will instead host a number of academic-focused panels and roundtables.

- **Breaking In**: See the IGDA's "Breaking In" site for more information on Student Scholarships, Student Chapters, Student offers on tools/tech http://www.igda.org/BreakingIn/

- 10:15 **Progress Report: Eric Zimmerman**

  - **Overview:** Eric gives a quick overview of the curriculum framework and its application to the development of courses and syllabi – followed by a brief discussion of the "framework" approach. This is to remind attendees that the curriculum document is not an actual syllabus but rather a larger framework from which educators may wish to draw from in the creation of a lecture, course or degree-program curriculum.

  - **Goals**: What are the academic day discussion goals? Our focus is on the way that academia and the industry interact:

    - How can we educate, create dialog, identify challenges and research viable solutions?

    - How can each of us (developers, academics, students) we take the ideas generated here today and make them into a reality?

- 10:45 **Discussion**

  - A developer and lecturer working with TIGA asks about the use of games in education and application of game technologies in education and lifelong learning. Is anyone looking into this?
    - JDR: We are actually hosting a two-day summit (tentatively titled the "Serious Games Summit"), made specifically to address the use of games for education, corporate training, military training, also public policy making and so on. Also see the work of James Gee and Mark Parensky
    - Franz Mäyrä announces DIGRA mailing list.

  - Is the IGDA only focused on the American market and interests?
    - JDR: No, though it did start in America. Used to be CGDA (Computer Game Developers Association). Steering committee is made of people leading projects. Please Volunteer

  - Is there a process for starting chapters?
    - JDR – All info about existing chapters and process for starting there is a list of chapters on the web page – several in England. Student chapters are also a possibility – cross-disciplinary chapters that are

more like clubs that drive to make submissions for IGF – students can submit projects and top 10 get to display games at GDC and so on.

- EZ: Is DIGRA starting chapters?
  - FM: There are several smaller groups within Europe including Neogames (a Finnish group started via DIGRA). The Germans are also maybe starting a group, and the Danes as well.

- The student asks: Our CS Department is fairly straightforward - can we start a student chapter? Will it be a good idea?
  - JDR: YES!!!
  - RH: In many ways the best way to motivate changes in the curriculum of a traditional CS department (to include games studies) is to form student clubs and conduct student projects that involve game technology! See the IGDA web page for more information on Student Chapters as the Education Committee makes progress in this area.

- Is there work that looks at Violence and Social issues?
  - JDR: Yes – The IGDA is very interested in working with industry bodies to coordinate against censorship and content regulation issues. However, the IGDA has to keep a bit of a distance from research in this area to avoid stigmatizing it. Some good books on this topic:
    - *Ill effects - the media effects debate* by Martin Barker
    - *Killing Monsters* by Gerard Jones

  - RH: Many of the Women Dev mailing list discussions touch on the topics of violence, game content and social issues related to games and game culture.

  - Ernest Adams: We are politically active – filing motions with the IDSA (now called the Entertainment Software Association ESA) and so on, since organization was founded (in response to Congress' actions in early 90's)

- Do you have pointers as to how industry and developers can get involved in the IGDA?
  - JDR: We are volunteer based – please approach us! Send email or come visit us at www.igda.org !!

- 11:15 **Futures Panel**

  - Mateo Bittanti: A call for a critical pedagogy

    William Gibson once said that "the future has already arrived; it just isn't evenly distributed"

In a sense, this applies to our field as well.

Ladies and gentlemen, the good news is that study of games made staggering advances in the last few years.

We went from Eugene Provenzo (read: games are hell, they are brainwashing the youngsters, they should be banned from the classrooms) to James Paul Gee (read: video games are heaven, they should be introduced in every classroom)

In other words, we went from technophobia to technofilia in a matter of a decade.

Like filmology or cinema studies in the late '40s of the 20th century, game studies are an emergent field, a new territory, a buzzword.

Courses, classes, websites, journals, events, panels, meetings, sessions, seminars, lectures, tutorials, programs…are booming all over the world.

As I speak, issues of cultural and artistic production, interactive narrative & performance, software and hardware design and implementation, cultural theory of games and so on are being explored by legions of intrepid game researchers...

The same applies to the ongoing relationship between game and art.

More and more artists are using video games as a creative means of expression.

Many of them also collaborate with universities and colleges. I'm thinking, for instance, of Brody Condon, who teaches a critical game art course at UC San Diego.

Other include Anne-Marie Schliener, Feng Mengbo, Jodi (the belgians Joan Heemskerk and Dirk Paesmans), Mauro Ceolin and many more...

Unsurprisingly, video game related retrospectives and exhibitions represent THE new artistic trend.

Between 2000 and 2003, museums and galleries have been attacked by avatars and game heroes.

Some examples: "BitStreams" (Withney Museum, New York), "ArtCade" (MOMA, San Francisco), "Game Show" (Museum of Contemporary Art, Massachussets), "Game On!" (Barbican Gallery, London), "Play" (Palazzo delle Esposizioni, Rome), "Trigger: Game Art" (Gamma Space, Melbourne, Australia), "Metabolics" (Muffathalle, Berlin), "Game Over City/La ville en jeux" (Museum of Contemporary Art, Champagne-Ardenne, France), "des-juego/de-game" (Museo Extreme&n?o e Iberoamericano de Arte Contempor?neo, Porto), "The Art of the Avid Gamer" (Barcellona), "Alien Intelligence" (Museum of Contemporary Art, Helsinki), "Play's the Thing: Critical and Transgressive Practices in Contemporary Art" (Whitney Museum, New York), "Villette Numerique: Playtime" (Paris), "Prints+Chips" (BitForms, New York), "Shift-Ctrl" (Irvine, California)...

The list is long, the message is clear: Arcades might be dead, but museums are full of videogames.

Bottom line: the future of game studies (and GameArt, for all that matters) looks extremely promising.

However, as I mentioned before, the future is not evenly distributed.

While the world went on, something did not change at all.

The so called mainstream "video game criticism".

What I am referring to is the abysmal quality of consumer magazines.

Apart from a few exceptions, the vast majority of video game magazines continue to treat video games as a mere commercial product.

Same as it ever was: magazines are simply “magalogs”. Official catalogs, unofficial promos, and buyer guides masqueraded as “serious information.”

DVD-ROMS replaced demo tapes... Now, that's what I (don't) call progress, dude.

Consumer magazines pay absolutely no attention to the ideological, political, cultural implications of video games.

I apologize in advance, but I have to become personal here.

I started writing about games when I was 15 (yes, it’s official, I’m old), for a magazine called *Zzap!,* the Italian edition of the mighty *Zzap! 64*.

The parameters we used to judge games were “graphics”, “sound”, “longevity”, and “playability”.

Fifteen years later, the same criteria are used. Mainstream video game “criticism” is nothing more than technological determinism in full effect.

It is as if all the film magazines measured the quality of a movie in terms of their special effects. What represents an "exception" in the film criticism world (I am referring to *Cinefex*) it is considered the "standard" in the game business.

This urge to objectify, reify, quantify the value of a game in terms of its aesthetics and technological achievement is detrimental to a better understanding of its cultural role.

Let's get even more personal. I have a monthly column on the Italian best-selling PC magazine.

It’s a source of great fun, but also frustration. The use of such words as “ideology” or “politics” in my pieces leads to an instantaneous rejection. “It’s only a game”, I am constantly told by my editor. “Readers play games and read game magazines because they are fun. They don’t want to read this stuff. They don’t care if in *Soldier of Fortune* you don’t lose points if you kill an Iraqi civilian. They don't care about politically-charged mods like *9.11* or *Political Arena*. All the readers care for is when the sequel of Title X is going to be released, how many polygons it will display, how many weapons will be made available this time. And, please, use simple words while discussing games.”

This attitude – which, unfortunately, is not limited to Italy - is clearly detrimental to a broader and better acceptance and understanding of games.

No one wants to admit it, but consumer games magazines are hurting the games much more than the politicians who attack them on a regular basis.

Studying games in universities is great. At the same time, we should not forget the “real world” outside the ivory tower.

The study of game culture is becoming a serious academic field. But that is not enough. If academics are just talking to other academics what's the point?

What is really needed right now is new forms of game criticism that would change the way games are socially and culturally perceived.

What we really need are widely available publications that bridge between the academia and the world of gamers who don't read Derrida, Baudrillard, Zizek, or others "thinker of the week".

We need a paradigm shift.

Where is the "Sight & Sound" of gaming?

Where is the "Film Comment" of electronic entertainment?

"EDGE" magazine is great (WARNING: the following line is a shameless product placement: incidentally, the brand new Italian edition, titled "Videogiochi", is about to reach the newsstands as I speak), but it is still elitist (and proudly so).

And what about the rest of the world?

The failure of "Next Generation" magazine in the US a few years ago is symptomatic of this sort of inability to discuss games in a smarter yet accessible way.

Game studies should not be an elitist pastime.

They should lead to a broader, wider and wiser understanding of games. Otherwise, they will remain "mental masturbation", as many non-academics tend to define/dismiss them.

Incidentally, Chris Crawford recently said in an interview to *Gamasutra*: "Some of the people approaching games from the field of semiotics leave me utterly baffled, and there are a bunch of new media
people who seem intent on defining games in terms that have nothing to do with games". In a sense, I understand his concerns even if I believe that semiotics could be useful as well as other theoretical tools.

Moreover, game studies have a long way to go.

I would like to point out at least three issues that, in my opinion, need to be addressed:

1) We need to pay attention not only to the games, but also to the *gamers*. How do they play? How do they interact symbolically, culturally and politically with the games? We need a phenomenology of gaming. If fans are now producing "80% of the overall content" (Will Wright referring to *The Sims'*community) what is more important? The 20% that is *The Sims* of the "remaining" player-contructed 80%?

2) "We need comparisons with authors in the other arts" wrote Peter Wollen in the seminal "Signs and meanings in cinema" (1969). We need to compare "Ford with Fenimore Cooper, for example, or Hawks with Faulkner", he added. This task which the critics of "Le Cahiers du Cinema" embarked on is still far from being completed. We need to compare Hideo Kojima with Mamoru Oshii. Will Wright with Will Eisner. We need to understand their role in shaping our culture. We need to think ofgame designers as "auteurs".

3) We also need to pay attention not only to the software, but to the hardware itself. Where is the Bruno Latour of video games? We need to understand how and why corporations such as

Sony, Microsoft, and Nintendo have come to play such a crucial part in our lives. We need to study games consoles as cultural objects rather than dismissing them as mere devices. Technology is never neutral. Games are not "just games."

In conclusion, I believe there is a need for a critical pedagogy of video games.

A new approach that would shorten the gap between the academia and world of gamers.

An approach neither pedantic nor plainly brainless.

We need a "third place" of game criticism.

- **Discussion**:
  - EZ: Are there publications that do this for film? Screen, Sight and sound, NYTimes reviews…
    - EA: Is there content that's worthy of it in general? There's very little ideology in games…
    - HK: Why do so many people play them, then? If that many people are interested, there must be something….
  - EZ: Truly there are numerous groups of people that study games – but games are still regarded as adolescent boy power fantasies in culture at large. So why are the museums interested? Is it just a drive to create more ticket sales?
    - EA: Nostalgia – games are old enough to drive people to the museum to see the past. Most of what's in games to study is not put there on purpose. Lack of black people, lack of women of proportionate size is less of a deliberate choice as the reflection of the unreflective nature of designers.

- Helen Kennedy: The state of play in 50 years: 2 possible futures

Scenario 1:Dystopian: 2050

Industry ignored the maturing academic discussion of the cultural meanings of games and the need for greater understanding of play and pleasure in postmodern culture. Academic writing on game form, content and cultural meaning has been treated with scorn and derision. Ignored and marginalised, game studies theorists were increasingly bogged down over terminology, key concepts and how to correctly reference a game. At least one academic exploded as yet another definition of interactivity was put forward. Debilitating factionalism grew up around the debate between narratology and ludology and a once promising field withered away to just a few stalwart individuals largely publishing under pseudonyms.

Industry gave up on trying to encourage female gamers into the market and into the decision making and technical process. Although there has been some success in acquiring an older audience this has been secured through increasingly violent and sexual content – much of it featuring the routine debasement of women. Although some exceptions persist, women are generally cast as victims or sexual conquests in mainstream games.

Games for girls remains a lamentably niche market – what remnants still exist are dominated by 'the pinking of games' approach.

Women still predominantly employed as booth babes or low level (admin type) roles within the games industry – the few exceptions continually pointed to as evidence that things are okay.

Feminist critique of games fails to learn from the history of film and tv critique and continue to bemoan the sexist and violent content of games to the exclusion of any attempt to understand the pleasures on offer through games playing. Games playing continues to be dismissed as a largely masculine activity.

Those feminist games designers that do exist have so far only produced difficult, boring, politically correct but ultimately unsuccessful marginal games played only by other die hard feministas.

(Helen Kennedy, a senior feminist academic, is held to blame for much of this due to her incessant critique of the bimboisation of female games characters alongside her absolute failure to offer a single viable alternative!)

Games industry treat academia as hothouse for made to order designers/programmers with little thought of how to work with academic community to produce games which reflect changing and diverse world.

Independent games have little outlet for dissemination or proper critical acclaim or recognition thus fail to gain an audience and their production tails off.

Games and gaming fails to achieve genuine cultural recognition as a mature media form and practice - remains largely a subcultural and heavily stigmatised activity. Leading to underground games parlours and heavy fines for any public gaming.

Scenario 2: Utopian: 2050

Feminist academic input finally puts to death the pinking of games which is generally acknowledged as a wrong-headed and doomed experiment.

(Helen Kennedy senior feminist academic acknowledged as key figure shaping our understanding of subversive female pleasure in violent games thus obliterating the notion that females games need to be about kitten (or sheep) husbandry and the like. Although she has long since vanished into obscurity as her once insightful work is taken as common knowledge and common sense.)

Games industry and academics have learned from the experiences of film and tv industry in terms of both content (representational issues/cultural diversity) and production (the necessity to include women/minorities at all stages of production and in all stages of technical development.) The importance of role models has long since been recognised as has the need to listen very carefully to what players (male and female) have to say about their pleasures.

Statements like this one:
"The reality is that boys do play games more than girls do and, at some point, boys are buying more games than girls are," Trujillo said. "It's not that we're failing to tap into that audience because there aren't enough women on our end. It's just the nature of the industry and the product we're developing. It's like saying men would buy more makeup if more men were working in that industry." July 2003 Caroline Trujillo Vivendi Universal Games producer and designer.

Are acknowledged to have missed the point… which is that games are rich, intense and potentially educational experiences which should be open to all and that games playing in itself is a vibrant part of culture which should not be seen as exclusively a male preserve. And anyway

men were being encouraged to buy more makeup in the noughties (what else in such a capitalist culture) its just called different things – how much of a growth industry was the male cosmetics biz anyway?

Feminist scholars work alongside industry professionals in the development of work and training schemes to encourage the recruitment and retention of female games talent. This initiative was largely led by the excellent work done by Women in Game Development Committee set up by the innovative and future minded International Games Developers Association (still a key figure in the industry today). Schott & Thomas' now seminal study of girl gamers was also a significant contribution to this development.
Degree and post-graduate schemes proliferate where critique and self-reflexivity are fostered alongside practical and technical skills. Through careful marketing and access schemes females make up at least 50% of student intake and go on to hold postions at ALL levels within the industry. Games emerge which reflect a broader spectrum of human experience and imagination.

Marketing and advertising of games finally recognises and heeds the critique of sexist imagery and the sexist use of booth babes/eye candy at trade fairs.

[Nintendo (and others – you know who you are) publicly apologised for nasty sexist advertising and to make amends they have subsequently led the field in their employment of academic advisors in all stages of recruitment/development and marketing.]

Centrality of play and playfulness recognised as key element of post modern culture. Games finally recognised as paradigmatic media form of 21st century – academics clamour to study and participate in the new play world order.

Games playing no longer stigmatised as adolescent activity through the development of mature shared language amongst academics and forward thinking industry professionals. Games are good for you headlines predominate and negative effects debate around games is finally laid to rest.

Academia and particularly the humanities revisit ideas around representation, storytelling, the relationship between culture and technology, and play in light of the knowledge produced through the study of games which contributes vital new insights into our understanding of what it means to be human.

Males and females representative of our diverse globalised culture engage in private and public gaming events in equal number and without stigma or apology – the rest, as they say, is HISTORY.

- **Discussion**
  - EZ: which is most likely?
    - HK: I like to be positive – there are signs that scenario 2 is possible.
  - EZ: Do we find these kinds of movements in film and other cultural criticism fields? Do you think that the way games are marketed, distributed and published contributes to the way they are made and what is made?

- EA: Common assumption to both of Helen's scenarios – there is a link between sociological research and games – if that link is realized good, if not, bad?

- EZ: what's the relation of critical thinking to the creation of popular culture?
  - HK – I think there's problem with academic study of games as well as the industry itself. There have been significant mistakes in the way we approach the text – that analyzes the text as directly communicative of sexism. TV studies and film studies have learned the audience is important – but feminist studies has not.
  - MB: Looking at games – you can see themes and recurring messages. Is Metal Gear Solid anti-American? Is the designer putting forward his views of the world? You don't get this? Need to raise the question "What's audience role? What is the embedded messages of this game?"
  - EZ: I believe that what Ernest meant is not that games do not create ideology but that he creators are naïve about the implications of their work.
  - MB: If you look at many games the ideology are totally overt.

- EZ: there's no question that games are carriers of culture and ideology – except maybe racing games. Largest category of games are sports and racing…
  - EA: There are a great many games about getting car around – computerized versions of games
  - (from the audience): Doesn't that mean that the ideology is totally implicit?

- Richard Evans**:** Future Scenario: MiniGames which are Embedded in the Game World

  At the moment, mini-games are self-contained games, causally disconnected from the main game world.

  But now imagine you are playing a MMORPG and your avatar stumbles into a room and starts to play a game of chess with an NPC. Imagine these two scenarios:

  - the NPC realizes he is losing - he knows that the spectators will laugh at him if he loses - he cannot bear the humiliation so he kicks the chess board, upsetting the pieces

  - the NPC knows that your avatar gets angry when he loses games, and the NPC is rightly scared of your wrath, so the NPC deliberately loses

  At the moment, with current design and technology, such scenarios are unimplementable (or only implementable as special-cases, hard-coded for the particular examples).

At the moment, mini-games are self-contained games which are instigated by the main game, but otherwise causally disconnected from it. It is like putting a window on top of the current game window (or reading a story within a story) - the two windows/stories cannot interact. The causal disconnection goes both ways: the main game cannot influence the minigame (you cannot kick the chess-board down) and the minigame cannot influence the maingame (apart from the win/lose condition).

Examples:

- Fishing game in Jak&Daxter: starting conditions of mini-game are independent of state of the world, the only way the fishing game affects the game world is via giving a reward

- Catching chickens game in Zelda: starting conditions of mini-game are independent of state of the main world; the only affect is via giving a reward

- Missions in Grand Theft Auto / Vice City : again, starting conditions of mini-game are independent of state of the world; there are now two ways the mini game affects the whole world: success conditions and criminality. This is a minor advance.

As well as causal disconnection, there is also epistemic disconnection: agents playing the mini-game only see the local consequences of their moves - they do not see the consequences of their moves in terms of the whole game world. Agents do not understand the context of the minigame within the world.

Examples:

- a cunning agent who is playing rugby might deliberately injure himself so that he gets sent off, because he wants to be looked after by the voluptuous nurse

- a cunning agent who is playing chess against his vengeful boss might deliberately lose to avoid punishment

Summary: In the (not so distant) future, minigames will no longer be separate, isolated worlds, but will be truly embedded in the main game world.

- **Discussion:**
  - EZ: The types of interconnectedness and dependencies that would occur in your future games – would they contribute to the kind of play that Helen referenced earlier?
    - HK: Yes – I think so. In fact I think this type of connection reflects the fact that we are getting more playful in culture as a whole – more referential within our media and so on.

  - EZ: If we really re-think the way games are designed and programmed and conceived of – what types of systemic or financial changes have to take place in order for the industry foster innovation?
    - RE: I think the industry is fine – that we're making progress. It's just slow.
    - HK: When we talk about the AI that makes this possible, how is that coupled with the narrative technique that will make those games more interesting? Who is providing the story that makes that play dynamic more interesting? The state of play might be innovative but the scenarios you mention bore me.

- EA: People providing them are game designers and writers who are (sadly, usually) crappy. But to be fair - it is post modernism that stands in the way. We need to go to pre-modernism. Until we can do what Dickens, Jane Austin and Sir Walter Scott, then we can't do the rest. We need people who can write good stuff. Vast majority of people who write for games are not academically or artistically trained. This is a problem.

- Ernest Adams: Games and Academia
  Note: Ernest was asked to join the panel at the last moment because of a cancellation. These are mostly drawn from Ernest's closing remarks from the Academic Summit at GDC 2003:

  Entertainment is a medium with limitations like those of English departments and Film Schools – it isn't funded by publishers. You don't have any rich alumnae yet… but you may, in the future. Technical collaborations are few… but then again, our current technologies suck. For time reasons and budget reasons – serious game research is not necessarily applicable or even relevant.

  We do need to make things smarter. My vision of the future includes academics seriously studying some of our harder problems -- the nature of interactive storytelling, creating credible artificial people, and producing scientifically sound studies of gameplay patterns and the social significance of games. Creative, literary and aesthetic experimentation would be nice.

  I would like to see universities turning out students who are truly primed to innovate rather than just worker bees for the hive. We need to teach people how thing might be instead of teaching them how they are – trade schools are insufficiently inspirational. With creative, educated and open-minded students filtering in, we might actually make some progress. So don't let your students make any more first-person shooters – we already know how to do that.

- **General Discussion: Audience Questions**
  - How does Shenmue II compare to Richard's Ideas? In this game, embedded games have ramifications – this is also somewhat true in the Matrix.
    - RE: Certainly, some special case examples exist– but there is no general solution to the problem of persistence. You can simulate special cases – but simulation is much more difficult. We need a general mechanism so that all the information persists…
    - EZ: Is your interest in persistence at odds with "smoke and mirrors" techniques mentioned earlier in Ernest's comments?
    - EA: Computer games arose from simulating other games – win or loss is an implicit assumption. We will move to social consequences, eventually.

  - The financial support of industry or developers is not as necessary as their time and advice. Is there a drive for innovation or do these programs push for more of the same?

        - EA: I think that good programs look for students who have a passion for playing games, and develop within students a historical understanding. Certainly there are technical issues with migrating old characteristics and techniques to new technology. But it's more than that.

    - Brenda Laurel seems to have concluded that industry has given up on innovating… because girls like interactions, but boys like fighting (and boys are the paying customer).
        - HK: I believe girls are socially constructed to like certain types of pleasure. How do girls adopt aberrant play styles? Brenda's research is academically sound but I disagree with it.
        - E: Typically marketing pushes for what's known.

    - How does games journalism need to develop in general?
        - MB: industry is conservative, doesn't support people like Justin Hall.

    - Not all courses are aimed for designers – and probably shouldn't be. After all – if you want to succeed at implementing a game then you need a lot of drones.
        - EZ: It's perfectly good for programmers to go straight into industry but they should take at least one design course -
        - RH: I think the goal is to educate people so that they recognize that games are culture…but also produce students who are technologically savvy. Industry is certainly keen to hire people like this.

- 14:00 **Case Studies**
    - See the slides from case studies here: http://www.igda.org/academia/IGDA_2003_Academic_Day_Cases.zip

- 16:00 **Breakout Groups**

Here is a somewhat incomplete list of notes taken at each group table…

Table 4: Challenges for Curriculum Development

- How to develop a curriculum that encompasses multiple disciplines.
    - One of the challenges facing anyone developing a curriculum for teaching game design or development is the problem of creating a bridge between the multiple disciplines that have to work together in the production of a game within institutions that typically keep them apart.
- How to foster an environment for learning that reflects industry practice.
    - One of the issues facing developers of university curriculums is how to provide an analog to industry practice within a degree programme. Industry

would like to take on graduates that already have some idea of how to work with people from other disciplines as the division between technical and creative staff is seen as one of the barriers to progress within game development companies. Academics would like to break down the barriers between programmer/engineers and artists/creatives by going beyond standard educational practice and providing environments to allow student engineers and creatives to mix.

- Some members of the discussion pointed out that students on engineering programs can have an adverse reaction to being introduced to the creative elements of game development within a course they believed would concentrate solely on technical matters. Developing methods of introducing new ways of working to students with predetermined ideas of what they are interested in was seen as an additional challenge, beyond the institutional barriers, faced by those wishing to develop progressive educational experiences.

- It was suggested in the discussion that followed that setting up an IGDA Student Chapter within the university would allow students from different disciplines that want to collaborate on a game development project to get together. No specific advice was given on how best to support the students in their efforts once the chapter is up and running but it was suggested that IGDA Student Chapters should be encouraged to develop a game project with the goal of entering it the annual Independent Games Festival competitions for students.

- How to balance a curriculum so that the focus is neither too broad or too narrow.

    - An associated challenge to the first two identified above is the problem of producing a curriculum for teaching games development that is neither so broad in its scope that graduates do not have sufficient understanding of any particular issue that they cannot find jobs in the games industry, nor should it be so specialized that graduates do not have the basic grounding in fundamental concepts that they cannot keep pace with the fast changing nature of games development.

- Focusing too heavily on specialist game development issues that are relevant to the current state of the industry was seen as one of the major failings of the "trade schools" that offer courses for young hopefuls wanting to get jobs in the games industry. It was also pointed out however, that "trade schools" might provide a valuable service to existing game developers as providers of continuing education in new specialist areas.

- It was suggested that one solution to ensure that graduates have a good understanding of the fundamentals of their discipline before studying specialist areas appropriate for games development is to only offer games specific studies as a Masters level programme, e.g. an MSc in Games Technology. Another possible solution is to offer games specific material in a relatively small number of modules within a more traditional Computer Science programme.

- It was also suggested that a general competence is more important to potential employers than an advanced set of skills in a narrow range of subjects. Junior programmers are often given unglamorous but critical implementation tasks that are not unique to game development, e.g. developing a user interface. Students that excel in the specialist skills required for the "glory jobs" in games, often taken by more senior programmers, must still be able to show that they are competent at carrying out more menial duties.

- As a final comment it was noted that the problem of providing students with the right balance of general knowledge and specialist skills is a problem faced by many universities when producing graduates for many industries. It was noted that many Computer Science graduates lack any sort experience in essential skills, e.g. testing, that are required in many industries where they find employment. It is because of the relatively small academic community that focuses attention on critically assessing whether institutions developing courses related to games development are providing a good service for the industry.

- How to develop a curriculum that gives students at all levels the opportunity of finding jobs in the games industry.

  - As the number of degree programs offering to instruct students in game development increase there are going to be an increasing number of graduates at all skill levels. Some concern was expressed that there might not be jobs for those that do not reach the highest levels of technical excellence.

  - There are lots of opportunities for people at various skill levels to make important contributions in the games industry. The development of a game involves a great deal of "grunt work"; from the production of content by artists, quality assurance and play testing, through to technical support.

- How to encourage developers to accept graduates from games related courses.

  - As an aside the issue of whether or not the lack of people in the games industry with a games related education might hinder the acceptance of graduates coming from games related courses.

  - Our industry representative indicated that the only reason why much of the industry has not come through a route of taking games related degree courses, and not finishing other forms of related courses, is simply because there wasn't the opportunity to study games when they were making their way through the education system. As a consequence some dropped out of the whole system, while others entered the games industry almost by accident after finishing more conventional educational programs.

Table 6: Technology and Research: Daniel Livingstone

- The gap between research and applications:
  - It was noted that a lot of university research work is not immediately applicable – much of it only becoming applicable long after it has ceased to be a research problem. (E.g. AI used in games vs. current research in AI)

- Money:
  - Funding is always an issue, and was mentioned again. Because it has been given so much coverage in the past, the group was keen to discuss other issues instead.

- Applying Research in Game Design
  - One of the group (Michaël Samyn, Jan Van Eyck Academie, Maastricht, NL) is in the unusual position of being a game developer employed by an academic institution. His interest is in trying to apply current research in game design, but he noted it was difficult to find research that could be immediately put into practice.

- A circular problem

        - For academics in AI / HCI and many other fields there are few game titles worthy of including in research, making it difficult to integrate games into current academic work.
        - For game developers there is little academic research that of immediate value, making it difficult for academics to get their work into games.

    - Knowledge Transfer
        - A lot of the discussion fell under this heading!

        - Game developers looking for solutions from the academic world find it difficult to track down the published solutions and/or the people who could help. If they do find the work, it has usually been written for other academics and is hence typically unreadable to anyone who is not another academic working in that field.
        - One result of this is that a lot of academic work which could be used in games is not (Including work in humanities and HCI, e.g. ways of convincing users that action is occurring behind them)
        - One solution was put forward at this stage: To try to offer research that is immediately applicable to particular developers. E.g. Because of the new EyeToy, Sony may now be interested in research on augmented reality.

        - Other problems affecting knowledge transfer were the lack of centralization of useful and relevant information, and the poor flow of information.

    - Confidentiality / Developer Secrecy
        - Another barrier was the amount of secrecy around the games industry, where most developers want to limit information about their current activities. This makes it difficult for academics to get useful data or to find projects that could benefit from their input.

    - Time slots
        - Another matter mentioned during the discussion, was that of development time versus research time.
        - Game development is usually measured in months, while academic research is usually measured in years – these are incompatible calendars. How can projects be run that satisfy both?

- 16:15 **Wrap-up: Solutions**
    - Table 1 Solutions – **Sharing Knowledge**
        - Maximize the use of existing structures – like funding structures, organizations like IGDA and DIGRA and GDCE
        - More volunteers to act as mediators to perform round-ups of activity in their area and act as an ambassador for their area
            - MS has academic advisory boards – put academics under NDA and it's good
            - EUNIS: European University Network Information System
        - Trying our best to maximize our connections to different pockets of research that exist. Encourage researchers to share knowledge and move around.
        - Hope developers will take on more individuals within companies who have academic interests and leanings.
        - Some better organization of what's out on the web?

- Table 2 Solutions – **Improving Communication**
  - Improve the status or perception of academics by making some kind of awards or showcase (like SIGGRAPH?)
  - Have students work on projects that industry describes in some particular way (and then funds?)
  - Have universities facilitate cross-disciplinary meetings between games, other fields and academia (Like TED conference?)
  - Smaller projects that have no immediate commercial focus but work as proof of concept
  - Forming groups that can act as liaisons that act as intermediary
  - Using academia to do professional instruction and continuing education

Table Notes: Auriea Harvey

- Centralizing: universities can become focus points among academic community where Industry can find connections, researchers...
- Regional openness to share information, results of testing etc.
- Awards: showing results of academic research and making it an important center. to raise the preception/status of academic games research.
- Students work on projects that the industry describes as being important
- A common language is necessary for industry to understand what the universities are doing get better at telling them what is going on in academia so that everyone knows what to expect.
- Hubs: universities can facilitate cross disciplinary meeting between game industry and other specialized un-game related fields
- Spawning projects: smaller games as proof of concepts that do not have immediate commercial focus
- Pre-production of games done under academic umbrella and production is done commercially
- Keywords lists, a liason, middleware, IPR legal issues?

- Table 4 Solutions – **Creating Interdisciplinary Collaborations**
  - Set up a games project or company within the university that brings together different disciplines of productions
  - Introduce project ideas on Gamasutra
  - Interesting equipment – may help
  - Novel applications of games technology
  - Develop an idea of what game environments can be like in the future – sell this idea throughout the university
  - Formulate a vision and look at the market – and also what we want our society to have
  - Run and elective game course that draws people from other departments
  - Volunteer to give talks at other departments

Table Notes: Mark Eyles

- Strategies for interdepartmental collaborations
  - Start a 'develop a game' project within the university to bring together programmers, designers, artists and managers.
  - Suggest project ideas at gamasutra.com
  - New equipment (VR suites for example) can often draw other departments to you.
  - Investigate novel applications of game technology. For example using Virtools to create a massively multiplayer online game world for courses in architecture.
  - Bring students together to develop an idea of what games may become in the future and create something to promote the ideas throughout the university.
  - Formulate a vision of future possibilities (What does the market want? What do we want? What does society want?) and find ways to try out new ideas.
  - Run elective games courses to draw in students based in other departments.
  - Volunteer to give talks to other departments.

- Challenges, Obstacles and Issues of the Curriculum Challenges
  - What do you put into a program that will allow your graduates to stand out in the games industry?
  - Where do you find an appropriate advisory board?
  - How do you examine and evaluate students?
  - How do you validate your courses?
  - How do you assess the entry-level standard of a portfolio required for entering the game industry?
  - How do you successfully combine the science and art required in game development?
  - How can you share curricula and resources when you are in competition with other institutions for students?

- Obstacles
  - Relationships within the university.
  - Being taken seriously.
  - Plagiarism.
  - University politics.
  - Finding enough placements.

- Issues
  - Keeping up to date with the fast moving game industry and frequently refreshing your knowledge.
  - Keeping curricula up to date with latest trends.
  - Establishing appropriate (quantifiable) research methods.
  - Identifying the best schools, courses and programs.
  - Setting international standards for courses.
  - Competition between schools/universities.

- Table 5 Solutions – **Topics and Vocabulary**
  - Basic concept: what are we studying – need for creative understanding of the larger field – need some kind of classification of game studies so we can see where various participants are coming from. Game studies field and different subfields – a map would relate them to each other
  - Vocabularies – can't have a dictionary – but rather a collection of central concepts – that you know if you want to work with this field –

even if there will be specialized subfields there are larger areas which you can appeal to as a researcher..
- Game Design field and Game Studies have different basic aims – but have many shared areas of contact and interest…
  - One keyword was TRANSPARENCY – should achieve more transparency in all the levels so we open our discourses to people from other fields. Rather than a gigantic dictionary – we would like to have an on-line discussion of concepts and definitions.
  - Need for textbooks and a map of these two fields so that people understand where different research lies.
  - Creating a sense of community and awareness of the sub communities within the larger field – so there is a dialog and shared frame of reference. Round table discussions (like those today) are good for this.

- **General Discussion**
  - Perhaps a dictionary (like the Slang dictionary) is in order?
  - What about creating projects for students?
    - JDR: student chapters can be formed and we can encourage students to start those and design projects and get assistance from professors.
    - EZ: Don't forget about the games – only ten percent of gamers want 40 hour games – don't forget that there is a market for small fast fun game.
  - Very often creative people are often stifled by what researchers produce and theorists produce – embryonic state of stuff doesn't withstand the kind of criticism proposed by some of the academics in this room.
    - HK: we actually celebrate games pretty wholeheartedly. DIGRA etc. are working counter to the notion that games are bad for you.
    - EZ: I'd like to emphasize that there is a wide range of theory and practice.
    - RH: I'd like to emphasize that we can all argue more about theory vs. practice over a pint after Seamus' closing remarks!

- 17:15 **Seamus Blackley – The Unformed Reality of Games Development**

Download Seamus' slides:
http://www.igda.org/academia/IGDA_2003_Academic_Day_Seamus.zip

- **Discussion**
  - You mentioned Kevin's question to developers regarding responses to September 11th. Metal Gear and MS Flight Simulator both removed the Twin Towers
    - This was a legal impact, not cultural.

- It sounds like you want us to see the future when it comes to applying our science and our research - how can academics see what will be relevant to industry?
  - Science is bottle washing – if you can't get to the meaty part you'll turn off the audience. You have to make the research relevant.
- You talked about jump time – what is jump time?
  - The time it takes a character to jump from one platform to another.
- Considering the role a CEG as a production house – what should students bring to the table?
  - Publishers are afraid and value searching – can't have people working together spontaneously/organically – the way to get ideas in front of CEG is to give us a design. We do rapid prototyping. We concentrate entirely on gameplay. Then we shop around a publishable playable level and get feedback. When developer brings product to us – we want the "hottest product possible" – and that means design.
- You talked a lot about "spotting talent" and have touched a little on the prototyping aspects of developing game designs... It's widely known in business and software development circles that "innovation" and "rapid prototyping" are really hard – especially on tight budgets and timelines. What can researchers focus on when it comes to this problem?
  - Games morph from design docs to a game, and rarely does a finished game resemble its original design. And we can't focus test the design doc. Iterating is the key – but analysis of the decisions and some semblance of detachment is difficult. There is definitely a lot of work to be done in this area.