PLAYING THE GAME

GAME DEVELOPMENT



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Foreword by Jonathan Kestenbaum CEO, NESTA

Through a blend of robust evidence and a portfolio of practical pilots called 'Raise the Game', we've worked with the sector to devise strategies that ensure the UK remains at the forefront of global video games development. NESTA has long championed the importance of the UK video games sector as a driver of growth and innovation. Through a blend of robust evidence and a portfolio of practical pilots called 'Raise the Game', we've worked with the sector to devise strategies that ensure the UK remains at the forefront of global video games development.

Gaming Mentoring has been one of these pilots. Over the course of a year we've paired industry luminaries with emerging developers. This has enabled early-stage UK video games companies to benefit from the experience of business leaders who 'have been through it', and provided them with invaluable advice on business growth during a tumultuous economic climate.

It's now a good time to present our lessons to the industry at large. The essays in this book give mentors and mentees the chance to express in their own voices their experience of this programme.

The essays also provide practical advice on how to best overcome common development challenges, as well as diverse views of the future of the video games sector. We are sure this knowledge will be valuable for both experienced developers and new generations of UK video games talent – and also provide a really interesting read.

We welcome your comments and views on this publication.

Jonathan Kestenbaum

Chief Executive Officer NESTA

Introduction

This book is the collective gathering of informed views from seasoned video games developers.

It is the result of our year-long pilot in mentoring where we paired up seven 'young' UK video games developers, (representing all platforms – mobile, handheld, console, on-line and adver-games) with a video games expert who had the skillset, experience and independence to support a younger business in their commercial growth. This book has been compiled by the mentors and participants on this programme. ELSPA and TIGA have also contributed pieces.

The book is split into three sections:

Level 01

Two Can Play this Game

Insights by the mentors (and some mentees) in their own words on the key success factors for a successful mentor relationship to work.

Level 02

The Game Plan

In the course of the mentoring relationship common games development and business issues arose - the list was endlessfrom working with publishers, raising finance, managing development times and budgeting, planning and strategy, to how to set up a company. The mentors have created a practical guide to these issues, which can be found in this section. Whether you are a student, start-up or seasoned developer, we hope you will find it useful.

Level 03

Staying Ahead of the Game

What will the future hold for video games? We asked the mentors, mentees and some industry figures for their predictions.

Credits

Thanks to everyone who helped pull this together, especially Charles Cecil who has been a stalwart supporter and mentor to the programme to ensure it has been relevant for developers.

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David Wightman		

Introducing the mentors

With, between them, well over 100 years in the games industry, the seven mentors who took part in Playing the Game brought a fascinating range of skills, experiences and ideas to the table. Not to mention some invaluable warnings and priceless tips. Here, we introduce each with their brief career summary...



Chris Wright (page 08)

- Involved in the industry since the early 1990s, making PC and console games.
- 1999: joined small start-up I-play, making primitive mobile phone games. Became the world's third biggest mobile publisher, then acquired by Oberon Media in 2007.
- -- Now helps small companies and start-ups.



Tim Gatland (page 10)

- -- 10+ years in the sector, mostly providing project finance for game development.
- COO of games development and publishing company, RailSimulator.com
- As a mentor, aims to help align the technical ambitions of video game pioneers with business practicalities.



Charles Cecil (page 12)

- In interactive entertainment for over 25 years, having written adventure games for Artic Computing while still at college.
- Ran production at US Gold & Activision, then founded Revolution Software (1990).
- 2006: named 'industry legend' by Develop, Europe's leading development magazine.



Thomas Bidaux (page 14)

- -- A decade's experience in online gaming.
- Began with Multiplayer games for France Telecom, before setting up the European subsidiary of NCsoft in the UK (2004).
- Launched his own business ICO Partners in 2008, providing consultancy on online games.

Introducing the mentors



David Wightman (page 16)

- -- In 1989, David founded and ran Creative Edge/Edgies.
- -- Responsible for 100+ titles in 25 years.
- Currently working with a handful of companies to try and bridge technology opportunities, and grow beyond the business models of today.



Steve Taylor (page 17)

- Drawn to innovation throughout a career in publishing, TV, branding, design, content creation and consulting.
- Current roles range from building joint technology initiatives with one of the world's largest media owners, to mentoring the CEO of an 8-person agency.



John Chasey (page 19)

- -- In the games industry since the 1980s.
- Founded and ran the hugely successful mobile game studio, IOMO, which was acquired by InfoSpace in 2004 for \$15m.
- Now CEO of mobile technology middleware company Metismo; and chairman of mobile game developer FinBlade.

TND CAN PLAY THIS GANE

Two can play this game are the candid thoughts from each of the mentors on how they found the mentoring process. Each mentor was given an introduction to the process, and some theory, beforehand. Some mentors were experienced; for others it was the first time.

During the year, one company wound up their business. Others thrived – at least in part, hopefully, due to the mentoring that they received. Certainly mentors and mentees learned a lot from each other.

Level 01

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Chris Wright on Gameworld 7

Any games developer faces challenges, ranging from the simple decision on which platforms to hit and what types of games it wants to make, to where it ultimately wants to go. The first thing was to understand what motivated the company, what makes them get up in the morning.

From the outside in:

It was a cold and dreary Wednesday morning in January when I found myself at Cardiff airport trying to find where they had hidden the car hire check-in (it's a mobile cabin in the car park for those who don't know). Finally getting a car and heading east into the driving drizzle,

it felt just like a home from home.

Scotland, where I have the pleasure of living, has a good reputation for games (and rain), with some big developers, but Wales is very different. There is only a smattering of small developers trying to eke out a life in the Welsh hills. There is no digital hub, no central driving force. It is much more cottage than industry.

It's also probably the friendliest games development community I've ever encountered, with all the companies working together and sharing in the joint aim of survival.

Gameworld 7 is a small developer based in Haverford West, on the south-western edge of Wales. The firm's background is art outsourcing, something it pioneered ten years ago. Initially, this worked well, with a growing team of talented artists and an increasing focus on creating 3D car models for major games.

But over the years the market has changed; developers need an ever-increasing number of art assets, and outsourcing moved from the novel to an industry-standard practice. As more companies moved into this space, price became increasingly important, and offshore companies drove the price below economic rates in the UK.

Throughout the period of Gameworld 7's success as an art outsourcing company, it had always intended to move into game development. With little option, this was the route it was now forced to take.

Like so many UK developers, Gameworld 7 is run by two brothers and the dynamics of the two founders drive the business and shape its approach to problems. The brothers are very different but complementary, with Jon's strong project management background driving the schedule while Julian drives the creative side, originally on art and ultimately on concept and game design. Julian has been in the games industry longer than he cares to remember. Having cut his teeth back at Psygnosis in the 1980s, he knows everyone from the formative days of the UK development industry.

This is how I found the company on that wet Wednesday in January, working on a DS and Wii project for a publisher. The art team had pretty much gone, having been made redundant at the end of the previous year. The firm had a project, technology in development which it hoped would be reused over multiple projects and a new focus to build a development studio.

Any games developer faces challenges, ranging from the simple decision on which platforms to hit and what types of games it wants to make, to where it ultimately wants to go. The first thing was to understand what motivated the company, what makes them get up in the morning.

Ultimately, Gameworld 7 isn't about creating a brand-new interactive experience or a revolutionary new game. The company enjoys making games, living in the depths of Wales, and wants to find ways of continuing to do this. This meant looking backwards as well as forwards, examining the heritage and experience as well as the future. It's very easy in game development to believe it's all about the technology, that endless chase after greater realism, more interaction and better stories, and forget that it is a business like any other.

Over the following few months we worked on three basic strands of the business, starting with the theoretical and moving to the practical:

- -- looking at ways of using the company's experience in the art outsourcing market to generate revenue
- -- building on the initial game development project
- -- looking at where the new opportunities lay in the market.

Mentoring can be very theoretical, using the time to bring a new perspective to the company and helping it look at old problems in a new light. With Gameworld 7 the aim was to combine this approach with a practical, hands-on focus, trying to help the company solve its problems, discover solutions and, ultimately, find ways of making money.

The aim was simple – to explore ways of finding quick wins using the company's experience in the art outsourcing space and looking at opportunities to work with existing offshore companies or help new companies get into this space.

Focusing on current game development,

we looked at ways of taking the technology and moving it into new spaces. This included looking at licences that could be added and new platforms to target that would provide maximum reuse of the technology being created.

Finally, we looked at where the market was going, which platforms were going to dominate and what changes were likely over the next three to five years. This ranged from the advent of digital platforms like XBLA and iPhone to 360 and PS3 budget games. The aim was to validate this by presenting pitches to publishers and finding niches.

Ultimately, Gameworld 7 isn't about creating a brand-new interactive experience or a revolutionary new game. The company enjoys making games, living in the depths of Wales, and wants to find ways of continuing to do this. This may be less exciting than some companies, but it is much more realistic.

From the inside out:

Reflections by Julian Hicks, Gameworld 7 (mentee)

It became something of a standing joke. When Chris called, he would ask, "How are you?" and I would always reply, "Still here."

Over the past year Chris has been inspirational to Jon and I – he brings an enjoyment of games and business with him at every contact. While GW7 has gone through a pretty rough patch, with plenty of work but too little cash, Chris has helped us to regather and refocus our efforts on several occasions, stages at which, to be honest, we might well have given up and let the company fold otherwise.

It has been a hugely positive experience for us. We were at first doubtful of the help the mentoring scheme might bring, but looking back now, I can say it has been delightful. Chris was quick to grasp what GW7 was doing and skilled in helping us take a broader look at the business and the marketplace.

As well as getting Jon and I to sit down and rethink why we are here and what we seek from running GW7, Chris encouraged us to consider a much wider range of approaches and product types, as well as confirming our thoughts that collaborative projects with other developers may be a way forward.

We hope our relationship with Chris can continue after the programme comes to an end, and that we can get GW7 back onto a much firmer commercial footing so we can actually pay him something.

We are currently working with Chris on several projects, from digital books through to an all-out action shooter for the PS3 and 360. To sum it all up, we have come through a hard few years. We have a smaller, leaner company, though we still have the skills and drive to be involved in exciting projects. Above all else, we are still here.

Tim Gatland on Cohort Games

From the outside in:

It has been a great privilege to be part of the NESTA video game mentoring programme. To be taken into the confidence of a fast-growing, young company is hugely motivating and inspiring. It's been fascinating to see how the company has changed in response to the business issues it has faced over the past year.

Some aspects of the mentoring assignment have been challenging, particularly as the three senior managers wished to share the experience. This created difficulties in that individual coaching had to be done outside the group, but without breaking the group's trust. It also meant some difficult organisational issues were discussed in a group, while it may have been easier to deal with them in a one-to-one session.

Mentoring a group required a different style to that needed when dealing with an individual – at times it was appropriate to be controversial to try to challenge established group wisdom. Another side-effect of the group process was that sessions were held in the office, while some sessions would ideally be held offsite. Despite this, we always managed to have a leisurely lunch.

In terms of practical mentoring skills, two aspects were particularly important. First, as a mentor, I tried to be a confidant for the fears and frustrations of the team members. The ability to discuss issues and concerns with a person who is familiar with the industry and the company but not directly involved in its day-to-day management appeared to be well-received. Second, I tried to make the managers aware of the way in which they, their actions and the company were perceived externally. Some aspects of the mentoring assignment have been challenging, particularly as the three senior managers wished to share the experience. Raising this awareness, I hope, allowed the team to better realise how their actions (or lack of) appeared and how this affected the relationship with their publishing partners and the wider community.

One other business area we focused on became known as "plan B". Because the games industry is fast-changing, it is important to think through the implications of what might happen if worstcase events occur. By considering in advance the actions required in such scenarios (such as a game development contract being cancelled), the company can act quickly and decisively if such a disaster strikes by being able to implement the prepared plan quickly. A rapid ability to react to unexpected events will significantly improve the company's power to overcome, or at least survive, damaging changes in circumstances.

From the inside out:

Reflections by Lol Scragg, Cohort Games (mentee)

To make the original application we had to determine a "goal" for the overall scheme. Unfortunately, with hindsight and given the constantly changing nature of the gaming industry, it wasn't possible to concentrate on this goal for a huge length of time. We have definitely gained from Tim's experience within this area and had lots of food for thought, but the changing landscape of Cohort over the past year has led to a constant evolution of the individual goals and requirements of each and every meeting.

Due to the nature of the structure at Cohort, alongside some other issues (which our mentor also greatly assisted me in overcoming), some of the sessions took place with more than one director. I understand this probably wasn't the best method and added additional work and issues to the mentoring role, and with hindsight I wouldn't have started down this path, but we are where we are and once the precedent was set, it was difficult to move away from that. Again, I would recommend in future that only one person was mentored.

Looking at what we have covered and achieved over the past year, the list includes:

- -- investments and exits. Requirements and recommendations
- -- review of the company from the outside in looking at how we are perceived and how we present ourselves externally
- -- disaster planning
- --- business development. Potential customer investigation, introductions
- -- firefighting advice.

In terms of attempting to create a "best practice" guide for games industry mentoring, my own recommendations are:

- -- be aware that specific goals set at the outset will fluctuate and change (at least they did with us)
- -- the "mentee" should just be one person, rather than a group of directors or a management team
- notwithstanding the official scheduled meetings, contact should be made as frequently as possible
- -- off-site meetings remove the potential for distraction within the office.

Charles Cecil on Tag Games

Given the current changes, and particularly the opportunities opening up due to digital distribution, it is vital for developers to be able to seek advice and share experiences. I started writing video games in 1981 for the Sinclair ZX81. In the intervening 28 years, before this NESTA initiative, I had never heard of a mentoring programme for video games developers. Given the rapid pace of change that typifies the games industry, and development in particular, it is extraordinary that mentoring is not much more widespread in the industry.

Given the current changes, and particularly the opportunities opening up due to digital distribution, it is vital for developers to be able to seek advice and share experiences – being a developer can be a pretty lonely experience. So the timing of this mentoring programme is ideal.

In May 2008 NESTA invited a broad range of independent developers to meet at its offices to discuss initiatives that would help their companies innovate and prosper. One proposal was a mentoring scheme. Within a few months, NESTA had invited developers to apply to the scheme, and approached potential mentors. Crucially, the partnership would be based on the mentee choosing which mentor they wanted. As an enthusiastic advocate of the programme, I applied to be a mentor and mentee.

As the Edinburgh train trundled across the Tay Bridge in January 2009, and Dundee quayside emerged through the mist, I wondered what to expect from my first mentoring session with Paul Farley, managing director of Tag Games.

I was flattered that Paul had picked me as his mentor. However, Tag was primarily a mobile developer and, having no experience of mobile, I was concerned that I might not have been the most appropriate choice. But Paul considered that unimportant, and we agreed to partner up regardless. I am glad we did.

Tag was founded in 2006 and had, to that point, specialised in writing mobile games. While Tag had created some successful mobile games, to which the company owned the intellectual property rights, mobile development has been notoriously tough for developers – while "experts" in the field had continued to predict exponential growth, the boom was always going to start the following year. In truth the potential was always hugely overstated. Paul was early to see that the release of the iPhone changed everything.

Tag's skillset put the company in an ideal position to exploit the opportunities that were emerging from this radical change in publishing approach. However, it was clear that this window of opportunity would close – publishers, fearing a change to the status quo, would strive to regain the dominant position. A classic example was that of Microsoft, which had initially offered developers the same publishing terms as publishers on its XBLA platform, but then changed the terms to the disadvantage of developers – presumably under pressure from publishers.

I found Paul to be energetic, enthusiastic, and ambitious for his company. He was happy to be totally candid in all aspect of the business. Initially, I asked him to outline his high-level objectives. These were to:

- build a reputation of excellence in production of mobile and smaller games that appeal to a wide market
- create high-quality, successful IP smaller games for immediate exploitation and larger games that offer brandbuilding opportunity

It quickly became clear, and perhaps it should have been obvious, that mentoring is about guiding rather than providing definitive solutions. By talking through the key issues, I was able to make recommendations, often having experienced similar problems myself.

- -- balance work-for-hire with development of original titles
- -- self-publish own content and that of others
- -- manage cash flow to allow goals to be achieved.

Our initial meeting focused on these high-level objectives, in particular how the vision could be clarified and conveyed to potential investors. Over the year, we returned to these core elements but found that as they became clearer, less time was needed going over them – generally Paul's initial vision for the company didn't change. During the year Tag's position strengthened and the strategy became clearer and better defined, largely due to Paul clarifying and driving his vision – I hope the advice I gave him has helped in this regard.

It quickly became clear, and perhaps it should have been obvious, that mentoring is about guiding rather than providing definitive solutions. By talking through the key issues, I was able to make recommendations, often having experienced similar problems myself. Paul took my comments in the same way I take advice from others: on the basis that he knows his business better than anyone. Advice should help inform a decision rather than define it.

As we discussed the opportunities, as well as the threats, I had an extraordinary sense of déjà vu. I recognised so many of the issues I had experienced in the same way at my own company, Revolution Software. My solution had been to change to partnering with freelancers rather than employing staff, the so-called "Hollywood" production model. Clearly, this was not appropriate for Tag.

From the first meeting, we agreed that, since the original products in development formed such a critical part of the strategy, I should review them and offer feedback in terms of the quality and market potential, so this could then inform strategy. Paul was close to completion of the first game Tag was going to self-publish, Car Jack Streets. From a marketing perspective, Paul's role as designer of the original GTA could be used to create an interesting story. I enjoyed playing the game and provided high-level feedback. Paul approached the marketing in an extraordinarily innovative way – as well as recruiting a "street team" of (unpaid) evangelists, he made and released several basic but high-energy videos, all of which helped build a strong fan community. The result was that the game was hugely anticipated on release, and went on to sell well.

A second original project, Astro Ranch, was also in development. While it was cute, and in a genre with huge potential, I felt this would benefit from a more significant steer in terms of its focus and the narrative that introduces the game and motivates the player throughout. The game is close to completion and I have high hopes for its success.

Being a mentor for Paul over the past year has been a fascinating and exciting experience, and I feel privileged to have been able to contribute to the success of Tag. In relation to marketing selfpublished products, Paul has been able to offer me extraordinarily valuable advice in return. I look forward to an ongoing friendship with Paul and, where appropriate, an ongoing business relationship.

Thomas Bidaux on doublesix

I was not going to wave a magic wand to solve every problem we discussed; James was not going to ask me only about what I had done before. That was understood from the beginning. I am in my 11th year in the games industry. Well, that's not totally accurate. I should say in the online games industry. While it might seem a small distinction, it is important when you consider my role as a mentor and my lack of direct experience with many aspects of the traditional games business. However, when James chose me for the mentoring programme, he did so knowing this very well. James and I have known each other for five years, give or take a few months, and while we had never worked together before, we had a pretty good understanding of each other's backgrounds.

James's experience of the games industry is actually longer than mine, but geared more towards the "traditional" part of it. His needs were a lot more oriented to what I knew: games as a service, self-publishing, digital distribution and the online world in general. But honestly, the whole mentoring experience was not that much about sharing experience; it was much more about business therapy.

The first cornerstone of our mentor/mentee relationship was trust. As I said, James and I already knew each other. It saved us a lot of time. I didn't have to explain all about my background, and I didn't have much to catch up on with regard to his achievements. More importantly, we already had a feel for each other's styles and a certain level of trust. The first two meetings, before mentors were chosen, were a check (on his part mainly) that his previous impression was accurate. Once trust was achieved, the biggest challenge of the mentoring experience had been overcome.

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The second most important step was understanding each other's expectations. I was not going to wave a magic wand to solve every problem we discussed; James was not going to ask me only about what I had done before. That was understood from the beginning, mostly because we talked about it early on (in the pre-meeting) and had a similar vision for the experience then.

Back in July, James came up with the term "business therapy" to describe the mentoring and since then, that terminology has stuck as a good analogy, especially when talking about it outside of our experimental group. There you have it, the two success factors for a healthy mentoring experience. Now, how is that a therapy?

Back in July, James came up with the term "business therapy" to describe the mentoring and since then, that terminology has stuck as a good analogy, especially when talking about it outside of our experimental group. Let me provide some more background to reinforce the notion.

James's studio is part of the Kuju Entertainment group, a company of significant size, with studios all over the world. He has a board of directors he answers to, but which helps him whenever he faces any new challenge. He has had a working relationship with some of them for many years and there is definitely trust on both sides. Similarly, James has been active in the development community for years and he is well known. His network probably gives him access to a significant wealth of experience and expertise. So why would he need to be mentored? It looks as if he has all the potential mentors he could ask for.

I found that a designated mentor makes a world of difference. I am not working for Kuju; I am totally unbiased when it comes to weighing James's interests against anything else. I am not working for James, so when it comes to speaking my mind, I have no reason to censor any of my thoughts. Moreover, as I am neither employer nor employee, we can cover any topic. No idea is taboo because it would cause distress in the team or in the management. Sure, the stupid ideas don't stick, but no judgment is passed on them, there are no lasting consequences for having uttered them. This is no detriment to the doublesix team (which is quite brilliant), or the Kuju management (which I found quite visionary to push James in his current direction), but rather the simple truth that one sometimes needs a neutral, unbiased party to confide in and debate new ideas in a free environment.

That's the business therapy.

At the outset, I explained how my professional experience was actually very specific in the games industry. But to be truthful, it appeared somewhat irrelevant in many of our discussions. What was relevant was the process: James coming up with an issue, a challenge or a question, the two of us discussing it, me asking further questions and coming up with a more refined impression of what was the right path to follow.

I have a specific meeting in mind which defined for me the mentoring experience. That day, James and I had debated a couple of questions, looked at various documents and refined some of James's plans when he started another discussion. He had received a business offer for one of his projects and he wanted to see what I thought about it. He went into the terms of the deal and the background, and when he was done, I had a very simple comment to make: "OK. Beyond the specific terms, there is something that is obvious to me. The way you talk about it, you don't want to make that deal." He paused, thought for a while and said: "Well, yeah, actually you are right. I don't want to make that deal. I didn't realise how much I don't like it." I had done nothing but be there, listen to him and mirror his thoughts.

There were a lot of good reasons why he came to that conclusion and we talked about it after that, but that moment when he came up with his own answer to his own question: that is what the process is about; that is the value of having this external and neutral point of view on your problems. It's business therapy.

David Wightman on Dynamo Games and Revolution Software

While Revolution has a wealth of market experience to tap into and examine, having this knowledge can sometimes slow experienced companies down if there are too many options. The job is to filter the noise so decisions can be made quickly. Those of us of a certain vintage will remember a classic television advert for Hovis bread. It showed life in the good old days as quaint and pleasant, with old people waving as the Hovis delivery boy cheerily rode his bike through town. It was obviously so much nicer in those days.

For some of the "old hands", the games industry is, in a strange way, like the Hovis advert, with Clive Sinclair waving to the postman as he delivers a royalty cheque through the bedroom window to the hero programmer. Things were so much simpler when I were a lad starting my first company.

As a mentor I've had the pleasure of working with two companies, Dynamo Games and Revolution Software. Both companies are in the cover pages of the school yearbook. Revolution has followed a gold-plated path of production over several decades since it was founded in the industry's earliest days. By contrast, Dynamo, filled with excitement about what new technology could do, was at the start of its career, although in just a short time it has collected Bafta awards and industry applause for its work to date.

At first, the ambitions of both companies seemed very different. However, as I worked with both of them it became clear that, in many cases, both companies were heading to the same destination, but from different starting points. The general outcomes for both were to make brilliant games in less time for more money and to make sure they were best positioned to exploit their competitive advantages in the future.

While Revolution has a wealth of market experience to tap into and examine, having this knowledge can sometimes slow experienced companies down if there are too many options. The job is to filter the noise so decisions can be made quickly. Dynamo, lacking that legacy knowledge, may have needed a nudge in confidence to appreciate it had everything to hand to make a call about its future plans for bold new markets.

In this case, and at its core, my mentoring aimed to help both companies make decisions, offering alternative views to challenge predetermined positions or helping to verify the obvious and allowing them to build certainty in their choices.

Working within the creative industries is interesting, as it's always new, always changing, always growing in some way or other. It would be so much easier if it were a furniture company, where, once the factory is set up it's simply about designing new door handles and negotiating for some juicy Norwegian pine. You could grow old, put on a bit of weight and pass the Jag down to the kids when they take over the reins. Very little changes – it's more about maintaining the status quo of production and planning the Christmas party.

The games industry, on the other hand, is dynamic and creative, and eats its own tail every few years. Nothing stays the same – production techniques change, technology changes, tools are reinvented and made ever more complicated; it's an industry of reinvention in every way and this is why traditional mentoring programmes fail to work and yield results for the taxman. Traditional business mentoring relies on unblocking production pipelines or getting the door handles redesigned – it's an insular approach. Mentoring in the creative industries needs to be insular and have an externally focused appreciation as the life of our products is far from guaranteed and the option for growth in an industry of reinvention is infinite. Working within the creative industries is interesting, as it's always new, always changing, always growing in some way or other. It would be so much easier if it were a furniture company, where, once the factory is set up it's simply about designing new door handles and negotiating for some juicy Norwegian pine. I'll put money on wardrobes looking the same in 50 years' time; I'd be a brave man if I could predict what a game would look like in the same timeframe.

Traditional mentors without industry knowledge can help with the insular knowledge, but the higher value of the NESTA programme has been in mixing insular with industry experience to help flex that decision-making muscle in participating companies, for decisions that yield results in new products, techniques, markets and jobs.

As I reflect on the experience of being a mentor, I am thankful for several aspects of the scheme. Both companies were incredibly honest with themselves and with me. No ego or subject was off limits in examining positions that, perhaps, I would have been more defensive about if I were in their shoes. This made my job an absolute pleasure and, I hope, enabled me to put some value into the mix.

The second aspect that impressed me was the sheer enthusiasm that existed. No matter whether it's your tenth product or your tenth blockbuster, it's easy to believe the old days were so much easier, but when you deal with companies that are giddy with excitement about the future, it really makes you think that the best is yet to come.

Steve Taylor on Kempt

Chris and I had a sparky relationship from our first meeting, with both of us inclined to be challenging and, at times, defensive. So it was an emotive – dare I say emotional – dialogue from the start. At first this seemed a necessary hurdle to be overcome (but only, in retrospect, when measured against tacit expectations of the mentoring process). As that dialogue has progressed, though, it has, I believe, turned out to be beneficial in promoting honesty and directness.

My mentoring relationship with Chris is unusual in two respects: first, within this NESTA scheme, I am the only mentor who is not of the games industry. And, second, I am jointly mentoring Chris alongside John Chasey. Between the three of us, we found an intuitive division of labour early on, with John focusing on harderedged aspects such as business planning and finance, while I took care of organisational, leadership and development issues.

I'm wondering now if that divi-up wasn't more fundamental. One of the areas I wanted to highlight in this account was the difference between mentoring and coaching, and whether I was clear about this myself. I tend to see myself as an instinctive coach, as many people who have found themselves inadvertently coached by me over lunch or coffee, or on trains, planes and even Thames riverboats have discovered. It seems to me that John and I may have unwittingly adopted the roles, respectively, of mentor and coach with regard to Chris and the complementary nature of this has grown through the process. My mentoring relationship with Chris is unusual in two respects: first, within this NESTA scheme, I am the only mentor who is not of the games industry. And, second, I am jointly mentoring Chris alongside John Chasey. This may well have been an inevitable consequence of my approach. I've learned, over the years, that it is virtually impossible, and certainly not desirable, to separate the "business" from the "person" (in the shape of founder, partner, leader) in these early-stage, micro and small enterprises. That's why I always start by getting the founder(s) to draft a "life statement" of what they want to achieve, where they see themselves in x years' time, what sort of entity they see their company developing into, etc.

You don't take all that risk and go through the sheer grind someone like Chris has gone – and continues to go – through, unless there is a powerful personal motivation driving the individual. Unless the mentor/coach understands that, he or she cannot understand the business.

I think it's a damn good job I adopted this approach. Shortly after we began working together, Chris's business faced some massive challenges, with little to fall back on in terms of resources apart from Chris's own energy and commitment. And even he began to wonder, understandably, at times, if it was all worth it. What Chris needed from me began tactically – so that is exactly how I responded. I think this is often the case with very small businesses in volatile, emerging or transitioning markets; advisers are rapidly drawn into helping fire-fight, and do what they can.

However, as Chris began to haul Kempt out of the bottom of the curve, our relationship took a step forward. Deeper, more personal issues around his own motivation, aspirations and options started coming to the fore. We spent more time out of the office, finding different contexts in which to think and talk. I'm a firm believer in the power of walking as a thinking tool, so we spent a day going from one location in St Albans – where Kempt is based – to another, stopping frequently to reflect and refresh ourselves. At one point we found ourselves talking to a genial and ageing voluntary guide in the cathedral; all part of gaining a broader perspective.

I can almost hear more pragmatic mentors huffing in the background. However, for me, this journey has all been about establishing trust, a trust that I hope has enabled me to help Chris bottom out his true feelings about where he has got to after five years of bloody hard work, and about where he's headed.

I have no idea whether the correct name for this is "mentoring" or "coaching" and I can't say I care that much either way. If it works, it works. Whether it does or not, that's for Chris to say.

What I do know is that I have learned loads through this process and that NESTA's subtle hand on the tiller and my fellow mentors' support in our always enjoyable gatherings have helped enormously. Most of all, I've developed my own practice, big time, through these interactions with Chris, not least because of his continual ability to learn, grow and surprise me. As I write, we are a couple of days away from our next session and his instructions are: "Bring your Speedos." See what I mean?

John Chasey on Kempt

While the journey has at times been fraught, I have found it hugely rewarding as I feel I have helped make a real difference to Chris and to Kempt. My mentoring relationship with Chris is an interesting one, primarily because I am sharing the mentoring role with Steve Taylor.

Our initial meeting was at Kempt's offices, where all three of us jumped in at the deep end, with a full day's briefing on Kempt and some brief feedback from the mentors as we took on board the background and current status of the company. With hindsight, the first meeting was more of a sales pitch by Chris on Kempt the business, similar to what he would give a potential client. This is perhaps unsurprising given this was the first time we had met (apart from a chat on the phone).

At the second meeting we started to dig a bit deeper and it became obvious that the areas I was probing were different from those Steve was interested in, and there was a natural division between the subjects we covered. Thus, we decided to take on the model of having separate meetings monthly, and to meet up every three months together to review progress. In the individual meetings we would cover different areas of the business, with me focusing on the "harder" issues of finance, planning, share options, business plans, fundraising and the like, and Steve looking more at "softer" people issues.

This approach seemed to work well, and gave Chris a focus for a subset of the broader issues when he met us, and while there were a few rocky months for Kempt as a business, we were able to offer concrete advice and ideas which I believe helped Kempt survive the temporary setbacks and come out of the other side more strongly.

As time has gone on, discussions have moved from the general to the often highly specific, where Chris will call to discuss a particular problem, on which, knowing the background of the business, I hope I can offer positive advice.

In conclusion, while the journey has at times been fraught, I have found it hugely rewarding as I feel I have helped make a real difference to Chris and to Kempt. The programme has demonstrated how, for a relatively small budget, the knowledge and experience of the mentors can be funnelled into growing companies that may otherwise be left to make the same mistakes the mentors have themselves made in the past.

So while the programme is coming to an end as I write, we're exploring ways in which I can stay involved with Chris and Kempt into the future.

Insights on the learning captured from the mentoring pilot by Julie Ramage, SQW

The mentors have provided an invaluable input to these younger businesses – giving support, guidance, insight and a sounding board to help them 'raise their game'. The Playing the Game Mentoring pilot has had several benefits:

In qualitative terms, the mentored businesses are enjoying improved decision making, business structures, confidence, staffing, new markets, products and platforms, business planning. Some have achieved valuable new deals, pitched to financiers and entered new markets that they would not have attempted without the support of their mentors. Often, the overwhelming benefit to the mentees is that through working with their mentors, they have gained the confidence and drive to put in place strategies and ideas that they had previously toyed with. The mentors have provided an invaluable input to these younger businesses – giving support, guidance, insight and a sounding board to help them "raise their game".

The mentors have benefited too as through the process of mentoring they have reflected on their own and their mentees businesses and had a chance to consider the wider issues affecting the games industry.

NESTA will publish the formal impact evaluation of the mentoring pilot in due course, including quantification of the economic benefits of the programme.

We have captured the key elements of a successful mentoring programme:

-- Preparation and support

At the start of the mentoring programme, NESTA provided training for mentors and mentees. All the mentors agreed on the value of meeting up and getting to know each other as a group as well of meeting the mentees collectively. Most of the mentors also said it was useful to have some practical tips for mentoring which they could use as they saw fit, though none wanted a prescriptive training programme or rigid mentoring structure. Most were happier knowing the support was available, but having the freedom and control to devise their own ways of working with their mentees.

The group of mentors met up four times over the course of the programme, when they shared their experiences of mentoring and reflected on their various strategies for supporting the businesses. Beyond this, the group had an opportunity to discuss aspects of the games industry, and bringing them together led to a decision to gather their knowledge and insight in this book. All the mentors recommended regular group meetings as a valuable feature of any future mentoring programme.

-- Matching

Mentoring is fundamentally about establishing human relationships – and for those relationships to work, three factors are vital – respect, honesty and trust. The most productive partnerships are those that incorporate all of these elements, preferably from an early stage.

It is difficult to specify how this can be achieved within the mentoring relationship. The Raise the Game pilot's initial training helped prepare the mentors, reminding them to listen carefully to their mentors before offering advice. How far any pairs actually achieve respect, honesty and trust, however, is likely to rest on how well matched they are and the quality of the personal relationships they form. A good mentor can bring a wealth of outside experience and knowledge, but must also be prepared to develop a detailed understanding of the mentee. Some of the mentors said it was important that mentees had some degree of choice in their mentors – albeit in this case it was a choice of just two. Giving them some responsibility for selecting their mentors also encouraged a sense of responsibility for making the relationship work.

Most of the mentors attributed the success of the matches to the NESTA programme director, who provided the match-making and introductions between mentors and mentees, and took great care to align the professional and personal needs of each.

-- Getting to know each other

Once the matches have been made, it is important for the mentors to build up a good knowledge of their mentees and the businesses. The mentors all spent time speaking to mentees about their personal and professional motivations and aspirations. They studied business plans and financials, met their staff and played their games. A good mentor can bring a wealth of outside experience and knowledge, but must also be prepared to develop a detailed understanding of the mentee – and provide advice tailored to fit the particular circumstances. The focus of the relationships will be different in each case. There are some generic challenges most businesses face, but the benefit of mentoring is that each business has access to bespoke support.

-- Setting objectives and goals

Most of the mentoring pairs set some form of objectives and goals for their relationships. Many of the mentors found that it was essential in understanding where they should focus their support and how to frame their discussions. In many cases, objectives and goals were set early, then refined or superseded by new ones over time. The important factor seemed to be the process of setting objectives and goals that drove both partners to focus.

-- Structuring the meetings

The mentoring pairs each found their own structures for their meetings. Most involved the mentee preparing some form of agenda, often an informal list of topics for discussion. Successful meetings generally led to a series of action points, with progress against these forming the first of the new set of agenda items.

Mentoring meetings took place in many locations – most of the mentors found it useful to see their mentees at their place of work. But they also found it useful to step outside of this setting for some of their discussions. Some meetings took place over meals or drinks; some during bracing Scottish walks.

Many of the mentors highlighted the importance of face-to-face meetings at an early stage of the relationship – regarding them as crucial to building trust and rapport. As time went on, some were able to move to some telephone and email support.

Many of the mentors highlighted the importance of faceto-face meetings at an early stage of the relationship – regarding them as crucial to building trust and rapport.

-- Frequency of meetings

One of the pilot scheme's findings has been that different mentoring pairs found that different timings worked for them – no finite timing worked for every pair. The programme provided sufficient funding for the mentors to meet with their mentees up to twice a month. In practice, there was quite a lot of variation around this. For some, there was a more intensive period initially, when the mentor met regularly with the mentee to address urgent issues or to understand a complex environment or business structure. Following this initial period, less support was required and the meetings became less frequent.

For others, the frequency of contact varied across the duration of the programme depending on milestones or events within the business – some mentors assisted their mentees when they were developing business plans or meeting investors. Many of the mentors agreed that the 12-month duration of the programme was about right, although several would have liked to continue for a further three to six months. Several suggested a future mentoring programme could allocate a "pot" of funding to cover a certain number of hours of mentoring, which could be used over a longer or shorter period according to the particular needs and preferences of the mentor and mentee.

-- Focus for mentoring

While the focus for most of the relationships was at a strategic level, the mentoring, particularly taking place at the height of the recent recession, sometimes involved discussions about day-to-day aspects of the businesses. The mentors often realised that unless they supported their mentees through immediate challenges, the longer-term issues would become largely theoretical. It seemed that the mentees particularly appreciated having someone to help them think through tactics for survival and adaptation within difficult market conditions, as well as someone who could help them plan for the future.

Strategic areas mentors focused on included:

- -- structuring the company for future growth, raising finance or for exit
- -- dealing with the various motivations within management teams and between owners of the business
- moving to a new business model eg, self-publishing rather than work-for-hire; outsourcing
- -- refining the product offer and managing specialisation or diversification
- -- creating opportunities from new platforms across media
- -- structuring deals and dealing with new customers.

-- An exit strategy

This mentoring programme was scheduled to last for 12 months. Several options remain open to the mentoring partnerships after the official programme has finished. These include:

- -- the mentor taking on a more formal role as a non-executive director
- -- the mentor undertaking a specific consultancy role to the business

- the mentoring relationship being extended along similar lines (assuming continued or alternative funding is available)
- -- the mentor continuing to work with the mentee but less frequently and on a less formal (and unpaid) basis.

Any or all of these options can be viable and have legitimacy. Moreover, different mentoring pairs are in the process of pursuing different variants on these. It has become clear that acknowledging the end of the formal programme is useful, along with offering support to mentors and mentees for planning the next phase and renegotiating the relationship (no matter how informal).

Mentoring Techniques See/Hear/Speak

The following techniques were provided by 'Coach in a Box' who were contracted to deliver telephone coaching and support to our mentors on this programme. The two techniques – See/Hear/Speak and the GROW model – were used to support the mentoring relationships:

See/Hear/Speak is based on the analogy of the "three monkeys".

Originating from folk belief and practice in Japan and China, the three monkeys are often drawn sitting side by side. The one on the left covers his eyes (signifying "see no evil"), the one in the middle covers his ears ("hear no evil") and the one to the right covers his mouth ("speak no evil").

Always in the same order, the three monkeys provide us with a metaphor of a pathway for influencing others and taking people with you. When practiced well, this is extremely simple yet incredibly powerful. The trick is to follow the steps in turn and not to move on to the next one until its predecessor has been completed. A simplified diagram of this is below.



It is helpful to think about See/Hear/Speak as each step being a hurdle to cross or a gate to go though. Until each step has been completed we should avoid moving on. Below is a recap of what the three steps entail and what the hurdles are.

Mentoring Techniques See/Hear/Speak

See

The first step is about letting other people know you see them. It always has two elements:

- -- building rapport
- -- getting into their shoes. Seeing what they need, sensing their emotional state, their level of commitment and motivation.

What is the hurdle? How do you know when you have attained this step?

When someone feels "seen" they will begin to speak more openly and honestly. Any defensiveness or suspicion will begin to disappear. They will feel more comfortable, safer talking to you about their particular issues.

Hear

The second step is about ensuring the other person feels heard. This is not simply about listening, it's about showing them you have actually heard them. You may have listened attentively but if the other person does not believe you have heard and understood them (even if you disagree with them), this will have little or no effect. The easiest way to do this is to play back what you have heard them say – paraphrasing and summarising what you had heard and prompting and reflecting feelings.

What is the hurdle? How do you know when you have attained this step?

When the person feels heard, you usually notice their behaviour changing again; they may relax more.

Often they slow down and share more about what's really going on for them. One of the common indicators is that they will stop repeating their issue, concern or perspective and start showing they're ready to listen to you or start moving to solutions themselves.

Speak

The third step is about communicating exactly what you want in a clear, exact, non-confrontational and non-judgmental way. Honest, non-judgmental feedback supported with data if possible and sharing the impact; what you thought and what you felt.

What is the hurdle? How do you know when you have attained this step?

The hurdle here is that you have been understood (though not necessarily agreed with) and what you have said has been heard and the fact that you have said it has been appreciated (if not the content of what you have said), ie, they get that you are speaking with a genuinely positive intention. You can check this – "Is what I'm saying helpful?" "Which bit have you found most helpful?" etc.

(See/Hear/Speak is copyright of Bridge Partnerships)

Making it Happen The GROW model (Goal/Reality/ Options/Will)

Establish the Goal

Purpose: Define and agree goals or outcomes to be achieved. Note: this may only become clear once the current reality has been explored.

- --- What is it that you want to see happen? What exactly do you want?
- What do you think would really change things?
 To achieve this, what are your longer-term goals?
- When you have achieved these goals, what will this bring you? Why are these goals important to you?

Examine the current Reality

Purpose: Ask the mentee to describe the current situation. As the mentee tells you about his or her current reality, the solution may start to emerge. Be prepared to return to the goal if this has now become clear or has changed.

- -- What is happening now?
- --- What's the current situation and what are your concerns and causes for optimism?
- --- What action has been taken so far, with what results?
- What have been the obstacles to date? What has helped to date?

Explore the Options

Purpose: Help the mentee to generate as many options as possible and evaluate these.

- -- What options are available to you? What else could you do?
- What are the constraints? What if these constraints were removed?
- --- What would you do if you could start with a clean sheet of paper?
- --- What are the pros and cons of each option? What factors will you use to weigh up the options?

Establish the Will

Purpose: Help the mentee to commit to specific actions, establishing his or her will and motivation.

- -- What resources will you need to achieve your goals? What resources (e.g. books, information, people, time, role models, personal qualities) do you already have and where will you find the other resources?
- -- What specifically will you do now and when?
- -- What will stop you moving forward? How will you overcome this?
- -- On a scale of 1-10, how committed are you to doing these actions? If less than 8, what is stopping it being higher and what would help make it an 8, 9 or 10?
- -- What milestones will you set up along the way?
- -- What are your measures for success?

(The GROW model is based on the work of Graham Alexander, Alan Fine & Sir John Whitmore)

THE GAME PLAN

Level 02

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Introduction

Each of the mentors in the NESTA mentoring pilot was asked to list the key subjects raised during sessions with their mentee, and write a paragraph on their conclusions. Following are their responses. This is not intended to provide all the answers, as to do so would require a substantial body of work which would inevitably be outdated before it was complete. Instead this is intended to précis the issues raised and outline some conclusions reached in the hope of providing some insight into issues common to developers in the sector.

Portfolio balance

Managing the split between work-for-hire and original IP

Many game developers want to develop original games, but creating original games and concepts is a high-risk activity for the developer and publisher. A hit can, of course, create huge value for a developer, provided the company can secure funding without assigning away the intellectual property rights (IP). Often, publishers will expect a developer to self-fund a prototype, then demand the IP is assigned to them in return for production funding: effectively requiring the developer to take the risk and then lose the ultimate benefit.

If a developer has the ambition to create original properties, it is vital to create a balanced portfolio of work, mixing high-risk original projects with low-risk work-for-hire. However, it can be difficult to reconcile both elements within a studio – staff usually prefer the perceived creative freedom of an original game, and it is tempting to steal resources to fulfil immediate requirements. A good approach is to split the teams, as far as possible, with different creative leads.

Developing original projects can be beneficial in that it allows the developer to create IP and therefore build value. It also helps motivate staff and they provide the opportunity to pitch the company's capability to publishers. Work-for-hire projects often come out of original pitches.

The type of developer you want to be is defined by the balance of these project types. If you want to move into self-publishing you should look to develop a much larger percentage of original IP compared to a developer that is happy working for publishers. As a rule of thumb, it is best to keep within 70 per cent of work-for-hire or original IP, giving you a cushion if something goes wrong.

Publishers

Building a good publisher relationship

It's vital to build a strong relationship with a publishing partner. This needs to be a long-term and fruitful working partnership, based on mutual trust and common goals. Developers all too often go into a publishing deal with a lack of trust and an instinct to hide things.

Game developers frequently regard publishers as "the opposition" or "the enemy". Although this is appropriate in some contexts, successful developers recognise that good publishers have much to offer them, and by understanding their motivations and business models, development organisations can reap significant rewards.

Key elements to understanding publishers are:

- Publishers are big risk-takers. They commission multi millionpound game development from companies over which they have little (real) control or knowledge. They then have to pay huge amounts to platform holders (Sony, Microsoft, Nintendo) to get stock created, which, if it is not sold, will have to be written off. Understanding how publishers assess and manage risks will allow you to communicate key information more effectively. It may also help you manage the project in a manner that will avoid needless conflict. Highlight risks early and track their status.
- Adhere to milestone delivery dates. Milestone delivery is a measure most publishers use to track a project's development. Publishing company staff unfamiliar with the project (such as the finance director) will treat deviation as a sign of trouble, even if there is good reason for a change to the project. Be proactive when changes to the project plan are needed – wherever possible, change contractually agreed milestones rather than deviating from the plan.
- -- Contracts need to be living documents. The assumptions made when a project is signed up nearly always change in some respects. Be prepared to change a contract in the light of changed circumstances – this is the sign of a healthy developer/publisher relationship.
- --- The publisher's staff are human and therefore fallible. If the relationship between the publisher's representative and the developer is not working, deal with it at the earliest stage possible (usually by escalation) it will not fix itself.
- Some publishers suffer cash flow issues, particularly in the run-up to busy seasons. Make it clear that you understand this and work on a mutually acceptable payment plan in these situations. Avoid letting the publisher delay milestone signoffs because of cash flow issues – this only compounds your problems. Agree that the milestone is signed off, accept a suitable payment date and get on with the next milestone – don't force the publisher into "nit-picking" to allow delayed payment of the milestone – this simply adds to your costs, delays the project and won't get you paid any earlier.

Publishers are big risktakers. They commission multi million-pound game development from companies over which they have little (real) control or knowledge.

Picking the right publisher

Finding the right publisher for a game is often as important as developing the concept. Publishers are more than a simple distribution method; they have perceived values that customers will attach to any game they release. This is even more important with budget publishers, which may have perceived poor quality levels.



Understanding the green light process

Publishers often have complex sign-off processes for projects and these can easily take three to four months, even for relatively small projects. It is vital when you start a pitching process that you make sure you understand the process and identify the key decision-makers and the criteria they will be using to make their decision.

It is also important to understand the amount of competition you will face during the pitching process, whether the competition will be external or internal and what advantages competitors may have (existing relationship, industry name or technology advantage). Using this information will help to determine your likelihood of winning the pitch, what you will need to do and how you should approach each stage.



Pitching to publishers

Some golden rules if you plan to pitch a product to a publisher:

- --- Know your product. Know your company. Know the individuals to whom you will be pitching and their company.
- Know the market. Research products in a similar genre and quote figures. See Pricing the Pixel Safari by Dave Wightman on page 64.
- -- Remember that your primary aim is to convince them you have a product that will earn them a profit.
- --- Even though you may be selling the services of many good people in your company, for the pitch meeting they will make a judgment based on you.
- --- Use the best presenter within the company to do the pitch even if this isn't the CEO or a director.
- Arrive early and try to set up in advance any AV presentation you may have. Trying to find a VGA cable when you only have DVI or scrabbling around to set up your screen resolution risks giving a poor impression of competence and will stress you out before you even start.
- -- Relax and enjoy it. If you are relaxed and enthusiastic about your product, this will come over to those watching.

At the end of a project, the milestone definitions become very important. What is defined as alpha and beta can severely affect cash flow.



Making sure the contract makes sense

At the end of a project, the milestone definitions become very important. What is defined as alpha and beta can severely affect cash flow. The most important thing is to make sure the milestone is under your control and not the publisher's. For example, having a milestone based on "ready for submission" rather than "actual submission" can make a massive difference. It's also a good idea to split milestones by platform to make sure you don't get held back by platform issues. In negotiating a contract, it is easy to get bogged down arguing points that don't matter too much. Ultimately it is worth focusing on elements that relate to payments and cash flow, IP rights and penalties. If rights revert at the end of a specified term, try to get rights to use all the publisher's marketing material such as packaging – it seems so trivial at the start of the project, but can be very valuable once rights revert.



More often than not, the publisher will demand the IP rights, unless the studio agrees to participate financially or consent to special terms.

Keeping control of the intellectual property

When you are negotiating with a publisher, ownership of the IP is often contentious. On the one hand, the studio is conscious of its ownership of its creation and the uniqueness of the product. On the other, the publisher will end up funding the project and it is the publisher's money that makes this possible. More often than not, the publisher will demand the IP rights, unless the studio agrees to participate financially or consent to special terms (different payment schedule, lower royalties). Ultimately, there are two key elements relating to IP ownership: control of the IP and revenue from the IP.

They often go hand-in-hand, since whoever is controlling the IP generally receives most of the royalties, although this is not always the case. If a studio feels strongly about controlling the IP, there are ways to give away a larger share of the potential revenues to keep control, and this can often be a smart move. It is important in such situations to impose limitations on the other party. A cap on the revenue rights, an amount of money or an amount of time, or maybe a buy-out clause? Being tied to another party until the end of the time is generally not a good idea.

Holding on to an IP is not always the best move. You have to consider what you would do with it and, importantly, what your publishing partner could do with it. Maybe your game would be a good fit for a movie adaptation, but are you likely to be in the best situation to negotiate with Hollywood studios? Have you ever done it? What is the likelihood of this happening? Your publisher might be able to do a lot more with the IP than you could. Relinquishing control doesn't always mean parting from some of the revenues tied to it, after all. It is important to weigh the pros and cons, the short-term and long-term opportunities. If possible, negotiate a return of IP if a publisher doesn't exploit it beyond development of the game – clearly it is ludicrous for a property to languish with the rights holder simply to stop anyone else from exploiting it while they don't do so themselves. However, be warned: joint-control is a recipe for disaster; it is the best way to make sure nothing ever happens.

It is vital that when you budget for a piece of work-for-hire you include a reasonable profit margin, which means the company is able to survive beyond the end of the project.

Technology ownerships

Games encapsulate an interesting combination of art and science, mixing culture with technology. It is vital that you keep this in mind as you negotiate the publishing deal. You are negotiating the end product, not the technology used to create it. Publishers will want to own as much as possible, this will often include the IP in the game and potentially the technology used to create it.

It is important that you hold on to the technology. This will allow you to make subsequent games, and handing this over could seriously compromise your development ability. You might have to give away some of the tools necessary for the normal maintenance of the game, but you shouldn't have to provide source code to the underlying engine. The publisher is buying the fish from you, not the fishing rod.

Profit margin

The most common way to start a studio is to get a project funded by a publisher. This initial project is vital, successfully completing it and surviving past the delivery is an important step in creating a successful company. Many small studios will build a budget that is close to the actual project cost just to get their first project.

It is vital that when you budget for a piece of work-for-hire you include a reasonable profit margin, which means the company is able to survive beyond the end of the project, and that you have a sound business.

When you build your budget make sure you add the profit margin. If things go well it is true profit and if things get tough it might just be the extra money that will allow you to survive between projects.



Even with a strong clause pertaining to change requests, you can still do other things to control publisher change requests.

Handling change requests

One major scourge of the work-for-hire model is finding a way to handle change requests from your client. Any developer knows that what is contractually agreed at the outset of any project will vary considerably from what will be eventually delivered. Having strong change control processes in place is a must to ensure an acceptable profit margin is retained for the work being done.

How to do it? Well, the obvious answer is to ensure there is a clause in your development contract relating to change requests specifically allowing you to make additional charges – preferably using a written agreement to any change (and its associated cost scheduled) signed by the Vice President of Development or someone at a similar level.

However, even with a strong clause pertaining to change requests, you can still do other things to control publisher change requests – the most important, and a sign that you are serious about change, is to create and stick to a formal change control process. Ensure that each change which has ramifications above a certain threshold of man-days of effort goes through a formal change process where the change is detailed, the reasons for the change are described and the effort required to implement the change and any knock-on effects in terms of effort are specified. This needs to be approved by the person requesting the change (internal producer, external client etc), giving you a written record of all changes requested.

Make sure you control costs in work-for-hire

When developers work on games that are owned by publishers or third parties without sharing in the eventual success of the sales of the product, these are known as work-for-hire projects.

These contracts generally pay a developer a fixed amount for a job, but provide no opportunity for them to make additional revenue if the game is successful. In these circumstances it is vital for the developer to make a reasonable profit on the actual development of the product. Problems (and opportunities) arise because a game can rarely be fully specified at the start of the project, and so during the development issues arise between the publisher and developer as to what elements constitute acceptable delivery. These contracts generally pay a developer a fixed amount for a job, but provide no opportunity for them to make additional revenue if the game is successful. Some general guidelines for controlling costs are:

- -- Build in a competitive profit margin you are not running a charity.
- If the specification is vague out of necessity, consider a daily or hourly pricing scheme (known as "time and materials"). This gives the best insurance that work will always be paid for.
- Try to do only the well-defined parts of the project on a fixedprice basis. Insist on using a time and materials basis for vague areas.
- Projects change. Make sure that change management processes include provision for adjusting the price (up and down). Ensure that variations are priced to create a higher margin than the core work.
- -- Make sure management time is properly costed (or factored into the hourly rates).
- Make sure any additional expenses incurred are properly tracked and billed. Not recharging costs is akin to giving away money.
- If it is necessary to concede elements of work "free of charge", make sure the customer is aware (in writing or by email) of the concession. Use this log of concessions to avoid giving further ones.

Change management

Build in contingency

Having contingency within your project plans is imperative and, if we are being honest, with zero contingency your chance of staying on schedule is pretty low. There are many ways of adding contingency to a project, but the best way is by removing whole or part days from the working calendar or specifying individual resource contingency within Microsoft Project.

As a rough guide, you should have at least 20 per cent contingency within your schedule – that is expecting four days of scheduled work to be done every week. Even this is on the optimistic side and 30-40 per cent contingency is probably more accurate for most projects, with some being as high as 60 per cent. Obviously, the hard sell here on a typical work-for-hire project is getting your publisher or whoever is paying the bills to accept that each week there will be a substantial amount of time which isn't spent on scheduled tasks. Fortunately, many publishers understand this requirement now.



The development contract should provide the key change control process to follow. No-one can accurately forecast the effort needed to develop every proposed part of a proposed game, so it is vital to build contingency into project plans and in your project pricing. However, it is equally possible to create impossibly expensive budgets by multiplying excessive contingency (double counting) at component, intermediate and top levels.

Be clear with the effort estimate for each atomic element of a project as to whether it includes contingency and consider adopting a policy of using raw (non-contingent) estimates then adding a large amount (say 15-20 per cent for a low-risk project) at the top level. Alternatively, assess the risk for each element and add appropriate contingency at the unit level. Then a smaller gross contingency (5-10 per cent) can be added.

Contingency must only be used to cover the cost of unknown occurrences. Reasonable levels of holidays, sickness, training, staff attrition, etc are not unknown and should be factored into the project plans and costings.

Successful companies measure their forecasting accuracy and compare it with the actual costs incurred so they can measure and improve their ability to estimate. Even if you are unable to pass on additional costs to a publisher or other partner, you will get better at estimating if you measure your performance and seek to learn why you got an estimate wrong. Remember, underestimating a task means you have given revenue away.

If, during the early part of a project, most or all of the contingency is consumed, it is essential that you replan the project. Contingency should be used throughout the project and its early use is indicative of an underlying problem with the estimates you have used.

Strategies for managing change control

Change control is key to an effective relationship between developer and publisher. It is natural that during a development lasting 18 months or more, some aspects of the project will not have been fully specified or the commercial environment may have changed, necessitating a modification to the design.

The development contract should provide the key change control process to follow. If this process is found to be ineffective, it should be modified or replaced, using a change to the contract if necessary.

Regular contact between developer and publisher is an essential part of managing changed requirements and this process should ideally be face-to-face – at least for more knotty issues. The developer needs to adopt a style for managing scope changes. One approach, suitable for projects that have strict delivery constraints (say for a game tied into a film release) is to insist that any additional functionality is matched by a reduction in other areas. Other projects may be able to accommodate increases in budgets and timescales, but after a while, excessive "scope creep" can distort the vision for a game.

A popular approach is to divide project requirements into must have/should have/optional requirements so the project budget can be focused on the key elements, with other elements prioritised as appropriate. The MoSCoW principles in the DSDM development methodology neatly encapsulate these ideas, see www.DSDM.org

If, during the early part of a project, most or all of the contingency is consumed, it is essential that you replan the project. Contingency should be used throughout the project and its early use is indicative of an underlying problem with the estimates you have used.

Self-publishing

Delivering a quality product

Working with a publisher is very different to self-publishing a game. Publishers have a well-defined process for controlling and managing the quality of a product. They will have production, QA and marketing departments that will get involved in defining, ensuring and driving the quality.

The advantage of self-publishing is that you don't have all these people meddling in your project. The biggest risk is that you get too close to the project, are unable to take objective decisions and therefore create a product that is not focused. The best way to avoid this is to bring in external points of view, possibly through focus testing, where people off the street or from local universities or fans from your website come and test the game.

If you do this it is vital that you listen to what is being said, accept all the criticisms and make sure you address the issues raised. You need to look at what the players are doing rather than what they say. Take note of their actions and make sure you do this often and early.

A big advantage of self-publishing is that, unlike regular publishers, which like to keep projects secret until just before launch to create maximum hype based on a large release schedule, you can announce your game early and use fans to help drive awareness and identify issues. This will often build a strong bond with the fans, creating a ready user base to sell to when the game is finished as well as helping you control and mange the quality of the product.

Developing a content strategy

It doesn't matter if you plan to self-publish the game with regular content updates, work with a publisher on downloadable content or make a continually evolving online game, you must have a strategy for content management.

The first thing is to make sure you have good tools that will allow you to create, integrate and test the new content quickly. You also need to be able to find an effective way of getting feedback on what extra content is required and enjoyed, what works and what doesn't. This will allow you to measure the success of the new content and tweak your strategy accordingly.

IF WE GO WITH A PUBLISHER, THEY'LL SORT OUT Q.A., MARKETING, P.R. ETC... BUT ON THE DOWNSIDE; THEY WILL CONSTANTLY TELL YOU THAT YOUR GAME IS NOT GOOD ENOUGH...! ON THE OTHER SIDE, IF WE SELF-PUBLISH, I'LL HAVE TO SORT-OUT Q.A., P.R. AND MARKETING-BUT ON THE UPSIDE, I GET TO TELL YOU CONSTANTLY THAT THE GAME IS NOT GOOD ENOUGH!


How to fund the project

The conventional way of funding game development is to agree with a publisher a royalty-sharing model and then negotiate a set of advances against these royalties which are paid by the publisher on delivery of key development milestones. Although popularly decried, this model remains the prevalent one in the industry and has some significant advantages. In particular, publishers (believe it or not) actually do understand the video game business and if they are not prepared to fund a project, there may well be a good reason – perhaps your idea really isn't that good. Also, a publisher that provides advances to pay for the development of a game will be financially committed to working with you to make the product a success.

However, there are times when you will want to fund a project independently of a publisher. This might be because the project is very small or because you want to control the distribution or receive a more equitable share of the revenues. First you must decide whether to seek investment in the project or in your company. Project finance is still a relatively immature model in the games industry, but look at relevant companies (for example www. fund4games.com, www.ingeniousmedia.co.uk, www.ifgbonds.com) to see some of the other models.

See "Finding potential investors" on page 48 for more information.

Development

Agile v traditional project management

There are many views on both sides of the agile/waterfall argument on which methodology is most suitable for games development – the simple answer is to choose whatever works best for your project, your people and your company.

For a project that has a proper pre-production period, that is a pre-production that allows you to mitigate the full production risks as much as possible and delivers a proper vertical slice encompassing working pipelines and technology, agile could be a good choice given the benefits and flexibility it gives a team during this constantly changing part of a project. If a good pre-production is carried out, leaving essentially an asset/ gameplay production line for full production, a traditional waterfall method may be the best way of ensuring all tasks are identified and scheduled accordingly and that resources are accurately determined.

If you decide to go down the agile route, you should consider taking a good Scrummaster course – those provided by the ScrumAlliance are well worth the investment.

For more reading, you may want to read The Mythical Man-Month by Fred Brooks, Agile Project Management with Scrum by Ken Schwaber and The Art of Agile Development by James Shore.



The process of roughly estimating the time and cost of developing a game should be quick – taking no longer than an hour.

Ballpark game costing Formula for coming up with a cost

The process of roughly estimating the time and cost of developing a game should be quick – taking no longer than an hour. Using this method you should be able to predict the costs of a project accurately and roughly guesstimate the duration. You will require a pen and paper (or whiteboard if you prefer, but always write it down afterwards), a calculator (and, ideally, spreadsheet software) and experience.

How many people do you need to do your estimate? Ideally, you would have a senior member from each main discipline in the room (art, code, design), though on some complex or more unique projects you may need more, perhaps an animator or a musician. But for now, let's assume you are the production person or have been nominated as such by your peers. You can do this process by yourself, of course, but again that all depends on experience - how much do you have in the areas of code, art and design. If necessary call in another person, or more, to complement your skill set.

OK, so next, what is the high-level specification for your game? You probably have a good idea of the genre and similar games, and you should have communicated that at your estimation meeting, but now draw up a few high-level specs and assumptions. Will it have multiplayer options, will that be online? What about DLC (downloadable content), how many hours do you want it to play for? You will probably end up with seven or so factors that will inform your estimate.

The next thing to do is to talk about the game for 20 to 30 minutes to make sure you are all roughly in agreement about what the game is, but more on that will come out as you start your process.

Now create three columns, code, art and design, then, starting with code, create headings that suit your game. Remember you are only estimating the tasks up to "alpha" stage, not the back-end QA and completion stages, there will be trickery for that later.

One thing to consider in all this is whether your game is on more than one platform. If it is, you will need to put in extra code time per platform and, quite possibly, more art and design time. This estimation depends a great deal on the technology you are using.

No doubt when talking over one list you came back to another and added more. Now what you need to do is allocate time to each. As this is a ballpark estimate we will work in man-months. So put your finger in the air and estimate each one as best as you can, multiplying when a "x 10" etc exists.

Now go ahead and add up each discipline and see what you have.

Right, now we need to think about the extras, and this will come down to who is doing what between you and your "publisher". The typical items to decide on are below but the list will expand as we move to newer business models, for example a share in marketing costs.

- -- music
- -- sound FX
- voice acting
- -- QA
- -- FMV

Presuming you have a rough schedule with time estimates that are as accurate as you can possibly get them at this stage, you should be able to determine how many people it will take and how long it will take them. You must be prepared to push these costs over to your publisher/ partner or you now need to estimate/budget.

So far we have only estimated the work up to alpha, so what about the work after alpha and what about management, how do you estimate that? Well you could always keep the team all on until the game is done (need to work out your alpha to submission length, though typically this is three to four months) and add one manager per seven people, but as a rule of thumb, once you have added up code, art and design, simply multiply by 1.4 as that seems to work in most cases.

OK, so now we have an amount of man-months for the whole project and a cost for our extras, but we need to convert the man-months into a cost as well sum this up. This comes down to your man-month rate or "burn rate". This is typically your salary, plus an overhead per person that keeps them in an office, with a machine (or three), fed and trained, etc, with a profit built in on top (depending on your business model). For example a typical "burn rate" is £6,000- £7,000 per man-month (at time of writing).

Right, so let's multiply our man-months by the burn rate and add those extras. What have we got? A ballpark estimate of the cost you are going to quote for your game. It may not be perfect, but I bet you did not have much time to come up with it. You will be doing another one very soon and in many an experience, it's as accurate as spending two weeks on it as so much changes once you get going.

Budgeting for the whole process including QA

How much will it cost? The length of the proverbial piece of string is the answer here, but you do need some cost ideas for when you are pitching your ideas to publishers, development partners, investors or the bank.

Ideally, you should have a good idea of what your product will be. From this, you should be able to determine a rough schedule which is at least close to realistic (although you don't need massive granularity here, the more detail you go into, the better chance you have of identifying missing tasks, features or tech you had forgotten about). Presuming you have a rough schedule with time estimates that are as accurate as you can possibly get them at this stage, you should be able to determine how many people it will take and how long it will take them. If an event is organised close to you, it is less costly (in cash and time sacrificed) to attend and is a good way to get a feeling for how worthwhile these events can be. Put this data into a resource plan showing what people you need on a month-to-month basis, not forgetting to add in those team members who may not actually have scheduled tasks (producers, discipline leads, schedulers, QA, etc).

From this data you can get a ballpark man-month figure; that is how many man-months of effort are required to complete all the tasks. Now, if you haven't already added your 20-40 per cent contingency into your schedule, make sure you add it to your manmonth figure here. You next need to think about QA – the figures you have only take your project up to an alpha level of quality and QA – for a full retail title on console, add about 3.5 months' worth of effort from your whole team to cover your post-alpha resource requirements; for PC (as long as it isn't online-heavy or an MMO) you can maybe get away with three months' worth of effort from the whole team. Smaller XBLA/PSN titles may only require 2.5 months' worth of effort for the full team.

After all these calculations, you should have an overall manmonth requirement to complete your project. Multiply this by your charge-out rate (for work-for-hire projects) to get a resource cost. You should now look at your non-resource costs such as any additional software licences, middleware licence costs or specific new hardware required to complete the project – add this in and you should have something approaching a realistic cost for you to develop the project from start to finish for a client. It is then up to you to decide whether to increase this figure as your first negotiation figure with any potential client – your call.

Find local developers and talk to them

Starting a business can be a daunting affair, especially if you are a first-timer. Fortunately, the days of all developers being secretive are pretty much over and one of the most constructive things you can do is seek out other local developers

and build a relationship with them to get advice. This can be as simple as asking them out for a coffee or buying them a pub lunch.

The benefits this can provide are endless, but having a face-toface relationship makes it much easier to give them a call should you have any questions. Most will be happy to assist and can often recommend good lawyers or accountants. They can also provide information about local development agencies and any financial support and grants available to you.

IGDA/TIGA/Develop – places to go and people to talk to

Go local – register with the IGDA. It won't cost you much and you will get discounts to many events, as well as getting access to your peers. With some luck, you will have a chapter near you that will organise regular get-togethers. If a special interest group (SIG) fits with your profile, join it. Similarly, registering with TIGA (if you are in the UK) should be a no-brainer. If an event is organised close to you, it is less costly (in cash and time sacrificed) to attend and is a good way to get a feeling for how worthwhile these events can be. Develop in Brighton and Develop North are good places to start as well as London events (BAFTA organises regular events).

Before committing to attend, check the content – most of the current industry events have been around for a few years. They exist online and their content (at least in part) is available online for you to check. You should also join regional networking groups if they exist in your area: Game Republic for Yorkshire, Game Horizon for the northeast etc. These groups are inexpensive to join and, as well as offering excellent networking opportunities, may make you eligible for regional grants.

Some overseas events can be valuable, but are expensive to attend.

As a rule, each event has an angle and a core audience. Find about this as early as possible. If a company you want to meet has announced its presence at an event, it doesn't necessarily mean the person you need to meet will be there. Each event has its main role for attendees. Some are about sharing experiences and conference content (GDCs), some are about the hype and communication to the outside world (E3, Cologne's GamesCom) and some are focused on business discussions (Game Connection). There is always some overlap in those categories; some publishers will choose to make an announcement at GDC for instance, and some form of business discussion will take place at all events. However, as a newcomer, you should build your expectation in relation to the nature of the event first and foremost.

Before committing to attend, check the content – most of the current industry events have been around for a few years. They exist online and their content (at least in part) is available online for you to check. Check for PowerPoint presentations uploaded on blogs or on slideshare.net or Twitter discussions during the event (search using the relevant hashtag), and ask people you know who attended in the past. You can also check the event website for this iteration programme and change from the previous years. Some events are also specialised or themed at each iteration; some are already highly specialised, as is the case for Casual Connect or the GDC Austin (dedicated to online games).

More and more conferences offer web-based ways of attending. Some charge you, some don't. Most conferences have attendees who tweet about them, taking the key points and sharing them. This is by far the most cost-effective way to attend an event. It doesn't have the networking opportunities (but again, connecting with the person on Twitter is a possible networking opportunity) but it lowers the risk of taking a week off to go to the US only to realise the content is not what you expected.

As a last point, there are a variety of events, not dedicated to games specifically, that can also be very interesting for games companies, perhaps entertainment industry shows, web 2.0 conferences or just formal get-togethers organised by online payment systems. Keeping an open mind can also create opportunities, as long you don't spend too much time attending these peripheral events.

Outsourcing

When looking at a secondment, whether as an employer or a host company, it is imperative that you draw up some form of legal framework covering assignment of work carried out, costs and responsibility for costs.

Secondment

There are times when you may need additional staff but don't want to pay substantial recruitment fees. On the other hand, you may have an excess of staff but don't want to let anyone go. Recently, some game developers have taken to using secondment as a solution to both of these problems. It works the same as in other industries; the employer "seconds" one of its employees to work with another company for a specified period. The employee remains an employee of the employer for the duration, but his or her costs are paid via invoicing by the host company.

In the past, issues such as trust and confidentiality have limited such schemes, but following some successful initial secondments and the creation of TIGA's Industry Sharing scheme, this is becoming a viable solution for some companies.

When looking at a secondment, whether as an employer or a host company, it is imperative that you draw up some form of legal framework covering assignment of work carried out, costs and responsibility for costs, responsibility for disciplinary and grievance procedures, holiday entitlements, process for holiday request and sickness and confidentiality as a minimum. Proper legal advice is highly recommended.

Art and code outsourcing

Outsourcing has changed from the original rush to push asset creation around the world a few years ago. Beneficially, it has settled down and those offshore houses that remain have survived for a reason. Ensuring a successful outsourcing experience could take many pages of this publication, but as a minimum:

- -- Ensure you are 100 per cent clear why you are outsourcing. Is it to reduce cost or to remove the requirement you may have to ramp up internal resources?
- Before you even approach any outsourcing houses, ensure your production pipelines are in place and stable. This includes your pipeline for assets into your product as well as your general communication and project management pipelines. Try to document them in as much detail as possible so you can present this to potential outsourcing partners.
- If you can get a good recommendation from someone else in the industry regarding a good outsourcing house, take it! If someone has already been there, they will be able to tell you all the issues they had and whether the experience was worthwhile.
- -- Carry out strong, accurate and encompassing due diligence on any potential outsourcing partner. Ensure that the information you gather works for what you are trying to achieve.
- -- Send a delegation of at least two people (preferably a senior person from the discipline you are outsourcing along with a member of your production team) to visit the outsource house for at least one or two days. Meet the management and the potential team you will be working with and ensure they are who they say they are. Start building a relationship.

Many creative companies are started from pure passion for the chosen activity combined with optimism about the possibilities of 'doing it for themselves'. The whole concept of strategy can feel alien or even abhorrent.

- Depending on the amount of work you are outsourcing, delegate at least one person (but maybe more) on your team as the primary contact with the outsourcing partner. This person is responsible for getting progress reports, passing over new work, getting deliveries of work and communication approval or rejection to the outsourcer. It could be worth looking to bring in an outsource manager to handle this work for you.
- Do not under-estimate the amount of work your team will have to do to review, change, amend and integrate any outsource work into your product.
- Remember that the more information, concept images, mood boards and detail you supply, the better the output you will receive.

NESTA/TIGA are pioneering a scheme whereby companies can advertise services and swap staff/resources with each other as part of the "Play Together" initiative. Details can be found on the TIGA website – www.tiga.org.

There are many more tips you can pick up just by speaking to other developers who may have been through the process – use their knowledge.

Cooperation and joint development

Working with a range of companies in partnership, rather than in an outsourcing relationship, takes a different approach. Each company needs to look at making sure the project is a win-win for all parties and everyone needs to collaborate. What it allows is a great deal of flexibility where companies can bring value without having to grow too quickly.

Planning and strategy

Choosing the right platform

What platform you develop on is often as vital as the type of game you create, especially with the vast range of platforms now available. It's vital to stay focused and get good at one or two rather than average at lots. It's often better to focus on a set of platforms, Xbox 360 and PS3 or Wii and DS, rather than try to hit every one.

Some platforms, such as the DS and Wii, have become increasingly saturated recently. As neither platform currently has a successful digital delivery system, the only route to market is through traditional publishers, which have limited budgets and too many titles.

Unlike PS3 and 360, which are technically similar with standard control system, Wii and DS have wildly different control interfaces, making developing a single title across both platforms a challenge and requiring extra design effort.



The first, most obvious, thing about strategy is that it is a good idea to have one.

Company strategy

The key to planning is to focus on what is possible and create a strategy that delivers what is feasible. It's all too easy to come up with impossible strategies that look great on paper, but it's important that you base it on real assumptions and do bottomup analysis rather than top-down. You can easily start with the number of people playing games and find you will easily be billionaires, which is rarely the case.

The first, most obvious, thing about strategy is that it is a good idea to have one. Which is not such a dumb observation: many creative companies are started from a pure passion for the chosen activity itself, combined with optimism about the possibilities of doing it for themselves. The whole concept of strategy can feel alien or even abhorrent.

Yet the need for a company strategy will assert itself, sooner or later. Ideally, the need arises from a desire to grow the company beyond the take-it-as-it-comes "organic" growth that characterises the first stage of so many start-ups. Unfortunately, human nature being what it is (preferring to press on blindly and blithely until the precipice is a few metres away), the realisation more often comes as a result of experiencing the problems of growth, quite possibly in crisis mode.

Given this tendency, it is clearly preferable to have a company strategy, sooner rather than later. So what does one look like?

Paradoxically, it is important to start from the personal objectives of the founders/partners. Whether it is a "lifestyle" business or an aggressively commercial one, the owners' aspirations – the things that made them take this far-from-easy route in the first place – will have a major influence on where the company is heading. And, frequently, these will not be entirely clear, either to the individuals concerned or to each other. So this is a good area in which to seek mentoring or facilitation. It can be volatile stuff.

The personal goals will inform a collective vision of where the business needs to be in, say, three or five years' time. "Vision" might sound fluffy, but it is essential. The shape of the business you want to create is what your whole strategy is oriented towards. Consider company strategy as the "big picture" steps that will get the business from where it is now to where you want it to be. Think of your business plan as the implementation and commercial detail that will deliver your strategy in the real world. Consider your company strategy as the "big picture" steps that will get the business from where it is now to where you want it to be. The "big picture" elements of company strategy should include:

- -- your offer/offers to clients or customers
- -- the people and other resources you will need
- -- the appropriate structure and processes
- -- an overall idea of your business and revenue models
- -- a sense of how the company will achieve growth
- -- some gross commercial numbers for each year
- -- the evolving marketplace and how to address it
- -- how you are going to leverage technology
- -- the values, culture and ethos of the company

A good, practical way to capture these elements is to plot them along a simple timeline. Use large-format sticky tabletop flip-chart sheets, one for each year, with an extra one at the beginning of the sequence. On this sheet, list your main headings – people, revenue, products, etc. Then plot the "headlines" for each topic across the "year" sheets. For example, for "people" you might put: Year 1 – 12 people; Year 2 – 18; Year 3 – 25 and so on. You will instantly see how each element is interdependent – how staff numbers relate to revenue, for example – which means you can adjust each element across the timeline to create a holistic picture of how the next phase would – in an ideal world – unfold.

Of course, it's by no means an ideal world. In fact, things are more volatile, more turbulent and more disruptive than ever. So, while it is somehow necessary to have a company strategy, once you have one it needs to be taken with a handful of salt.

You will need to "iterate", which is a posh way of saying that, as soon as you think you've got a definitive strategy, you are lost. You and your partners will need continually to review, revise and reengineer, as markets, clients, technologies, competitors, revenues and people change, often in unexpected ways. To end on a paradox: these days, the best company strategy may be to not have too much of one.

Market research

It is vital that you undertake market research to prove, or otherwise, the feasibility of your ideas. See Pricing the Pixel Safari by Dave Wightman on page 64.

Company start-up

Things to remember when you start a studio

- Be very clear in your mind why you are starting a studio. With all the pain and grief you are about to take on, you need to know in your mind why you are letting yourself in for it all.
- If you are setting up a studio for the first time to get rich, be aware that there could well be many years of seriously hard work and downfalls before you get there (if you ever do).
- You may be starting up the studio, but unless you have a renowned name within the gaming industry, it will be judged by its output and its talent. Surround yourself with the best people possible, but remember that this is a team game – getting the ten most talented individuals can be a recipe for disaster.
- Make sure you have a plan. Know what you want to do and how you are going to do it. Have contingency plans in place because things go wrong – and often.
- If you are a commercial business rather than a lifestyle or hobby company, do your market research. Don't think that making games you want to play will mean huge sales. Look at the market, see where it is heading, get as much data as you can and aim your products at the right market segment.
- -- Get yourself a good lawyer and accountant.
- Don't forget all the other things that go hand-in-hand with running a company: employment law, human resources, internal processes, salary and payroll, corporate governance, health and safety et al.
- Think about your costs. You will need to provide hardware and software licences for your development needs along with desks, chairs, office space, tea and coffee etc. It all adds up, however, your local RDA may well have incubation units available for you to use at low cost – well worth investigating.



THE SALES FIGURES ARE GREAT ... BUT THE METACRITIC SCORE IS 5/10



If the company is successful, when additional investment is required or a suitor is interested in an acquisition, issues with the company structure often come to light.

Be cautious of making games you want to play

It is true that many start-up studios fail because of the product. For many reasons, start-ups want to make games they want to play, which, given recent changes in the potential market demographics, is not the easiest way to stay in business. Ensure you carry out your market research before determining a product; ensure you understand the demographics, not only of who plays, but who purchases the products in the market sector you are targeting, and, above all, ensure you design your product (in all ways, game mechanics, visual style, GUI, control method) to appeal to the consumers prevalent within that sector.

Remember that you are likely to be running a studio because you love games and are an avid gamer. The market has changed and your taste in games may not be in the majority – develop product for the marketplace and not to fill a gap in your personal gaming collection.

Company structure

In most cases when a new company is founded the last thing anyone considers is the company structure – the much more exciting job of "making stuff" is pursued. On one hand this is totally correct, since, if the company is not successful at "making stuff", it is likely to fold pretty quickly.

However, if the company is successful, when additional investment is required or a suitor is interested in an acquisition, issues with the company structure often come to light – usually in the form of tax liabilities connected with any sale. At this point there may be significant regrets resulting from the decision to spend only fifty quid on that off-the-shelf company three years previously.

Job titles

Start-up companies can become obsessed by job titles and such assignments can be needlessly divisive. A few general principles can avoid the worst pitfalls.

- Agree the purpose of job titles. Focus on job titles' impact on the external appearance they create for the company. Anyone called "technical director" must be able to carry that role with all partner organisations.
- -- Consider use of prefixes to indicate level or seniority within a role (student, senior, programmer, artist, animator, etc).
- Recognise that some staff will follow a managerial path, but still need recognition of their career progression (consider a prefix of consultant to recognise this).
- Decouple job titles from pay structures; pay should be based on market rates.
- --- Job titles don't have to be boring as long as, if you use esoteric job titles, the role is clear, internally and externally.

Money and Investors

Getting a financial director

Having good financial control may not be the first thing you think of when you set up as a games developer, but it is one of the most important (after a couple of projects you will quickly realise this). Getting a financial director involved early is important; you can often get someone part-time, doing perhaps a couple of days a month.

This will really help you build a sustainable business and greatly improve control of costs, budgeting and general cash flow. You will often find that the same part-time financial director is being used by other local developers; such cross-experience is often worth a great deal in helping identify sources of funding and ways of doing things.

Creating a business plan

This key document will sell your business to a range of organisations including funders, banks and publishers. Some key points are:

- Look at other publicly available business plans to find a framework that matches your business. Several websites have useful templates: (www.businesslink.gov.uk/bdotg/action/detai l?type=RESOURCES&itemId=107379122)
- Remember that the immediate future should be much more predictable than forecasts for three years hence. Make the near-future parts of the plan (six to 12 months) a highly accurate prediction so you can justify these numbers in detail. You will then be able to match the forecast against achieved results to demonstrate your ability to follow a plan.
- -- Show how the plan will be affected by uncertain factors. Show how these factors can be managed.
- -- Research comparable companies, look at successful and unsuccessful examples and explain how you will match the good experiences and avoid the failures.
- -- Focus on how you will generate cash as quickly as possible.
- --- Ensure that investors' exit objectives (dividends, flotation, sale, etc) are properly represented in the plan.

Finding potential investors

Funding a company is better understood, although the games industry is not particularly popular with investors (in the UK, at least). Consider the following sources of funding:

- -- Use your own money. If you do not invest in a business, is it reasonable to expect others to do so?
- -- Use your network of friends (especially industry contacts) and family associates to get smaller levels of funding.
- Join TIGA, ELSPA, IGDA and attend meetings to build awareness of your company and amass potential investment contacts.
- -- Check government support schedules. Start with your local business link (www.businesslink.gov.uk/) or equivalent.
- -- Attend local business networking events.

There is a huge amount of government support available, but (in the UK, at least) it is not provided in a particularly coherent or coordinated way. A start-up company with no assets or cash is not actually worth very much.

- Talk to your bank, although these are largely closed to start-up businesses at this time. (Many banks are insisting on directors' guarantees for any company loans, which you should avoid unless you are fully aware of their effect.)
- Talk to your accountant, lawyer and other professional advisers
 they have extensive networks of contacts.
- --- The Business Angel network is good for low levels of funding (up to £500k). Start at www.bbaa.org.uk.
- --- Venture capital is aimed at larger funding propositions (£500k and above). Look at www.BVCA.co.uk.

Remember to try to align the organisations you approach with the type of offering you have – most will clearly state their focus areas. Also note that most financing companies are very busy and will give you just one shot at presenting, so practise with a friendly organisation first, then give a polished presentation thereafter.

Financing companies have various financial objectives – some are interested in long-term investments, others focus on specific tax structures (such as EIS schemes). Where possible, align your financing targets with their aims.

Always get feedback on any presentation you give. Seek to improve your presentation after each meeting.

Focus on explaining clearly how you will make money for your investors – they are not investing for your benefit, but to make money.

Be aware of the various tax-efficient investment schemes and structure your company to maximise the benefit of the investment to your shareholders.

Government support

There is a huge amount of government support available, but (in the UK, at least) it is not provided in a particularly coherent or coordinated way. These programmes vary from local initiatives (such as Game Republic in Yorkshire – www.gamerepublic.co.uk) through to national (eg, R&D tax credits), EU and international programmes. Many of these programmes are independent.

Do a thorough web search for any likely programme, and visit your local business link (www.businesslink.gov.uk/) or equivalent to get started.

Remember that government initiatives are designed to achieve specific goals and you may have to restructure your business to take full advantage of these funding schemes. This could mean moving your business or taking on more staff than you originally planned. Avoid bending your business too much or you risk becoming a "grant-chasing" organisation.

Be clear on the terms of government support – some are grants, some are tax offsets, some are loans. Many (such as EU programmes) are mutually exclusive, so taking one may preclude you from another.

Be clear on the timing of support. Many potentially great schemes fail to deliver the anticipated results because they deliver benefits

Remember that government initiatives are designed to achieve specific goals and you may have to restructure your business to take full advantage of these funding schemes. Company investment is more flexible in that it can be used to fund infrastructure or resources common to multiple projects. Investors will generally invest only if they can see a clear exit for their investment. at an inappropriate time (R&D tax credits create a repayment six to nine months after the end of your accounting period and may require thousands of pounds of professional advice for you to be able to claim the full available relief).

Managing investor expectation

Many investors will fund only on the understanding that they are regularly given business updates on the company. However, wherever possible, be proactive. Offer information on a monthly basis giving key data such as: management accounts (costs, revenue); sales achievements, forecast and pipeline; staffing levels, etc. Explain any deviations from plans.

In particular, do not be afraid to give bad news – intelligent investors know that things do not always go according to plan and it is generally more important to be honest rather than try to hide a problem. Many investors will be able and willing to help solve problems if you have first worked to build up trust.

Offer an annual (at least) opportunity for investors to meet the management team and discuss issues in more detail.

Be particularly sensitive to exit plans. If you have said you will pay dividends or seek an exit in a set period, you must keep the shareholders appraised of progress towards this goal – they may be relying on an exit for this investment to free up funds for other purposes.

How much money?

There is no right answer to how much money you need to raise, but be sensible and realistic. Do not be influenced by the extremely high-profile mega-valuations some companies receive in particular circumstances. A start-up company with no assets or cash is not actually worth very much.

Do not raise a huge amount of money when you start a company – you will give away a huge proportion of the eventual upside. Instead, raise a small amount, get the business established and then go back for a second round. However, make sure the initial investors know this is the plan, as they will be mightily upset if there is a "surprise" second round funding exercise.

Many companies initially fund their business using personal contacts, friends or business angels and then seek a second round from more traditional sources when the business is established (and, preferably, cash-positive) so they preserve more of the company's value for the original stakeholders.

Funding models

You can try to seek investment in the project or in your company. Project finance is still a relatively immature model in the games industry, but look at other companies (like www.fund4games. com, www.ingeniousmedia.co.uk, www.ifgbonds.com) to see some models. The advantage of this type of model is that you do not (always) give shares in your company to get funding. However, you must be willing to share a good proportion of the success of a specific project. Because the funding is tied to a specific project (or set of projects), there is usually a clear repayment point (or criteria for repayment) for the project investors.

Company investment is more flexible in that it can be used to fund infrastructure or resources common to multiple projects. Investors will generally invest only if they can see a clear exit for their investment – and this pressure can significantly affect the way the company is run. It could, for example, mean a company has to be sold when the management would perhaps prefer to continue an independent existence for the developer.

There are many types of funding models depending on the level of funding provided and the level of risk the lender wishes to incur. A summary of some broad types of funding is shown below.

Type of funding	Level of risk anticipated by investor	Return sought by investor	Comments
Debt (for example bank overdraft or loan)	Very low	Guaranteed return of investment. Additional return generally related to the base or interbank (LIBOR) interest rate	Few banks will give unsecured overdrafts, so unless you have significant assets this may be problematic to arrange. Some government (EFG) schemes seek to alleviate the reluctance of banks to lend to start-up businesses.
Equity investments	Moderate/high	Significant share of the ownership of the company	Different investors have different expectations of return and different horizons for exit. Investors will generally expect a return of at least 25 per cent per annum on their investment.
Government support	Moderate/ high	Adherence to programme goals	Some support is via loans, other is by grants. Alignment of expenditure incurred by the company and receipt of government support is essential.
Project finance	Low/moderate	Somewhere between debt and project finance	A relatively immature source of funding in the video games industry.

There are two main ways of raising money – debt and equity. With debt you are looking to take out a loan from an individual or institution, usually a bank. A bank will insist on some sort of security for that loan, usually in the form of "joint and several" personal guarantees from directors.

Raising money – debt

There are two main ways of raising money – debt and equity. With debt you are looking to take out a loan from an individual or institution, usually a bank. A bank will insist on some sort of security for that loan, usually in the form of "joint and several" personal guarantees from directors. Bear in mind that this means if the company fails the bank will be able to pursue any of the directors for the full amount owed, usually the one from which it thinks it has most chance of recouping the money, so consider the level of guarantee you are comfortable with.

If you do not have sufficient security from the bank's perspective, another option is the Enterprise Finance Guarantee scheme (previously known as the Small Firms Loan Guarantee scheme). Under this scheme the government will guarantee up to 75 per cent of the loan, providing security the bank is looking for. However, this is not a replacement for that security since the bank will most likely still look for a 100 per cent personal guarantee from the directors. In addition there is a 2 per cent surcharge on top of the interest the bank charges, so this is not necessarily a cheap loan. Finally, the bank still has to make a decision on whether to lend based on its "normal" criteria, which have changed substantially over the past 18 months.

Raising money – equity

It's a cliché, but the easiest way for a small company to raise money is via the three Fs – Family, Friends and Fools, possibly via a loan, but usually via equity.

The other route most people are aware of is approaching venture capitalists (VCs). While this route is not impossible it is difficult for most companies given the criteria they seek in an investment opportunity. The minimum investment amount is in the £3m-£5m range, based on the fact that it will cost in the region of £100k in legal/accounts fees to close the deal. The return expected will be in the 10x range within three to five years, which means explosive growth is expected. If you are a company predicting a slow, steady growth, you are more likely to be in business five years down the line but will be unattractive to most VCs.

The route overlooked by most small firms is angel finance. Angels are usually individuals who have made money in business themselves and are looking to invest and potentially work with a growing company. Angels usually invest in the £25,000 to £100,000 range, so, depending on the amount required by a company, a consortium of angels may need to be put together. Bear in mind that angels are looking to make a return on this investment and while it is not on the scale of that required by VCs, you need to make sure your company is attractive from an investment perspective.



It's a cliché, but the easiest way for a small company to raise money is via the three Fs – Family, Friends and Fools, possibly via a loan, but usually via equity.

EIS – Enterprise Investment Scheme

This is a UK scheme designed to encourage investment in small to medium-sized companies. There are many conditions that need to be met to qualify for EIS but the rewards are significant.

First of all, the investor can claim tax relief of 20 per cent on any monies invested in a company.

So if £100,000 were invested, the investor will be able to reduce its tax bill in the next financial year by £20,000. Even better, however, is that if an investment is held for at least three years, upon sale there is zero capital gains tax to pay. These tax advantages mean some angels will only consider EIS-gualified companies when looking at investment options.

There are some restrictions around EIS, for instance, an individual must hold a maximum of 30 per cent of shares to qualify and shares must be held for at least three years. There are other restrictions which it can be easy inadvertently to fall foul of, but this is where good advisers come in.

How do you make a company tax-efficient for the founders?

When the shares in a company are sold, capital gains tax must be paid, currently at a rate of 18 per cent. The annual personal tax-free allowance of £9,600 is usually inconsequential in most company sales.

A new scheme called Entrepreneurs Relief is available, which is limited to £1m over your lifetime, but can reduce the tax paid to 10 per cent. If you are fortunate enough to be in a position to sell your company for substantially more than this, however, the right preparations can make a huge difference.

If you took EIS into account when you formed the company and ensured the individuals and company qualified for relief, you could find there is no tax to be paid when you sell – possibly saving hundreds of thousands of pounds.

Other routes to raise or save money

Raising new money may not be a viable option for everyone, but there are always ways to save or raise money.

For example, one of the companies in the NESTA mentoring programme was coming to the end of its lease, which coincided with a time when, from a cashflow perspective, things were going to be quite tight. The mentor advised that they should write to the landlord and offer to renew the lease at the same rate, but with a rent-free period of three months at the start. Given the economic climate, the landlord was happy to secure a tenant for the coming two years and the company saved £6,000 in the short term with no moving costs incurred – everyone was happy.

As the industry develops, particularly in the casual and mobile spaces it is often heard that publishers will die out, that developers don't need publishers any more – they can go it alone, etc. This is all potentially true. However, publishers have generally been pretty good places for developers to get money. The personal guarantees demanded by banks are not required. There is no equity dilution from an investor. The good ones also know a thing or two about marketing. So always bear in mind that a publisher can be a good source of finance.

Legal challenges

Your dad's solicitor friend or the accountancy firm that does the books for your brother's window cleaning firm is almost definitely the wrong choice.

Finding a good lawyer

There are few good, experienced, games industry lawyers simply because the market for their services is relatively small – there are relatively few games companies doing relatively few major deals per year.

Your dad's solicitor friend or the accountancy firm that does the books for your brother's window cleaning firm is almost definitely the wrong choice. If you use a non games-specialist lawyer, you may pay less per hour, but this may well be offset by them taking more time to understand specific industry features and possibly missing important industry practices such as royalty audits, returns clauses and, potentially, even the importance of IP ownership.

In every industry, firms specialise and the games industry is no different. You want a lawyer who knows it is not normal practice to withhold more than 5 per cent of royalties for returns, or an accountant that has successfully made an R&D tax claim and handled a subsequent investigation from HMRC on behalf of a client.

For anyone without this specialised knowledge you will be paying for the extra hours it takes them to learn and you could well suffer from their ignorance in the meantime. Good lawyers will tell you if they are not expert in an area and should be able to recommend somebody who is.

While all firms will be professional and keep client confidentiality, if they have negotiated a deal with a particular publisher they will know which clauses are flexible and which they won't budge on. A better deal should result, taking less time on all sides and saving everyone money.

Talk to colleagues at industry events (TIGA, ELSPA, IGDA, etc), visit the Law Society website (www.lawsociety.org.uk), check one of the many directories (such as Chambers – www. chambersandpartners.co.uk) to find those lawyers with the most relevant expertise for your business.

Ask for an initial consultation with a shortlist of two or three candidates; this should be free. Ask about:

- the range of services available.
 Is it specific to games contracts or can the firm advise on company law, taxation, employment law, etc
- -- the basis for charging (what types of work will be charged hourly, what will be fixed price?)
- -- how quickly you will have to pay for major assignments
- -- what jurisdictions they can cover (many games contracts are written to operate under US law)
- -- typical charges for common tasks.

STAYING AHEAD IF THE GANE

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The future of retail in games by John Chasey

Even with the advent of the internet, as download speeds grew, so did the size of games, and while downloadable games were available, they were the exception rather than the rule. The first games I bought were from the electrical shop where I bought my Commodore VIC-20 computer. This was a few weeks after I had bought the computer itself, since initially I had no cassette player – the salesman had claimed this was for "advanced" users – a few days of having to retype in the programs in the back of the BASIC manual each time the computer was switched on convinced me that I was indeed an advanced user at this point.

Those first shops selling computers next to washing machines were quickly joined by John Menzies and WH Smith selling games. It was a few years before independent specialist computer stores started opening and a huge proportion of sales were through mail order in the hobby magazines that sprung up.

As the industry grew and the volume of sales exploded, mail order diminished – it was much easier to buy your games on the high street than to write a cheque and post it off, then have to wait "up to 28 days" for your game to arrive. Specialist game chains started to grow up and this really was the golden age of retail on the high street.

Then the internet arrived. Initially, the impact was small, but based on the Amazon model, mail order became an efficient and cheaper option than the high street. Throughout this period, specialist retail grew and consolidated and games started being sold next to washing machines again, this time in supermarkets such as Tesco and Sainsbury's.

Throughout this period the "digital is coming" mantra was spouted by many but it never really took off – retail was still very much king. However, I believe 2010 will be a tipping point and games retail in the high street and traditional boxed product will start a terminal decline.

Let's look back at why this is so. Initially, retail was required for distribution – it was the quickest way to get your game into the hands of the consumer and it served as an excellent way to market your title. The retail operations demanded a hefty cut for this privilege – about 60 per cent of the price was retained by the retailer and they often had full sale-and-return provision. If a title did not sell, the retailer could return the games, so the full stock risk was taken by the publisher. Get your projections wrong in terms of game sales and that big profit you hoped for with a title could turn into a huge loss. But this was the way the system worked, and for decades there was really no other option.

Even with the advent of the internet, as download speeds grew, so did the size of games, and while downloadable games were available, they were the exception rather than the rule, more usually confined to patches or additional content for existing games.

The instigation for real change to this model came partly from the mobile phone. Here for the first time was a platform where the primary distribution medium was wholly digital. In fact, some traditional retail methods were attempted but never took off – digital bridges using scratch cards in DVD cases for Java content and Nokia's N-Gage (although many would say there were a multitude of other contributory factors to that particular failure). Publishers are very conservative, slowmoving and resistant to change, but having been forced into this space they are unlikely to return to retail. The margins are better – Apple offers 70 per cent of retail price versus 40 per cent available at retail. But this was only introducing the market to the concept. The real game-changer was Apple with iTunes. Bear in mind that iTunes had already converted a huge consumer base to the concept of buying music digitally rather than purchasing a CD and when the service was extended to games and applications, content for the iPhone and iTouch devices exploded.

The App Store hit 1.5 billion downloads in a year from launch and there are more than 100,000 apps now available. By any measure this service has been a huge success. While the largest downloads are in the hundreds of megabytes size, there is no reason why this will not increase to match game sizes today.

Another factor is that back on the high street, retailers are selling less and less new boxed product. Instead, a substantial amount of their sales is in "pre-owned".

A consumer "trades-in" an old game – the retailer still makes a margin on the new product sold, but has the same amount of stock – the retailer can then sell the traded-in stock and the combined margin is much greater than in just selling a single new title. It also encourages the consumer to visit the shop, increasing footfall and, therefore, sales.

This is great for the retailer, and it is no surprise that Game announced that its biggest increase in sales during 2009 came from second-hand titles, amounting to 25 per cent of its first half sales during 2009, which it expected to rise to a third of sales within a year. However, by taking this strategy is retail actually killing the golden goose?

If the overall amount the consumer spends is unchanged, the publisher's revenue has actually dropped with this model, which means less money has gone into development of new product. It is unsurprising, therefore, for publishers to look at alternative – digital – distribution options.

Publishers are very conservative, slow-moving and resistant to change, but having been forced into this space they are unlikely to return to retail. The margins are better – Apple offers 70 per cent of retail price versus 40 per cent available at retail. Distribution is faster and cheaper – there is no manufacturing process in terms of DVDs, boxes and manuals and the associated costs of producing and logistically moving these physical goods is gone. Plus, the stock risk of having unsold games returned has disappeared.

If the consumer is happy with digitally distributed content and it is quicker and cheaper to publish, with less risk – why should you pursue a retail distribution strategy?

Therefore, in my future, traditional retail is dead. Instead I envisage prestige "showcase" stores in the key retail locations owned and operated by the publisher rather than a retailer – very much the Apple model.

The store will provide a high street presence and primarily fulfill a marketing function rather than looking to shift boxes – instead, the sales of games will be fully digital, with the store stocking more accessories than boxes which are mainly empty air. There are many ramifications for content producers in this scenario, and they will need to adapt to different needs, but content producers can and will adapt and move forward. The big losers will be the traditional high street retailers.

Games developers – the transition from developer to developerpublisher by Charles Cecil

For the past 20 years the games industry has existed with a model in which key choke points have been jealously guarded by publishers. But now, as in other entertainment industries, the advent of digital distribution has eroded longstanding certainties. That digital distribution is profoundly changing the games landscape is without doubt. Nor is it doubted that many developers see this as an opportunity to vertically integrate to get what they see as a more equitable slice of the revenue pie. This piece will explore how developers can anticipate ways of exploiting these opportunities, and in particular pioneer new ways of marketing their games, by looking at our brethren in other entertainment industries.

The 20th-century entertainment landscape was dominated by huge global media companies that controlled choke points in the distribution chain to stifle competition and maximise their revenue share. The classic example was the Hollywood studio system that existed from the 1920s through to the late 1940s. The socalled "Big Five" studios in Hollywood signed stars up exclusively, controlled the production facilities and often owned the movie theatres at which their films were shown. Independent theatres had to subscribe to "block booking" agreements: a commitment to show five films, only one of which would be of high quality, the rest being B-movie quality.

This effectively squeezed out the opportunity for competitors to get their films distributed to movie theatres. In 1938 a federal anti-trust suit was brought against the Big Five. The case was successfully delayed through continued appeals until 1948, when Howard Hughes saw capitulation as a way to put his smaller studio, RKO, on an equal footing with the larger studios and agreed to split the production and the theatrical elements into separate companies and sell the controlling interest.

The other majors had little choice but to follow. So ended the Hollywood studio "Golden Age".

In the early 1980s, most games were bought through mail order, directly at microfairs and from a small number of specialist retailers. This created a fluid distribution chain – the cost of entry was low, and anyone could successfully publish a game if it was embraced by the market. In the mid-1980s well-funded publishing companies emerged – and quickly worked to create choke points similar to those that existed in the film, music and television industries.

They came to control distribution, and used huge marketing budgets to ensure that a limited number of products could get into retail – then controlled which were promoted in-store by paying for window space and shelf positions.

As development and publishing budgets spiralled, so a small number of publishers grew rapidly while the others were either acquired or went out of business. For the past 20 years the games industry has existed with a model in which key choke points have been jealously guarded by publishers. But now, as in other entertainment industries, the advent of digital distribution has eroded long-standing certainties. The earth is shifting and change is in the air. The golden age of the huge publishers is starting to look under threat. Indeed, THQ has lost 75 per cent of its value from 18 months ago. Electronic Arts has lost 60 per cent and even the mighty Activision Blizzard has lost 40 per cent over this period.

Record labels were the first entertainment medium to face, unwillingly, the effects of digital distribution. Historically, the labels had signed up artists on exclusive contracts and controlled what music was published, what got promoted and what was distributed into the major music retailers. We considered that drawing up a simple, targeted marketing plan with a clear message was vital, with a schedule of what would happen and when. They refused to acknowledge that change was inevitable – refused to embrace digital distribution. Their business models were decimated by piracy and as artists quickly bypassed the traditional route to market – for instance, The Arctic Monkeys giving away their songs in the realisation that this would be a more effective promotion tool than the traditional route employed by the record labels. Likewise, Radiohead, who offered their album In Rainbows for free, with fans invited to pay what they thought it was worth: although the diskbox was sold for £40 in the knowledge that hardcore fans could be counted on to shell out real cash.

Video games developers that own their properties find themselves in a very interesting position. The distribution choke points that ensured publisher supremacy have started to dissipate and developers can, for the first time since the early 1980s, build, communicate with and sell to their fan base directly. The approach of bands such as The Arctic Monkeys and Radiohead provides a valuable model, proving the validity of this approach. However, to state the obvious, developers must take on the roles that were previously undertaken by publishers to successfully publish their own games.

A platform such as iTunes is a benign environment for fledgling developer-publishers. While the developer must fund development and market the title, Apple takes care of sales and collecting the money - and provides the developer with the lion's share of revenues. Importantly, the developer-publisher does not need to commit a huge marketing budget to get noticed, and does not need the infrastructure to support sales and distribution. But, and this is a big but, there are more than 100,000 apps on the iTunes store, all competing for customer attention – so, even after funding is obtained to produce the game, effective marketing is vital. The good news is that the traditional marketing methods of spending lots of money to buy advertising space, effectively creating a barrier to entry for those that could not afford to do so, now have little relevance except for the high-cost blockbusters released each year. For the hundreds of thousands of other titles a very different approach is required.

Games written by Revolution Software have earned hundreds of millions of pounds at retail, and tens of millions of pounds of profit for publishers. However, despite writing a string of highly profitable original games, Revolution has received no royalty payments (on mainstream sales) for well over a decade. The company's strength lies in its retention of ownership of the adventure properties it has developed, and it has a loyal fan base. So when we explored the opportunities to self-publish, we considered that we were in a strong position. I had been particularly impressed by the way Paul Farley at Tag Games had recruited a "street team" of fans to evangelise the company's titles and created simple but effective promotional movies. I have also been impressed by the way Introversion interacts with fans on its forums – offering them badges for certain attributes: a dollar sign if they have bought all its games, a silver post badge for posting 100 messages, loyalty badges if they have been members for a certain length of time and a friend badge for those who have met a member of staff. But the most striking trailblazer has been Team 17, which has been hugely successful at publishing its original titles on digital platforms, and has stated that it no longer intends to engage with traditional publishers.

Retailers will reinvent themselves but the glory days for specialists have passed. What a fascinating industry we have the privilege to work in. In October 2009 Revolution self-published its classic adventure game Beneath a Steel Sky. In January 2010 this was followed by Broken Sword: Director's Cut, and we currently have several original games in development. The marketing for Beneath a Steel Sky cost a few thousand pounds, not a penny of which was spent on advertising, and was very successful – the game was widely publicised and went on to sell 25,000 units in the first three weeks at a price of £2.99.

We considered that drawing up a simple, targeted marketing plan with a clear message was vital, with a schedule of what would happen and when. Core to this was the way we could communicate with our fans, excite them and then spread that enthusiasm through word of mouth. We are lucky in that we have a loyal community for which we have a great deal of respect. We aim to respond promptly to their emails.

Usually they are flattering, and it's a pleasure to read them. But sometimes they can be quite negative – starting: "I loved your previous games but..." An intelligent, positive response which genuinely justifies the way we approached what they don't like often turns them around. The team replies directly – and takes seriously the issues raised. We don't have a customer support person who issues standard replies to standard complaints. And people who take the time to contact us will know this by the thoroughness of our replies. So we adopted the "street team" approach of providing beta copies to fans and asked them to test the game, which, in itself, was very valuable and, if they felt inclined, evangelise it. The game went to a small group of fans who had the legitimacy of Revolution to talk about the game, and they were, in turn, legitimate in the eyes of the fans since they didn't have a direct connection with us. This worked extraordinarily well.

We then set up official web pages on the social networks, and invited the "street team" to comment on them. This spread the word to people with a more peripheral interest. People joined the social network, were interested by what we had to say but believed the street members, who were clearly not part of the mouthpiece of the company.

While we communicated directly with much of the specialist press, particularly those people we already knew, we then employed the services of Premier PR, which helped us reach a broader press base. The fees were low, and the company helped with the strategy and increasing our reach. It was money well spent.

Both the games were written with Dave Gibbons, co-creator of Watchmen. Dave also drew small graphic novels for both games. The overlap of the games audience with the comic book audience is significant, so having him available to sign the comics excited our fan base and definitely helped to create a buzz. The fusion of a world-class comic book artist with a games developer created a story that websites and the wider media wanted to publish, and gamers wanted to read.

Such an approach would have been unthinkable a few years ago. So the question facing us all going forward is how profound the changes will be. Will the large publishers continue to lose market share and suffer ongoing stock value drops as downward price pressure continues and digital distribution renders them less relevant? Or will they fight back and adjust to regain the initiative? Many publishers are ignoring the changes because they simply can't afford to operate in a space in which prices are being driven so low. But in the high development cost/high sales price market, piracy is so rampant and the second-hand market so draining of revenues for all but the retailers that this area risks becoming even more difficult going forward. So... I predict that the music industry has signalled the way forward, and that the changes will be so profound that only those that own and exploit their own properties will survive. Of course, this includes several publishers – Ubisoft being in a particularly strong position.

There will be in the region of 20 massive hits a year, created with huge development budgets by a small number of super-publishers that own the intellectual property or, as in the case of EA, tie up the most aspirational brands such as FIFA. The vast majority of the market will exist at a much lower price point, often free, and will be driven by small, creative companies which are nimble enough to adjust quickly to market changes. Together, these two elements will continue to drive gaming to an even broader audience – but as market share changes to the lower prices, the overall market value will fall. Retailers will reinvent themselves but the glory days for specialists have passed. What a fascinating industry we have the privilege to work in – though it is not for the faint-hearted.

Looking for our next 'high' by Tim Gatland

Technological innovation has been a key ingredient in the continued growth and success of the video games industry. We continue to benefit from Moore's law: regular improvements in the performance, capacity and cost-effectiveness of electronics means we can do today what would have been economically impossible even five years ago. Furthermore, we can envisage impossible or uneconomic gaming applications safe in the knowledge that it is just a matter of time before the hardware catches up.

Until now, many of the changes have improved graphics or processing performance, but now the availability of fast, near ubiquitous communications is radically altering gaming. Moreover, these changes also alter the structure of the industry as it adapts to new types of games that are possible and in demand. At this stage it is not clear which companies or even which sectors of the industry will be the winners.

Exactly which part of the industry is changing? Well, frankly, everything. We've grown accustomed to a fairly well-defined value chain in the games industry: developer, outsourcer, publisher, distributor, retailer, consumer – each group knows its role and understands its value in the business (even if it does not agree that it is getting a fair share). But these boundaries are no longer well-defined or rigid. Developers are interacting directly with consumers; publishers are bypassing retailers to sell online; retailers are sourcing material directly from developers; licensors are looking to commission products directly and even establish development studios. Especially interesting are games that rely on content created by users themselves. The games industry has been largely based on the model of finishing a game, manufacturing it and then selling it. Most of the value in a game is realised in the first few months after its release. Here are some possible trends and their consequences for developers.

The end of "fire and forget" games

The games industry has been largely based on the model of finishing a game, manufacturing it and then selling it. Most of the value in a game is realised in the first few months after its release. The first major challenge to this model came with subscriptionbased online games, but now many successful games feature additional content provided for months or even years after the launch of the initial product. This extends the life of the product by creating a sales boost whenever new content is released. Furthermore, many successful games are free or inexpensive to obtain, but the user is encouraged to buy paid-for additional modules.

Developers need to plan for this "long tail" of development. This follow-on work can be very profitable, but it requires processes and management different to those used in the rest of the development cycle.

The next console cycle?

We've had about 15-20 years of a fairly predictable cycle where hardware manufacturers (Sony, Sega, Microsoft, Nintendo, etc) spend huge R&D resources creating a games console which they then sell (usually initially at a loss) and recoup their investment by charging a licence fee for each piece of software created for their console. Typically, after around five years, the hardware becomes obsolete and a new round of console development is called for. Within each console cycle, competition between the participants is intense. A consequence for developers is that they need to reinvent their software tools and techniques to coincide with this hardware cycle. Publishers and retailers also have to plan for a downturn as consumers move from one generation to the next.

The most recent round of console upgrades has been different. Sony and Microsoft (with the PS3 and Xbox 360) both focused on providing enormously powerful computers. Nintendo with the Wii focused on creating a gaming machine with a novel, motionsensing controller, but which was graphically inferior to the PS3 and Xbox 360. Consumers choose the Wii by a massive margin and, because the machine is much less powerful, it is much less expensive to produce (and to make games for) and hence Nintendo is perceived to have "won" this round of the console war.

So, do Sony, Microsoft and Nintendo have the stamina for another round of console wars? Nintendo almost certainly does. It can afford to create an upgraded Wii with HD capabilities to avoid providing dated graphics. But for Microsoft and Sony, the investment made means they will have little appetite for replacing their consoles any time soon, so expect these consoles to be around for much longer. The lessons of this round – relying on processing power to win the console race - no longer holds true. The manufacturers that focus on what game-players want will survive. Developers should welcome the opportunity to make smaller games, but must be prepared to engage with their consumers over the life of the game. We should also expect other companies with a non-gaming background to eye the industry enviously. Apple created a mobile phone and changed the industry by adopting a new business model for software companies. Others will almost certainly want to try. Google already has an operating system; Apple could move into consoles; Amazon has the cloud computing capabilities; Sky could capitalise on its installed base and set-top box capabilities.

Developers must try to be as technology agnostic as possible, creating or purchasing core technology that can be easily deployed across the widest range of hardware.

Do users want to pay £50+ for a game?

While there are incredibly successful games at high price points (and in historical terms these are, arguably, cheap), they are few and far between, plus, of course, they require tens of millions of dollars to create. The number of companies with the resources and the risk appetite to make games costing \$30 million and above is likely to be small. The predominance of a games industry based on $\pm 30-\pm 50$ per game has some unhelpful side-effects – at this price piracy is more compelling, and they fuel the desire for, and market in, second-hand video games.

If the video games business model moves to games that have a longer life (whether the business model is subscription-based, uses micro-payments or relies on payment for incremental updates), the initial outlay by consumers may well be smaller. This will force a move to correspondingly smaller initial development budgets, albeit with the expectation that these budgets will be augmented by an ongoing development stream.

Developers should welcome the opportunity to make smaller games, but must be prepared to engage with their consumers over the life of the game. It is important to look at all areas where revenue can be generated from a game – initial purchase, micropayments, subscriptions, advertising, etc.

New types of management and development skills may be required if these opportunities are to be fully exploited.

What is a game?

Given the ability of Facebook, etc to host games and the behaviour of users switching between social networking, playing and creating content, the boundaries between games and other social activities are blurring. The games industry needs to take this opportunity to expand its influence into the related areas.

The challenge for developers is that the business models will be very different and may rely on advertising or sponsorship, but the upside is the massive market we can embrace. This is our opportunity to be a household name.

Who decides what quality is acceptable?

Historically, console manufacturers have been very protective of content released for their platform, but as Apple has shown with the iPhone (and as has always been true on the PC), a more vibrant development community can be fostered if these protections are minimal. The number of companies with the resources and the risk appetite to make games costing \$30 million and above is likely to be small. This has some important consequences. On the positive side, it means consumers will determine what is acceptable; on the negative side, good games may get lost in a swamp of mediocrity. Key is for developers to decide on their own quality standard, test and then deliver against that standard. No longer can the Sony or Microsoft approval process ensure the consumer receives a quality product. Developers that deliver substandard products will not survive.

Who wants to play by themselves?

Even games that may have been traditionally considered singleplayer can now be enhanced with a set of online features that include network leaderboards, player chatrooms and downloadable rewards. Games that include no online and social elements will look increasingly archaic. Developers must try to include network capabilities from the outset, even if they are not initially prominent or even enabled.

Conclusion

The games industry is a wonderful place to create entertainment and to do so in a highly original manner. The structural changes the industry is undergoing are profound and mean there are opportunities to do new things in different ways.

The book industry would flounder without authors, so the games industry needs innovative, imaginative, ambitious developers. Game not over.

Pricing the pixel safari by David Wightman

Games. Getting paid to make games. Having the flash of an idea one morning and seeing it translated on to the screen the following day: what a wonderful and direct expression of creativity. Can life get any better?

Well, yes, actually, making a profit at the same time as having a creative outlet is infinitely more enjoyable – though the two can at times feel like pushing the wrong ends of magnets together.

Creativity and profit can be uneasy bedfellows; they can be forced together but always need a touch of maintenance or they separate as easily as oil and water.

The mental image of "making games" and retiring on the cash that comes rolling into your bank account is an enduring one; it brings people to the industry and keeps them locked in. You're only one game away from a few million in the bank, or so people tend to believe.

Many people do, indeed, manage to engineer their way to a win on the profit lottery. But the truth is that a great many publishers and developers shoot in the dark; they go big game hunting, hoping to bag an elephant of profit while taking only a cap gun of knowledge with them. They are utterly unprepared for the environment in which they will work and until they rearm with a new approach, they'll always miss that elusive market-topping target.

Looking at the games market, when was the last time a new piece of gaming intellectual property stormed the charts?

Don't go hunting for elephants with a stick and don't try to sell a game without being armed with the correct information before making your pitch. Most publishers and developers have an understanding of the games market that rests on demographics – their hunting ground, as it were, is tainted by a lazy understanding of the real dynamics of opportunity, which is why they die of financial malnutrition or, for developers, get a bitter-tasting bad deal or give up and get "a real job".

Putting our PETA ethics aside for one moment, and continuing with the safari analogy, if you go hunting without the right tools or right people, or lacking the knowledge of where the elephants graze, you simply have no chance of survival unless a flying pig falls from the air and lands on your camp fire. Having an inside knowledge of the games market, its platforms, sales data and a trend analysis, and an understanding of where the opportunities lie, is essential. Without having this information to hand you will be hunting blind or trying to survive simply because it's supposed to be fun.

Looking at the games market, when was the last time a new piece of gaming intellectual property stormed the charts? Ask also when such a product came from an independently backed studio that is still in business and you need to go back to another hardware era. The "dream" scenario of turning a stroke of creative genius into a fortune is indeed rare, and there are reasons for this. What's particularly frustrating is that many of the more obvious mistakes can be avoided to give your product a fighting chance of making a profit.

While most companies look diligently at engineering the codebase in a game, few look at the possibility of engineering a sales hit by looking at market data.

Too many companies making games these days, especially new developers, do so for egotistical reasons – to the detriment of the business side. They may, indeed, be a massively clever bunch of people, and some smaller developers are quite brilliant, however, time and time again they enter the marketplace without a clue as to how they will fit into it.

The new and eager developer starts with a game that's been in planning for years. The pitch is pure excitement; it's going to be Awesome with a capital "A" and an exclamation mark! It's going to be based on a new character design where you chop cucumbers, using never-before-seen play mechanics and based in a kitchen. It's also going to run on the PS2 – one of the best-selling consoles of all time. The developers turn up to their friendly publisher, give their best pitch and receive a rejection letter a few weeks later.

All but the uneducated would realise the first line of rejection is because the game is pitched for the PS2, a machine that has low sales volume, despite a high installation base, making a profit impossible.

This is an extreme example, but it's still a principal mistake that people in the industry make on a daily basis. One or more of the pitch elements is out of alignment with what the market dictates will give the best chance of a sales "hit".

Unfortunately, almost all established publishers and retailers with a little experience analyse your pitch or game against market statistics, and unless you get all of the elements correct, you have no chance of getting producer interest, making it into development and into the shops. How do you price? If it's work-for-hire, it's fairly easy as it's simply the number of people you need for the job multiplied by the number of months needed plus a little padding.

Those of us who remember the Atari VCS era can groan in horror when we think back to how our parents bought us an Adam Grandstand rather than an Atari as the Grandstand had "maths" games on it. Evil. It's the same principle. What if you change PS2 for PS3, would the above pitch work? The answer would still be no, because launching new character IP rarely works without a serious marketing budget. And chopping cucumbers – are you serious? The machine is Death-Star Black with Blu-Ray and big numbers coming out of every too-cool orifice; and cucumbers?

What if the original pitch was on the Nintendo Wii? Is it an instant rejection or is it the next Cooking Mama – a game about chopping food that cost the equivalent of a six-pack of sausages to make and has sold in the many, many, millions of units.

To date, the Nintendo Wii has outsold the PS3 and Xbox 360 combined, with around 60 million hardware units sold worldwide. To state the obvious, this means you have double the opportunity to sell your game to a customer, so why would you pitch a product at a smaller active installation base?

If it's a simple numbers proposition, why not put one of the biggest games franchises on to the Wii, in one of the most profitable categories? It's bound to sell, right? Wrong.

Madden 10, from powerhouse Electronic Arts, was outsold on the Wii roughly 10:1 by Carnival Games, a title that cost a sausage in development compared to the mighty Madden. How can this be possible?

There are several factors, but one is the sales demographic on the Wii, which some call the "Walmart" factor, Walmart being the American retailer that sells everything from pizza slices to HD TVs.

Walmart Mum is walking along the aisle, child in tow screaming for a new game. What's Mum going to buy for Timmy the screaming tot? Is it the macho, big numbers and high-tech Madden 10 (no less) or Cooking Mama, which has nice, bright colours on the box and big words, and which Mum thinks looks playful and slightly educational? The Wii also comes with Wii Sports in the bundle. Why would Walmart Mum want to buy another "sports" game when they already have one sitting in the box back home?

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Game brands on the Wii do matter and can help, but nowhere near as much as they do on the Xbox 360 or Death-Star PS3, where Madden sold predictably well in its target markets.

As a pop quiz based on the above principles, and using the "Walmart" factor, would a title with good graphics, an interesting concept, good reviews and the backing of a big publisher sell on the Nintendo Wii if it was called Death Jnr: Route of Evil?

Even marketing people with all the statistics to hand get it wrong; this was never going to be a breakout sales title. At this point, the marketing people step forward and state they've done their job, they never signed it and did the best they could with a bad title.

Or perhaps they're pleased with sales as they need "filler" titles. This may be true, but if you're the person waiting for a royalty cheque from a game on a "casual" platform with the word "death" on the header, I imagine you'll be waiting a long time. There are many reasons to write games; sometimes it's ego, sometimes it's profit and sometimes it's "just because", but if I'm going to spend 12 months of my life crafting a product, I want all the doors open How do you price? If it's work-for-hire, it's fairly easy as it's simply the number of people you need for the job multiplied by the number of months needed plus a little padding.

Are you well established and have you delivered titles in the past? Add a 15-20 per cent "prestige" tax to your budget, as people will pay for the security of knowing you're not a new company and that you've proven you know what you're doing. before I run blind down the sales corridor. I'd want the best chance of a sales hit before I added ego and all the elements that go into making a creative product.

Don't go hunting for elephants with a stick and don't try to sell a game without being armed with the correct information before making your pitch. It really is as obvious as it sounds, but is a daily mistake when you look at titles on the bottom shelf.

Once you've studied the market, worked out the demographic for a product which is in a genre with a good sales record, the next stage is getting the right price for your hard work.

How do you price? If it's work-for-hire, it's fairly easy as it's simply the number of people you need for the job multiplied by the number of months needed plus a little padding. How many people do you need? That's a very individual question and the answer depends on the make-up and talent of the company, but having a look at the credits list of a title of similar quality from the same publisher is not a bad place to start as this will give you a ballpark which the publisher is mentally comfortable with paying.

Double this number to cover publisher costs and you get closer to a "real" figure that your publisher is running through the spreadsheet. Does this figure make the publisher a profit if it sells the average sales figure of the top ten titles in that genre? If not then you're going against the grain.

What are the sales figures for games of a comparable quality? If you're pitching a strategy game and predicting a break-even point of 500,000 units, and the top ten strategy games last year averaged 100,000 sales, then, like pitching on the PS2, your numbers are far from credible and will warrant an instant rejection regardless of quality. When was the last time you heard of a generic developer digging this information out and taking care of the logistical side of things before looking at the quality? Very, very few do, sadly, although you can be sure the top five companies take care of this side of things, which is why they're at the high end of the sales charts.

Are you well established and have you delivered titles in the past? Add a 15-20 per cent "prestige" tax to your budget, as people will pay for the security of knowing you're not a new company and that you've proven you know what you're doing. Obviously, your publisher will try to reduce this figure, but that's why they call it negotiating; if you know the average sales volume and the "real" development and publishing costs and you know everyone will make a profit, then hold your ground as this is a business first and foremost, and good companies are hard to find on both sides of the fence, as are well thought-out opportunities.

In conclusion, it's easy to take the argument that designing games from market data can dumb the market or remove creative freedom, but that's as credible as going hunting for elephants in Dorset. You need to make sure your product is aligned with the market and the opportunity for financial return is credible, otherwise you go hungry. Creativity sits within any product that's made by fair hands, so make it easy on yourself by clearing the path and ticking all the boxes through to retail to give your product the best opportunity to prove its creative worth in the hands of the customer.

The digital earthquake by Chris Wright

Games will no longer be sold in boxes through dedicated retail channels or supermarkets, but delivered directly to the end user through a broadband connection. This has already shaken up the music industry Over the past five years the games market has become considerably more complex, with users now playing games on everything from mobile phones to Facebook. Where, five years ago, we had a pretty uniform market, we now have a very fragmented one. In the last generation there were really three demographics – PC players, console players and handheld players. But now the market has expanded alongside a massive diversification of player types. Even on a single platform such as the Xbox 360, there are many types of player, depending on whether they are buying from retail or Xbox Live Arcade games.

This is just early warning tremors before the real earthquake that will shake the games industry to its very foundation and potentially bring some of its biggest names crashing down. This is the move to digital delivery. Games will no longer be sold in boxes through dedicated retail channels or supermarkets, but delivered directly to the end user through a broadband connection. This has already shaken up the music industry, creating new forces such as iTunes and destroying the profits of some of the industry's biggest names.

Games will follow; the technology is fundamentally digital and putting it on a disk only makes sense if people don't have the bandwidth needed to get the product directly (packaged bandwidth as someone once described a DVD to me). This simple change will reshape the industry, and the price of games will fall as new business models look to extract money in a different way. Models that focus on micro-payments, advertising, episodic content and freemium will run alongside the traditional subscription, pay per play and buy models.

Over the past five years the games market has become considerably more complex, with users now playing games on everything from mobile phones to Facebook. Where, five years ago, we had a pretty uniform market, we now have a very fragmented one. In the last generation there were really three demographics – PC players, console players and handheld players. But now the market has expanded alongside a massive diversification of player types. Even on a single platform such as the Xbox 360, there are many types of player, depending on whether they are buying from retail or Xbox Live Arcade games.

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Digital distribution is a massively disruptive technology that opens up many new opportunities for game development; the old way where a developer is paid by a publisher to make a game must change. New models will emerge based around project funding, much closer to the film financing model than the traditional games model. There will also be opportunities to look at community-funded projects, and games released over a period of time, updated and expanded, building a user base, rather than the current ridiculous focus on opening weekend sales.

In five years' time we will look back at games like GTA 4 and COD: Modern Warfare 2 as the end of an era. The last dinosaurs of an age where everything relied on the number of sales you could make in the opening weekend, and where we were still selling atoms rather than bits. The market will be much bigger, more diverse and more exciting. Individual games will sell for less, but players will still spend the same amount on their habit (possibly more), they will not spend it all upfront, but on a continual basis, paying for upgrades and subscriptions.

It should be more innovative, where size is no longer the major factor, and the industry won't be dominated by a small number of huge publishers that control distribution. It will probably still have EA and Activision, but they will be joined by a wide range of new entrants building games in new and exciting ways and getting them to users through business models that focus less on trying to make a large amount of money from a small number of users and look to make a little out of everyone.

The landscape is going to be very different at the end of this, reshaped by the earthquakes that will change the shape of our industry. It will be an exciting time, especially if you are small, innovative and nimble.

Necta's story by Steve Taylor

What's the problem with the Big G owning PW? They own pretty much everything else, in-game and out, and I don't hear anyone complaining. What are people meant to do if they can't play? Honey, you just come right in and take a look around, best cocktail venue in PlayWorld.

What did you just say?

I'll have you know I'm running a bona fide business here, fully rated, fully insured and registered to take any kind of credit you've got. You won't find any audit trail in our archives. Wait a minute, I know you, hiding behind the fancy threads: you were in here Tuesday, giving my customers hell, causing mayhem. I'm messaging my ops guys to close you down now, got a call coming through from a real player.

Scott, Hi. Just had to get rid of another ethical hacker. How the hell do those people get into PlayWorld? And if they're so ethical, how come they're so rude? Sorry; hello to you too, Scott. Excuse me, but these people are becoming a nuisance; it's getting to be five, six times a day. I don't know what they've got against people playing. I don't even think it's about what I do. Yeah, they have a cheap pop at the name, but what am I meant to call it: Drinkies? Why shouldn't I defend people's right to a place where they can play around and meet new friends? Why not, when there's live sex on the reality news every evening?

I'm beginning to get the feeling that it's more about where I do it. Guy I just got rid of was in here a couple of days ago, all decked out like some retro corporate lawyer – bespoke Oswald Boateng suit, prehistoric Paul Smith tie, Churches shoes – archived brands that you just know he couldn't think about affording anywhere but in PlayWorld.

Suddenly appeared, hacked himself on to the dance floor, screaming about before the Big G built a copy of the world for everyone to play in and opened it up to anyone and everyone to build their own bits of "alternative reality" to play in - how people used to know the difference between living and playing.

I had to get admin to delete him real quick before he freaked out my clientele. I don't get it. What are these people on about? What are they on, period? "Alternative reality" – what is that, anyway?

Seems to me like there's reality and it exists in PlayWorld and... OK, outside PW. But they're not different things. Just because some of my punters feel more comfortable sitting at the bar and others prefer to let their avatar do the same thing for them – doesn't make any difference to me or my business. And what's the problem with the Big G owning PW? They own pretty much everything else, in-game and out, and I don't hear anyone complaining. What are people meant to do if they can't play? And I like not always completely knowing whether a thing is happening in PW or... elsewhere.

Liqueurs is five times as big, in-game, as it is outside. I'd never have been able to afford a build like that without PW. It's how I've expanded my business. How else would I have been able to meet my growth targets? I know, Scott, you've told me these guys are throwbacks; but to what? To a time when people felt guilty or weird about being in-game? Before PW existed – all these places, like my bar, places where you can play – where did they all live? That's not my problem, but I do have a problem with the idea of people being kind of guilty or secretive or furtive about being in-game, about it being somehow inferior, secondary, immoral. "The difference between living and playing", as my ethical friend says. Whatever he means by that.

Say you did do away with PW - which would be, like, the biggest crime ever in history, destroying a whole world – let's say you did, though, what would be left? Seventy-two per cent of the planet's economy would disappear overnight. Hundreds of millions of lives would be brutally impoverished. Human misery on that scale; it's unimaginable, Scott.

So I can only come to the conclusion that these people are completely messed up. They go to all the trouble and expense of embedding themselves in PlayWorld at some hard-coded level so they can manifest unannounced and then harangue us about how evil PlayWorld is. Madness!

Mind you, Scott, I wonder sometimes if there's a thin line between you and these guys. I've never seen you in here in PW, have I? No, thought not. Blame it on your advanced age, I guess. (By the way, you still seeing that pliant young 68-year-old?) Old habits die hard. I must admit I do like it, though, being able to sit at a real bar with you sometimes and touch your elbow to make a point when I'm talking to you.

Makes me feel kind of nostalgic – though for what, I couldn't say for sure.

The future of games by Thomas Bidaux

My experience as a mentor has been fantastic. I have learned a great deal, shared a lot and, most of all, been inspired. Being able to go outside the office and discuss the potential of a studio, to look into the future, was refreshing. Now, as part of the exercise, NESTA has asked us to share our visions of the games industry's future, each from our own unique perspective. I have been involved in online games for more than ten years, and don't think of them as a thing of the future... they are already here. So I would rather talk about one of the consequences of the rapid growth of online games that was central in our discussions for 12 months.

Because they can evolve, because they can be distributed digitally, because the value chain for online games is changing, I see a huge opportunity for studios that could bring many positive changes to the industry: the ability to self-publish. For a long while, there were high barriers to becoming a publisher - even a relatively small one - focused on your own games. The distribution channels were structured in such a way that you really had to reach a critical mass with the number of titles on offer just to make it worth your time to establish a good relationship with those channels.

Bricks and mortar chains wouldn't want to waste their time with a limited portfolio. Then digital distribution came along, and, voila: now anyone with a will can distribute a game. Your buyers might be niche, or a mere fraction of consumers a retail chain could reach, but you might be able to make a profit with them, especially if you market your game(s) well. As part of the exercise, NESTA has asked us to share our visions of the games industry's future, each from our own unique perspective. I have been involved in online games for more than ten years, and don't think of them as a thing of the future... they are already here. Ah, marketing: another wonderful opportunity. As studios take their fates into their own hands, they will have to do marketing for themselves - a task usually handled by publishers, publishers that have dozens of titles to promote and a marketing team trained to fire-and-forget. How can they guarantee they will build a sustainable plan for your game beyond day one? Here again, with online tools and online marketing opportunities, self-marketing might be a much more effective plan for studios.

It's a scary thought for many people who have been in the games industry for a long time, but, realistically, self-marketing might require recruiting just one person who can help your team progress from unfocused, short-term marketing strategies to dedicated (probably smarter and more creative) sustainable plans. This presents an opportunity to market a game for months, push for a long tail effect on your sales and get the most out of your work.

I wouldn't call it easy exactly, but the online space is still fresh enough that everyone shares the same level ground, and studios, the creative minds, are no longer at the bottom of the food chain. If they seek to do so, they can take the business side in hand very successfully while pushing for even nicer game experiences for their players. It might take "baby steps" at first, as existing studios find new paths to finance their way to self-publishing, but it will happen, and I believe that's where the future of the game industry lies.

Predicting the future by Lol Scragg

Predicting the future is pretty easy if you subscribe to the "many worlds interpretation" of quantum mechanics because each prediction is potentially valid in one of the infinite universes created by each branch point. With this in mind, I can confidently state that my own predictions will certainly happen – unfortunately I can't say in which universe, but at least one universe inhabited by you, the reader, will be flabbergasted at the levels of accuracy you are about to read. Unfortunately, this also means the odds are against me for all those other universes you are in whereby this is just nonsense.

So what is the future of gaming? Will the market expansion and the new consumers Wii has brought us continue to play the family and casual games? Maybe they will all move towards more traditional or "hardcore" (what does "hardcore" mean, by the way, apart from the obvious in other entertainment mediums?) games to get their fix. Maybe social gaming will take over and we will all be carrying out "cyber-hits" on each other while looking for the best chicken breeds for our farms.

What platforms will we be playing on? Will there still be consoles – will there still be three consoles? Will it all be integrated into our TVs, or will Apple's rumoured tablet somehow revolutionise the marketplace in the same way the App Store and iPhone have already? These are exciting times for independents, but the obvious problem is getting into a position whereby they have the capital to invest in their own projects – even smaller PSN and XBLA projects cost substantial sums of money and can be difficult to finance. For what it's worth, the future for the games industry from a consumer's perspective isn't that different to what we have already. I can see digital distribution eating further into the traditional retail space and maybe one or two of the publishers we currently know will no longer be around, or will switch their business models to head more in the direction of digital distribution.

The biggest change I can see is two-fold. First, as the market continues to expand in terms of the gamer demographics and the emerging markets of China, India, et al, this may prompt more acquisitions from non-gaming organisations keen to get a slice of the proverbial pie. Then there are the development community and game developers themselves.

Looking particularly at independent game developers, more and more are eyeing up the self-publishing route as barriers to the market are dissolved. For developers that can potentially selffund their own smaller titles, this brings huge potential benefits to counter-balance the huge potential risks of failure. The ability to retain the intellectual property of the products they create along with the potential exploitation of successful IP across other markets adds tremendous value and potential stability – not forgetting the fact that a successful product could bring far more profit than any work-for-hire or royalty-based project could ever pump into their bank balance. Being able to work on an internal product without external influences boosts morale in any creative team and this will be seen in a possible return to more innovative and creative products which don't follow a specific product, matrix-led formula.

These are exciting times for independents, but the obvious problem is getting into a position whereby they have the capital to invest in their own projects – even smaller PSN and XBLA projects cost substantial sums of money and can be difficult to finance. Even before project commencement the costs can add up, as in this selffunding/self-publishing area, good market research is imperative if the independent developer wants to run a successful commercial business rather than a lifestyle hobby.

Removal of the reliance on publisher advice and finance brings the independent developer a multitude of risks – the question each company needs to ask itself is whether those risks are worth the relative creative freedom and potential for greater rewards. The gaming industry is changing and if I had just one prediction, it would be that the balance of power is switching away from the large publishers and towards the game developers themselves: those that toil long and hard to create entertainment products; those that strive to create new experiences; those that for the past decade have suffered the most in the gaming industry.

Vive la révolution!

The state of play by Ian Livingstone

OBE, Life President, Eidos

Games are the product of an exciting marriage between art and technology. Games are interactive – a compelling non-linear experience that allows players to control the action themselves. Bigger than DVDs, bigger than cinema box office, bigger than music and bigger than books – now what entertainment industry could that possibly be? The answer is video games, and some people might be surprised to hear this. The facts are that video games are played in two out of three households, four out of ten gamers are female and one gamer in four is over 50.

There are some big numbers in games metrics and they are getting bigger. Ten million unit sales of a console game is now possible, ten million subscribers to an MMO is possible, the installed base of hand-held games devices (excluding mobile phones) is above 100 million, games are being played on social networks by tens of millions of players, games are selling by the million on Apple's iPhone and there are an estimated 50,000 games portals offering free-to-play web games to tens of millions of players around the globe. Today, people spend more than £30 billion a year on video games and forecasters predict this will rise to £50 billion by 2015.

So what's the big deal about games? Well, games are the product of an exciting marriage between art and technology. Games are interactive – a compelling non-linear experience that allows players to control the action themselves rather than watching somebody else having all the fun. Games are rather good at generating emotions such as feelings of achievement, frustration, greed, happiness, fear, etc. And with the recent uptake in games played on social networks, social emotions such as friendship, envy, pride, etc are being experienced by people playing online with real-life friends.

The simple truth is that games have grown up and everybody is playing: male and female, young and old. Games are as important socially, culturally and economically as music and film. They are certainly the preferred entertainment choice of today's youth. Moving out of the bedroom, people are enjoying playing games socially together in the living room. Games are now part of mainstream culture, a new art form that helps define what we are as human beings.

While the industry is relatively new, playing games is not. When we come into this world we learn about it through play. As we get older we still enjoy play, even as adults, but are often afraid to admit it because of negative associations that once prevailed. Video games were wrongly portrayed as evil and even blamed for all the ills of society. The notion existed that all video games contained violent content and that only children played them. Contrary to this perception, less than 3 per cent of titles released have an 18 rating, accounting for 5 per cent by value.

A typical console player is a person in their mid to late twenties. Therefore it can be no surprise that some older gamers want mature content. Not all books are for children, not all films are for children and, guess what – not all games are for children. However, most games sold are appropriate for everybody to play. Puzzle, sports and social games are the most popular types. Many games can be used as a learning tool as players face puzzles and solve problems, with choice and consequence, intuitive learning, micro-management, simulation, communication, social skills, character development, narrative structure and even manual dexterity.

Learning and Teaching Scotland (LTS), the main organisation for the development of the curriculum and for exploring the use of ICT in education, carried out an analysis of the effect of Nintendo's DS game Dr. Kawashima's Brain Training on pupils' maths ability. From an economic standpoint, video games are a great asset to the UK. When Sir Clive Sinclair put affordable computers into the hands of a creative nation in the 1980s, it came as no surprise that best-selling franchises such as Lara Croft: Tomb Raider and Grand Theft Auto were created in the UK. It found a daily dose of the game improved pupils' attainment in maths and their concentration and behaviour levels. Such evidence suggests games that involve any kind of puzzle-solving help to build synapses in the brain rather than destroy them.

From an economic standpoint, video games are a great asset to the UK. When Sir Clive Sinclair put affordable computers into the hands of a creative nation in the 1980s, it came as no surprise that best-selling franchises such as Lara Croft: Tomb Raider and Grand Theft Auto were created in the UK. Video games are very much part of the creative industries, built on the knowledge economy and creating valuable intellectual property vital to the future of the UK as manufacturing industries decline and financial services go through turmoil. Even without government help, tax breaks or a supportive press, video games today generate £2 billion in retail sales in the UK and contribute £1 billion to UK GDP, with a positive export balance in excess of £100 million a year.

To put the economic value of games into context, the launch of Grand Theft Auto 4 in 2008 saw six million units sold in the first week, generating £250 million of revenue worldwide. This brilliant game was developed in Scotland and is a great British success story yet the headlines were often negative because of its controversial content. What the UK video games industry needs is support rather than criticism.

In a hugely competitive global industry, all is not well in the UK, despite the flying start. The UK recently dropped from third to fifth in the world league of content development. While the industry worldwide has grown by 20 per cent in the past two years, the UK has declined by 15 per cent. There is a skills shortage in the industry, which suffers from a lack of computer scientists, mathematicians, artists and animators. Most universities offering games courses fail to produce graduates with the skills industry needs, instead focusing on the philosophy of games rather than the crafts needed to make them.

Video games are not cheap to make. You don't get much change out of £20 million to develop a blockbuster game for consoles. Unfortunately, the UK is one of the most expensive countries in the world in which to make video games. There are naturally cheap labour markets in Asia and India and subsidised markets in the West. Quebec, for example, offers a 37.5 per cent salary rebate to employers for staff making video games. France offers a 20 per cent tax credit. In the UK there is no help whatsoever.

UK development studios currently face many challenges, and risk becoming work-for-hire outfits without IP ownership as they are sold, relocate or go out of business, unable to hire the qualified staff they need, scale up or raise sufficient working capital. Research indicates that external investment in privately owned UK studios has dropped 60 per cent since 2008. Tax credits would help immediately, but even if the UK government merely gave the industry more public support, that would help change the perception of video games. And it would give confidence to the investment community and boost the games industry eco-system. There are many good reasons to support the industry. At the height of the recession, games sales were cited as helping to save the high street.

The video games industry thrives on innovation and is the only entertainment industry in which the experience becomes dramatically better over time with advances in technology. Technology drives innovation in the making and playing of games. Nobody can claim it is easy to understand games production and the complexities and opportunities of the industry. Today there are a multitude of game-enabled devices and platforms, online and offline. The internet is at the centre of its future growth, and high speed broadband is a necessity for its success in delivery and consumption of content. For the UK to remain at the forefront of the global games industry, it is vital that inventors and investors come to understand and trust each other.

Nobody can claim it is easy to understand games production and the complexities and opportunities of the industry. Today there are a multitude of game-enabled devices and platforms, online and offline, with games being delivered as a service as well as a product, and new technologies and myriad business models including the pluses and minuses of free-to-play. Add to this cyclicality, seasonality, escalating costs, global competition, problems of lack of scale and there are plenty of reasons for investments to go wrong in a hurry. Despite the huge growth of the market and incredible revenue generation by many titles, the industry is littered with failures and closures. That is all the more reason for creative leaders to understand business people and for business people to understand the creative leaders.

The video games industry is a major global entity. It is constantly changing. The UK happens to be very good at creating games and developing original, world-beating intellectual property. The UK video games industry must be supported. One thing is certain: the global market is getting bigger and the financial rewards of success can be mind-boggling. Modern Warfare 2 was released on 10 November 2009 and sold 4.7 million units in one day in North America and the UK alone, generating £200 million of sales. Innovation and investment are at the heart of the industry, driving it forward at pace.

Who would have thought even five years ago that a console called Wii Fit offering interactive exercise would top the games charts, or that millions of wannabe rock stars would be playing Guitar Hero in their living rooms or 15 million people would be managing virtual farms playing Farmville on social networks? Everybody is playing games. There is nothing to fear. You are never too young to start and never too old to stop.

Power to the people? By Andy Payne

Soon companies that specialised in packaging, marketing, financing and selling the games started to appear, and shops such as WH Smith and Boots (the chemists!) sold classics such as Manic Miner and Jet Set Willy by the thousand. I consider myself lucky enough to have been born in the 1960s, attended school in the 1970s and started my career (or job, as we used to call it) in the 1980s. I lived through two great British phenomena, punk and home computer games, although both had their parallel roots in the United States.

Rock 'n' roll was the original disruptive modern youth movement, landing in a cold, paranoid and austere post-Second World War world and igniting the power and the profit potential of recorded music sales. The music business rose up to rival the film business and by the mid-70s was spawning the much-derided, but often purchased and sometimes enjoyed, concept album. Punk smashed that model up in 1976 and brought lo-fi, DIY music to the "blank" generation. It was an antidote to the excess of the 1970s. The DIY mentality of punk and the emergence of the synthesiser brought us electronic music, and with it a fascination with newly emerging home computers. Suddenly, boys had options. Not everyone wanted to make their own music and wear their own fashion. Indeed, feelings of isolation often manifested themselves in boys taking to their bedrooms and spending hours with their new-fangled home computers, whether it was the Sinclair ZX81 or BBC Micro, getting off on making sprites "move" on screen.

As these machines became popular, so demand for games rose, and in the early 1980s, these home computers, complete with cassette tape players and portable televisions, spawned the beginnings of the games industry as we know it today.

Games were simple, but they were also cheap to buy and had what has become known as "mass market appeal". They took their lead from the games hosted on coin-op arcade machines, and every boy's dream of an arcade in his bedroom looked like becoming a reality. The barriers to entry were modest, and anyone capable of programming in BASIC could make their very own game. Soon companies that specialised in packaging, marketing, financing and selling the games started to appear, and shops such as WH Smith and Boots (the chemists!) sold classics such as Manic Miner and Jet Set Willy by the thousand. Hardware companies flocked to the festival of creativity, Apple and Commodore being two of the prominent players from the US to put their ten gallon hats in the ring. Down the line, Nintendo, Sega, Sony and Microsoft all entered the home hardware fray and the rest, as they say, is history.

Fast forward to 2008 and the launch of the Apple's App Store as an update to the digital distribution genre-defining iTunes. With worldwide sales of packaged recorded music falling like a Led Zeppelin, the music industry has seen the threat and opportunity of online distribution, and most of that with Apple and iTunes. Traditional sales of CDs have been replaced by digital delivery and storage of music, whether paid for by the consumer, given free by the owner or simply "shared" by consumers without payment. Artists have been able to connect to their audiences through the internet and no longer have to rely on promoters or radio networks to get a voice.

Apple has given consumers the power to buy lifestyle applications, including games, quickly and simply, which can enhance their iPhone or iTouch. This has also lowered the barrier to entry for creatives and consumers. Add in the phenomenon of "social networking" and the places where people network socially, and you have browser-based games that are compelling, free or cheap to play and, above all, entertaining. And this surely is the key: the Even if you do manage to develop the game of your dreams, you then have to put up with all the usual rubbish from publishers and the rest. Deductions, marketing initiatives, inflated budgets... applications (games or otherwise) are entertaining and innovative. The successful ones are, above all, addictive and profitable to their makers.

So, are what we still refer to as "next-gen" games (perhaps we should rename them now-gen) the equivalent of the 1970s concept album? Has the games business become bloated and inefficient, serving only derivative and "safe" subject matter? Do the games take too long to make and cost too much to sell?

Has the chain between creative and consumer become too long, defocused and, ultimately, irrelevant to the consumer? Indeed, is there a parallel universe where new "can-do" game makers exist without the knowledge, experience and safety-first approach of the "traditional" games industry? Have we become tired of the old models – whereby developers are discouraged from taking risk, where the brief is to make a product that is a little bit like Grand Theft Auto, has the shock factor of Modern Warfare 2, is an online experience similar to World of Warcraft and with the family appeal of Mario Kart? Last year it was all pink pony games on DS, and look where that ended up. This year it is hidden object and puzzle games; what will it be next year?

Even if you do manage to develop the game of your dreams, you then have to put up with all the usual rubbish from publishers and the rest. Deductions, marketing initiatives, inflated budgets ("you need a minimum of 250 grand to get meaningful and seen TV ads", "retail is a nightmare") and so on. Then specialist retailers will join the party and tell you "the supermarkets and online are killing traditional business" and those same supermarkets will point out that it is a "competitive marketplace and our customers come first for price and value".

The online retailers cite "catalogue, choice and value" but get accused of "exploiting tax loopholes, shipping early and giving no customer service" by their rivals. The same old sales people sell to the same old buying contacts and the same old anecdotes are trotted out, day in, day out: "Unless you spend thousands on instore marketing and offer full sale or return, no product can be a retail success." Meanwhile, the consumer gets choice and above all, with packaged goods, can trade these in, or simply take them back for full refund, just like they always have done. Sounds like chaos? Sounds like the business model is badly flawed? Sounds to me like it is.

So consider a world whereby the investment required to make compelling games is perhaps measured in the hundreds of thousands of pounds/euros/dollars rather than in the millions. Maybe original ideas gain ground over derivative "me too" products; a world where console manufacturers don't control the manufacturing supply chain and charge inordinate amounts for packaged goods; a world less controlled by multinationals and more influenced by connected consumers; people playing games with each other over the internet, 24/7; people able to build, market and trade their own wares to like-minded individuals. That world is here and it is full of very small and nimble-footed companies. Being mid-sized is no longer an option - be specialist and make it your business to seek out as many like-minded people as you can and trade with them as best you can. The key, of course, is gaining commercially for what you make or the service you provide. In a world where Britain is known for innovation and trade, we have had success in making compelling entertainment. Next to the US, we are the best in the world and everyone wants our products. Making quirky, innovative, entertaining and commercially viable entertainment is in our DNA – think music, TV, film, literature and computer and video games. All we need to do is remember the spirit of the late 1970s and early 1980s, when our manufacturing industries were on their last legs; when workers were tied to one factory or office and creativity had to fight to get noticed. In this technology-enhanced, digitally connected world, co-operation across geographical, religious and cultural borders is normal and there has never been a better time to be an individual and a consumer, creative or otherwise. Small is beautiful.

Operating in the new world of video games by Dr Richard Wilson

Until the UK government recognises the case for games tax relief or a similar tax measure, the games industry will have to look to itself to compete effectively in this challenging environment.

TIGA – ambitious, fanatical and devoted to the UK games industry

Historically, the UK has been a global leader in the development of video games. Until 2006 the UK was consistently the third largest developer of video games in the world, measured by revenue generation. The UK development industry has a large, highly experienced and skilled workforce, some world-renowned studios, a strong track record in generating original video game intellectual property (IP) and an ongoing ability to create games that sell all over the world.

This successful industry faces various challenges in the years ahead: a cyclical downturn as the lifespan of existing video games consoles comes to an end; skill shortages; new IP development; and digital distribution. Yet the principal challenge facing the UK games industry is that competitor countries, from Canada and the USA to France and South Korea, are benefiting from significant government support, most notably tax breaks. This puts the UK at a serious disadvantage.

For example, Quebec, provides tax credits for production staff salaries and related costs, which are set at 37.5 per cent. No tax break for games production is available in the UK. Other government schemes, for example R&D tax credits, cannot compensate for the lack of a games tax relief. The UK is slipping down the world league tables, falling to fourth position in 2007 and an expected fifth place in 2009, primarily because of the substantial support given by overseas governments to their domestic video games industries.

Until the UK government recognises the case for games tax relief or a similar tax measure, the games industry will have to look to itself to compete effectively in this challenging environment. TIGA, the trade association representing the UK games industry, has a crucial role to play. Trade associations should not be lethargic clubs of the great and the good, luxuriating in past glories. A trade association should be unrelentingly ambitious for its members, fanatical about advancing their interests and devoted to driving up Historically, the industry has been relatively insular. Yet best practice benchmarking can conserve cash, minimise mistakes and power performance in a range of areas. their competitiveness. TIGA aims to make the UK the best place in the world to do games business. We are the only organisation in the UK that has consistently lobbied policy-makers to adopt games tax relief or a similar measure to enable the UK games industry to compete on a more level playing field. We will continue to do so. Yet in an environment in which there is limited government support for the industry, and where the UK is a relatively expensive place to develop games, we can and must do more.

In the future, UK games businesses will have to be increasingly exceptional to prosper, competing on skills, innovation and best practice. TIGA will support them in each area.

One of UK industry's competitive advantages is the quality of its people. Many UK development studios have experienced management teams with more than 20 years' experience in the industry. The UK games industry also possesses a highly skilled workforce. A typical TIGA member will have more than 80 per cent of its staff qualified to degree level and above, or the vocational equivalent. Game developers do face recruitment difficulties, particularly in respect of computer programmers, experienced producers and technical directors. However, skills gaps among the existing studio workforce are limited. On average, 90 per cent of development staff are fully proficient at their work.

If UK studios are to produce better quality games and are to attract overseas investment they must continue to improve the skills of their studio teams. This will require increased expenditure on training and the provision of more effective skills development. UK games developers need to benchmark their expenditure on training against industry leaders. TIGA will aim to collect this benchmarking data to enable its membership to measure investment performance.

As well as increasing expenditure on workforce development, games developers will need to ensure the quality of training improves. Some 85 per cent of developers provide some form of training to their employees, most of it on the job. In the future, TIGA will work with leading games businesses to recommend a set of high-quality training suppliers for all its members, seeking to negotiate discounts in the process.

TIGA will also seek to establish a system whereby industry veterans from among its membership provide training to other members' businesses. This twin-track approach will ensure the provision of unrivalled, high-quality training.

At the same time, developers need to strengthen links with education providers to ensure that students are ready to work in development studios. TIGA will therefore strengthen links between developers and education providers through regular developereducation knowledge-sharing events; build up a supply of industry professionals who can act as guest lecturers in educational establishments and advise on course development; and work closely with Train2Game, the distance-learning games training business, to increase the supply of well-educated and employable entrants to the video games development industry.

UK games businesses also need to compete through innovation. The industry has seen a decline in the development of new IP in recent years. On average, 56 per cent of video games produced by developers in 2008 were work-for-hire projects. The decline in original IP has to be reversed. Change is endemic in the video games industry, driven by technological developments and consumer taste. The industry is set to be the Hollywood of the 21st century, eclipsing film and television.

Games businesses also need religiously to adopt best practice: finding and using processes and strategies from outside their organisation to improve performance in a given area. The creation of original IP provides long-term value for UK businesses, whereas work-for-hire can leave them vulnerable to competition from cheaper workforces.

Businesses are often prone to institutional isomorphism, the process whereby strategies and operations converge to the point of uniformity. To escape from this danger, organisations need to gain insights from other sectors and disciplines. Rebellion is already doing this, having an interest in publishing books and comics. Ideas are vital for business success. Innovation is promoted by acquiring information from new connections. TIGA is encouraging innovation by helping more games businesses build new links with a range of individuals, organisations and sectors. The TIGA-NESTA Creative Industry Switch, a free online service available to the UK games development community and other UK creative industries, is already bringing together creative people from many sectors to share knowledge, exchange ideas and start innovative projects. Increasingly, it will focus on encouraging games businesses to share knowledge and realise commercial opportunities with the film, television and publishing industries. Similarly, the TIGA-NESTA Education Exchange, an online service available for education and game businesses, promotes opportunities for industry-academia collaboration, including in respect of R&D.

Games businesses also need religiously to adopt best practice: finding and using processes and strategies from outside their organisation to improve performance in a given area. This will reinforce the ability of UK games businesses to compete on quality against their overseas rivals. Historically, the industry has been relatively insular. Yet best practice benchmarking can conserve cash, minimise mistakes and power performance in a range of areas.

UK games studios have been relatively slow to become selfpublishers by adopting online distribution mechanisms, even though studios operating in this way have a higher potential to be stable, profitable, raise finance, create original games and retain copyright ownership. TIGA can work with other partners to disseminate best practice about self-publishing, encouraging leading self-publishers such as Jagex to share best practice with others. This will help smaller, new game developers to reduce costs and avoid mistakes when embracing self-publishing strategies.

The productivity and profitability of games businesses is rarely analysed. It makes sense to do this. Criteria such as output per person and sales per person can be used to measure productivity and profitability, respectively. Indicators such as gross UK sales, game downloads and metacritic scores can be used to assess performance. With performance indicators to hand, games studios will have a better understanding about what they need to strive for excellence. If games developers have access to good quality data of this kind it will strengthen their position in securing investment from overseas publishers. TIGA will work to collect information of this kind to drive up the sector's competitiveness.

TIGA also needs to collect and distribute best practice information about recruitment, selection and performance management of people; accessing finance; marketing and sales; and industry salaries. Information of this kind helps enable UK games businesses to operate more effectively.

Change is endemic in the video games industry, driven by technological developments and consumer taste. The industry

is set to be the Hollywood of the 21st century, eclipsing film and television. Many overseas governments recognise the value of their video games industries and so support them, most notably via tax breaks. The UK Treasury instinctively recoils from this approach. It is critical therefore that TIGA helps fill this gap. By enabling games businesses to be more efficient, effective and profitable, we can help ensure that the games development sector remains one of the success stories of the UK economy and an exemplar to the industry in other countries.

That's all folks

The NESTA mentoring pilot has shown that mentoring can be used as a tool to support video games businesses to grow. With correct matching of the mentor and mentee, and agreeing a clear set of objectives, trust can be established over time. The mentor can enjoy a certain freedom of voice that allows them to review the business independently with fresh eyes. It does take a leap of faith on the part of the mentee to allow someone (particularly an 'expert' in the field) into your business and we give thanks to the businesses who contributed to this programme alongside the mentors:

- -- Cohort Studios/Lol Scragg
- -- doublesix/James Brooksby
- -- Dynamo Games/Brian McNicoll
- -- Gameworld 7/Julian Hicks
- -- Kempt/Chris Kempt
- -- Revolution/Charles Cecil
- -- Tag Games/Paul Farley

We would also like to thank sincerely Ian Livingstone OBE, Life President of Eidos who gave time and expertise to this programme as a mentor to Halch.

Unfortunately Halch had to close the business in Spring 2009.

Other contributors to the programme:

Programme Evaluators - Julie Ramage and Laura Henderson, SQW

Coach- Cordelia Grant, Coach in a Box

We hope that the learning from this initiative is adopted by business support agencies in their support for the sector.

NESTA is the National Endowment for Science, Technology and the Arts – the UK's leading independent expert on innovation.

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