It's Childs play - The Games Software Industry in Ireland

Mr Declan Delaney, Chartered Engineer
Department of Computer Science
National University of Ireland, Maynooth
decland@cs.may.ie
(tel: 01 7083354)

Dr Aphra Kerr
STeM,
School of Communications,
Dublin City University
aphra.kerr@dcu.ie

Damien Gallagher
Department of Computer Science
National University of Ireland, Maynooth

Over the last decade, Ireland has become one of the largest exporters of computer software in the world. However, the games software development sector has received little attention from industrial development agencies, academia and financiers until recently, despite the global games software industry market being worth an estimated €16bn in 2001 and being projected to grow by over 70% by 2007 [1]. This article outlines the current state of the software industry in Ireland before focusing on the games development sector and concluding with some considerations relating to the issues that will influence the future of the games industry in Ireland.

The Irish Software Industry

We begin by looking briefly at the Irish software industry. With a relatively small local economy, the software industry exports 94% of all software produced. Enterprise Ireland estimates that software-related exports account for just over €12 billion euro annually or 5% of all Irish exports. According to the Organisation for Economic and Co-Operation and Development (OECD) [2], in 2002 Ireland was the largest exporter of software products in the world with over 900 companies developing software in the following sectors: Digital Media/E-Learning (33%), Software tools/system software (26%), Banking and Finance (19%), Telecommunications (13%) and the Internet (9%).

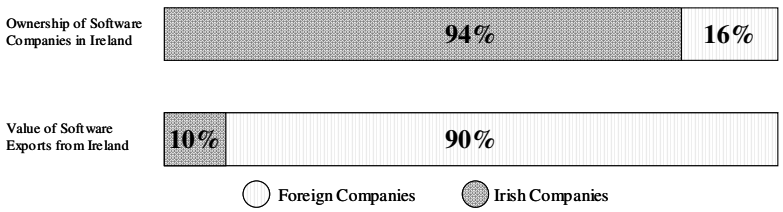

Figure 1: Although indigenous Irish software companies far outnumber foreign companies, the value of exports by foreign companies far exceeds that of Irish companies.

Of these companies 140 or 16% are foreign-owned, although they account for 90% of all software exports. This is illustrated in Figure 1. Within the Irish software industry, the digital content sector (including e-Learning, wireless services and Digital Libraries) accounts for 280 companies and employs between 4000 and 4,500 people [4]. Globally, this sector is expected to be worth over €434bn annually by 2006, from an estimated value of €178bn in 2001. A 2002 Forfás report on the digital content sector in Ireland identified the games industry as one of high-growth potential, although it noted its lack of development in Ireland to date [4]. In the UK, in contrast, over 6,000 people are directly employed in games software development in 270 software companies, with UK games having 15% of the global games market [1].

In the next section the current state of the Irish games industry will be examined.

The Games Industry in Ireland

Defining an industry is no straightforward task. Our definition refers to those companies that are involved in the development, distribution, publishing and localisation of content and software for the major games platforms. We are not concerned with hardware companies, companies employing only one person and companies for whom games is not the primary activity.

Of the almost 900 software companies operating in Ireland, it is estimated that only about 16 are involved full time in games development, employing about 300 people. These companies operate at various stages of the games value chain from content development to publishing, distribution, middleware (software programs that provide services to existing applications) and localisation. Indeed almost two thirds of the total number employed in this industry in Ireland are employed in localisation of software products developed outside Ireland and only 118 are involved in actual original content, software and middleware development.

Of the 16 companies operating fulltime 12 are Irish owned, two are American, one is French and one is Finnish. Again however almost two thirds of the workers are employed in the US and French owned companies which are engaged in localisation. The Irish companies on average employ less than 12 people. A further 30 people are involved in freelance game development and consulting, marketing and retail support in the Irish market.

Irish game companies develop games for a number of different platforms including personal computers, consoles (X-Box, PlayStation 2, Game Boy Advance) and mobile

phones. Numerous factors can influence the decision as to which platform to develop for but in terms of global market size consoles and handhelds lead the way with 77% of the market while the personal computer (PC) market amounts to 23%. London's Informa Media Group estimates that by 2006 Internet, Interactive TV and mobile phones will account for 27% of the global games industry revenue.

Table 1 lists the main development, publishing, middleware and localisation companies in the Republic of Ireland. In the North of Ireland CanDo Games are active in developing games for mobile, web and CD-ROM (http://www.candomultimedia.com/).

Company	Location	Focus	URL
Game Development for Console/PC mainly			
Kapooki Games	Dublin	Game development for console, PC and wireless platforms	http://www.kapookigames.com/
Torc Interactive	Donegal	Engine and game development for PC	http://www.torcinteractive.com/AboutUs.asp
Bugaboo Studios	Dublin	Game development for consoles	http://www.bugaboo-studios.com./
Game Development, publishing and distribution for mobile, internet and PDA			
Eirplay Games	Dublin	Game development and publishing for wireless and web	http://www.eirplaygames.com/
Meedja	Dundalk	Game development for wireless and web	http://www.meedja.ie/
Upstart Games	Dublin	Game development, publishing, localisation and distribution for mobile phones	http://www.upstartgames.com/
Selatra	Cork	Game aggregator and publisher, tools developer for mobile phones	http://www.selatra.com/
Trust 5	Dublin	Game aggregator and publisher for mobile phones	http://www.trust5.com/
Middleware			
demonWare	Dublin	Technology for the multiplayer PC and console platforms	http://www.demonware.net
Havok	Dublin	Technology which delivers realistic dynamics for game development on all platforms	http://www.havok.com/
Localisation			
Microsoft Game Studios	Dublin	Localisation of games	http://www.microsoft.com/ireland/games/
Vivendi Universal Games	Dublin	Localisation of games	http://www.vup-interactive.ie/
TKO Software	Dublin	Localisation of mobile games	http://www.tko-software.com/

Table 1: A list of the main development, publishing, middleware and localisation companies in the Republic of Ireland.

Given the diversity of activities that these companies are involved in it is worth examining a small number in more detail. These five companies are comparatively mature in terms of this industry in Ireland and are actively operating in the global games market.

Kapooki Games
Formed in 2000, Kapooki Games is a Dublin-based games development studio. The company's products range from basic 2D java-based games developed for mobile phones to complete 3D Massively Multiplayer Online Games (MMOGs) developed for the PC platform. The company is a registered Microsoft X-Box developer, and is currently working on a PC and console title for delivery in 2005.

Torc Interactive
Torc Interactive is a games development company based in Muff, Co. Donegal. Formed in 1999 by a small group of enthusiasts, Torc Interactive developed into a full-time business in 2002 with the assistance of Enterprise Ireland and now employs 13 people full-time. Their flagship product is a state-of-the-art graphics engine which will be marketed to international game development companies and educational institutions. The company is working with a number of third level colleges in Ireland who are developing game courses and will use Torc's engine.

Eirplay Games
Founded in 2000 by a former employee of Vivendi Universal Games in Ireland and the person behind the LUDO games course in Ballyfermot Senior College Eirplay Games develops original game content for mobile, PDAs and the internet. Eirplay won the game developer of the year award at the 02 Digital Media Awards this year for their 2003 range of Java games and they have built up an extensive network of distribution partners internationally for their games.

Havok
Havok was founded in 1998 by two former members of the computer science department at Trinity College Dublin. The company provides middleware for the personal computer and console platforms which enables game development companies to save both on production time and costs. The company's flagship product is the Havok Games Dynamics SDK, a cross-platform physics engine targeted at professional games developers. This engine is considered to be the most advanced, feature-full and adaptable physics engine available to the commercial market and is used by international companies like Microsoft Game Studios, Valve, Ion Storm and Turbine. It is estimated that the engine powers over 100 modern game titles, making Havok a well known name in the global games industry.

Vivendi Universal Games Ireland
Vivendi Universal Games is one of the leading global developers and publishers of computer games, particularly for the PC market. It is part of French-based Vivendi Universal, one of the top seven global media companies in the world with interests in film, broadcasting and music as well as other non-media sectors. The Irish section of the company was established in 1995 and concentrates on the localisation of the company's educational, game and home products for international markets.

Recent Developments

Interest in, and the promotion of, games development within Ireland is increasing. In March 2003 a networking and information forum, www.gamedevelopers.ie was launched and funded jointly by STeM, DCU, Nokia and 02. In September 03 Ballyfermot Senior College launched a two year course in games design and at least

two Institutes of Technology are hoping to launch game courses in 2004. Competitions such as the Nokia N-Gage Challenge and the Dare to be Digital Ireland help to raise awareness and encourage non-professional developers to get involved in game design. Finally, in January 2004 an Irish chapter of the International Game Developers Association (IGDA) (http://www.igda.org/ireland/) was launched to advance game development as a craft and to assist networking and access to resources for game developers both locally and globally.

Of relevance to games companies in Ireland is the government investment of €130 million between 2001 and 2010 to develop the Liberties area of Dublin to create the Digital Hub [5]. Enterprise Ireland and the IDA are promoting this area as the Irish centre for digital media companies, including those involved in games development. It is the base for Media Lab Europe and a number of games companies have relocated there including Havok, TKO Software, Mistaril and Eirplay Games.

Future Issues

While these developments are welcome it is clear that to develop an Irish games industry of scale, depth and strength a number of issues need to be tackled. The primary issues are skill development and funding

A major issue faced by Irish companies is access to suitable skills and experience. The games industry is highly inter-disciplinary in nature drawing together skills from previously distinct disciplines including computer science, art and media design and business– see Figure 2. Sourcing people with the appropriate skills and experience is a prerequisite for games development companies if they wish to secure a publishing deal in the console and PC sectors.

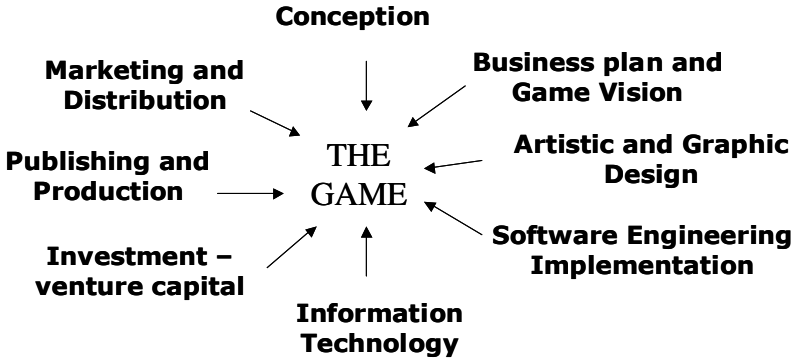

Figure 2: Games Development involves numerous activities and cross-disciplinary collaboration

In 2003 an audit of the digital media skill supply in Irish colleges was conducted for FÁS and the Expert Group of Future Skills. They found that the supply of skills to the Irish games industry does not yet meet the, albeit small, demand and embryonic games companies are forced into hiring staff from abroad, particularly the UK. No Irish university or IT course provides the necessary skills for the development and optimisation of content for different game platforms, particularly consoles, and few colleges were seriously addressing the interdisciplinary and team-based nature of games development. These facts were compounded by the fact that there are few

opportunities for post-secondary school students to obtain work experience and entry-level positions in the industry itself. Companies who specialised in localisation or tools development required a different skills set to game development companies and were thus able to recruit appropriately in the local labour market.

The second critical issue is access to finance. A typical console or PC game development project takes between 18 and 24 months, requires a team of about 20 and a budget of up to €3m [1]. The most prevalent funding model in the industry is for a games company to receive a cash advance from a major international publisher. However publishers are increasingly reluctant to invest in start-up games companies given the lack of track record, the high costs and the relatively low percentage of games that make a profit. When it comes to other sources of private finance there is a distinct lack of knowledge about the industry and the risks and rewards associated with it.

Indeed, while it is slowly changing, knowledge of the games industry in public industrial development agencies is still somewhat limited. Countries like the UK, US, Canada and France have all recognised the particular difficulties faced by PC and console game developers in terms of accessing finance and all now offer some form of direct government assistance [4]. In the UK TIGA, the independent game developers association, has been lobbying for game development to be defined as R&D in order to benefit from tax credits. Given the introduction of a tax credit system in Ireland in the last finance bill there may be possibilities for the support of game development in this way.

Although a Forfás report in 2002 recommended State intervention in funding for digital media companies, to date no progress has been made in setting up a fund specifically for this sector. A report from Forfás released earlier this year recommends that the definition of R&D and innovation should be reviewed to include games content development and a directory of funding sources and case studies be developed specifically for Irish games companies. Another issue this latest report addressed was the lack of awareness of the industry, particularly in the financial and education sectors as well as in government. It recommends that initiatives be introduced to raise awareness but doesn't suggest how this might be done.

At this stage there is broad agreement in the various government agencies (EI, IDA, Forfas) that the games and entertainment industries are in rapid expansion and that Ireland should be positioning itself to take advantage of this. While the IDA is pursuing its traditional role in attracting games companies from abroad, more work is needed to support indigenous start-up companies. The core challenge remains, in our view, access to private and public funding and the development of robust business models in each industry segment. Addressing both funding and the development of appropriate interdisciplinary skills and knowledge will require the involvement of multiple stakeholders and a desire to tackle the legacy of entrenched boundaries, not only in government departments and agencies, but also in research and enterprise funding programmes and third level educational institutions. The will is there, what is needed is the way.

References

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