

## ANIMATION SECTOR PROFILE 2008

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## ***Executive Summary***

In total, the global market for all forms of animation is currently estimated to be worth \$300bn p.a.

The UK has a significant position in this market, but the UK's animation industry faces a number of challenges and opportunities that will affect its various sub-sectors in different ways. In particular, the decline in commissions from commercial broadcasters and their advertisers presents a major threat to traditional 2D animators who are already affected by the growth of off-shoring to low cost centres of production.

In order to remain competitive and secure the greatest yield from the international market for animation, the UK's animation businesses will increasingly rely on a highly skilled and specialised workforce that is responsive to market needs.

Continuing the professional education of practitioners in the industry in an appropriate, relevant and "user-friendly" way is essential if UK animation is to be able to retain its ability to compete on quality rather than cost. There is, however, a lack of strategic coherence in post entry training and so a key recommendation of this paper is for Skillset to extend and increase its accreditation work to short course provision and to work with the industry to design recommended training "pathways" for practitioners to follow.

More than three quarters of the animation workforce are graduates and the quality of UK higher education in animation will be a key factor in determining the long-term future of the industry. There are in total 286 courses available in animation at HE level in the UK, unfortunately not a single one appears to meet in full the industry's expectations.

Without adequate measures to increase the influence the industry has on those responsible for the education of the bulk of its future workforce, the difference between

the skills the global market demands and those the UK industry can deliver may become irreconcilable.

Continuation of the action already undertaken by Skillset in areas such as course accreditation is vital and ways to leverage this work into a better understanding on the part of both students and staff of the industry's needs should be sought.

These and other challenges, and ways that they may be overcome, are discussed in the body of what follows and the recommendations are summarized into a proposed strategy in section 8.

## ***Background, Work Performed and Scope***

Skillset's role is to help support and grow the industries within its brief through the skills development of the workforce – so the right people, with the right skills are in place when the industry needs them.

In 2001 the Audio Visual Industries Training Group (AVITG)<sup>1</sup> acknowledged that no single approach could meet the education and training needs of the disparate sectors that make up the audio-visual industries. It suggested that each sector needed to identify its own solutions and recommended that Skillset should set about producing “UK wide sector workforce development plans to inform on-going strategy and investment in partnership with public agencies”<sup>2</sup>.

This document is the latest in a series of such plans. It is intended to provide a basis for: better vocational education and training, sharing good practice, collaboration and partnership between employers in developing the skills of employees and potential employees improved public policy

This strategy has been developed in consultation with the industry<sup>3</sup> and informed by the latest data from Skillset's ongoing research programme<sup>4</sup> and information from employers and relevant trade associations.

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<sup>1</sup> The AVITG Report was the result of a joint initiative by the Department for Culture, Media & Sport and the Skillset Audio Visual Industries Training Group. The aim of the report was to analyse skills needs and develop a long-term strategy to ensure the future competitiveness of the audio visual industries.

<sup>2</sup> AVITG Report: Skills For Tomorrow's Media September 2001

<sup>3</sup> In particular, by the participation and guidance of the Animation Forum, whose membership includes representatives of major employers, trade associations, Skillset and other key stakeholders.

<sup>4</sup> Recent relevant research includes: Employment Census – a quantitative survey capturing total employment estimates for each sector; breakdown by gender, ethnic origin and disability; trend data on how the workforce is changing over time; Workforce Survey – profiling employees and freelancers and identifying

In order to provide qualitative data to assist in the development of the strategy, six focus groups met earlier this year in Birmingham, Bristol, Cardiff, Glasgow, London and Manchester. The groups involved representatives from the major sectors of the industry: games, commercial, TV, Film Visual Effects and New Media, as well as education and training providers.

This document is intended to articulate the specific needs of the animation industry, which can then inform Skillset's work. Whilst it may indirectly address broader industry issues, it is not intended to provide a basis for public policy in areas other than education and training.

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skills needs; Employer Survey – employer perspectives and perception of supply; and Supply Side Research from Turquoise Thinking Ltd.

## ***The Market for Animation***

The UK's animation industry is part of a fast growing, global creative economy.

Over the period 2005-2010, aggregate worldwide consumer expenditure on CDs, DVDs and other physical formats will continue to rise whilst the number of broadband households in the world is anticipated to double and global spending on content for wireless and online consumption is forecast to treble. Purchases of Video games will increase by 125% to \$48bn p.a., annual cinema box office, DVD and Video revenues are anticipated to rise by 62% to over \$100bn and Television (advertising and subscription) revenues will increase by 93% to over \$450bn. Internet advertising and access spending (i.e. excluding goods and services purchased via the internet) will have increased more than threefold so that by 2010 over \$265bn will be spent around the world each year on web usage.

Animation will be integral to this growth, though where it manifests itself in, e.g. on-line communities such as *Second Life* or is incorporated into effects for live action feature films such as *Pirates of the Caribbean* or commercials for brands and products that are household names, the enormous size, breadth and depth of the market for animation may not at first sight be obvious.

Animation, particularly CGI animation, provides the majority of the visual effects for the £1.4bn<sup>5</sup> UK Post Production industry. The UK is the world leader in the production of visual effects for TV and commercials and only the US and New Zealand are ahead of the UK in terms of the value of visual effects produced for feature films.<sup>6</sup> The 22,000

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<sup>5</sup> Per the last biennial Skillset Survey, 1,100 people classified themselves as working in a key animation role, but not for an animation company.

<sup>6</sup> Source; Post Production in the UK, a report by Salix management consultants for the UK Film Council and the DTi, 2003

people dependent on the UK games industry also employ similar expertise in generating their £488m of annual exports<sup>7</sup>.

The advent of high quality CGI animation has also invigorated the market for feature animation, and provided opportunities for new entrants in addition to established businesses to increase the volume, enhance the quality and improve the profitability of feature length animated films. Over just six years, between November 1999, when Disney released Pixar's first *Toy Story*, and Warner Bros' release of *Happy Feet* in November 2006, 36 feature length animations made with computers generated \$10.2bn of box office revenues, an average of \$283m each<sup>8</sup>.

Whilst films made and distributed by the US Majors continue to account for the majority of box office revenues, independently produced films have increasingly featured in the top ranked animated feature films released each year. Included in those 36 CGI animation films is *Valiant*, a UK produced film distributed independently by a UK based sales agent; Odyssey Entertainment. Also included is Aardman's first CGI feature film, *Flushed Away*, which generated \$175m in ticket sales.

The growth in CGI production has not spelt the end of other forms of animated feature film, the UK's own Wallace and Gromit sold over \$56m of tickets at the US box office alone for their first feature length stop-frame animation; the *Curse of the Were-Rabbit*.

The buoyancy of the global feature animation market is not reflected in the UK TV market, where the business models of both commissioning broadcasters and the animation companies that rely on them are threatened by diminished revenues from advertising, with the role and purpose of public policy less clear. Producers are

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<sup>7</sup> Source: Screen Digest / E.L.S.P.A.

<sup>8</sup> Source; Nash Information Services

concerned that fragmenting audiences will result in reduced public service obligations on broadcasters, including providing programmes for children<sup>9</sup>.

Total hours of new UK Children's Programmes broadcast on commercial PSB Channels have already fallen every year since 1999 with the aggregate reduction being over 25%. Channel 4's output fell from over 50 hours p.a. to virtually none, ITV1's from approx. 450 to 375 and 5's fell from over 250 to less than 175.<sup>10</sup>

It is in this context that the effects of the new restrictions on children's advertising, which are estimated to cost £39m in lost advertising revenue p.a.<sup>11</sup>, ought to be seen. As Jane Lighting remarked; "These restrictions [on children's advertising] will deny us substantial revenue and make the economics of producing children's programmes a lot more difficult... the long term future of UK produced children's programming outside the BBC is bleak"<sup>12</sup>.

Pact estimates that total investment in indigenous production of all forms of children's programming by all types of broadcasters other than the BBC will have fallen by over 80% to under £5m p.a. over the period 2005-2007 and the diminishing prospects for funding and commissioning from UK television, combined with the knock on effect on the

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<sup>9</sup> Pact's response to the Culture Media and Sport Committee enquiry into public service media content, January 2007, included these comments;

"The UK can be proud of its tradition of public service programming, but much of the regulatory framework that underpins its provision will become less effective in the digital era. The plurality [of public sector broadcaster ("PSB") supply] will come under threat in the digital era as the traditional spectrum-PSB trade-off between commercially-funded broadcasters and the regulator becomes less relevant... Ofcom is likely to come under increasing pressure from commercial broadcasters to allow them to reduce their public service obligations as they face fragmenting audiences and a slower rate of growth in advertising revenues for analogue channels"

<sup>10</sup> Source Pact

<sup>11</sup> Source, Ofcom

<sup>12</sup> Five C.E.O. , Jane Lighting, Media Guardian Nov 2006

level of animation commissioned for broadcast as commercials, was one of the major challenges identified during Skillset's consultation with the animation industry.

Animation producers may be able to update and adapt their businesses to new markets and new platforms, particularly in the online space where, e.g., Google is earning more in advertising revenue in the UK than Channel 4. However, after a prolonged period of relative stability in the analogue era, the market for animation, particularly animation produced for UK TV, is undergoing a period of dramatic change.

For those that can successfully manage that change, as individual companies or national industries, there will be significant rewards.

In total, the global market for all forms of animation<sup>13</sup> is currently estimated to be worth \$300bn p.a.<sup>14</sup>. The UK has in the past been successful in servicing and exploiting it, from Dangermouse to Lara Croft, from Harry Potter's magical effects to Wallace and Gromit's comic adventures, culturally and commercially the UK has punched above its weight. To continue to succeed, a highly skilled, specialised and creative workforce will be required.

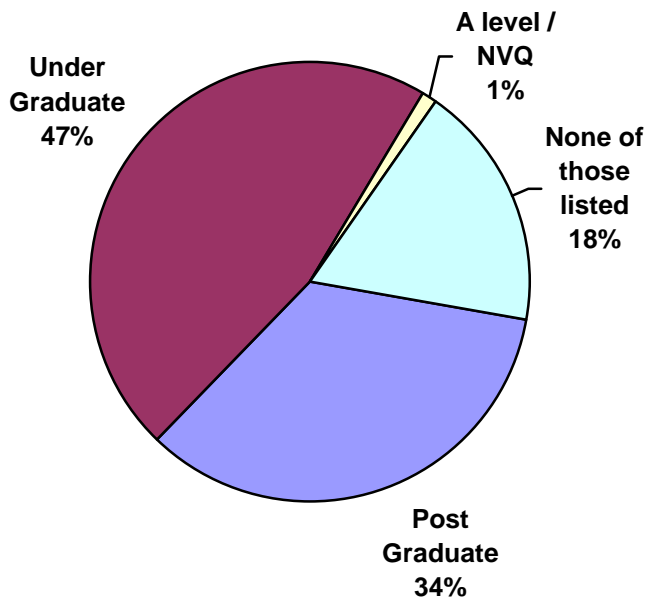
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<sup>13</sup> including animation incorporated into games but excluding visual effects incorporated in conventional feature films

<sup>14</sup> Source; Optima / P.A.C.T.

## Animation Production

Animation production is an increasingly complex process and requires the kind of high and mid range skills that represent a competitive advantage for a modern developed economy. Just under 80% of the animation workforce are graduates and over a third have a post graduate qualification<sup>15</sup>, higher than the average for the audiovisual sector as a whole and far higher than the average proportion of higher educated staff in the total UK workforce (16%)<sup>16</sup>.



As well as being intensive in its requirement for skilled labour, animation also brings long term, stable employment relative to live action feature film or TV production.

Good animation has a long shelf life and is readily accepted by a global audience. Critically, animation has relatively low “above the line” talent costs and the cost of animation production doesn’t

leach out across a diverse range of temporary locations. The cost of manufacturing animation is largely spent in the immediate vicinity to the studio. Because of the potential for relative stability of production, animation lends itself to the growth of clusters of complementary businesses, as is the case in Bristol.

<sup>15</sup> Skillset Workforce Survey, 2005

<sup>16</sup> O.N.S. 2003

Approximately 2/3rd's of the UK's Animation businesses are Micro-Companies, employing less than 10 full time equivalent ("FTE") staff each. A small number employ over 250 employees, the remainder are small to medium sized companies ("SMEs").<sup>17</sup>

Over two thirds of companies are engaged in production for television, around a third of companies produce or help to produce feature films with slightly more engaged in producing commercials. Around a quarter of companies produce visual effects for incorporation in other productions, approximately one in 6 companies produce animation for incorporation in computer games.

3D CG work is the most frequently employed technique<sup>18</sup> and there has been a marked downturn in production activity involving classical drawn animation in recent years. Companies specialising in 2D series, specials and feature films now rarely employ UK based animators, with the bulk of animation work being off-shored. These companies now offer employment mainly in pre-production roles such as design, storyboard and layout. Whilst the global economics of animation are contributing to a worldwide "softness" in traditional 2D licence fees, many in the industry feel the lack of state aid for UK TV productions compared with that available in other developed economies,<sup>19</sup> has

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<sup>17</sup> Skillset's new entrants survey

<sup>18</sup> Skillset's new entrants survey

<sup>19</sup> Ireland, Canada and France were often cited as examples. During the consultation it was clear that many in the industry believed Section 481's application to television as well as film has facilitated the development of a strong Irish animation industry with a growing international reputation and an ease with which to mount co-production's. It was suggested by some industry figures that current UK funding schemes and criteria for state aid (i.e. principally the UK Tax Credit) do not properly reflect the particular nature of the animation business and its production processes. Despite the apparent economic and cultural importance of animated feature filmmaking, especially its importance to younger audiences, there was some disquiet expressed during the consultation that the UK Film Council was not including animation in much of its work funding productions, and that there was a gap in UK government support because the UK Film Council's remit does not cover the support of animation made for TV.

necessitated the off-shoring of traditional 2D production or the creation of co-productions even though there isn't a shortage of skills or talent in the UK.

TV series production involving 2D digital techniques<sup>20</sup> is currently flourishing in the UK and specialists in CG, whether 3D or 2D, particularly those working in games development and Visual Effects ("VFX") are enjoying an unprecedented level of production activity and often struggle to recruit key technical and production personnel. There is, however, some concern that this work is also starting to drift overseas.

Although many companies are involved in more than one area of business, those involved in gaming tend to be focussed more on this as a core or exclusive activity<sup>21</sup> than, say, producers of television series who are more likely to be also involved in another area of activity such as feature film or commercials production.

Given the developments discussed in the previous section, the extent to which TV commissions can be relied on to generate a core revenue stream will be a major concern for the majority of UK animation production companies. The ability to diversify businesses could be decisive for companies in this segment where, if commissions can be secured, aggregate deficits in independent programme budgets are set to increase by around two thirds.<sup>22</sup>

How best to exploit the additional rights the 2003 Communications Act's Code Of Practice granted independent producers is likely to be one of if not the most important strategic issue facing animation companies active in the TV market. This will be particularly challenging for companies active in both television and commercials for

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<sup>20</sup> particularly Celaction and in some cases Flash – although it is thought that broadcasters are less resistant to the former

<sup>21</sup> Skillset's new entrants survey

<sup>22</sup> The contribution from the primary broadcast commission to average lifetime income for new programmes is forecast to fall from 85% to 75% over the period 2006-2016, Oliver & Ohlbaum Associates for Pact

television, where producers may experience a “double whammy” of lower value, less frequent commissions from commercial broadcasters compounded by lower spending by advertisers on the commercials they broadcast.

The rise of internet advertising is a principal source of the uncertainty over the revenue streams animation companies can rely on from commercial broadcasters. Ofcom’s view<sup>23</sup> is that the share of advertising taken by traditional and new media is not necessarily a “zero sum game” and half of the households in the UK are now spending five times as much on telephony and television as was the case a decade ago<sup>24</sup>.

Satellite and Cable viewers are increasingly served by channels that cater for special interests, but in terms of animation these are unable to substitute for the leading terrestrial channels and often rely on programming previously commissioned by one of the terrestrial channels or on low cost foreign imports. Often the latter are represented in statistics as original UK programming because new presentational footage is shot to link low cost imported animation. Even with the cost of such non-UK animation included, Pact estimates that digital/secondary channels only spend £6.6m p.a. in total on all forms of new children’s programming. If these channels are to emerge as anything more than negligible primary sources of revenue for indigenous animation companies it will be on the basis of original work produced at very low cost or the purchase of secondary rights for programming produced for another channel, customer or market.

Clearly the UK’s animation production businesses, particularly those focussed on 2D TV production, face an increasingly uncertain future. For those focussed on feature length animation, the introduction of the new UK tax credit and the changes in the UK’s co-production treaty network are perhaps too recent to discern their impact on the animation industry. Whether the current buoyancy of CG animation and VFX will

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<sup>23</sup> 2006 review of the Television sector

<sup>24</sup> Source; Pact

continue, and for how long, are also major questions facing UK animation. It may be the case that to successfully navigate these changes in the broader environment for the industry, animation businesses need to address the ways in which they collectively lobby for, e.g., regulatory change or a fair apportionment of state support.

These questions help frame the context for this document but are outside the remit of a Skills Strategy. What is likely is that not only will the quality of Skills training and education be a vital factor in maintaining the quality of UK animation; its relevance to the new economic paradigm may well determine the industry's sustainability.

## The Workforce

Animation companies currently provide employment for around 4,700 people throughout the UK, of whom nearly two fifths are freelance or on short term contracts, with almost 20% Sole Traders, or self-employed. The largest key occupational groups are draw/stop frame animation employing around 1,000 people, producing (910), computer generated animation (900), and production (430). In addition, a further 1,100 more people are employed in key animation roles in other audiovisual sectors.

39% of the animation workforce entered the audiovisual industry before 1990, 39% during the 1990s and 22% since 2000. Less than a quarter of the workforce had received structured careers advice at any point in their working life.

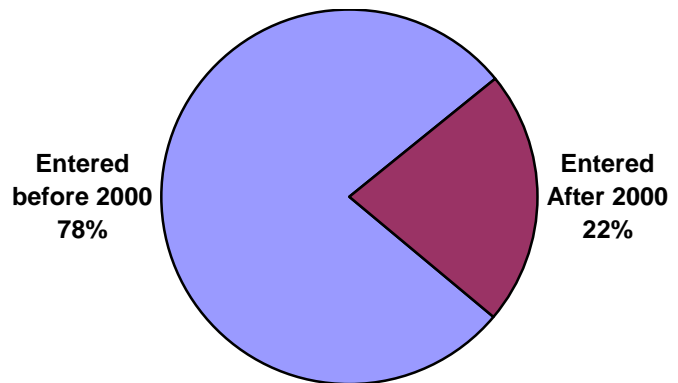


Figure 2: Date Entered the Animation Industry

34% of the animation industry's workforce are women, slightly less than the norm for the audiovisual industries as a whole<sup>25</sup>. At 3%, the representation of ethnic minorities is among the lowest amongst all sectors of the audiovisual industry<sup>26</sup>.

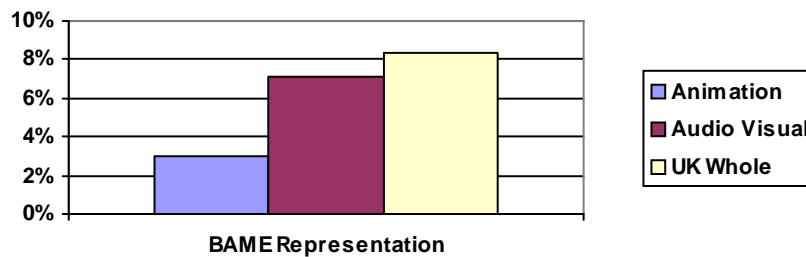


Figure 3: BAME Representation in Animation

<sup>25</sup> 38%

<sup>26</sup> This compares with an average of 7.1% across the industry and 8.3% across the UK economy as a whole

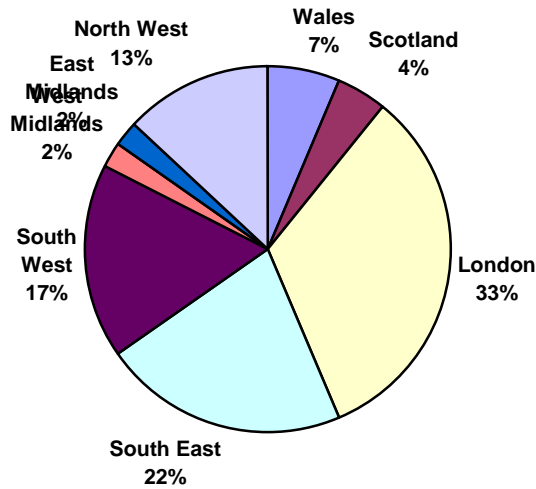


Figure 4: Animation in the Regions and Nations

With 67% of the workforce based outside of London, animation production is more evenly distributed around the UK than the remainder of its audiovisual industries. It is also a relatively youthful industry, with 48% of the workforce aged under 35.

39% of the workforce secured their first job through making direct contact with a company, and 28% through a friend or relative. These two entry routes are far more common than

elsewhere in the audiovisual sector, though in keeping with the rest of the sector, once established it is more usual to secure employment by being called than by calling.<sup>27</sup>

Average earnings in 2005 were £25,983 per annum compared with £32,239 across the wider audiovisual industry and £23,389 for the UK as a whole<sup>28</sup>.

The industry consultation has indicated a need for UK animation to develop more staff who are versatile and able to adapt to new platforms, styles and the needs of a new, more diverse range of clients. It is felt that the changing nature of productions will contribute to a further shift in the UK to an outsourcing mode where despite projects

<sup>27</sup> Only 2% of the workforce reported having secured their current job through making contact with an employer themselves and it is more usual for people to have received their current job through being contacted directly by an employer – (30%), or through someone worked with previously (39%). As with many other sectors in the audio visual industries, employers in the animation sector most commonly use informal methods of recruitment such as personal contact with individuals (79%) and industry networks/contacts (58%). They are also likely to place advertisements on the internet (41%) but much less likely than other sectors to use the national press (11%) Source; Skillset

<sup>28</sup> Source; ONS Annual Survey on Hours and Earnings

being originated in the UK, the financing and production of them will be more international. The effect of this on the workforce will be to reduce the amount of animators needed in the UK, but to increase the number of pre-production staff needed for projects initiated here. Industry representatives consulted felt that whilst training or re-training for experienced staff was needed, it was important that graduates and new entrants were aware of the roles available in order to avoid increasing numbers of practitioners competing for fewer jobs as animators.

Representatives from the commercials sector of the industry felt that commercials producers needed to update and adapt their businesses to new markets and new platforms, particularly in the online space, but that this could be dealt with by each company individually and was not a priority for external intervention.

There is an increasingly conspicuous presence of graduates trained abroad, particularly in Europe, in the UK industry. Some industry representatives felt that, UK graduates needed to be better able to compete in the market for jobs.

The BBC believes an aspiring new entrant to animation requires an academic qualification equivalent to a BA Honours Degree in a relevant subject, with an appropriate Postgraduate Degree ‘perhaps being an advantage’. Suitable undergraduate programmes are likely to require completion of one year’s Foundation or Access Course in Art and Design and a portfolio of work and/or show reel. On graduation the student will need to have acquired extensive technical knowledge of software applications, digital technology and broadcasting processes, a thorough understanding of computer generated processes and be able to achieve creative responses to design briefs within the restrictions of budgets and deadlines.<sup>29</sup>

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<sup>29</sup> Report on the Supply and Provision of Training and Education Relevant to the Animation Industry, Turquoise Thinking for Skillset, May 2007

Whilst there may be ways in which a new entrant may migrate into animation from occupations on the periphery of the industry, it appears that the core of the industry will continue to be staffed by people with a higher educational qualification. Currently 78% of the animation workforce are graduates, of whom 34% hold a postgraduate qualification. 53% have a degree in a media-related subject, the highest of any sector in the audiovisual industry. It would seem reasonable to conclude that UK animation is particularly dependent on the quality and relevance of the higher education of its new entrants.

## ***Existing Training Provision***

71% of the UK's animation workforce have felt the need for training and have tried to obtain it. The three most common barriers to receiving training, in order of importance, are the cost of courses, difficulty in assessing the quality of training required and the fear of losing/not being able to work whilst undertaking training. Together these represent a particularly high hurdle for freelance staff and those employed in the smaller animation companies that may be in greatest need of re-training out of traditional animation roles and into more "front-end" roles or in CG animation.

By far the most popular place to look for information on training is the internet<sup>30</sup> and almost two thirds of the workforce had received some training in the past year. Overall, the UK animation workforce has a relatively high tendency to continue its professional development with the average number of days training received in the past year being 24.1 – by far the highest of any audiovisual industry and more than three times the average number of days for the sector as a whole.

Almost half of animation employers carry out some form of training or development for permanent employees (including both on and off the job training). This is lower than many other sectors but probably reflects the large number of small animation companies. Structured support on the job by another member of staff was the most popular type of training carried out for permanent employees.<sup>31</sup>

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<sup>30</sup> cited by 65%, the trade press (32%), and employers (27%) being the next most popular places to source information.

<sup>31</sup> mentioned by 76% of employers. A further 68% also mentioned in-house training sessions carried out by another member of staff and 54% mentioned external courses/seminars. In house training sessions carried out by external contractors (37%) and internet based training (27%) were less common.

Over a quarter of employers carry out some form of training or development for freelancers, this is very similar to the average across all audiovisual sectors and again on the job training is the most popular.

Around 60% of employers felt they are prevented from undertaking training/development more often, the main reason given being the cost.<sup>32</sup> Roughly the same proportion offer work experience or work placement posts. Business and management skills are, on the whole, of relatively low interest to most employers.<sup>33</sup>

There is a wide range of short courses for all abilities and all ages at all stages, including pre entry, provided by a similarly wide range of organizations of which the best known is probably Escape Studios, a highly regarded provider of practical highly vocational training, especially in the latest editions of CGI software<sup>34</sup>.

For the purposes of formulating a strategy it may be appropriate to consider short courses as being either academic linked (by sponsoring or host institution or by a link to a scheme of nationally recognized qualification) or non academic and either specialized (e.g., designed to equip practitioners with knowledge of and/or skills in the use of a particular piece of software or industrial function) or generalist (e.g. giving introductions to animation as an art form).

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<sup>32</sup> The three most common reasons were; too costly (62%) not having enough time (34%) and not having enough staff (16%).

<sup>33</sup> The 2006 employers survey carried out by Skillset found that of all 17 areas covered by the survey – animation employers registered the least interest in business and management skills training. This point of view found support during the consultation for this document, however see section 7 below.

<sup>34</sup> Escape is directly linked to a number of software houses and is an official re-seller of Autodesk® software products (Maya and MotionBuilder) and is the exclusive UK partner for Toxik. Escape is also the official European reseller and training partner for Pixar's RenderMan® suite of programmes.

	<b>Generalist</b>	<b>Specialised</b>
<b>Non-Academic</b>	E.g.; Leeds Animation Workshop's Introduction to Animation <sup>35</sup>	E.g.; Escape Studios' MAYA Core Course <sup>36</sup>
<b>Academic</b>	E.g.; Animation Workshop at Cirencester College <sup>37</sup>	E.g.; Introduction to Maya at St Martin's <sup>38</sup>

In addition to Skillset's funding of short course provision there are myriad ways in which short courses or attendance on them is supported financially (Soho Editors Training have identified 35)<sup>39</sup> The majority of funding seems to be focussed on the production of

<sup>35</sup> A weekend course offering an introduction to different animation techniques and an opportunity to produce a short animated film. Duration 2 days Price £60

<sup>36</sup> This aims to give students a fundamental grounding in Maya. Duration 6 Weeks Full Time Price £4,499

<sup>37</sup> Students work with Bryan Panks, creator of Channel 4's Max Bear to produce animations using a combination of software and traditional techniques to produce short video animations. The course is aimed at people who want to explore the creative potential of, and have at least, basic computer skills. Each course addresses an aspect of digital content creation and combines technical, professional, design and communication skills. Duration 1 day Price £85

<sup>38</sup> Central St Martin's College of Art and Design's Introduction to MAYA aims to equip students with the knowledge to potentially express any still or moving image – the course covers the interface and modelling, animation, lighting and materials with specialisation available. Duration – 5 days (Consecutive Saturdays) Price £595

<sup>39</sup> The Cinema & Television Benevolent Fund, UK Film Council, MEDIA, Arts Council England, Department of Trade and Industry, The Business Link Network, British Council, Learning and Skills Council Career Development Loans, Department For Education and Skills, DCMS, Media Training North West, the 3 national and 8 regional screen agencies and the 10 regional development agencies and their 3 national counterparts.

original work or for individuals wishing to pursue media courses with the aim of entering the industry rather than for training within the industry.

Less than a quarter of companies in the industry received subsidies and other financial support for actually continuing the professional development of staff.

The majority of new entrants to the industry are graduates and although comprehensive data is not available, the vast majority of expenditure on education and training in animation is likely to be spent on traditional, principally tertiary, education provided by schools colleges and HEIs.

Art and Design and Media Studies GCSEs and similar qualifications are the two most relevant areas open to 14-16 year olds (Key Stage 4) aspiring to work in animation, though completion of such courses is likely to leave students, at best, positioned on the fringe of the industry.

Post Key Stage 4, training, including A-Levels, may be more vocational and specialized but the qualifications exist largely as hallmarks of ability with typically no industry targeted employment inherent in the awards. Industry involvement may exist to shape the content of the courses but normally ends there, though a recent exception would be the Skillset sponsored diploma targeted at 14-19 year old students<sup>40</sup>. Graduates of the courses may be more likely to begin pursuing a career in the industry to a greater (but still minimal) extent in comparison to the GCSE courses. More typically, these courses are steps towards further or higher education, normally the latter.

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<sup>40</sup> Developed by Skillset, in partnership with Skillfast-UK and Creative and Cultural Skills who have defined the content of the Diploma on behalf of the creative and media industries, the Creative and Media Diploma is an exciting and challenging qualification that encourages inspiration and aspiration in young people.

The UK supports numerous undergraduate and postgraduate courses in animation;



Figure 5: Number of Animation Courses by Region

Skillset has accredited<sup>41</sup> undergraduate programs at Bournemouth University, Bournemouth Arts Institute, the Glamorgan Centre for Art and Design, University of Teesside, University of Wales, Newport and UCCA Farnham. In addition there are highly regarded post graduate programs as part of the Screen Academy network at Bournemouth University and the National Film & Television School.

In total there are 286<sup>42</sup> Courses available in animation at HE level via the UCAS admissions system, 26 of the courses are available as sandwich courses.

Courses range in length from two years to five years with most<sup>43</sup> sandwich courses lasting four years<sup>44</sup>.

<sup>41</sup> Specific criteria for animation accreditation include: Drawing as a basis for 2D and 3D Animation; Design: Character, Background and Concept; Animation: The Production Process; Compositing / Shooting on Film; Sound recording and breakdown: Voice, Music & Effects; Film Language; History of Animation; Studio practice and structure ; Career planning and guidance

<sup>42</sup> However many are represented in duplicate due to alternative application procedure (Route A and B). Accreditation includes BSc (Hons) BA (Hons) and MEng (Hons). 103 of the courses are open to Route B applications via UCAS, one of which is a sandwich course.

<sup>43</sup> 92%

<sup>44</sup> A review of the sandwich courses available indicates that most of these are offered as options to 3 year “ordinary” degrees with the work placement element being up to 48 weeks between the second and final year of the degree course.

There does not seem to be any reliable, comprehensive information as to how many of the thousands of students undertaking these courses each year actually end up working in the industry they aspire to work in. Despite the enormous academic resources committed to providing these courses and the vocational relevance claimed by most of them, the information available indicates that, far from being industry ready, for the vast majority of students graduation and redundancy are simultaneous.

## ***Weaknesses, Gaps and Shortages***

Just over a quarter of employers<sup>45</sup> in the animation sector say that there is a gap between existing skills and those needed to meet business objectives<sup>46</sup> and these are mainly deficiencies in fundamental animation industry specific skills.

There is a general feeling within the industry that an interest in animation should be supported from an early age and schools should be supported to teach animation correctly<sup>47</sup>. Whilst school students should be made aware of the industry, the industry itself is cautious about secondary level education being too prescriptive or specialised.

For those entering the industry directly from school or further education it was felt that, whilst an apprenticeship model was a useful route, the models need to be responsive to individual company or production needs and in particular need to be flexible and based around a production schedule rather than term dates to be effective.

There is a shortage of people with industry relevant IT and drawing skills, particularly storyboard artists, and these may be the best areas for aspiring entrants from secondary or further education to focus on.

Storytelling skills in general were highlighted as a specific skills gap in the UK during Skillset's consultation with the industry<sup>48</sup>, particularly in relation to animated features, and it appears difficult to find individuals with the expertise to provide the training in the UK.

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<sup>45</sup> Source; Turquoise Thinking for Skillset, report on the provision of training and education relevant to the animation industry, May 2007

<sup>46</sup> This is very similar to the average figure across all sectors of the audiovisual industries.

<sup>47</sup> Aardman has developed a 'Teachers Aid' for primary school

<sup>48</sup> At the London workshop, e.g.

Whilst Skillset's 2004 survey found little premium placed on management skills by the industry, the workshops tended to contradict this. Budgeting and scheduling, production management and producing, legal, business and financial expertise, knowledge of how to structure co-productions, sourcing and raising funding and marketing and selling were all cited as skills that practitioners in the UK need to develop.

It may be the case that when these are grouped together under a general "management" heading they lose their focus and therefore their appeal, but there seems to be a case for exploring these needs in more detail. In particular, given the challenges discussed above, there seems to be a need to develop a suite of high level executive skills that arm the management of the UK's animation companies with the strategic insight to adapt their businesses so that they are able to compete in an increasingly open, global market for animation production and consumption.

In some areas this seems to manifest itself in a pressing need to address a strategic challenge faced by a particular part of the industry, e.g. there seems to be an urgent need to consider how companies and individuals that have traditionally produced 2D animation for the UK's terrestrial broadcasters can adapt to the new economic reality faced by them as this seems to have implications across their entire value chain and the full spectrum of skills, from developing stories to distribution.

Continuing the professional development of existing professionals is essential to the health of the industry. UK animation relies on a large pool of freelance workers<sup>49</sup> but industry representatives<sup>50</sup> feel that finding training at the right level can often be challenging as most courses tend to be aimed at new entrants to the industry as this appears to be a larger market for training providers.

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<sup>49</sup> The proportion of the workforce accounted for by freelance workers is twice as high in animation as it is in other audiovisual sectors and the proportion of companies that use freelance workers is over a third higher in animation than the average for all the UK's audio visual businesses

<sup>50</sup> As represented in, e.g. the Birmingham workshop

Whilst there are instances of good vocational training being provided, short course provision in the UK lacks a strategic coherence and, despite the strength of the indigenous industry, out of nine short courses in animation supported and endorsed by M.E.D.I.A.<sup>51</sup> only one is based in the UK<sup>52</sup> and 95% of the animation workforce have experienced difficulties in carrying out the training they feel they need<sup>53</sup>.

Whilst often ostensibly appealing, short courses provided without consideration of the broader context of career development tend to provide training that rapidly depreciates in value after the course is completed. The general feeling expressed throughout Skillset's consultation was that by far the best means of training is to learn on the job, but as noted above; less than a quarter of companies received subsidies and other financial support for continuing professional development of staff.

Concern was also expressed during the consultation<sup>54</sup> that students are entering the industry unaware of the realities of the freelance model and over half of the respondents to Skillset's survey felt there was a need to implement some sort of structured training provision<sup>55</sup> for new entrants. There were, however, some companies who didn't agree<sup>56</sup>.

The companies who disagreed with the principle of new entrants training tended to be small companies involved in 2D animation who appear particularly under resourced.

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<sup>51</sup> MEDIA is the EU support programme for the European audiovisual industry. In the 2007 edition of the MEDIA guide "Where to be trained in Europe". Denmark, Germany, Spain and France accounted for the remainder.

<sup>52</sup> at U.W.E. in Bristol.

<sup>53</sup> Skillset's 2005 Workforce Survey

<sup>54</sup> e.g. during the London workshop

<sup>55</sup> Including tax, health and safety, self-presentation skills, organising work and pitching

<sup>56</sup> citing a need to address undergraduate education issues as a priority, or stating that they would only hire experienced staff (due to the quality of graduates), or that they don't have the time or resources to train staff, or that there simply weren't the future job opportunities in their sector to justify training new entrants.

These views were, however, in the minority. Indeed, other similarly resourced companies were in favour of a new entrants scheme, expressing a desire to participate in training if they could despite their limited size.

That there is a need for new entrants training for graduates is a frustration shared by virtually all companies in the industry regardless of size or specialism, especially given the relative paucity of amounts available to support training within the industry compared to the funding given to HEIs teaching animation.

Across all industry sub-sectors, there is a strong feeling that graduates are not prepared for a working environment and are lacking in a basic understanding of animation processes and the industry as a whole. People, team working and life skills as well as fundamental artistic skills were criticized. Pre-production skills, from story and character development to storyboard, layout and timing were inadequately taught. Graduates generally exhibit a severe lack of drawing skills and even where students specialize they tended to display shortcomings; Stop frame practitioners cited deficiencies in basic skills such as like lip synching, CG representatives remarked on deficiencies in basic computer skills and knowledge of specific software, there was a feeling that students lacked an understanding of core VFX techniques amongst representatives from the visual effects part of the industry.

While many of the shortcomings involving company practices and specific software can be understood, and may be relatively easily remedied during induction periods within companies, the lack of a fundamental understanding of animation is worrying for many companies. Many respondents felt that undergraduate education is too focused on short filmmaking and direction, and not enough emphasis is placed on the occupational skills required of commercial animation production.

The study of professional practice<sup>57</sup> does not tend to be embedded across the curriculum or linked with industry, but is too often taught in a discrete, and often in a theoretical way. The value of a foundation year was stressed by some groups<sup>58</sup>, who felt that the art and craft skills developed were vital to a student's subsequent development as an animator; too many students are moving straight from school into degree courses without the necessary drawing skills.

There was a feeling that CG packages like Flash have enabled more animation work to be produced within higher education, but this has also allowed individuals to sidestep the need for basic drawing skills. In essence there is a sense that students are coming out of college or university with 'design' skills and not solid drawing skills that students who move into the industry require even if drawing doesn't comprise a large proportion of their job.

Ironically, the very success of the UK industry may be serving to mask the relative failure of UK higher education. By way of example; the number of people recruited by CFC Framestore directly from UK higher education has remained constant over recent years and this may have sent a reassuring signal to the placement, careers and teaching staff engaged in assisting with the transition of their students from study to work. What they may not be aware of is that the proportion of CFC Framestore's annual "milk-round" intake accounted for by UK educational institutions has, over the past five years, gradually fallen from 95% to 30%.

Compared to the best schools in Europe and the US, the UK's HEIs are increasingly regarded as falling behind. Many companies are reporting that they now favour employing graduates from European Colleges as they offer truly vocational courses that emphasise teamwork and focus on the areas of skills needed by industry.

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<sup>57</sup> "PDP's"

<sup>58</sup> eg those attending the workshops at Cardiff and Manchester

It is commonly felt that the UK HE business model, whereby an increasing volume of students attracts increased funding, fails to reward good practice and often contradicts it. The irreconcilability of the mathematics of the industry and higher education appears to be the central issue that a strategy for UK animation skills needs to address. UK animation needs a steady stream of talented new entrants from higher education instead of the waves of ill-prepared students that wash upon the industry's shores at the end of each Academic year, leaving employers struggling to identify the talent with the best chance of succeeding in the industry.

It is widely felt within the industry<sup>59</sup> that many universities are not selective enough in terms of whom they take onto a course and this also unfairly raises the expectations of students who do not have the innate talent to work in the industry at the level they aspire to. This appears to be a direct contrast to the best European Schools where hundreds of candidates compete for a small number of places.

There is concern within the industry regarding the fate of students who do not find work in the industry, especially the apparent inability of HEIs to determine to any useful degree what happens to their alumni. The industry favours more accurate and longer-term tracking of students (for at least two years) who complete animation degree and postgraduate courses.

The idea of finishing schools<sup>60</sup> was discussed during the consultation<sup>60</sup> and at the time of writing and there is a general feeling within the industry that business is being compelled to intervene in areas of higher education that should be led by Academia.

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<sup>59</sup> e.g. as expressed during the London workshop.

<sup>60</sup> E.g. at the workshop in Bristol. The 3-6 months summer course produced with Aardman's support at UWE in Bristol was given as an example of one that was believed to have started well but was now beset by the same need to fill places to justify its cost and it was felt that the entry requirements have been relaxed to enable this.

There appears to be a need to provide accurate information directly to students about what jobs are likely to be available and the best means of securing them. This might help to remedy the root cause of UK higher education's failure; the virtually endless supply of naïve applicants to courses that do not prepare students adequately for a limited number of places in the industry.

## ***Appendices***

### **ANIMATION FORUM**

**Chair:** Marion Edwards, Red & Blue Productions

Catherine Elliott, Tiger Aspect Productions (**Deputy Chair**) - [www.tigeraspect.co.uk](http://www.tigeraspect.co.uk)

Jean Scott, Cosgrove Hall Films - [www.chf.co.uk](http://www.chf.co.uk)

Ginger Gibbons, Grand Slamm Children's Films - [www.gscfilms.com](http://www.gscfilms.com)

Hugo Sands, Passion Pictures - [www.passion-pictures.com](http://www.passion-pictures.com)

Jill Thomas, Purdums

Laura Clark, Pact - [Producers' Alliance for Cinema and Television \(PACT\)](http://Producers' Alliance for Cinema and Television (PACT))

Leonie Sharrock, Welsh Animation Group (WAG) representative – [wag.sequence.co.uk](http://wag.sequence.co.uk)

Les Orton, Mike Young Productions - [www.mikeyoungproductions.com](http://www.mikeyoungproductions.com)

Louise Hussey, Rushes - [www.rushes.co.uk](http://www.rushes.co.uk)

Mark Vale, The Character Shop - [www.thecharactershop.co.uk](http://www.thecharactershop.co.uk)

Matthew Sagar, Moving Picture Company - [www.moving-picture.com](http://www.moving-picture.com)

Michael Foley, Sumo Dojo Productions - [www.sumo-dojo.com](http://www.sumo-dojo.com)

Paula Newport, Aardman Animation - [www.aardman.co.uk](http://www.aardman.co.uk)

Richard Scott, Axis Animation - [www.axisanimation.com](http://www.axisanimation.com)

Vici Woolgar, Hit Entertainment - [www.hitentertainment.com](http://www.hitentertainment.com)

### **PACT CHILDREN'S & ANIMATION POLICY GROUP**

Jonathan Peel, Millimages

Ginger Gibbons, Grand Slamm

Lee Marriott, Cosgrove Hall

Iain Harvey, Illuminated Pictures

Kate Canning, The Canning Factory

Mick Foley, Puppatoon

Ken Anderson, Red Kite

Robin Lyons, Siorio

Michael Rose, Magic Light Pictures

Mario Cavalli, Colony Media

Jerry Hibbert, HRA

Jane Bolton, Picasso

Tony Collingwood, Collingwood O'Hare

Mike Robinson, Mike Robinson Consultancy

Andrew Heffernan, Grant Thornton

## REGIONAL WORKSHOPS

### London

Dan Berlinka; Dandy Productions  
Claire Underwood; Pesky  
Claire Jennings  
Ren Pesci; Studio AKA  
Pam Dennis Studio AKA  
David Elden; Collingwood O'Hare  
Andy Lomas; Framestore  
Mick Foley; Sumo Dojo  
Hugo Sands; Passion Pictures  
Catherine Elliott; Tiger Aspect  
Miranda Robinson; Screen South

### Bristol

Helen Brunsdon; Aardman  
Mark Taylor; A Productions  
Jill Thomas  
Simon Bor; Honeycomb Animation  
Nick Hilditch; Complete Control  
Johanna Bolhoven; South West Screen

### Manchester

Bridget Appleby; Happy Apple  
Pete Saunders; Mackinnon & Saunders Ltd  
Liz Whitaker; Hot Animation  
Phil Mundy; Creative North  
Eric Lyndon; Freelance

### Birmingham

Dave Harte; Digital Central  
Paul Howell; Character Shop, The  
Myles McLeod; Spark & Zoom  
Louise Bermingham; Screen West Midlands  
Sara Harris; Screen Media Lab  
Neil Hadfield; UCE Birmingham  
Melanie Lee; Definitely Red Productions  
Dan Calvert; Blitz Games

**Cardiff**

Chris Marshall; Eclipse Creative

Robin Lyons; Calon TV

Aron Evans; Dinamo

Catrin Unwin; Beryl

Les Orton; Animator

Leonie Sharrock; Freelance Animator

Dave Edwards; Dave Edwards Productions

Gwyn Williams; Barcud Derwen

**Glasgow**

Sueann Smith; Red Kite Productions

Dana Dorian; Axis Animation

Helen Comloquoy; Red Kite Productions

Martin Fisher; Visible Ink

Penny Sharp; Scottish Screen

Iain Gardner; Freelance

Peter Hynes; Freelance

Elaine McElroy; Super Umami